

Fisheries Subsidies Rules at the WTO

A Compilation of Evidence and Analysis

Edited by
ICTSD



International Centre for Trade
and Sustainable Development

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List of Abbreviations

ACFR	Advisory Committee on Fisheries Research
ASCM	Agreement on Subsidies and Countervailing Measures
ACP	African, Caribbean, and Pacific Group of States
CC	Compliance Committee
CCAMLR	Commission for the Conservation of Antarctic Marine Living Resources
CCM	Members, Cooperating Non-Members and Participating Territories
CCSBT	Commission for the Conservation of Southern Bluefin Tuna
CMM	Conservation and Management Measure
CNCP	Cooperating Non-Contracting Party
CNM	Cooperating Non-Member
COFI	the FAO Committee on Fish
CP	Contracting Party
CVD	countervailing duty
DSU	Dispute Settlement Understanding
EEZ	exclusive economic zone
EPO	eastern Pacific Ocean
EU	European Union
FAO	Food and Agriculture Organization
FERU	Fisheries Economics Research Unit, the University of British Columbia
FIRMS	Fisheries and Resources Monitoring System
FSE	Fisheries Support Estimate
GATT	General Agreement on Tariffs and Trade
GFCM	General Fisheries Commission for the Mediterranean
IATTC	Inter-American Tropical Tuna Commission
ICCAT	International Commission for the Conservation of Atlantic Tunas
ICJ	International Court of Justice
IOTC	Indian Ocean Tuna Commission
IPOA-IUU	International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing
ITLOS	International Tribunal for the Law of the Sea
ITQ	individual transferable quota
IUU	illegal, unreported and unregulated
LDC	least developed country
LSF	large-scale fisheries
LV	landed value
MC11	WTO's Eleventh Ministerial Conference
MSY	maximum sustainable yield
NAFO	Northwest Atlantic Fisheries Organisation
NCP	Non-Contracting Party
NDA	numerical descriptors approach
NEAFC	North East Atlantic Fisheries Commission
NPOA	national plan of action
OECD	Organisation for Economic Co-operation and Development

PSMA	Port State Measures Agreement
RFMO	regional fisheries management organisation
RNG	Rules Negotiating Group
SAU	Sea Around Us
S&DT	special and differential treatment
SBT	Southern Bluefin Tuna
SCM	Subsidies and Countervailing Measures
SDG	Sustainable Development Goal
SEAFO	South East Atlantic Fisheries Organisation
SIOFA	Southern Indian Ocean Fisheries Agreement
SOFIA	State of World Fisheries and Aquaculture
SPRFMO	South Pacific Regional Fisheries Management Organisation
SRFC	Sub-Regional Fisheries Commission
SSF	small-scale fisheries
TFA	Trade Facilitation Agreement
TPP	Trans-Pacific Partnership
TPR	Trade Policy Review
TRIPS	Trade-Related Aspects of Intellectual Property Rights
UBC	University of British Columbia
UNCLOS	United Nations Convention on the Law of the Sea
UNCTAD	United Nations Conference on Trade and Development
UNFSA	United Nations Fish Stocks Agreement
VCLT	Vienna Convention on the Law of Treaties
WCPFC	Western and Central Pacific Fisheries Commission
WTO	World Trade Organization

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Foreword

Subsidies that contribute to depleting fish stocks undermine the livelihoods of the many millions of people who depend on fishing for nutrition and livelihoods, as well as the development interests of countries that rely on fish exports as a source of revenue. Developing rules to govern these subsidies is the subject of a specific target in the United Nations 2030 Agenda for Sustainable Development. Members of the World Trade Organization (WTO) re-committed in December 2017 to work towards establishing these rules by 2019, but the negotiations face a number of technical and political challenges. Among them are the fact that negotiators are tasked with building subsidy rules to address environmental rather than trade impacts of subsidies on a renewable natural resource with its own system of governance. They are also building enforceable subsidy rules that reference and rely on concepts and legal structures from the law of the sea and fisheries management.

The papers in this compilation aim to bring international legal and technical expertise to bear on some of these challenges. They build on many years of work by ICTSD on trade policy and sustainable fisheries, including through the E15 Initiative co-convened with the World Economic Forum. Together, the papers cover a range of key challenges in the negotiations. The papers by Margaret Young and by Lorand Bartels and Tibisay Morgandi, for example, explain how new WTO rules could relate to the existing legal framework of the law of the sea, and how new rules could be incorporated into the WTO agreements. Contributions by Carl-Christian Schmidt and by Arthur Appleton discuss the practical implications of possible new rules with respect to subsidies to illegal, unreported and unregulated (IUU) fishing and increased transparency of fisheries subsidies, respectively. The paper by Marcio Castro de Souza, Audun Lem, and Marcelo Vasconcellos provides important clarifications of key concepts in the definition of overfishing and overfished stocks. The two short papers by U. Rashid Sumaila provide summaries of recent research on the scope and scale of exploitation of shared fish stocks and subsidies to small-scale fisheries, which are relevant to discussions around possible exceptions from the prohibitions for different kinds of fishing.

There have been an overwhelming number of international calls for action on fisheries subsidies, including from the Ocean Conference at the United Nations in New York in June 2017. WTO members have an opportunity in the next two years to deliver on commitments made at the highest level and in doing so, to demonstrate the value of multilateral approaches to challenges of collective action. We hope that this compilation proves a useful contribution to this effort.



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Overview: Building Comprehensive and Effective WTO Rules on Fisheries Subsidies

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At the WTO's Eleventh Ministerial Conference in December 2017, ministers adopted a Decision on Fisheries Subsidies (WT/MIN(17)/64) directing negotiators to continue talks with a view to adopting an agreement by 2019, the year of the next ministerial conference. The ministerial decision also specifically re-commits WTO members to implementing their existing notification obligations in order to strengthen transparency of the subsidies provided to fishing. Reaching a comprehensive and effective outcome will require solutions that respond to the many technical and legal questions the negotiations have brought up. The papers in this compilation aim to respond to some of these questions. They cover the law of the sea rules relevant to the development of fisheries subsidy disciplines, options for the identification of illegal, unreported and unregulated (IUU) fishing activities, technical input on the definition and measurement of overfished stocks, small-scale fisheries and shared fish stocks, and ways in which better transparency of fisheries subsidies and an eventual legal outcome to the negotiations could be built into the WTO framework. This overview paper provides a synthesis of the key elements of evidence and analysis set out in the subsequent papers, with reference to some of the key current issues in the negotiation.

Introduction : Fisheries Subsidies at the WTO and the Lead Up to Buenos Aires

There is strong evidence from economic modelling and case studies that subsidies to fishing can create incentives for over-capitalisation of the industry and for unsustainable levels of fishing effort. By the most recent estimates, subsidies to the fishing industry amounted to around US\$35 billion per year, of which around US\$20 billion were given in forms that tend to enhance fishing capacity (Sumaila et al. 2013). Fisheries management could go some way to curbing these effects, but is rarely effectively enforced, and can in fact be undermined by political pressure exerted by over-capitalised fleets (UNEP 2011). Around 60 percent of assessed fish stocks are fully exploited and 30 percent are already overexploited (FAO 2016). Reducing or reforming subsidies to the fishing industry could help to remove the policies' distorting effects that incentivise overcapacity and overfishing (World Bank 2017).

World Trade Organization members established a mandate for negotiations on rules governing fisheries subsidies as part of the Doha Round in 2001. They elaborated on that mandate in 2005, directing the prohibition of certain subsidies that contribute to overcapacity and overfishing, enhanced transparency, and the inclusion of appropriate and effective special and differential treatment (S&DT) for developing and least developed country (LDC) members. A key point in the negotiations was the release of a Chair's text of 2007, which included a list of subsidies to prohibit, a new rule for actionable fisheries subsidies, general exceptions, and a sophisticated system of S&DT, including greater exceptions for small-scale fishing close to shore and narrower exceptions for larger-scale fishing.

After a hiatus of several years, negotiations were reinvigorated in mid-2015 and a wide range of textual proposals were tabled in the lead up to the WTO's Eleventh Ministerial Conference (MC11) in Buenos Aires in December 2017. Proposals tabled in the first half of the year were collated by the Negotiating Group Chair into a matrix in July 2017, and then by the proponents into a vertical compilation text in September (now numbered RD/TN/RL/29/Rev.3). Key parts of this vertical text were subsequently streamlined to better identify the options on the table (these streamlined

elements are contained in TN/RL/W/274/Rev.2). Despite this intensive work, Members were not able to agree on binding disciplines in 2017. Instead, the Ministerial decision taken in Buenos Aires reaffirms Members' commitment to continuing negotiations with a view to reaching an agreement on comprehensive and effective rules at the WTO's next Ministerial Conference in December 2019.

Key Issues in the Negotiations, Evidence and Analysis

A distinctive focus of this most recent phase of negotiations is the emphasis on prohibiting subsidies to IUU fishing and subsidies to fishing of stocks that are already overfished. These two prohibitions are thought to be leading candidates for an agreement because of a general understanding that subsidies in these situations, particularly to IUU fishing, are so especially egregious that, at least in principle, the disciplines could apply to all WTO members equally. This understanding is not a point of firm consensus, however; there are proposals on the table that include exceptions to these prohibitions. Many of the proposals also include prohibitions on subsidies based on the type of cost they target—capital costs, like vessel construction, or operating costs, like fuel. Most proposals for disciplines on these latter subsidies include S&DT for developing country WTO members in the form of exceptions for these subsidies to be provided to developing country WTO members' fishing, in particular small-scale fishing and fishing within those members' own exclusive economic zones (EEZs).

Subsidies to illegal, unreported, and unregulated fishing

A central issue in the negotiations over this prohibition is how IUU fishing would be identified and thus how the subsidy discipline would be triggered. There is also an important question of scope; essentially, whether the subsidy prohibition would be limited to those vessels or operators identified by a member or Regional Fisheries Management Organization (RFMO) under one of the provisions of the agreement, or whether the prohibition would apply to all subsidies to IUU fishing *per se*, on the basis of a fixed, universally-applicable standard or definition of IUU fishing, such as that set out in Article 3 of the Food and Agriculture Organization (FAO) International Plan of Action on IUU Fishing (IPOA-IUU). In this context, Schmidt (2017) argues that while the description in Article 3 could serve as a point of reference, the activities to which an IUU subsidy prohibition would apply will probably require more precise identification in the disciplines.

Identifying activity that would trigger the subsidy prohibition: National lists and determinations

Some proposals would involve WTO member governments identifying IUU fishing activity in their capacities as subsidising governments, flag states, or coastal states. Some implications of these options are discussed in Schmidt (2017). Very few WTO members currently maintain lists of IUU vessels: only the EU, US, and Norway appear to have national lists of IUU vessels, and these draw heavily on lists by RFMOs. This means, at least initially, that the scope of activity identified by national lists would be limited. Identification by a national determination could encompass more IUU activity, but members would presumably enjoy a degree of discretion in when to make a determination and trigger the subsidy prohibition. Under these options, exactly what activity might be identified as "illegal" or "unreported" or "unregulated" in each member's context would by definition depend on national legislation in place.

Identification by members in their capacities as subsidisers could be an almost circular obligation, as WTO members would, through national lists or determinations, have significant control of when they would identify a vessel or operator that they subsidised and thus trigger the prohibition. Identification by members in their capacities as flag states would be only slightly broader because vessels may be flagged to one member, but receive subsidies from another member. As Young (2017) explains, recent case law under the law of the sea has clarified that a flag state is obliged to exercise "due diligence" by taking all necessary measures to prevent IUU fishing by fishing vessels flying its flag. A WTO prohibition that required flag states to stop subsidising, or to notify other members so they can stop subsidising operators engaged in IUU fishing, would support the realisation of these obligations through members' domestic economic policy.

The third form of identification would enable a coastal state member to identify IUU activity by foreign-flagged vessels fishing in waters under the coastal state member's jurisdiction (most significantly, its EEZ). From a legal perspective, the primary obligation to take measures to prevent IUU fishing within the relevant EEZ rests with the coastal state. This means that "enabling coastal states to notify the WTO of vessels or operators found to be flouting conservation measures applicable in that EEZ could also help to support coastal states in discharging their responsibility over those resources, and flag states in their due diligence with respect to vessels under their flag" (Young 2017). A key concern with respect to coastal (and flag) state identifications of vessels is the degree of control that the subsidising WTO Member should have over this trigger of its subsidy obligation. There are several options to address this concern in the current text, including requirements for domestic verification by the subsidising member that the coastal or flag state followed due process in making the identification.

A further option proposed in Schmidt (2017) is that IUU vessels could be identified by relevant governments pursuant to their implementation of the Port State Measures Agreement, which entered into force in 2016. The agreement already requires that port states inform relevant flag states and RFMOs if vessels are denied port access because of evidence that they have engaged in IUU fishing. The Port State Measures Agreement appears to address some of the identification concerns described above with safeguard language indicating (in Article 4) that the agreement shall be interpreted and applied in conformity with international law and taking into account international rules and standards. To date, however, the number of WTO members that have signed the Agreement is limited.

Identifying activity that would trigger the subsidy prohibition: RFMO lists

A further option set out in the proposals is that IUU fishing be identified, for the purposes of the subsidy rules, through the IUU vessel list of an RFMO or the FAO. A key question with respect to this form of identification, as with the options above, is how much control a subsidising member might have over the operation of this trigger of the subsidy prohibition. WTO members appear to be less concerned about the listing of vessels by RFMOs to which they are parties, as these decisions are usually taken by consensus. They appear to be more concerned about the listing of vessels by current or potential future RFMOs to which they are not party (and whose listing decisions they therefore do not control). Several elements of language propose that the subsidising member retain the ability to verify whether a vessel it subsidises was listed based on positive evidence, in accordance with the rules of the RFMO and rules of international law, for example.

Young (2017) explains in this context that WTO members that are party to the UN Fish Stocks Agreement (UNFSA) are already obliged “not only to cooperate to establish but also to respect all RFMOs’ conservation measures—including of those RFMOs to which they are not members. Countries that are not parties to the UNFSA or members of a relevant RFMO are not specifically obliged to respect that RFMO’s decisions, given the *pacta tertiis* rule, but may still be subject to the UNCLOS [United Nations Convention on the Law of the Sea] obligation to cooperate in the conservation and management of the relevant shared fish stocks.” Further, this research has clarified that the UNFSA, which sets out the legal basis for the operation of RFMOs, requires that RFMOs operate in a transparent and non-discriminatory way, which could help to address some members’ concerns with this option.

More specifically, Schmidt (2017) reviews the procedures of the 11 RFMOs that currently maintain IUU vessel lists and finds that these procedures usually involve an opportunity for comments by contracting members and the flag state of the vessel allegedly engaged in IUU activities. Schmidt identifies several features evident from RFMOs listing procedures, including the following:

1. To be listed, at least on a provisional list, it mostly suffices to have been sighted as being engaged in IUU activities in the RFMO’s jurisdiction. Sighting may be by vessels of contracting parties or cooperating non-contracting parties.
2. RFMOs, following sighting, have an established procedure for the further investigation or discussion of the submitted sighting and its associated information. This procedure usually involves an opportunity for comments by contracting members and the flag state of the vessel assumed to have been engaged in IUU activities.
3. Following listing, most RFMOs have subsequent procedures for informing flag states of their vessels being listed as engaged in IUU activities and a request to submit information on the vessel in question.
4. De-listing is possible subject to decision by RFMO Commissions and on the presentation of information by the flag state related to changes in the behaviour of the listed vessel. This may include condemnation and penalties, change of vessel ownership or change of flag status.
5. Listing and de-listing can usually take place only once a year in connection with annual meetings of Commissions.

Prohibition on subsidies to overfished stocks

Several proposals on the table include a prohibition on subsidies for fishing of stocks that are already overfished. According to FAO data, the most comprehensive available covering around 70 percent of global landings, around 31 percent of assessed fish stocks are overfished (FAO, 2016). There is an important conceptual difference between the process of “overfishing,” and a stock being “overfished.” As Castro de Souza and Vasconellos (2018) explain, overfishing is a measure of the fishing effort being exerted, while a decision that a stock is overfished relates to the stock’s biomass. The two situations may or may not coincide: for example, if fishing effort has been reduced to allow a stock to rebuild, a stock may be overfished, but overfishing may not be taking place.

Some options on the table would extend the subsidy prohibition to cover stocks that are not formally assessed. Where there is insufficient data to make a determination, one option in the proposals is to presume that the stock is overfished; a contrasting option is that the prohibition would not apply until a member acquired the capacity to assess the stock. A third option could be to encourage members to apply the subsidy discipline, where formal assessments are not available, using informal and indirect indicators of stock status, such as declining catch per unit of effort; in the case of multi-species fisheries, the discipline could apply when an ecosystem's critical indicator species shows signs of being overfished.¹ As explained in Castro de Souza et al (2018): "although data limitations are a reality, the methods employed by FAO to estimate the status of stocks can compensate for many imbalances and produce an assessment of a significant number of representative stocks."

A key question in designing a prohibition on subsidies to overfished stocks is who makes the decision of whether a stock is overfished or not, and on what basis or in accordance with what standard. The text (paragraph 3.6 of 274/Rev.2) includes variations on two broad options: the establishment of an objective definition of when a stock is overfished, or referring to the decisions of national or regional authorities, or a combination of both. As Castro de Souza et al explain, there is no internationally agreed definition of when overfishing is taking place, and when a stock is overfished, although the concept of MSY is, in practice, central to many assessments of fishing and the status of fish stocks. Article 61 of UNCLOS, for instance, implies the use of MSY as a reference for measuring the risk of the over-exploitation of resources in an EEZ. Some fisheries bodies adopt a precautionary approach to the reference points they use, for example establish a conservative point at which fishing pressure would need to be reduced to bring a stock back to a target level. These reference points can be set taking account of a range of economic, social and biological management objectives.

Reliance on national decisions to trigger the subsidy prohibition has also raised questions, including about how well those decisions are made and the standard of scientific evidence on which a national or regional authority would be required to base its decision. Some proposals suggest the decision should be required to be based on the "best scientific evidence available" or, more relatively, the best evidence "available to the member" or, even more leniently, only the evidence "recognised by" the member. Two points that may be relevant here are that Article 61 of UNCLOS requires a coastal state to ensure the proper conservation of resources in its EEZ "taking into account the best scientific evidence available to it", while the SPS Agreement, for example, requires (in Article 5.2) that in the assessment of risks, Members "shall take into account available scientific evidence." Further key policy questions are whether the subsidy prohibition should apply only to fishing that "targets" an overfished stock, and whether it should apply only if the subsidies "negatively affect" a fish stock that is in an overfished condition.

Several members have proposed that developing countries' subsidies to fishing of overfished stocks receive special and differential treatment under the disciplines. One option would permanently exempt subsidies provided by developing countries to fishing of overfished stocks within their territorial waters or EEZs. Another would require subsidies provided by a developing country member to fishing of overfished stocks managed by an RFMO of which the member was a party to be removed after a transition period. Young (2017) sets out several relevant considerations in the assessment of

¹ See presentation by Maren Headley (Caribbean Regional Fisheries Mechanism) at ICTSD Knowledge-Sharing Seminar on Fisheries Subsidies 18 September 2017, available at: <https://www.ictsd.org/themes/environment/events/knowledge-sharing-seminar-on-fisheries-subsidies>

these options, and those related to subsidies to unassessed stocks. The first is that coastal state WTO members that are parties to UNCLOS are obliged under that agreement to ensure that resources in their EEZs are not over-exploited. Further, WTO members that are parties to the UNFSA are obliged "not only to cooperate to establish but also to respect all RFMOs' conservation measures—including of those RFMOs to which they are not members."

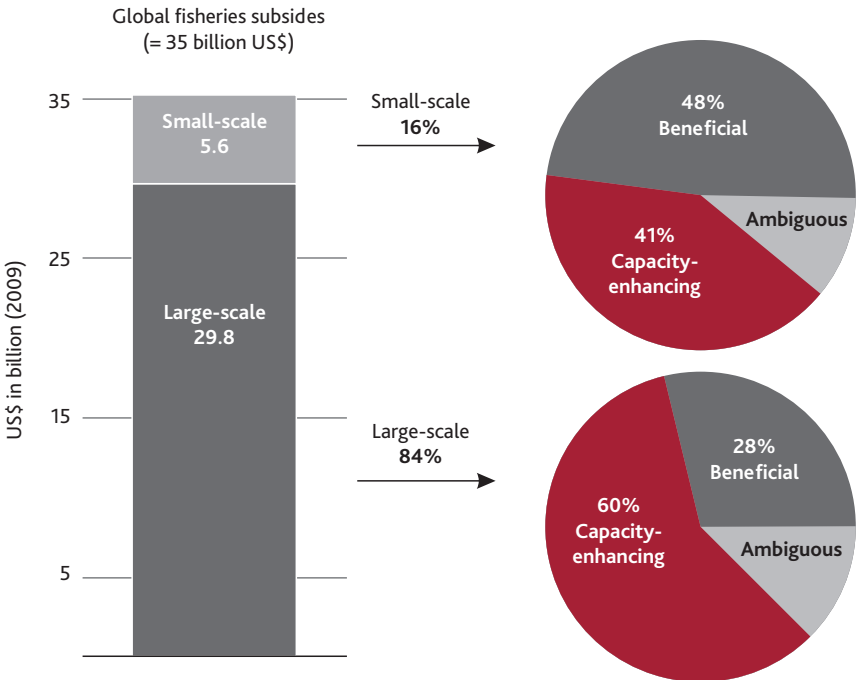
Subsidies that contribute to overcapacity and overfishing

The texts on the table contain several options for the inclusion of a prohibition on subsidies that contribute to overcapacity and overfishing (see paragraphs 3.11-13 of 274/Rev.2). Work by the OECD (2017) has clarified how subsidisation of variable versus fixed inputs has different effects on fishing behaviour, and on the incomes of participants along the value chain. Support to variable inputs is the form of support most likely to increase fishing effort but is also of least benefit to fishers' incomes, as much of the benefit is captured by providers of those inputs. Support to fixed inputs is the form of support most likely to increase fleet capacity but the benefits largely accrue to existing vessel owners, rather than new entrants to the sector. Support based on fishers' incomes is, not surprisingly, the form of support that has the greatest benefit to them, and support to fisheries management, infrastructure and research and development are least likely to increase capacity or effort. This suggests that the disciplines could be designed to motivate reform of subsidies away from a focus on fixed and variable fishing inputs, which are more likely to have an impact on the amount of fishing activity and catch, towards forms of support that more effectively support fishers' actual incomes and have less impact on fishing effort and capacity.

Much of the discussion in this area has focused on the degree to which subsidies provided by developing country WTO members might be exempted from the disciplines. These exemptions could be based on the type of subsidy provided, the scale of fishing involved (e.g. for small-scale fishing), or the geographic area in which the fishing takes place (e.g. in territorial seas or EEZs). Several members have proposed exemptions to allow developing countries to continue to subsidise small-scale or artisanal fisheries. At a policy level, small-scale fishing contributes substantially to employment and so is an obvious target for livelihood support, however it can be subject to the same dynamics of overcapacity and overfishing if subsidies provide incentives for excessive effort. Sumaila (2017a) explains that small-scale fisheries receive a relatively small proportion of global subsidies (see Figure 1) and receive only 10 percent of all capacity-enhancing subsidies, much of the value of which goes to large-scale fishing in the form of fuel subsidies.² Fuel subsidies have been a difficult issue in the negotiations. Support to fuel makes up around 22 percent of the total value of fisheries subsidies and is considered to enhance fishing capacity (Sumaila et al. 2013).

² Estimates suggest that over 90 percent of fuel subsidies are provided to large-scale fishers in the form of subsidies to marine diesel; small-scale fishers are largely excluded from this support because of the expense of acquiring and maintaining diesel engines (Swartz et al. 2013).

Figure 1: Proportion of beneficial, ambiguous and capacity-enhancing subsidies provided to small and large-scale fishing



Note: Capacity-enhancing subsidies tend to promote disinvestment in a fisheries resource once fishing exceeds the economic optimum; beneficial subsidies lead to investment in fisheries resources; while ambiguous subsidies can promote or undermine investment in fisheries resources; see Sumaila et al (2013).

Source: Schuhbauer et al. (2017)

A particular challenge in the negotiations is how to define the "small-scale" fishing that might be subject to the subsidy exception. One option in the proposals on the table is to establish in the agreement an objective global definition of subsistence, artisanal, or small-scale fishing, for example with reference to vessel length. Another option on the table is to rely on national definitions. Sumaila (2017a) proposes a third alternative, starting from the assumption that it is probably neither realistic nor appropriate for the WTO to establish a new global definition of small-scale fishing in the absence of an existing, multilaterally-agreed definition in the fisheries context. Instead, governments could consider applying the exception using national definitions of small-scale fishing. To ensure the exception is not abused and extended to cover subsidies to large-scale activity, the reference could be accompanied by an illustrative list of features commonly accepted as describing small-scale fishing (see Table 1) and a requirement that national definitions, and subsidies provided to fisheries meeting these definitions, be notified to the SCM Committee.

Table 1: Possible illustrative list of features of small-scale fishing

Vessel features	Economic features	Social features
<ul style="list-style-type: none"> • Vessel under 12m (FAO 24m) • Non-motorised • Passive gear • Multi-gear • Multi-species • Dated or low levels of technology, labour intensive • Inshore, limited range to fish, fishing pressure adjacent to community 	<ul style="list-style-type: none"> • Low fuel consumption (e.g. <\$10,000) • Relatively little capital and energy input (e.g. <\$250,000) • Relatively low yield and income • Part-time, seasonal, multi-occupational • Sold in local markets • Sustains local or regional economies • Individual or community ownership 	<ul style="list-style-type: none"> • Fish for food and community use • Supports social and cultural values • Regulated through customary rules with some government involvement

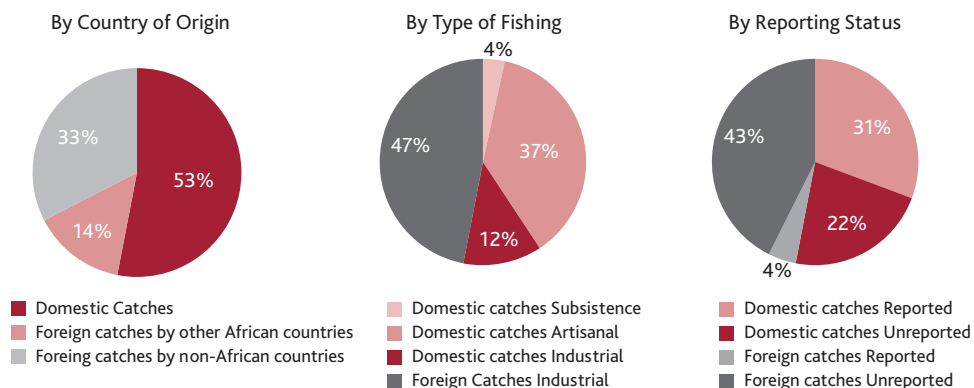
A further set of options would provide exemptions for subsidies to fishing within a developing country member's EEZ or for fishing of RFMO quota. From a legal perspective, Young (2017) explains that coastal state WTO members that are parties to UNCLOS are obliged to ensure that resources in their EEZs are not over-exploited. Members making use of any exceptions to provide subsidies to fishing of resources within their EEZs would therefore need to ensure that the fishing is not undermining the sustainability of the area's resources, or the interests of others in those resources.

From a policy perspective, a key question underlying this discussion is the balance of interests in access to, and the sustainability of, shared stocks (those that spend time in EEZs of more than one country and between EEZs and the high seas). To help provide a sense of the implications of these exceptions, Sumaila (2017b) explains the scope and dynamics of the exploitation of shared stocks. Drawing on existing research, he identifies two groups with particularly strong interest in shared stocks and the impact of subsidies on their sustainability. The first group is fishing entities that are responsible for a significant proportion of the global catch of shared species (including Japan, Peru, Chile and China). These entities arguably have a duty to ensure they are not contributing, through subsidised fishing, to the depletion of those stocks. The second group are entities which are highly dependent on shared stocks but do not catch a significant portion of them in global terms (including Vanuatu, Greenland, the Marshall Islands and Georgia). These are the entities that arguably have a particularly strong interest in ensuring that any subsidies provided by other countries for the exploitation of these same stocks do not contribute to undermining the stocks' sustainability.

A final proposal in this area of the prohibition is to prohibit subsidies to fishing in areas beyond the national jurisdiction of the subsidising member (i.e. fishing on the high seas and in EEZs of other members). As Young (2017) explains; "While all states' nationals can fish on the high seas, under UNCLOS states must control this activity to ensure the conservation of living resources on the high seas, including by cooperating with other states. An obligation not to subsidise fishing activities with respect to overfished high seas stocks, for example, or to refrain from contributing to overcapacity or overfishing on the high seas could help to support coherence between a state's existing rights and obligations with respect to fishing on the high seas and that state's domestic economic policy." Further, an obligation not to subsidise fishing in other countries EEZs could contribute to reducing the considerable unreported fishing by foreign fleets that takes place in some developing

country Members' EEZs. For example, in the EEZs of countries that are part of ECOWAS (Economic Community of West African States), unreported foreign catch has been estimated to make up 43 percent of total catch (see Figure 2).

**Figure 2: Wild marine capture in ECOWAS countries' EEZ
(percentage of total volume of catches – 2014)**



Source: Data from the "Sea Around Us" project at the University of British Columbia, <http://www.seaaroundus.org/data/#/search>.

Notification and transparency

Subsidies to the fishing industry are, like subsidies to all other industrial goods, subject to the notification requirements under Articles XIV:1 of the General Agreement on Tariffs and Trade (GATT) and Article 25 of the ASCM. Compliance with these existing obligations has been patchy, but there appears to be a wide degree of support for improving the transparency of fisheries subsidies, and there are a number of options in the negotiating texts (see Article 6 in 274/Rev.2) for new information to be notified.

Appleton (2017) reviews the proposals on the table as at the end of 2017. The options for information to be notified range from some elements already required pursuant to the ASCM (like the subsidy programme's name, its legal basis and the level of support provided) to information relating to catch and the status of the fish stocks in the fishery for which the subsidy is provided. This additional information, if notified, could help members to assess the environmental impacts of the subsidies they provide. He draws on analysis by the FAO to explain that some of the elements of information are more readily available than others. While most WTO members would probably be able to report catch by species in large scale fisheries in their EEZs and on the high seas, for example, reporting catch by species for small scale fisheries would be feasible for some, but not most, developing country members. Additional notification options on the table could support compliance with an eventual agreement, for example by requiring members to notify the SCM Committee of any vessels identified as engaged in IUU fishing.

The legal form of an eventual agreement

Bartels and Morgandi (2017) examine the question of how an eventual agreement on new rules for fisheries subsidies might be given legal effect in the context of the WTO agreements.

The first two possibilities are to incorporate a stand-alone, legally binding multilateral agreement, either in the form of an annex to the Subsidies and Countervailing Measures (SCM) Agreement or a new multilateral agreement included alongside the existing Multilateral Agreements on Goods. An agreement in either of these forms would be enforceable through the WTO's dispute settlement system. In choosing which form to give the final set of disciplines, WTO members will need to decide several technical issues, such as whether to use the general rule regarding "countermeasures" in dispute settlement or the more flexible SCM rule. A further set of options, which were perhaps more relevant in the lead-up to Buenos Aires, would involve different forms of Ministerial Decisions. These decisions are not enforceable under the WTO's dispute settlement system but carry significant political weight.

Conclusion

There is substantial high-level political expectation and momentum behind the negotiations on fisheries subsidies. The technical and legal complexity of the issues under discussion, however, means negotiators will need to make consistent progress over the next few months in reaching agreement on key policy questions if they are to deliver a comprehensive and effective outcome by December 2019.

This compilation brings together key insights from recent research and analysis conducted for ICTSD that may help to clarify some of the implications of the various options on the table and the considerations for negotiators. The contributions address some of the technical issues in the negotiations; such as how exceptions for small-scale fishing might be delimited, and how the proposals on increased transparency of fisheries subsidies compare. Other contributions explain how a new set of WTO rules on fisheries subsidies could relate to members' existing obligations under the law of the sea and how a new agreement could be incorporated into the WTO legal framework. This compilation draws together ICTSD's latest contributions to the latest phase of negotiations, and will be supplemented by further work to support agreement on a comprehensive and effective set of disciplines in December 2019.

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The 'Law of the Sea' Obligations Underpinning Fisheries Subsidies Disciplines

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Introduction

Proposals for new disciplines on fisheries subsidies at the World Trade Organization (WTO) rest on established rules and understandings about the shared uses of the oceans. Relevant international law comes especially from "the law of the sea." This reference paper sets out key areas where the new trade rules might depend upon key principles of the law of the sea, as set out in the United Nations Convention on the Law of the Sea (UNCLOS) of 10 December 1982¹ and other relevant sources.

Several of the textual proposals that have been received by the Negotiating Group on Rules² rely in various ways on maritime zones and other jurisdictional concepts. These relate to waters under national jurisdiction (i.e. coastal states' jurisdiction) and waters in the "high seas," as well as the jurisdiction that flows from the registration of the "flags" of vessels by states. For example, a major emphasis has been placed in the negotiations on illegal, unreported and unregulated (IUU) fishing, with proposals seeking to prohibit subsidies that support such fishing. Determining whether fishing is illegal, and indeed whether it is unreported or unregulated, depends on rights and duties that have been established under the law of the sea, including under cooperative arrangements such as Regional Fisheries Management Organisations (RFMOs). Maritime zones also feature in proposed exceptions to subsidy prohibitions: some proposals, for example, contain exemptions for subsidies for fishing activities within coastal states' territorial seas or exclusive economic zones (EEZs).³

This paper begins in with an introduction to the law of the sea, including the primary legal sources relating to fisheries and their status among WTO members. It refers to key institutions such as RFMOs and other cooperative arrangements where states agree on conservation and management practices or fishing quotas. It also assesses the difference between binding agreements (and the cases that have interpreted or applied them) and voluntary instruments, noting the impact that subsidy disciplines will have on enforcement. Then, an overview is given of the maritime zones of the territorial sea, the exclusive economic zone and the high seas. The concept of such zones has developed over time, and some of the proposals are careful to ensure that the new disciplines will not affect the delimitation of contested areas. Lastly, the rights and obligations of states when exercising their various fishing entitlements is described, with specific reference to how these rights and obligations coexist with proposed subsidy rules.

1 United Nations Convention on the Law of the Sea, concluded at Montego Bay on 10 December 1982; opened for signature 4 June 1992, 1833 UNTS 396 (entered into force 16 November 1994).

2 As summarised in a "matrix" document produced by the Chair, TN/RL/W/273, 28 July 2017. The matrix includes the following textual proposals: TN/RL/GEN/186: New Zealand, Iceland, Pakistan; TN/RL/GEN/181/Rev.1: European Union; TN/RL/GEN/189/Rev.1: Indonesia; TN/RL/GEN/192: Guyana on behalf of the African, Caribbean and Pacific Group of States (ACP Group); TN/RL/GEN/187/Rev.2: Argentina, Colombia, Costa Rica, Panama, Peru, Uruguay; TN/RL/GEN/193: Cambodia on behalf of the Least Developed Countries Group (LDC Group); and TN/RL/GEN/191: Norway.

3 These are different from proposed exceptions relating to small-scale fishing; on such proposed exceptions, see Sumaila (2017).

The Law of the Sea and Fisheries

The law of the sea constitutes the treaties, customary international law⁴ and other instruments governing the seas and oceans. This section gives a brief overview of the principal instrument, UNCLOS, as well as additional sources of fisheries law within the United Nations and regional approaches.

UNCLOS and relevant implementing agreements

UNCLOS seeks to "promote the peaceful uses of the seas and oceans, the equitable and efficient utilization of their resources, the conservation of their living resources, and the study, protection and preservation of the marine environment."⁵ It codifies maritime zones as described in the following section. There are a large number of parties to UNCLOS (currently, 168 states), with some notable exceptions such as the United States (which signed the treaty but did not ratify it). Notwithstanding that there is not identical membership as between the WTO (whose membership currently numbers 164) and UNCLOS, it is important to note that most of the provisions of UNCLOS are now regarded as codifying customary international law, and thus bind all states. One example is the concept of the exclusive economic zone of 200 nautical miles from the coast of a state. Moreover, under the Vienna Convention on the Law of Treaties (VCLT), states that have signed but not yet ratified a treaty must refrain from acts that would defeat the object and purpose of the treaty.⁶

UNCLOS is accompanied by more specific treaties, such as an implementing agreement on straddling fish stocks and highly migratory fish stocks (United Nations Fish Stocks Agreement, UNFSA).⁷ The UNFSA seeks to address ongoing problems for such stocks, especially the overutilisation of resources within the high seas.⁸ It also requires parties to provide for transparency in the decision-making process and other activities of RFMOs.⁹ The UNFSA is considered to be "a major improvement to the international framework for sustainable fishing" (Rothwell and Stephens 2016, ch. 13.III.F). The membership of the UNFSA, though broad with 86 ratifications, is not as extensive as UNCLOS.¹⁰ About half of the WTO membership is party to the UNFSA.¹¹ Some of the

4 Such custom is developed from state practice and *opinio juris* (i.e., the belief by states as to the binding nature of the rule), and continues to play an important role in the law of the sea.

5 UNCLOS, preamble.

6 VCLT Article 18.

7 Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks; see further http://www.un.org/Depts/los/convention_agreements/convention_agreements.htm. Note that highly migratory species are listed in Annex I of UNCLOS, which lists 17 species, not all of which would be considered as "highly migratory fish stocks" (i.e. dolphins and cetaceans).

8 UNFSA, preamble, and further noting "that there are problems of unregulated fishing, over-capitalization, excessive fleet size, vessel reflagging to escape controls, insufficiently selective gear, unreliable databases and lack of sufficient cooperation between States."

9 UNFSA Article 12(1).

10 Note that the UNFSA stands alone from UNCLOS: e.g., some non-UNCLOS parties such as the United States have ratified the UNFSA.

11 At the current time, of the 164 WTO members, 89 are not party to the UNFSA. See Annex.

WTO members that have not ratified the UNFSA, such as Argentina, Colombia, Peru,¹² Guyana,¹³ Cambodia¹⁴ and Pakistan,¹⁵ have co-authored textual proposals for subsidy disciplines. Of the (overlapping) countries within the blocks of African, Caribbean and Pacific countries and least developed countries, most have not ratified the UNFSA.

FAO agreements and voluntary instruments

Further sources of fisheries law, which have been prepared under the auspices of the United Nations Food and Agriculture Organization (FAO), include the 1993 FAO Compliance Agreement¹⁶ and the 1995 FAO Code of Conduct for Responsible Fisheries (FAO Code of Conduct). The FAO has also convened cooperative efforts against illegal, unreported and unregulated fishing. IUU fishing continues to be a major problem in oceans governance, both within the high seas and in EEZs (Wang 2014).

To help prevent, deter and eliminate IUU fishing, the FAO has provided guidance in the form of an international plan of action (IPOA-IUU).¹⁷ This voluntary instrument describes IUU fishing with reference to maritime zones, as well as the governance arrangements of RFMOs,¹⁸ a description which has been taken up in the textual proposals on subsidy disciplines.¹⁹ The FAO has also overseen the recently in force Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing (PSMA).²⁰ The PSMA seeks to harmonise the measures undertaken by port states against foreign vessels, including in blocking the flow of IUU-caught fish into national and international markets, and allows for any vessel engaged in IUU fishing to be denied entry into ports.²¹ The subsidy rules are expected to strengthen these existing arrangements by providing an enforceable prohibition against the provision of any financial support by WTO members to IUU fishing activities.²²

12 Argentina, Colombia and Peru, which have not ratified the UNFSA, have joined with UNFSA parties Costa Rica, Panama and Uruguay to submit TN/RL/GEN/187/Rev.2.

13 Guyana has submitted TN/RL/GEN/192 on behalf of the ACP Group.

14 Cambodia has submitted TN/RL/GEN/193 on behalf of the LDC Group.

15 Pakistan is a co-author, with Iceland and New Zealand (both of which are UNFSA parties), of TN/RL/GEN/186.

16 FAO Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas.

17 FAO IPOA-IUU (<http://www.fao.org/fishery/ipoa-iuu/en>). Note also the FAO IPOA-Capacity (<http://www.fao.org/fishery/ipoa-capacity/en>) and the FAO Voluntary Guidelines on Flag State Performance (<http://www.fao.org/fishery/topic/16159/en>).

18 FAO IPOA-IUU, para. 3.

19 Of the seven proposals listed in the matrix, five reference the IPOA-IUU definition, while one of them modifies that definition slightly by removing its self-reference to the IPOA: see TN/RL/GEN/192, Annex I.

20 On the Port State Measures Agreement, see further <http://www.fao.org/fishery/psm/agreement/en>

21 PSMA Article 9(4). Note that this depends in part on the compilation of lists of vessels implicated in IUU, and has been analogised to subsidy proposals that also depend on such lists: see TN/RL/GEN/186 and discussion in this paper.

22 WTO obligations are enforceable using the Dispute Settlement Understanding which is part of the WTO agreements.

Regional agreements including RFMOs

Regional agreements provide additional sources of fisheries law. Regional Fisheries Management Organisations began historically as bodies that developed (generally unenforceable) fishing regulations between participants, and evolved to have competence to make legally binding conservation and management measures regarding fisheries.²³ This dominance of regional approaches is not so different from trade law, where regional trade agreements are pervasive. The activities of RFMOs (which now number 20 or so) are important for specific geographic areas, such as the high seas and overlapping EEZ areas, as well as some high-value migratory fish stocks such as tuna.²⁴

The UNFSA aims to provide oversight for such arrangements by requiring that states with a real interest in the relevant fishery shall become members or agree to apply the measures adopted by an existing RFMO.²⁵ The terms of the RFMO "shall not preclude such States from membership or participation; nor shall they be applied in a manner which discriminates against any State or group of States having a real interest in the fisheries concerned."²⁶ Only states which have become RFMO members or applied RFMO measures shall have access to the relevant fishery resources.²⁷ It should be noted that according to the *pacta tertiis* rule, these access rules only apply to members of the UNFSA, and the access rules are not generally considered to be customary international law (Franckx 2000). However, the adoption of port state restrictions against non-UNFSA parties that flout conservation obligations according to the PSMA is said to close this regulatory gap.²⁸

Where there is no existing RFMO, the UNFSA provides that coastal and other states fishing in the high seas are required to cooperate to establish such an organisation,²⁹ and in doing

23 It is important to note the differences in terminology, as expressed by the UNFSA's reference to "regional fisheries management organizations and/or arrangements." See, for example, the preference for the broader language of "regional fisheries management regimes" by Henriksen, Hønneland and Sydnes (2006). This book analyses and compares four regional management organisations and one commission: respectively, the Northwest Atlantic Fisheries Organization, the North East Atlantic Fisheries Commission, the South East Atlantic Fisheries Organization, the Western and Central Pacific Fisheries Commission and the Joint Russian-Norwegian Fisheries Commission. The FAO commonly uses the term "regional fishery bodies."

24 Henriksen, Hønneland and Sydnes (2006, 3). Note other regional arrangements such as the United Nations Environment Programme's Regional Seas Programme (which relates to a wide range of environmental management and pollution control issues).

25 UNFSA Article 8(3). The requirement within the UNFSA for countries to have a real interest in an RFMO they seek to join means that, by design, not all RFMOs will necessarily be open to the membership of any WTO member, and a key question will be the interpretation of "real interest." "Real interest" is not defined in the UNFSA. It is argued by Molenaar to encompass, most obviously, the flag states fishing for the stocks on the high seas and the relevant coastal states (whose maritime zones are included in, or adjacent to, the relevant regulatory area). To these categories, he adds: (1) flag states that fished in the regulatory area previously and want to resume fishing; (2) flag states without a catch history that want to fish in the future; and (3) states with no intention to fish that nevertheless want to participate, most obviously to further community interests for sustainability and the safeguarding of biodiversity: see Molenaar (2000, 495).

26 UNFSA Article 8(3).

27 UNFSA Article 8(4); Article 17.

28 Rothwell and Stephens (2016). In addition to domestic laws of port states, several RFMOs have adopted various requirements and minimum standards in accordance with the PSMA: see further, Swan (2016).

29 UNFSA Article 8(5).

so they are to inform all interested states.³⁰ Such new arrangements shall include a range of considerations,³¹ and states are to "adopt and apply any generally recommended international minimum standards for the responsible conduct of fishing operations."³² Transparency in decision-making is required under Article 12 of the UNFSA and is an important feature of new and established RFMOs.³³

One of the key management tools of RFMOs is to establish lists of vessels active in the relevant fishery. These can take the form of negative lists³⁴—or "black lists" of vessels implicated in IUU fishing—or positive "white lists" of vessels deemed to be of good standing.³⁵ Lists of vessels implicated in IUU fishing can also be shared between RFMOs.³⁶

Case law from binding dispute settlement

Decisions of international tribunals form a subsidiary source of the law of the sea. According to the compulsory system of dispute settlement between parties for certain violations of UNCLOS,³⁷ such disputes may be heard by the International Tribunal for the Law of the Sea (ITLOS), the International Court of Justice (ICJ) or ad hoc arbitral bodies.³⁸ The case law from such disputes, and the advisory opinions that may be requested by parties or certain international organisations, form an important and growing source of law, and provide enhanced understanding about legal principles, in a similar way that the findings of WTO dispute settlement bodies contribute to trade law.

A distinction may be made between binding rules and non-binding "soft law." Voluntary instruments such as the FAO Code of Conduct are non-binding and provide guidance for states and other actors,³⁹ as well as interpretative context for other areas of international law,⁴⁰ but do not contain procedures for the resolution of disputes. Given non-compliance with international law is often based on lack of state capacity rather than lack of state intent, it is useful to note that some of the subsidy proposals include provisions for technical assistance to enable developing countries to better meet these non-binding principles, as well as the rules of RFMOs.⁴¹

30 UNFSA Article 9(2). The requirement is to inform states which have a real interest in the work of the proposed organisation, of which the initiating states are aware.

31 UNFSA Article 9(1).

32 UNFSA Article 10(c).

33 UNFSA Article 12.

34 For an example from the North-East Atlantic Fisheries Commission, see Stokke (2009).

35 For an example from the International Commission for the Conservation of Atlantic Tunas, see Young (2016).

36 On RFMO listing processes and their link to the subsidy negotiations, see Schmidt (2017).

37 UNCLOS Part XV.

38 See especially UNCLOS Article 287.

39 See e.g. Code of Conduct, 7.8.1: "States should encourage banks and financial institutions not to require, as a condition of a loan or mortgage, fishing vessels or fishing support vessels to be flagged in a jurisdiction other than that of the State of beneficial ownership where such a requirement would have the effect of increasing the likelihood of non-compliance with international conservation and management measures."

40 See Code of Conduct, para 1.2 (noting that while the code is voluntary, certain parts of it are based on relevant rules of international law, including UNCLOS and other obligatory legal instruments).

41 See, e.g., TN/RL/GEN/189/Rev.1 (Indonesia).

UNCLOS and the UNFSA contain detailed provisions for compulsory dispute settlement, meaning they may be enforced through adversarial cases at ITLOS and other tribunals. It is important to note that any dispute between UNFSA parties concerning the interpretation or application of a relevant RFMO agreement, including any dispute concerning the conservation and management of such stocks, will be subject to UNCLOS Part XV procedures.⁴² This is relevant to the WTO negotiators, because if there were to be a dispute relating to an IUU vessel listing, UNFSA parties could seek redress through litigation. It should be noted, however, that some areas of fisheries policy are exempted from these processes (especially concerning resource management decisions of coastal states within their EEZ).⁴³ Moreover, the compulsory dispute settlement system of UNCLOS may be disrupted if states choose to settle their disputes by an alternative means.⁴⁴ This leads to a practical implication for WTO negotiators. On the one hand, the WTO system of dispute settlement provides a strong prospect for enforcement against violations of subsidy rules, including the potential for retaliatory action in cases of non-compliance by the country that has been found to be providing the subsidy to the IUU activity. On the other hand, the disciplines on subsidies should be carefully crafted so it is clear that they do not create alternative means to resolving disputes concerning the interpretation or application of UNCLOS or the UNFSA.

Maritime Zones

Some of the proposals for subsidy disciplines have drawn upon the maritime zones established by the law of the sea, and this section provides some important background to these concepts. UNCLOS provided major clarity on the rights and obligations held by coastal states and other states over areas close to the coast, especially the territorial sea and the exclusive economic zone.⁴⁵ The high seas is an "area beyond national jurisdiction";⁴⁶ these zones are set out in Figure 1. Although the zones are settled, there remain some disputed aspects about the content of the entitlements of coastal states as well as the precise delimitation of some contested territory.⁴⁷ This element of contestation accounts in part for the inclusion in some of the proposals of an express clause ensuring that the subsidy rules will not have any legal effect on the delimitation of maritime jurisdiction.⁴⁸

42 UNFSA Article 30(2).

43 UNCLOS Article 297(3); UNFSA Article 32.

44 UNCLOS Articles 280–2; see further *Southern Bluefin Tuna (Australia & New Zealand v. Japan)* (Jurisdiction and Admissibility) (2000) 119 ILR 508. For critique, see Boyle (2001, 448).

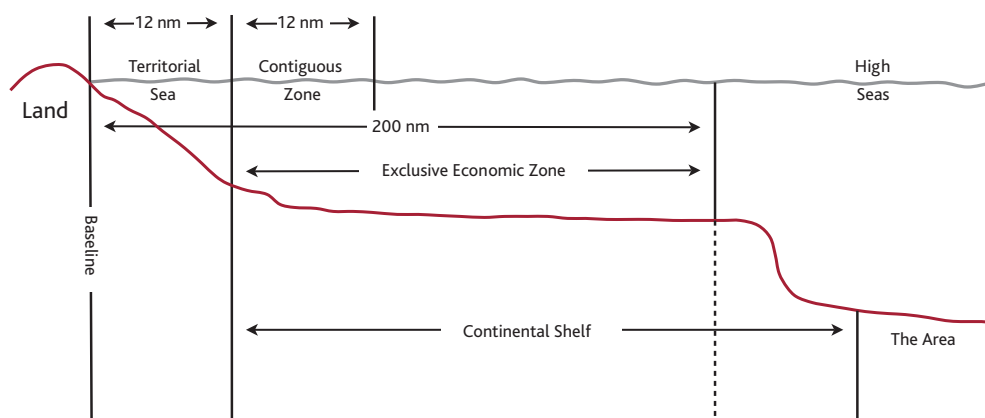
45 Other zones include internal waters and archipelagic waters (in the case of an archipelagic state); these have not been referenced in the subsidy proposals and are not discussed here.

46 An additional area beyond national jurisdiction, "the Area," relates to the deep seabed and ocean floor, and is governed by Part XI of UNCLOS and a specific implementing agreement. The Area is not referenced in subsidy proposals and is not discussed here.

47 See further Rothwell and Stephens (2016, 86); see also Tanaka (2015).

48 See, e.g., TN/RL/GEN/187/Rev2. (para. 1.1); TN/RL/GEN/192 (Article 1.4); TN/RL/GEN/193 (Article 1.4).

Figure 1: Maritime zones



Source: Rothwell and Stephens (2016), online edition.

The territorial sea

One of the current proposals, by the EU, seeks to exclude fishing within the territorial sea from the application of some subsidy prohibitions.⁴⁹ The territorial sea is an extension of the sovereignty of a coastal state and is enshrined in UNCLOS as extending 12 nautical miles seaward from the territorial baseline.⁵⁰ The coastal state has sovereignty over the water column, seabed and airspace within this zone, and its rights and duties are set out in UNCLOS and also exist in other areas of international law.⁵¹ An important duty is to grant innocent passage to vessels of other states.⁵² In addition, the duties relating to conservation and management established by UNCLOS⁵³ apply to the territorial sea.⁵⁴ Thus, while coastal states enjoy sovereignty over the natural resources contained within their territorial sea, their rights are not without restriction.

The exclusive economic zone

Some of the proposals seek to differentiate subsidies that support fishing by WTO members within and outside their own EEZ. For example, the ACP Group proposal prohibits subsidies that contribute to overfishing and overcapacity by developed and developing countries alike, although these

49 TN/RL/GEN/181/Rev.1 (Article 1bis).

50 UNCLOS Part II (Territorial sea and contiguous zone).

51 UNCLOS Article 2(3). Rothwell and Stephens (2016) point to human rights and other examples: see their chapter 3.

52 UNCLOS Article 17.

53 See especially UNCLOS Articles 192 and 194.

54 See *In the Matter of the South China Sea Arbitration before an Arbitral Tribunal constituted under Annex VII to the 1982 United Nations Convention on the Law of the Sea (Philippines v. China)* (Jurisdiction and Admissibility) (29 October 2015), para. 408; see also *In the Matter of the South China Sea Arbitration before an Arbitral Tribunal constituted under Annex VII to the 1982 United Nations Convention on the Law of the Sea (Philippines v. China)* Award (12 July 2016), para. 927. See further Harrison (2017, 170–1).

prohibitions do not apply to fishing activity within developing countries' own EEZ.⁵⁵ The LDC Group proposal contains a similar exemption,⁵⁶ while the Indonesian proposal conditions this exemption to situations where a member's EEZ resources are "underexploited."⁵⁷ Iceland, New Zealand and Pakistan would prohibit subsidies "in connection with fishing and fishing related activities in areas beyond the national jurisdiction of the subsidizing Member" (i.e., in the high seas or in other members' EEZs).⁵⁸ Similarly, Argentina et al. would restrain the prohibitions on subsidies relating to overcapacity to areas outside the EEZ.⁵⁹

The EEZ extends up to 200 nautical miles seaward from the baseline. Finding agreement on the EEZ concept was a celebrated achievement of UNCLOS, especially for coastal states (some of which were recently decolonised) which had been seeking greater opportunities to exploit the marine resources adjacent to their coasts.⁶⁰ It was also hoped that enclosure of these areas—representing one-third of ocean space—would allow for better resource management.⁶¹ Maritime nations that were used to fishing in distant waters were required to seek agreement on the continued exploitation of these areas, or restrict their fishing practices to the remaining "high seas."⁶² Fish stocks within EEZs are generally more commercially important than high sea stocks (with one study finding that <0.01 percent of the quantity and value of commercial fish taxa are obtained from catch taken exclusively in the high seas) (Sumaila et al. 2015), although the codification of the EEZ has seen an increase in fishing on the high seas by distant water fishing nations.

The concept of the EEZ is now regarded as part of customary international law.⁶³ While the 200 nautical miles is not considered as the "territory" of the coastal state in the same way as the territorial sea, it is a zone that provides "sovereign rights" to coastal states. For example, under UNCLOS, coastal states enjoy sovereign rights "for the purpose of exploring and exploiting, conserving and managing the natural resources, whether living or non-living, of the waters superjacent to the seabed and of the seabed and its subsoil."⁶⁴ Yet coastal states are also required to cooperate with other states and international organisations in ensuring that the resources are optimally utilised, including with states which have habitually fished in those zones.⁶⁵ Under Article 61, coastal states "shall ensure through proper conservation and management measures that the maintenance of the living resources in the exclusive economic zone is not endangered by over-exploitation." Under Article 62, the conservation

55 TN/RL/GEN/192 (Article 2.1.3(c)).

56 TN/RL/GEN/193 (Article 3.2(b)).

57 TN/RL/GEN/189/Rev.1 (Article 3.3(a)).

58 TN/RL/GEN/186 (Article 1.3).

59 TN/RL/GEN/187/Rev.2 (Article 2.1.3). The key footnote (footnote 6) states that such subsidy disciplines should be restrained to "areas beyond national jurisdiction." It is rather unclear whether the intention is to allow for subsidies by the subsidising member within its own EEZ or for its fishing activities in other EEZs as well. This question of the payment by states to access the EEZs of other states featured in earlier rounds of negotiations: see further Young (2009).

60 For a history, see Deborah Cass, 'The Quiet Revolution: The Development of the Exclusive Economic Zone and Implications for Foreign Fishing Access in the Pacific' (1987) 16 *Melbourne University Law Review* 83.

61 Rothwell and Stephens (2016), noting also the limited realisation of these hopes.

62 UNCLOS Part V (Exclusive Economic Zone).

63 Continental Shelf (Libyan Arab Jamahiriya/Malta) [1985] ICJ Rep 13, [34].

64 UNCLOS Article 56(1)(a).

65 UNCLOS Articles 61 and 62.

measures of the coastal states "shall be consistent with [UNCLOS]," and nationals of other states shall comply with them. These provisions, as well as the rules relating to highly migratory fish stocks and fish stocks straddling the EEZ and high seas (Articles 63–4), were given further clarity by the UNFSA, and have been interpreted by ITLOS and other tribunals. The following section of this paper provides a more detailed consideration of the rights and duties of coastal states, and discusses the enforceability of such rights and obligations (which are outside of UNCLOS's compulsory dispute settlement system⁶⁶). As a preliminary point, however, it can be noted that parties to UNCLOS are obliged to ensure the sustainable use of resources within their EEZ. If the proposed subsidy disciplines were to allow them to continue to subsidise fishing within their EEZ, they would need to do so within the context of their existing obligations to sustainably use those resources.

The high seas

The concept of the high seas is central to many of the proposals to differentiate subsidies. As already described, the proposed exemptions from disciplines for subsidies for activities within the EEZ would focus the impact of the subsidies disciplines on high seas activities as well as fishing in the EEZ of other countries (distant-water fishing). Some proposals would carve some high seas fishing out of the disciplines: Indonesia would allow developing countries to provide subsidies to exploit rights held by the member in high seas fishing quotas.⁶⁷ Argentina et al. include as prohibited subsidies those related to overcapacity in areas beyond national jurisdiction except for "subsidy programs of Members aimed to fulfill a quota or a right established by an RFMO."⁶⁸

The high seas is an ancient concept that conjures up ideas of unrestricted freedoms, but it is now understood that the freedoms of the high seas are not absolute.⁶⁹ By codifying the concept of the EEZ, UNCLOS represented a constriction of the amount of oceans represented by "high seas," which is now thought to represent around 60 percent of the ocean surface, and to be less commercially significant than the EEZs (Sumaila et al. 2015). Freedom of fishing is to be exercised with "due regard" for the interests of other states.⁷⁰ While all states have the right for their nationals to engage in fishing on the high seas, this activity must be undertaken subject to their treaty obligations, certain rights and duties of coastal states as identified in Part V of UNCLOS, and other relevant provisions.⁷¹ Under UNCLOS Article 117, all states have the duty to "take, or to cooperate with other states in taking, such measures for their respective nationals as may be necessary for the conservation of the living resources of the high seas." States whose nationals exploit the same living resources, or different living resources in the same high seas area, shall negotiate to take measures necessary for the conservation of the living resources, for example through RFMOs (Article 118). States shall use best scientific evidence and take into account generally recommended international standards,⁷² and

66 UNCLOS Article 297(3). On limits to the compulsory dispute settlement system of UNCLOS, see generally Klein (2005).

67 TN/RL/GEN/189/Rev.1 (Article 3.3(b)).

68 TN/RL/GEN/187/Rev.2 (Article 2.1.3 (footnote 6)); see also (Article 2.1.2(b)).

69 UNCLOS Part VII.

70 UNCLOS Article 187(2).

71 See especially UNCLOS Article 116.

72 UNCLOS Article 119(a) and (b). A good example of such a standard is the Commission for the Conservation of Antarctic Marine Living Resources, which covers both EEZ and high seas areas. For a list of other examples, see DOALOS (2004, 50–1).

shall ensure that conservation measures are non-discriminatory (Article 119). These provisions are given more detail in the UNFSA, which requires, for example, that states that authorise vessels flying their flag to fish on the high seas shall exercise effectively their responsibilities under UNCLOS and the UNFSA,⁷³ and inform other interested states of measures they have adopted for regulating the activities of vessels flying their flag.⁷⁴ In the context of the subsidy negotiations, a proposed obligation to refrain from subsidising fishing activities with respect to overfished high seas stocks, for example, or to refrain from contributing to overcapacity or overfishing on the high seas could be seen as part of the existing duties relating to conservation and management. That is, the subsidy rules would help to support coherence between a state's duties in the high seas and that state's domestic economic policy.

These issues are discussed in terms of the exercise by states of their entitlements under the law of the sea in the following section. Before doing so, it is important to note a current parallel set of negotiations within the United Nations General Assembly for a new UNCLOS implementing agreement which would protect biodiversity in areas beyond national jurisdiction.⁷⁵ Also important to note in the development of state practice in the law of the sea is the key principle of "ecosystem-based management." This principle seeks to apply an integrated approach that considers the entire ecosystem, including stressors and pressures with direct or indirect effects, and seeks to develop cross-sectoral ecosystem-level management plans. The gradually expanding application of this principle has implications for the management of fishing in the high seas, especially if "no-fishing" zones are declared in the high seas, and is arguably consistent with prohibitions on subsidies for high seas activities.

The Exercise of Entitlements

As was made clear in the preceding section, the exercise of fishing entitlements is subject to specific rights and obligations relating to the territorial sea, EEZ or the high seas,⁷⁶ as well as to general duties. The subsidy proposals rely on different kinds of jurisdiction exercised by states over fishing activities, and the laws that may be established by states in their capacities as flag states, coastal states, port states or other actors. This section thus seeks to provide more specific analysis of the exercise of relevant entitlements. For example, when vessels exercise freedom of fishing in the high seas, or fish in the EEZ of another state, they do so under the jurisdiction, and responsibility, of the state whose flag they fly: in this situation, the state regulates its vessels' fishing in its capacity as a flag state. If that same state identifies companies that are entitled to public funds, it is a subsidising state that will be subject to the proposed disciplines. In the context of assessing the proposals for subsidy rules, this section considers the exercise of entitlements in the law of the sea in terms of: (1) general rights and obligations; (2) flag states; (3) coastal states; and (4) shared stocks.

73 UNFSA Article 18.

74 UNFSA Article 7(8).

75 UN Doc A/69/L/65 (2015); see also, on the work of the Preparatory Committee established by General Assembly Resolution 69/292: Development of an international legally binding instrument under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction, see <http://www.un.org/depts/los/biodiversity/prepcom.htm>

76 As mentioned, internal waters and archipelagic waters are additional zones which have not been addressed in the subsidy disciplines and are not discussed here.

General rights and obligations

UNCLOS recognises that states have a general obligation for the conservation and management of fish stocks, which operates alongside the specific exercise of states' entitlements and other obligations. This general obligation can be derived from provisions relating to the EEZ and high seas that have been addressed (especially Articles 63, 64, 117 and 118), the general obligation of states to ensure that activities within their jurisdiction and control respect the environment of other states and of areas beyond national control,⁷⁷ and the general obligation to protect and preserve the marine environment in Part XII of UNCLOS.⁷⁸ Although Part XII of UNCLOS relates to pollution, this "fundamental principle" extends to living resources and marine life, and as such has been applied in the context of fisheries.⁷⁹ The duty is applicable regardless of the zone in which fishing occurs.⁸⁰

The general obligation applies not only to activities directly undertaken by states, but also to their duties to "ensure" activities within their jurisdiction and control do not harm the marine environment.⁸¹ The concept of duties of "conduct" rather than "result" have developed in a series of cases at the ICJ and ITLOS,⁸² and have been termed "due diligence" obligations. The more specific elaborations with respect to flag states are described in more detail in the next subsection.

Rights and obligations of flag states

The rights and duties of flag states are relevant in the context of the proposals on the table that would apply subsidy prohibitions to vessels or operators identified by their flag state as having engaged in IUU activities. They are also relevant to proposed prohibitions on subsidies that support fishing for shared stocks in the absence of membership of a relevant RFMO.⁸³

Under the UNCLOS framework, states grant their nationality to ships when they register those ships, with which they must have a "genuine link."⁸⁴ The duties of flag states include the assumption of

77 See, e.g., *Legality of the Threat of Use of Nuclear Weapons*, Advisory Opinion, ICJ Reports 1996, pp. 226–67 at pp. 240–2, para. 29.

78 UNCLOS Part XII, see also fourth paragraph of preamble. See especially Article 192.

79 *Southern Bluefin Tuna (New Zealand v. Japan; Australia v. Japan)*, Provisional Measures, Order of 27 August 1999, ITLOS Reports 1999, p. 280, at p. 295, para. 70 ("the conservation of the living resources of the sea is an element in the protection and preservation of the marine environment"); see also *Request for an Advisory Opinion Submitted by the Sub-Regional Fisheries Commission (SRFC)*, see International Tribunal for the Law of the Sea, Case No. 21, 2 April 2015, <http://perma.cc/KY5V-EMXP> (SRFC Advisory Opinion), para. 216.

80 See, e.g., where China was found to have failed to control the environmental impact of the fishing activity of its vessels on the coral reef and vulnerable marine ecosystems: *South China Sea Arbitration* (Award), para. 961; see further UNCLOS Article 194.

81 *South China Sea Arbitration* (Award), para. 944.

82 See, e.g., *Pulp Mills on the River Uruguay case*, which elucidated the obligation to act with due diligence as, "an obligation which entails not only the adoption of appropriate rules and measures, but also a certain level of vigilance in their enforcement and the exercise of administrative control applicable to public and private operators, such as the monitoring of activities undertaken by such operators ..." The ITLOS Seabed Disputes Chamber has relied on the ICJ elucidations and broadly defined the "due diligence" obligation: see *Advisory Opinion on Responsibilities and Obligations of States Sponsoring Persons and Entities with respect to Activities in the Area*, Case No. 17, 1 February 2011. For further discussion, see Young and Sullivan (2015).

83 TN/RL/GEN/186.

84 UNCLOS Article 91. See also *M/V Virginia G (Panama/Guinea-Bissau)* (2014) 53 ILM 1164, [113].

jurisdiction over a wide range of technical, social and administrative matters concerning the ship.⁸⁵ The FAO Code of Conduct provides inter alia that states should ensure that states exercise "effective control" over the vessels flying their flags, and ensure that the vessels do not "undermine the effectiveness of conservation and management measures taken in accordance with international law and adopted at the national, subregional, regional or global levels."⁸⁶ The Voluntary Guidelines on Flag State Performance provide guidance for the flag state on monitoring, control and surveillance activities, especially in identifying IUU fishing. There are also various initiatives to strengthen flag state performance, including through the UNFSA (Articles 18–22), and RFMO constituent instruments and decisions, which apply to high seas and to areas where migratory or straddling fish stocks may also be fished across the high seas and EEZs.

Of particular relevance to the negotiations relating to fishing in the EEZ is the obligation on all flag states that are parties to UNCLOS to take necessary measures, including those of enforcement, to ensure compliance by vessels flying their flag with the laws and regulations adopted by the coastal state (which may be based at national, subregional or regional levels).⁸⁷ This duty was the subject of a recent ruling when China was found to have breached Article 58 by failing to prevent its nationals from unlawfully fishing in the EEZ of the Philippines.⁸⁸

A recent advisory opinion from ITLOS has given further clarity to the responsibilities of flag states in relation to the activities of vessels undertaking IUU fishing activities within the EEZs of other states.⁸⁹ While the primary obligation to take measures to prevent IUU fishing within the relevant EEZ rests with the coastal state, flag states have obligations of conduct to take necessary measures to enforce the rules applicable in the area where the fishing is taking place, exercise control over administrative matters, investigate allegations and report to the relevant coastal states; in short, they must exercise "due diligence"⁹⁰ with respect to the operations of their vessels in foreign EEZs.⁹¹ Proposed subsidy disciplines that prohibit subsidies to vessels identified as operating illegally in a coastal state's EEZ would make more concrete the content of these due diligence obligations in the economic policy of flag states. Moreover, if future subsidy rules include notification obligations by coastal states (bilaterally or to the Committee on Subsidies and Countervailing Measures) of infractions by vessels, this would assist flag states in discharging their duties of due diligence.

In the high seas, flag states' freedom of fishing is subject, under UNFSA, to constraints from RFMOs regarding particular areas or species,⁹² and, under UNCLOS, to the interests of coastal states in shared or migratory stocks. Flag states are thus subject to rules that bind all parties to UNCLOS relating to the need to conserve and manage living resources of the high seas⁹³ and the general obligation

85 UNCLOS Article 94.

86 FAO Code of Conduct, para. 6.11.

87 UNCLOS Article 58(3); 62(4).

88 *South China Sea Arbitration* (Award), para. 757. (Note that China did not accept the jurisdiction of the tribunal in this case.)

89 SRFC Advisory Opinion.

90 See earlier note on the *Pulp Mills on the River Uruguay* case, the Advisory Opinion of the ITLOS Seabed Disputes Chamber in 2011, and Young and Sullivan (2015).

91 SRFC Advisory Opinion, paras 130–40.

92 See UNFSA, especially Article 8(4) and Article 17 (Part IV, "Non-members and non-participants").

93 UNCLOS Articles 116–20.

to protect and preserve the marine environment,⁹⁴ including obligations of due diligence identified earlier.⁹⁵ As noted in the first section, the UNFSA extends the obligation to respect RFMO measures to non-members of those RFMOs, but this is generally considered to apply only to UNFSA parties (because otherwise it would violate the *pacta tertiis* rule⁹⁶). Proposed subsidy disciplines that would prohibit subsidies for fishing activities on the high seas that are already overfished might be seen to be already compatible with these existing obligations, albeit expressed in new, economic terms.

The term "flags of convenience" is included in the proposal from Indonesia, which provides that members shall not grant subsidies to vessels flying flags of convenience.⁹⁷ "Flags of convenience" refers to states that have registered vessels yet have minimal connection or regulatory oversight. This would require a different verification procedure from the one relating to prohibitions on subsidies for IUU activity.⁹⁸ In contrast, several proposals provide that subsidies will be attributed to the member conferring them, regardless of the flag of the vessel involved.⁹⁹ This is presumably to avoid the familiar situation of vessels reflagging or renaming, which is part of the justification for the "white lists" used by some RFMOs (Stokke 2009, 346).

Rights and obligations of coastal states

Rights and obligations of coastal states are relevant for the proposed subsidy disciplines that are linked to IUU fishing (because coastal states could identify IUU activity), and for the proposed exceptions for subsidies provided for fishing within a country's territorial sea or EEZ.

Of most relevance to the fisheries subsidies discussion is the fact that coastal states have sovereign rights over fisheries as well as duties to ensure these resources are not overexploited. As previously discussed, there are no specific obligations in UNCLOS for a coastal state to cooperate with respect to stocks occurring within that state's territorial seas, although the coastal state is subject to more general obligations. This contrasts with the legal regime for the EEZ (contained in Part V of UNCLOS), which includes express duties to cooperate.

Part V of UNCLOS provides sovereign rights for coastal states "for the purpose of exploring and exploiting, conserving and managing the natural resources" within their EEZ while having "due regard" to the rights and duties of other states and acting compatibly with UNCLOS.¹⁰⁰ In exercising these rights and obligations, the coastal state is entitled to determine the allowable catch for the living resources in its EEZ.¹⁰¹ The coastal state shall take into account "the best scientific evidence available

94 UNCLOS Articles 192 and 193.

95 See especially UNCLOS Articles 117–20.

96 See Franckx (2000) and text in section 1.3.

97 TN/RL/GEN/189/Rev.1 (Article 2.2).

98 Such a verification procedure would have been helped by a 1986 United Nations Convention on Conditions for Registration of Ships, but this is only in draft form and has not entered into force. The FAO is currently supporting an initiative for a "Global Record of Fishing Vessels, Refrigerated Transport Vessels and Supply Vessels," which involves the compilation of an online repository of vessels involved in fishing operations by states and RFMOs and focusing on vessels of 100 gross tonnage, or of 24 metres in length: see further <http://www.fao.org/3/a-i5446e.pdf>

99 TN/RL/GEN/186, Article 3; TN/RL/GEN/181/Rev.1 (para. 1.4); TN/RL/GEN/192 (Article 1.2); TN/RL/GEN/193 (Article 1.2).

100 UNCLOS Article 56.

101 UNCLOS Article 61(1).

to it" to ensure, through proper conservation and management measures, that the maintenance of the living resources in the EEZ is not endangered by overexploitation.¹⁰² In doing so, the coastal state is to cooperate with competent international organisations (including RFMOs).¹⁰³ Some additional agreements, including the UNFSA and some regional treaties, require the coastal state to adopt the precautionary approach to conservation and management measures where scientific evidence is insufficient.¹⁰⁴

Coastal states' conservation and management measures shall aim for the production of "maximum sustainable yield," although this concept is to be qualified by relevant environmental and economic factors.¹⁰⁵ Coastal states must take into account fishing patterns, the interdependence of stocks, and generally recommended international minimum standards,¹⁰⁶ which may come from the UNFSA, the Convention on Biological Diversity, and regional treaties including the constitutive instruments of RFMOs.¹⁰⁷ The coastal state is expected to promote the objective of "optimum utilisation" in its EEZ and, if it does not have capacity to harvest the entire allowable catch, it shall give other states access to the surplus.¹⁰⁸

If the coastal states decide to allow other vessels access to the EEZ to fish for surplus stocks, they may impose conservation measures and other terms and conditions that must be complied with by foreign-flagged fleets.¹⁰⁹ Examples of such conditions include those relating to fishing seasons and areas of fishing, fishing gear, the number of vessels and the placing of observers on board vessels. Case law has been important in providing understanding of the rights of coastal states: for example, ITLOS has confirmed that the coastal state may regulate the bunkering of foreign vessels fishing in the EEZ.¹¹⁰

To ensure compliance with its laws and regulations concerning the conservation and management measures for living resources pursuant to Article 73(1), the coastal state may take such measures, including boarding, inspection, arrest and judicial proceedings, as may be necessary. Arrested vessels and their crew are to be promptly released upon the posting of a reasonable bond or other security,¹¹¹ and this requirement has been the subject of disputes at ITLOS.¹¹²

102 UNCLOS Article 61(2).

103 UNCLOS Article 61(2).

104 UNFSA Article 6 and Annex II; see also the Convention on the Determination of the Minimal Conditions for Access and Exploitation of Marine Resources within the Maritime Areas under Jurisdiction of the Member States of the Sub-Regional Fisheries Commission (MCA Convention) considered by ITLOS in the SRFC Advisory Opinion, para. 208.

105 UNCLOS Article 61(3).

106 UNCLOS Article 61(3).

107 See further DOALOS (2004, 47–8).

108 UNCLOS Article 62.

109 UNCLOS Article 62(4).

110 *M/V Virginia G (Panama/Guinea-Bissau)* (2014) 53 ILM 1164, paras 208–17.

111 UNCLOS Article 73.

112 See, e.g., *M/V Saiga (No 1) Case (Saint Vincent and the Grenadines v. Guinea)* (prompt release) (1997) 110 ILR 736; *Camouco (Panama v. France)* (prompt release) (2000) 125 ILR 151; *Monte Confurco (Seychelles v. France)* (prompt release) (2000) 125 ILR 203; *Grand Prince (Belize v. France)* (prompt release) (2001) 125 ILR 251; *Volga (Russian Federation v. Australia)* (prompt release) (2003) 42 ILM 159; *Juno Trader (St Vincent and the Grenadines v. Bissau)* (prompt release) (2004) 44 ILM 498; *Hoshinmaru (Japan v. Russian Federation)* (prompt release) 6 August 2007; *Tomimaru (Japan v. Russia)* (prompt release) (2007) 46 ILM 1185. Commentators have considered ITLOS to have favoured the interests of flag states in these disputes: see Andreone (2015, 159, 169).

The discretion of coastal states to manage these marine living resources is broad, in the sense that the allocation of surpluses to other states and conservation and management requirements are not subject to the compulsory dispute settlement contained in Part XV of UNCLOS.¹¹³ The discretion of states to decide whether to give access to other states to their surplus fisheries is thus challengeable only with the agreement of the relevant coastal state. If a coastal state has manifestly failed to comply with its obligations to ensure through proper conservation and management measures that the maintenance of the living resources in the exclusive economic zone is not seriously endangered, it may be required to submit to compulsory conciliation,¹¹⁴ although the subsequent conciliation report is not binding.¹¹⁵

Notwithstanding these limitations, there have been several cases at ITLOS and elsewhere that have dealt with the requirement that coastal states protect and preserve the marine environment.¹¹⁶ In addition, the duties of coastal states to have regard to the interests of their neighbours was confirmed recently in relation to the United Kingdom's proclamation of a marine protected area.¹¹⁷

In summary, it is clear from both treaties and case law that coastal states have jurisdiction over resources in their EEZs, but that they also have obligations under international law to ensure those resources are exploited sustainably. This is important context to proposals to exempt fishing within EEZs from subsidy disciplines. WTO members would need to be sure, under any such flexibility, that any new or ongoing subsidies to fishing within their EEZs are not undermining the sustainability of resources in their EEZs, or the interests of others in those resources. In the context of proposals on IUU fishing, enabling coastal states to notify the WTO of vessels or operators found to be flouting conservation measures applicable in that EEZ is arguably consistent with, and could help to support, coastal states in discharging their responsibility over those resources.

Rights and obligations with respect to shared stocks

Parties to UNCLOS are required to seek to cooperate in the management of shared stocks.¹¹⁸ This obligation is given more concrete expression in the UNFSA, which applies to highly migratory fish stocks and fish stocks that straddle the high seas and EEZs,¹¹⁹ and which sets out key procedures for the establishment and functions of RFMOs. It provides that parties to the UNFSA who fail to become members of an existing regional regime and refuse to apply conservation and management measures can be denied access to the relevant fishery.¹²⁰ Moreover, the (voluntary) FAO Code of Conduct

113 UNCLOS, Article 297(3).

114 UNCLOS Article 297(3)(b)(i).

115 See further UNCLOS Annex V. As noted by Rothwell and Stephens (2016), the Annex V procedure has not been invoked to date.

116 See, e.g., SRFC Advisory Opinion; *South China Sea Arbitration* (Jurisdiction and Admissibility); *South China Sea Arbitration* (Award). For further consideration of the types of duties that may be owed by coastal states when the wider ecosystem is considered, see Turnipseed et al. (2009).

117 *Chagos Marine Protected Area Arbitration (Mauritius v. United Kingdom)* Award of 18 March 2015. See further <https://pca-cpa.org/en/cases/11/>.

118 See especially UNCLOS Article 63(2).

119 UNFSA, Article 3.

120 UNFSA, Article 8(3) and (4). It also provides for the application of a precautionary approach to the conservation, management and exploitation of straddling fish stocks and highly migratory fish stocks: Article 6. For interpretation of this provision by five selected RFMOs, see Henriksen, Hønneland and Sydnæs (2006, 197–9).

provides guidance for all FAO members to ensure that they do not support IUU fishing.¹²¹

RFMOs play an important role in the operation of the rules regarding IUU fishing, and in proposals on the table with respect to subsidies to IUU activity. RFMOs have their own procedures for both including and eliminating vessels on IUU lists. All the proposals on the table propose a prohibition on subsidies to IUU activity, and all reference—more or less directly—lists of IUU vessels generated by RFMOs. Norway, for example, proposes a rule that would require members to ensure that a fishing vessel that might be a recipient of a subsidy “neither appears on an IUU-vessel list of a Regional Fisheries Management Organization nor ... has operated in waters under the jurisdiction of any Member without the permission of that Member during the preceding five years.”¹²²

Parties to the UNFSA are obliged not only to cooperate to establish RFMOs but also to respect all RFMOs' conservation measures—including of those RFMOs to which they are not parties.¹²³ However, the duty of countries that are not party to the UNFSA to respect RFMO rules is less clear-cut. Countries that are not parties to either an RFMO or the UNFSA are not specifically obliged to respect that RFMO's decisions, given the *pacta tertiis* point identified earlier. It should be recalled, though, that such countries are not discharged from the UNCLOS obligation to cooperate in the conservation and management of the relevant straddling fish stocks and highly migratory fish stocks,¹²⁴ and the “duty to cooperate” has been recognised as giving rise to substantive obligations in other fisheries contexts.¹²⁵

The situation of countries that are not party to the UNFSA or to relevant RFMOs appears to be reflected indirectly in the proposal by Argentina et al. that relates to a prohibition on subsidies to IUU fishing (of the six countries that have submitted the proposal by Argentina et al., only Costa Rica, Panama and Uruguay have ratified the UNFSA). The revised proposal suggests that WTO members shall recognise lists of vessels of RFMOs to which they are not a party provided that the recognising member verifies that the listing has respected standards of due process and that the RFMO is open to all WTO members and in conformity with relevant rules of international law and the FAO IPOA-IUU.¹²⁶

This can be compared to the signed text of the Trans-Pacific Partnership (where only half of the original 12 TPP signatories were party to the UNFSA). The relevant provision prohibited subsidies, inter alia, that were provided to any fishing vessel “while listed by the flag State or a relevant Regional Fisheries Management Organization or Arrangement for illegal, unreported or unregulated fishing in accordance with the rules and procedures of such organization or arrangement and in conformity with international law.”¹²⁷

121 FAO IPOA-IUU, elaborated pursuant to FAO Code of Conduct, Article 2(d).

122 TN/RL/GEN/191.

123 UNFSA Article 8(3).

124 UNFSA Article 17(1).

125 The tribunal in the *South China Sea Arbitration* drew upon the duty to cooperate when making its finding that China had, through its toleration and protection of, and failure to prevent, Chinese fishing vessels engaging in harmful harvesting activities of endangered species, breached Articles 192 and 194(5) of UNCLOS: *South China Sea Arbitration* (Award), para. 992.

126 TN/RL/GEN/187/Rev.2, para 2.1.1(b).

127 Environment Chapter (not in force) Article 20.16.5(b).

A related issue in several proposals is the desire to ensure that in recognising RFMO lists of IUU vessels for the purpose of subsidy disciplines, WTO members do not inadvertently find themselves subject to other rules of RFMOs they are not party to: the proposal by Argentina et al., for example, provides that: "Except as otherwise provided in this instrument, a Member does not thereby become bound by measures or decisions of, or recognize, any regional fisheries management organization of which it is not a Party to."¹²⁸ This language appears also in the PSMA,¹²⁹ and is designed to ensure that even if parties to the PSMA or proposed fisheries subsidies agreement reference RFMO IUU lists, they are not inadvertently bound by other (non-IUU list related) decisions of the RFMO to which they are not a party.

To summarise, RFMOs are key to management of shared stocks, and their listing of IUU vessels could give them an important role in the proposed subsidy disciplines. This is uncontroversial for UNFSA parties, which are already required to join RFMOs or respect their decisions, or otherwise be shut out of access to the relevant fishery. The broader corpus of states that are parties to UNCLOS are less clearly bound to respect the decisions of RFMOs, but arguably should do so due to their more general duties to cooperate. Comfort may be given to such states that RFMOs are required to operate in a transparent and non-discriminatory way according to the UNFSA and the FAO Code of Conduct.¹³⁰ Finally, the language from the PSMA could help to assuage concerns about inadvertently committing non-parties to RFMO decisions beyond recognition of IUU lists.

Conclusion

This reference paper has pointed to key concepts of the law of the sea that form the background to the subsidy disciplines as they are currently under discussion at the WTO. Where the proposed rules prohibit subsidies for IUU fishing activity, they invoke concepts of what is legal and regulated under UNCLOS, including with respect to EEZs and the high seas. Where the proposed rules differentiate between subsidies supporting fishing activities conducted in the high seas vis-à-vis fishing activity within EEZs or members' territorial seas, the maritime zones codified in UNCLOS will again be important. Evaluating the operation of the proposed subsidy disciplines thus requires an understanding of the general and specific rights and obligations of states within different maritime zones.

The binding rules of the law of the sea have developed over time, and are codified primarily in UNCLOS as well the UNFSA and the new PSMA. These rules are applicable to different WTO members depending on their own ratification of or accession to the relevant rule, though some aspects of UNCLOS are considered to codify customary international law and therefore bind all WTO members. While some WTO members have expressed concern that RFMO rulings will be determinative in establishing lists of IUU vessels (which they are reluctant to accept if they are not parties to the relevant RFMO), it was noted that the UNFSA requires open and transparent practices of RFMOs. This presumably gives comfort at least to parties to the UNFSA, and arguably, in terms of practical effect, to non-parties as well. Moreover, the UNFSA allows for dispute settlement, and

¹²⁸ TN/RL/GEN/187/Rev.2, para 1.5.

¹²⁹ PSMA, Article 4.

¹³⁰ FAO Code of Conduct paras 78–84 relate to the operation of RFMOs, such as the requirement that RFMOs "should address the issue of access to the resource in order to foster cooperation and enhance sustainability in the fishery, in accordance with international law" (para. 83).

thus could provide a court process to remedy any IUU vessel listing that was not in conformity with international law.

Issues of enforcement are complicated by the prospect of different forums, and the paper has cautioned WTO members to take care in crafting subsidy dispute settlement provisions so that they may operate alongside existing ITLOS and other tribunal procedures. It was also noted that the law of the sea includes non-binding sources such as the FAO Code of Conduct and the IPOA-IUU, which although voluntary can inform the application of the proposed subsidy rules—indeed, the IPOA-IUU's description of IUU fishing has been taken up in the WTO proposals.

The key maritime zones that have been discussed in the negotiations—the territorial sea, the EEZ and the high seas—are settled concepts within the law of the sea. This paper has pointed to the much higher volume and value of available resources in the EEZs as compared to the high seas; by implication, any exceptions for subsidies for EEZ fishing may be extremely wide in practice and would need to be implemented very carefully to ensure consistency with UNCLOS obligations regarding the sustainability of EEZ resources. In contrast, prohibitions on subsidies for high seas fishing are compatible with parallel efforts within the United Nations General Assembly to create better protection for biodiversity in areas beyond national jurisdiction.

The law of the sea contains a set of entitlements for flag states and coastal states, as well as a set of rights and obligations of all states with respect to shared stocks (highly migratory fish stocks and fish stocks that straddle the high seas and EEZs). This paper has pointed to the general rights and obligations applicable to these activities, especially with respect to conservation and management and the protection and preservation of the marine environment. In relation to IUU fishing, for example, there is an obligation on a state to exercise "due diligence" by taking all necessary measures to ensure compliance and to prevent IUU fishing by fishing vessels flying its flag. Arguably, the proposed subsidy prohibitions relating to IUU fishing would in practice support the realisation of states' existing duties through domestic economic policy in a form that is enforceable through WTO procedures. In several places, in fact, the establishment of new disciplines on fisheries subsidies would help to give practical effect in domestic economic policy to states' existing rights and obligations under the law of the sea.

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Annex I: WTO Members and Parties to the UN Convention on the Law of the Sea and the UN Fish Stocks Agreement

	WTO Member	Party to UNCLOS	Party to UNFSA
Afghanistan	X	sig	
Albania	X	X	
Algeria*		X	
Angola	X	X	
Antigua and Barbuda	X	X	
Argentina	X	X	sig
Armenia	X	X	
Australia	X	X	X
Austria	X	X	X
Azerbaijan*		X	
Bahamas*		X	X
Bahrain, Kingdom of	X	X	
Bangladesh	X	X	X
Barbados	X	X	X
Belarus*		X	
Belgium	X	X	X
Belize	X	X	X
Benin	X	X	
Bhutan*		sig	
Bolivia, Plurinational State of	X	X	
Bosnia and Herzegovina*		X	
Botswana	X	X	
Brazil	X	X	X
Brunei Darussalam	X	X	
Bulgaria	X	X	X
Burkina Faso	X	X	sig
Burundi	X	sig	
Cabo Verde	X	X	
Cambodia	X		
Cameroon	X	X	
Canada	X	X	X
Central African Republic	X	sig	
Chad	X	X	
Chile	X	X	X
China	X	X	sig
Colombia	X	sig	
Comoros*		X	
Congo	X	X	
Cook Islands		X	X
Costa Rica	X	X	X

	WTO Member	Party to UNCLOS	Party to UNFSA
Côte d'Ivoire	X	X	sig
Croatia	X	X	X
Cuba	X	X	
Cyprus	X	X	X
Czech Republic	X	X	X
Democratic People's Republic of Korea		sig	
Democratic Republic of the Congo	X	X	
Denmark	X	X	X
Djibouti	X	X	
Dominica	X	X	
Dominican Republic	X	X	
Ecuador	X	X	X
Egypt	X	X	sig
El Salvador	X	sig	
Equatorial Guinea*		X	
Estonia	X	X	X
Ethiopia*		sig	
European Union	X	X	X
Fiji	X	X	X
Finland	X	X	X
France	X	X	X
Gabon	X	X	sig
Gambia	X	X	
Georgia	X	X	
Germany	X	X	X
Ghana	X	X	X
Greece	X	X	X
Grenada	X	X	
Guatemala	X	X	
Guinea	X	X	X
Guinea-Bissau	X	X	sig
Guyana	X	X	
Haiti	X	X	
Honduras	X	X	
Hong Kong, China	X		
Hungary	X	X	X
Iceland	X	X	X
India	X	X	X
Indonesia	X	X	X
Iran*		sig	X
Iraq*		X	
Ireland	X	X	X
Israel	X		sig

	WTO Member	Party to UNCLOS	Party to UNFSA
Italy	X	X	X
Jamaica	X	X	sig
Japan	X	X	X
Jordan	X	X	
Kazakhstan	X		
Kenya	X	X	X
Kiribati		X	X
Korea, Republic of	X	X	X
Kuwait, the State of	X	X	
Kyrgyz Republic	X		
Lao People's Democratic Republic	X	X	
Latvia	X	X	X
Lebanese Republic*		X	
Lesotho	X	X	
Liberia	X	X	X
Libya*		sig	
Liechtenstein	X	sig	
Lithuania	X	X	X
Luxembourg	X	X	X
Macao, China	X		
Madagascar	X	X	
Malawi	X	X	
Malaysia	X	X	
Maldives	X	X	X
Mali	X	X	
Malta	X	X	X
Marshall Islands		X	X
Mauritania	X	X	sig
Mauritius	X	X	X
Mexico	X	X	
Micronesia (Federated States of)		X	X
Moldova, Republic of	X	X	
Monaco		X	X
Mongolia	X	X	
Montenegro	X	X	
Morocco	X	X	X
Mozambique	X	X	X
Myanmar	X	X	
Namibia	X	X	X
Nauru		X	X
Nepal	X	X	
Netherlands	X	X	X
New Zealand	X	X	X

	WTO Member	Party to UNCLOS	Party to UNFSA
Nicaragua	X	X	
Niger	X	X	
Nigeria	X	X	X
Niue		X	X
Norway	X	X	X
Oman	X	X	X
Pakistan	X	X	sig
Palau		X	X
Palestine		X	
Panama	X	X	X
Papua New Guinea	X	X	X
Paraguay	X	X	
Peru	X		
Philippines	X	X	X
Poland	X	X	X
Portugal	X	X	X
Qatar	X	X	
Romania	X	X	X
Russian Federation	X	X	X
Rwanda	X	sig	
Saint Kitts and Nevis	X	X	
Saint Lucia	X	X	X
Saint Vincent and the Grenadines	X	X	X
Samoa	X	X	X
Sao Tome and Principe*		X	
Saudi Arabia, Kingdom of	X	X	
Senegal	X	X	X
Serbia*		X	
Seychelles	X	X	X
Sierra Leone	X	X	
Singapore	X	X	
Slovak Republic	X	X	X
Slovenia	X	X	X
Solomon Islands	X	X	X
Somalia*		X	
South Africa	X	X	X
Spain	X	X	X
Sri Lanka	X	X	X
Sudan*		X	
Suriname	X	X	
Swaziland	X	X	
Sweden	X	X	X
Switzerland	X	X	

	WTO Member	Party to UNCLOS	Party to UNFSA
Chinese Taipei	X		
Tajikistan	X		
Tanzania	X	X	
Thailand	X	X	X
The former Yugoslav Republic of Macedonia	X	X	
Timor-Leste*		X	
Togo	X	X	
Tonga	X	X	X
Trinidad and Tobago	X	X	X
Tunisia	X	X	
Turkey	X		
Tuvalu		X	X
Uganda	X	X	
Ukraine	X	X	X
United Arab Emirates	X	sig	
United Kingdom	X	X	X
United States	X		X
Uruguay	X	X	X
Vanuatu	X	X	
Venezuela, Bolivarian Republic of	X		
Viet Nam	X	X	
Yemen	X	X	
Zambia	X	X	
Zimbabwe	X	X	

*Observer to the WTO

Sources: WTO. 29 July 2016. *Members and Observers*. https://www.wto.org/english/thewto_e/whatis_e/tif_e/org6_e.htm; UN Division for Ocean Affairs and the Law of the Sea. 31 July 2017. "Status of The United Nations Convention on the Law of The Sea, of The Agreement Relating to the Implementation of Part XI of the Convention and of the Agreement for the Implementation of the Provisions of the Convention Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stock." (http://www.un.org/depts/los/reference_files/status2010.pdf)

Issues and Options for Disciplines on Subsidies to Illegal, Unreported and Unregulated Fishing

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Introduction

Recent discussions in the Rules Negotiating Group (RNG) of the World Trade Organization have focused on fisheries subsidies to illegal, unreported and unregulated activities.¹ The RNG's discussion on subsidies to IUU is driven by the call in Sustainable Development Goal 14 for the elimination of subsidies to IUU. SDG target 14.6 states:

By 2020, prohibit certain forms of fisheries subsidies which contribute to overcapacity and overfishing, eliminate subsidies that contribute to illegal, unreported and unregulated fishing and refrain from introducing new such subsidies, recognising that appropriate and effective special and differential treatment for developing and least developed countries should be an integral part of the World Trade Organization fisheries subsidies negotiation.²

The international community has used substantial efforts and invested considerable work in combating IUU activities over the past decade and a half. IUU fishing is a nasty undertaking, undermining good fisheries management and sound governance, and takes away a living from those who depend on fishing. Not only do products from IUU activities enter international trade, but subsidies, though probably not intended to support IUU fishing activities, continue to be provided. Estimates for the amount of subsidies provided on a world basis differ considerably, in part because of differing coverage. A recent study by the University of British Columbia estimates global fisheries subsidies to have been some US\$35 billion in 2009 (European Parliament 2013), of which a major part is fuel subsidies. Another study by the Organisation for Economic Co-operation and Development (OECD 2017) suggests that subsidies to the OECD fleets amounted to US\$6.5 billion in 2015, corresponding to 20 percent of the landed value of OECD catches. Due to the nature of IUU fishing, no attempt has been made to estimate the amount of subsidies which support it, even though it is likely to benefit from fuel subsidies and support for infrastructure used by IUU fleets. It is also noteworthy that IUU fishing involves a diverse range of activities and situations. Hence, to be operational and effective, disciplines addressing IUU activities will necessarily derive from several legal bases and authorities, including domestic and international management arrangements, trade, national criminal law, and lately also tax law, etc.

It is in this context that a possible WTO discipline on fisheries subsidies could emerge as a new instrument in the toolbox to fight IUU fishing. From an international perspective, a WTO discipline on subsidies to IUU fishing could offer something other international arrangements do not have, that is, notification, discussion, and above all an enforcement mechanism in the form of dispute settlement. This would include the potential for retaliatory measures/action in case of non-compliance by the country that has been found to be providing the subsidy to the IUU activity. The latter mechanism, perhaps with the exception of the provision in the Port State Measures Agreement (PSMA) for refusing port calls and landings of catches to IUU vessels, has so far been absent from the IUU fight and provides a substantial reason for engaging the WTO frameworks in this endeavour.

1 See WTO (2017) for further particulars. The WTO fisheries subsidies negotiations are based on an original mandate from 2001 from the WTO Doha Declaration supplemented by a 2005 mandate from the WTO Hong Kong ministerial. The focus on a discipline on subsidies that contribute to IUU activities originates from a draft negotiating text of 2007.

2 UN General Assembly 2015, with the note: "Taking into account ongoing World Trade Organization negotiations, the Doha Development Agenda and the Hong Kong ministerial mandate."

At the time of writing, recent submissions to the RNG for the IUU discussions have been tabled by the European Union (EU); the African, Caribbean and Pacific Group of States; Argentina, Colombia, Costa Rica, Panama, Peru and Uruguay; the Group of Least Developed Countries; Iceland, New Zealand and Pakistan; Indonesia; and Norway. These submissions raise a number of issues and tend to differ in definitions used, the subsidies targeted, and the scope of application. Many submissions reference existing frameworks for addressing IUU (notably FAO 1995; 2002; 2010), and propose building subsidy disciplines on that basis. However, some clarification is needed about the scope of a possible WTO discipline, how an IUU activity might be identified for the purpose of subsidy rules, and how a possible prohibition could be applied.

To address these issues, the paper is organised as follows. First, it reviews options for defining the scope of IUU activity that would be covered by the disciplines. Then, the paper reviews options for identifying IUU activity, including IUU vessel listings emanating either from RFMOs or from national lists and legislation, and discuss how these are compiled and used, including whether RFMO lists are based on due process.³ Then, the paper addresses questions that have emerged about how a subsidies discipline would apply in practice. Lastly, some final thoughts of how one might proceed are offered.

Defining the Scope of IUU Fishing Under Subsidy Discipline

Illegal, unreported and unregulated fishing activities caught international attention in the second half of the 1990s. Not that they did not exist before; in various forms, fishing has always been vulnerable to illegal activities, mainly because they are a cheap way of making ends meet for economically strained fishing communities. As fishing capacity increased during the 1980s and 1990s, and as domestic fishing possibilities became increasingly scarce, it became part and parcel of the fisheries economy of many fleets to venture into the high seas and into other countries' fishing zones to fish. Obsolete vessels have little if any alternative value than as fishing vessels, and as national resources became depleted, fleets started operating in international waters. At the same time, the number of RFMOs increased rapidly. In response to these developments and in an effort to ensure fisheries resources were managed sustainably, the international community needed new instruments to fight against illegal fishing activities.

In this context, the International Plan of Action-IUU of the Food and Agriculture Organization (FAO) of the United Nations took shape. The International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing (IPOA-IUU) adopted by the FAO in 2001 provides illustrations or descriptions of how illegal, unreported and unregulated fishing, respectively, might be understood (FAO 2001; see Box 1).

In the WTO discussions, the IPOA-IUU has been referenced in efforts to define IUU activity. The language used in the IPOA is very broad and includes many situations in which fishing activities may potentially be deemed as IUU. These activities may be national or international, take place in waters under domestic jurisdiction, on the high seas or in waters managed by regional fisheries management organisations. IUU activities may be undertaken by small craft of an artisanal nature or

3 In this context, due process is taken to mean that there is a transparent, publicly available and well-established process for listing and delisting of vessels, including a process for discussion among affected parties.

by large-scale vessels.⁴ The IPOA-IUU Guidelines (FAO 2002), issued as a complement to the IPOA, also recognise this and note that the intent of the IPOA is to provide a framework for addressing illicit and unsustainable practices, wherever they may occur and no matter the circumstances. In a later development, a FAO Workshop reports that "the IPOA-IUU provided only illustrative descriptions (not a definition of IUU fishing per se) of the concept of IUU fishing and its different components. It was highlighted that the IPOA-IUU descriptions were narrow and often overlapped, and that the definitions of unreported and unregulated may be less relevant than when they were initially proposed" (FAO 2015).

The IPOA needs national implementation to be effective. Hence the IPOA-IUU calls for the development of national plans of action (NPOA) on IUU fishing activities. The FAO website lists Saint Kitts and Nevis, Australia, Belize, Ghana, Korea, Antigua and Barbuda, European Union, Fiji, Canada, United States, Chile, Japan and New Zealand as having notified national plans of action on IUU to the FAO.⁵ It should be noted that the IPOA-IUU is a voluntary instrument providing advice and ideas about how to frame the IUU action. However, it will be the local, regional and national circumstances and the particular fisheries settings which will determine the definitions of IUU activity used in national legislation.

In the WTO negotiations, some concern has been expressed about the potential breadth of the IPOA-IUU language, in particular on unregulated activities. The IPOA-IUU deals with illegal, unreported and unregulated activities. While illegal and unreported activities are comparatively easy to understand, the case of unregulated fishing is slightly different. As noted in the IPOA-IUU Guidelines:

One could say that fishers are always to blame for engaging in "illegal" and "unreported" fishing activity. The wrongful acts are entirely within their control. Similarly, fishers who become "unregulated" by evading rules that apply to other fishers, e.g. by reflagging or by using vessels without nationality, are to blame for wrongdoing. However, fishers who conduct an activity that is unregulated solely because the relevant State or States have not adopted any regulatory measures for the fishery concerned cannot be said to be engaged in wrongful acts. (FAO 2002)

Hence, the IPOA-IUU recognises that unregulated fishing is a particular case in which, predominantly, the vessel will not be engaging in an offence.

Both within national EEZs and on the high seas there are fisheries or fish stocks that are not subject to regulations. An example is the Arctic, which, due to global warming, has acquired fishing potential. Hitherto, fishing activities in the Arctic have been unregulated, although attempts are now ongoing to ensure that this unregulated part of the fisheries system is coming under management (European Commission 2017). Within national EEZs, likewise, there will be examples of fish stocks which are considered too marginal in economic importance to warrant regulation. Countries do have a responsibility to ensure sustainable fishing practices, as set out in the United Nations Convention on the Law of the Sea (in particular its Article 61), as well as in the FAO Code of Conduct for Responsible Fisheries (FAO 1995). However, fisheries management requires data and knowledge about stock and

⁴ As an example of artisanal or small-scale practices, for tourism purposes combined with subsistence, a fisher might sell fish over the vessel's side to a fish consumer seeking a fresh fish for a good bargain. Although unreported and hence an unlawful IUU activity, there will be many examples of this type of activity which will be considered a tolerated practice in many countries.

⁵ See <http://www.fao.org/fishery/ipoa-iuu/npoa/en> for a list of NPOAs.

Box 1: The International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing, paragraph 3

3.1 Illegal fishing refers to fishing activities:

3.1.1 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;

3.1.2 conducted by vessels flying the flag of States that are parties to a relevant regional fisheries management organization 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

3.1.3 in violation of national laws or international obligations, including those undertaken by cooperating States to a relevant regional fisheries management organization.

3.2 Unreported fishing refers to fishing activities:

3.2.1 which have not been reported, or have been misreported, to the relevant national authority, in contravention of national laws and regulations; or

3.2.2 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.

3.3 Unregulated fishing refers to fishing activities:

3.3.1 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

3.3.2 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.

3.4 Notwithstanding paragraph 3.3, certain unregulated fishing may take place in a manner which is not in violation of applicable international law, and may not require the application of measures envisaged under the International Plan of Action (IPOA).

Source: FAO (2001)

stock interaction, fishing intensity, etc., for proper regulation to take place. In many cases it may be deemed too expensive to go down this route for all stocks. The IPOA-IUU Guidelines take note of this by observing that "the IPOA-IUU is generally concerned with unregulated fishing that is likely to frustrate the achievement of sustainable fisheries" (FAO 2002). This seems to imply that sustainable fisheries practices that are not regulated fall outside the purview of the IPOA-IUU.

It is worth recalling that a multitude of other international fora and agreements have specifically referred to combating IUU fishing. As observed by the OECD (2005), "as long as the IUU operations are profitable, IUU fishing will be extremely difficult to completely eliminate." This also suggests that no matter how comprehensive a WTO agreement on IUU subsidies may be constructed, it is not a standalone or unifying attack on the problem; that would be illusory. But it is a welcome addition to the already large arsenal of ways and means of combating IUU fishing.

The broad language used in the IPOA-IUU makes it a useful point of reference for what the international community believes are IUU fishing activities at large. But it makes it difficult to use as the basis for a subsidy discipline. Identifying actual IUU activity for the purpose of subsidy disciplines will require more specific provisions. IUU activity within national EEZs and by vessels under a national flag could be identified under domestic laws and regulations on IUU. These national laws and regulations will also better reflect each state's circumstances and fisheries situations. In the case of international fishing, using RFMO IUU vessel listings could be a useful option.

Identifying the IUU Activities Which Could Be Subject to a Subsidy Discipline

In the submissions to the Rules Negotiating Group, IUU vessel lists, whether national or from regional fisheries management organisations, and national legislation have been proposed as a way forward for identifying the vessels or operators to which a possible subsidies discipline might apply. Most discussion in the RNG has focused on the idea of using RFMOs' lists of IUU vessels and how members could recognise the lists for the purpose of a subsidy discipline, while also safeguarding their interests by ensuring the lists are constructed with due process and by not inadvertently committing members to obligations under RFMOs to which they are not party. The following will briefly review RFMO IUU vessel listing practices and how they are established and used, and discuss how transparent these lists are, to what extent due process is used, and how members could recognise them for the purposes of a subsidy discipline while safeguarding their broader interests. Next, the section will discuss how identification of IUU activity under national legislation could be used to trigger a subsidy prohibition.

Regional fisheries management organisation lists

Many regional fisheries management organisations have established procedures for the listing of IUU vessels in addition to listings of authorised vessels (see Table 1). One FAO site provides a combined reference list of IUU vessels listed by the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR), Inter-American Tropical Tuna Commission (IATTC), International Commission for the Conservation of Atlantic Tunas (ICCAT), Indian Ocean Tuna Commission (IOTC), Northwest Atlantic Fisheries Organisation (NAFO), North East Atlantic Fisheries Commission (NEAFC), South East Atlantic Fisheries Organisation (SEAFO), Western and Central Pacific Fisheries

Commission (WCPFC) and South Pacific Regional Fisheries Management Organisation (SPRFMO) (FAO 2017b). In addition, the General Fisheries Commission for the Mediterranean (GFCM) has an IUU vessel lists. One organisation, the Commission for the Conservation of Southern Bluefin Tuna (CCSBT), operates a "positive list" of vessels allowed to fish in the convention area, although recently the CCSBT has also established an IUU vessel list procedure. Generally, the listings provide information on vessel activities, sightings of IUU activity, call name, flag state, and in some cases ownership. From the perspective of a possible subsidies discipline, two questions emerge, that is, how these lists are compiled, and if due process (e.g., transparency, clear rules, the ability for flag states of listed vessels to be heard) is applied in the listing and de-listing of vessels. Based on information from the RFMOs, a summary of their IUU vessel listing procedures is provided in the Annex.

Table 1: RFMOs and their published vessel lists

RFMO	Main species covered	Coverage of vessel lists
CCAMLR	Toothfish, icefish, krill	Contracting and non-contracting party IUU vessels and list of authorised vessels
CCSBT	Tuna	Contracting and non-contracting party IUU vessels and list of authorised vessels
IATTC	Tuna	Non-contracting party IUU vessels and list of authorised vessels
ICCAT	Tuna	Non-contracting party IUU vessels and authorised vessels
IOTC	Tuna	Non-contracting party IUU vessels and list of authorised vessels
NAFO	Cod, haddock, redfish, hake, flounders	Non-contracting party IUU vessels
NEAFC	Redfish, mackerel, haddock, herring, blue whiting	Non-contracting party IUU vessels Also uses vessel lists of CCAMLR, NAFO, SEAFO
SEAFO	Orange roughy, alfonsino, toothfish, boarfish	Non-contracting party IUU vessels and list of authorised vessels Also uses IUU vessel lists of CCAMLR, NAFO, NEAFC
WCPFC	Tuna	Contracting and non-contracting party IUU vessels and list of authorised vessels
SPRFMO	Orange roughy, oreos, alfonsino, bluenose, jack mackerel	Non-contracting party IUU vessels and list of authorised vessels
GFCM	A broad range of species	Contracting and non-contracting party IUU vessels and list of authorised vessels

Source: Author's elaboration based on RFMO procedures summarised in Annex.

In reviewing the information on the procedures for the listing and de-listing of IUU vessels of the RFMOs mentioned, several features are evident:

- To be listed, at least on a provisional list, it mostly suffices to have been sighted as being engaged in IUU activities in the RFMO's jurisdiction. Sighting may be by vessels of contracting parties or cooperating non-contracting parties.
- The RFMOs, following sighting, have an established procedure for the further investigation or discussion of the submitted sighting and its associated information. This procedure usually involves an opportunity for comments by contracting members and the flag state of the vessel assumed to have been engaged in IUU activities.

- The listing of a vessel as definitely engaged in IUU activities is commonly subject to RFMO Commission decision.
- Most of the RFMOs have subsequent procedures for informing flag states of their vessels being listed as engaged in IUU activities and a request to submit information on the vessel in question.
- Subsequent action to be taken by contracting states following IUU listing may involve refusal of port calls, refusal of transshipment, losing licences to fish in the RFMO area, etc.
- De-listing is possible subject to decision by RFMO Commission and on the presentation of information by the flag state related to changes in the behaviour of the listed vessel. This may include condemnation and penalties, change of vessel ownership or change of flag status.
- Listing and de-listing can usually take place only once a year in connection with annual meetings of Commissions.
- One RFMO (CCAMLR) operates with two IUU listings, that is, of vessels of non-contracting parties and vessels of contracting parties to CCAMLR. In some cases (WCPFC, CCSBT, GFCM), the IUU listing may contain vessels from contracting as well as non-contracting parties. Information from other RFMOs seems to imply that all listed IUU vessels are from non-contracting parties.

A recurrent observation of the IUU vessel lists and listing procedures reviewed is the absence of vessels flagged to the contracting parties, suggesting that IUU activities are only carried out by vessels from non-contracting parties. As the decision on listing a vessel is usually taken by unanimity of the contracting parties to an RFMO, it raises questions about the listing of contracting parties' own vessels. However, it should be noted that in some RFMOs a separate compliance procedure may be in place for vessels of contracting parties and hence infractions by contracting parties' vessels may be dealt with through internal procedures outside the public domain. In at least four cases (CCSBT, CCAMLR, WCPFC and GFCM), the IUU listing procedures explicitly cover vessels of both non-contracting and contracting parties. A particular challenge related to vessel lists is the ease of reflagging vessels and changing their name, in particular where flags of convenience registers are concerned, so that a vessel may be removed from an IUU list while still being engaged in such activities.

It appears that for the RFMOs reviewed, procedures with at least some degree of due process have been developed, including procedures for information sharing with the flag state of the IUU vessel, strict timetables, and transparency in allowing affected parties to engage in the decision to place vessels on an IUU list. Moreover, the processes and procedures are publicly available and the procedures and consequences of being listed are transparent and available through RFMO websites. It is still the case, however, that the operations of an RFMO are determined by its members, and a lack of political commitment by some members may render decisions incompatible with sound management, a situation which may undermine an RFMO's performance. Meanwhile, over the past several years, the FAO has undertaken performance reviews of regional fisheries bodies in order to improve their overall performance. These performance reviews have included recommendations regarding RFMOs' processes and procedures related to IUU activities. For example, in reviewing the performance of CCAMLR an FAO report (2012, 13) suggests "... to ensure not only the seamless and timely updating of IUU vessel lists, but also that such information is then circulated as widely as

possible." Regional fisheries bodies also meet on a regular basis to exchange views and ideas for best practice.

The due process elements described could make it more palatable for WTO members to recognise RMFO IUU vessel lists for the purpose of identifying the vessels to which the subsidy discipline would apply. In the context of a similar discipline in the Trans-Pacific Partnership Agreement (USTR 2015), the parties added language ensuring that the identification of vessels is done according to the RFMOs' own rules, and in accordance with international law (see Box 2).

For non-contracting parties to RFMOs, recognition of their IUU lists for the purpose of a subsidy discipline need not imply recognising all other elements and regulations of that RFMO. WTO members could include safeguard language in the agreement to make this clear. Article 4.2 of the PSMA (FAO 2010) provides an example of how this could be done (see Box 2).

Box 2: The Trans-Pacific Partnership Agreement and Port State Measures Agreement

The Trans-Pacific Partnership Agreement's Article 20.16.5 dealing with fisheries subsidies calls on parties not to grant "subsidies provided to any fishing vessel while listed by the flag State or a relevant Regional Fisheries Management Organisation or Arrangement for IUU fishing in accordance with the rules and procedures of that organisation or arrangement and in conformity with international law."

The Port State Measures Agreement's Article 4.2 states: "In applying this Agreement, a Party does not thereby become bound by measures or decision of, or recognise, any regional fisheries management organisation of which it is not a member."

Source: United States Trade Representative (2015) and FAO (2010)

National IUU identification

IUU activities could, under the proposals on the table, be identified pursuant to national laws, either in the form of national lists of IUU vessels, or as an integral part of national fisheries management regulations.

National IUU lists

The FAO Port State Measures Agreement Database lists the European Union, Norway, Costa Rica and the United States as having national IUU vessel lists. The most comprehensive descriptions are provided by the European Union, Norway and the United States, as follows.

European Union (European Commission 2013)

The European Commission has a list of vessels that cannot land or sell their fish in the EU as they have been identified as taking part in illegal, unreported and unregulated fishing. The list comprises vessels

included in the IUU lists adopted by regional fisheries management organisations. RFMOs have their own procedures—described earlier—to identify vessels which do not comply with their rules and are therefore fishing illegally. The RFMOs communicate their lists to the European Commission, at which point the EU list is updated.

Norway (Norwegian Directorate of Fisheries 2017)

Under the Norwegian process, vessels will be listed if the vessel has been:

- Taking part in fishing outside quota arrangements in international waters for a stock that is subject to regulations in waters under Norwegian fisheries jurisdiction (i.e. "straddling stocks").
- Listed on the IUU lists of international fisheries organisations. The Norwegian Black List also contains vessels observed in IUU activities in the regulatory areas of these organisations before they established IUU lists.

The consequences of being listed/de-listed include:

- Refusal of a licence to fish/transship in the Norwegian Economic Zone and the Fishery Zone around Jan Mayen.
- Refusal of being registered as a fishing vessel under the Norwegian flag.
- There is no opening for de-listing. A denial of licence based on appearance on the list will consequently be perpetual.

United States (NOAA 2017)

The United States has measures in place to restrict port entry and access to port services to vessels included on the IUU lists of international fisheries organisations of which the United States is a member.

Identifying IUU activity under national legislation

A discipline to prohibit subsidies in support of IUU activities needs, as a point of departure, to be implemented in the national legislation of all WTO members as subsidising governments. For example, a text could be added to domestic fisheries management or other regulations which requires the prohibition of subsidies to vessels (and perhaps their operators and owners) if they are found to have engaged in IUU activities. At the level of an international agreement, a broad obligation could be analogous to that used in the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), which in its Article 41 obliges WTO members to have domestic procedures in place to enforce intellectual property rights (WTO n.d.). In the IUU case, such an option could be formulated as "WTO Members shall ensure that procedures are available under their law so as to ensure subsidies are not provided to vessels, their owners or operators when these are identified as having been involved in IUU activities." A broad obligation like this, and equally wide provision in domestic implementing legislation, would require WTO members not to provide, or to stop providing, subsidies to any recipients identified in any way as having engaged in IUU fishing.

However, when it comes to the prohibition of particular subsidies, WTO members appear to be looking for the triggers to be more precisely defined. The proposals tabled thus far in the RNG variously suggest that the prohibition could be triggered by IUU activity identified under WTO members' national laws in their capacities as flag states (i.e. for offences by vessels flying the member's flag), as coastal states (i.e. for offences related to foreign flagged vessels within waters under their jurisdiction), or in national IUU lists of a subsidising member.

Relying on national legislation for the identification of IUU activities would provide useful flexibility, in that what was identified as IUU activity would correspond to local/national circumstances. This could, however, mean different application across members. For example, what is considered illegal activity in one jurisdiction (and trigger the subsidy prohibition) might be allowed (and not trigger the prohibition) in another. A case in point may be discards: some members allow discards, while others consider that unwanted catch must be landed.

It is unclear how much IUU activity would be identified publicly under national procedures. Few WTO members have national IUU vessel lists and many countries do not use name-and-shame tactics for their own vessels, that is, governments may be reluctant to make public lists of vessels under their flag that have been involved in IUU fishing. Some governments may only publicly acknowledge identifications of foreign-flagged vessels operating illegally within their EEZ. Hence, identification of IUU activity in a member's capacity as a coastal state may be an important triggering mechanism.

However, governments' internal decision-making processes could still trigger the obligation to stop subsidies. Where a government identifies an IUU activity by a vessel flying its own flag (or a foreign flag) to which it provides subsidies, it would then, pursuant to its domestic implementing legislation, be required to ensure subsidies to the vessel (and potentially to operators and owners) are stopped. Where a government identifies a foreign-flagged vessel engaged in IUU-related activities, it could notify the flag state bilaterally, if the fishing is within the identifying government's EEZ, or by using notification procedures established by the PSMA or RFMO. In each case the flag state and, ideally, the state of the beneficial owner of the IUU vessel could be notified. This could trigger the subsidies prohibition.

The Port State Measures Agreement

A further potential way to identify vessels engaged in illegal activity could be through the Port State Measures Agreement. The PSMA (FAO 2010), which entered into force in 2016, is an FAO agreement which, inter alia, seeks to block fishing vessels and their catch from entering port and hence unloading fish into the marketplace if the fish have been caught illegally, unreported or unregulated. Because of the lack of effective control by flag states to ensure sustainable fisheries practices by their vessels, growing importance has been given to port state measures and control.

The PSMA offers port states the possibility of inspecting vessels in port and applies primarily to vessels not flying the flag of the port state. To ease surveillance and inspection burdens, countries may limit the points of landings to certain designated ports, which foreign vessels are obliged to use. When entering ports, the foreign-flagged vessel must comply with a range of measures which could include prior notification before entering port, restrictions on port entry and unloading of fish, restrictions on supplies and services, documentation requirement, and inspection, as well as measures related to IUU vessel listings, including trade measures and sanctions.

The PSMA also introduces a formal exchange of information on IUU incidents among parties to the PSMA and international organisations. Furthermore, when a vessel is denied access to port, information related to the incident must be communicated publicly, including to the authorities of the flag state, which subsequently must take action.

At present the PSMA is still work in progress as national legal frameworks need to be developed and implemented. For the PSMA to be effective, parties need to develop implementation strategies, legal and institutional frameworks and more general operational mechanisms which are sufficiently resourced. This will require a major effort by signatory countries and, to help implementation, it is foreseen that assistance will be given to developing countries. Nevertheless, once fully implemented, the PSMA will offer an important additional source of information on IUU fishing activities. In addition to on-site help with implementation, the FAO Database on Port State Measures (FAO 2017a) is designed to contribute to national capacity-building.

Applying a Prohibition of Subsidies to IUU Fishing: Some Practical Considerations

While the nature of IUU activities taken broadly is often obscure and with little documentation, it is likely that the nature of subsidies to IUU activities is as well. In fact, as an illicit activity IUU fishing belongs to the darkest side of life. For the cases that do come to the surface, observers suggest that the activity is complex and often combined with many other illegal undertakings, including drugs, money laundering, tax evasion and people smuggling, at least in international IUU activities (see, e.g., Leroy and Akam 2016).

The international, high-profile IUU activities take place in a complicated web of organisations. Fishing vessels may be tied together as fleets of a company, only to appear as having a beneficial ownership far away. Many of the high-profile vessels engaged in IUU activities are flagged to countries with neither an interest in effectively stopping their activity, nor the means to do so. Such vessels may not directly receive subsidies (perhaps with the exception of fuel tax exemptions), but the companies owning or operating these vessels may. Hence the importance of being able to establish a link between vessel and owner. This section will briefly review issues related to who and which subsidies to target in a potential discipline and highlight the importance of also considering national fisheries management legislation in framing a fisheries subsidies discipline.

Targeting vessels or owners

It is worth observing that "vessels" are not persons; they are operated, steered and managed by a person behind the vessel, whether captain, fishing master, vessel owner, or operating or management company. Targeting a vessel in subsidy disciplines might tend to omit the possibility that the vessel is part of a larger group of vessels and/or associated fishing activities (e.g., sales, marketing, trade). To compensate for this gap, most RFMO IUU lists seek to include information on flag state, operators, ownership and beneficial owners. In many cases this is challenging; in fact, to get through the chain from vessels to beneficial ownership may require investigating powers which RFMOs, or for that matter national fisheries control and inspection agencies, may not have. This has been one of the

reasons for recently also involving Interpol⁶ and national tax authorities (see Leroy and Akam 2016). The information generated in this way could gradually make it easier to identify operators and owners of vessels engaged in IUU fishing.

At the level of implementing regulations, one option to address this challenge may be to include in national fisheries management legislation a broad provision to the effect that "If vessels, their owners or their management companies receiving subsidies from the state are suspected of engaging in IUU activities, whether in domestic or foreign EEZs or on the high seas, subsidies will be promptly suspended pending further investigation. A domestic due diligence process assessing involvement in IUU activities shall be established." However, even then it would require a more coherent approach across national authorities to ensure that the investigative powers are available.

Targeting all subsidies or only those related to IUU activity

It is not clear under the submissions to the RNG whether only subsidies linked to a vessel's (or operator's) IUU activity would be subject to a discipline. Companies may disguise individual vessel accounts when subsidies are taken up by the company at large, and as alluded to earlier, engagement in an IUU fishing activity also carries the possibility that the people behind it might be involved in other illegal activities like tax fraud and money laundering. This suggests that a broader target could be considered. In fact, it would be useful that once a vessel's IUU activity has been identified, the owner and the owner's interest in the company of the vessel and other companies could be subject to a more in-depth investigation over and above the single IUU incident. Clearly, this might not be a way forward for smaller artisanal fishing undertakings, but might pay off handsomely for larger fishing enterprises.

Further, it is questionable whether it is possible to link a particular subsidy to an instance of IUU activity. Subsidies to fisheries tend to come from generic programmes (e.g., vessel construction, vessel decommissioning, technical improvements of vessels and gear, fuel subsidies) covering vessels that may or may not go on to engage in illegal activities. Accordingly, the question of which subsidies to target is not straightforward and may include both subsidies provided ex ante (e.g., vessel construction or gear investments) and ex post (e.g., fuel exemptions, tax-related investment provisions and tax depreciation rules).

In principle, then, as there is an organisation behind any IUU activity, it would seem most appropriate that all subsidies to that organisation, taken broadly, be prohibited once illegal activity is identified. This could create a strong incentive for companies receiving subsidies to ensure that vessels linked to them operate legally. Implementing such a discipline would, however, require a degree of investigative work to establish the ownership structure behind vessels caught fishing illegally.

6 Interpol has since 2013 been involved in addressing IUU fishing. Interpol supports members in identifying and deterring international fisheries crime, which in addition to direct IUU fishing activities may involve document fraud, corruption, tax avoidance, money laundering, drugs and human trafficking. See Interpol 2017.

Dealing with foreign-flagged vessels fishing illegally in an EEZ

Commonly, when a foreign-flagged vessel has been identified as engaging in IUU fishing within an EEZ, the fisheries authorities will notify the vessel, the country of the vessel's flag, and if known, the vessel owner. This will be through direct channels, for example, between fisheries enforcement authorities, and/or through diplomatic channels. A particular challenge is vessels flying flags of convenience, as countries providing those flags will often not have the necessary administrative set-up to deal with infractions, and may not even recognise the infraction according to their domestic laws and practices.

The Port State Measures Agreement in its Article 15 on transmittal of inspection results provides that a port state shall inform flag states, including the state of which the vessel's master is a national, of the outcome of its inspection. The same information is to be transmitted to relevant RFMOs, the FAO and other relevant international organisations. Identification of vessels fishing illegally under RFMO procedures usually, as outlined, involves notification of the flag state of the vessel.

Under a subsidies agreement, it would seem appropriate that the WTO also be informed about findings from all of these sources so that appropriate discussions can take place. Some submissions propose that discussions of subsidy notifications in the WTO Committee on Subsidies and Countervailing Measures "shall be informed by a summary from the Secretariat of Members' notification complemented by relevant information provided by Members to the WTO Secretariat and information from other international organisations." This summary might usefully include information related to actions taken by members in relation to IUU vessels flying the flag of other countries, including vessels found fishing illegally within a member's EEZ.

However, while the vessel's flag state may be responsible for its illegal activity, the vessel and its owners and operators may receive subsidies from a third country. This further link is another reason why it would seem most useful that the SCM Committee be informed about IUU activities so that an informed discussion can take place. Such a discussion would encourage vessels' flag states and members providing subsidies to take appropriate action. The inclusion of the SCM Committee as an additional measure in the fight against IUU fishing activities, irrespective of the challenge related to flags of convenience, is useful international recognition that IUU fishing is being taken seriously.

Regulatory options

To make the discipline effective, it will be important to involve national fisheries management authorities and other authorities with a role in the fisheries sector. This implies that the trade negotiators need to establish a collaborative effort with counterparts in the various ministries and/or departments dealing with fisheries, directly or indirectly as for example some subsidies may be administered by departments not directly involved with fisheries management. The latter, for example, would be the case in most countries offering fuel subsidies where these payments (or rebates) are administered by customs or tax officials.

National fisheries management and fisheries surveillance and enforcement are in some cases separated into different institutional set-ups. For example, a department of fisheries may deal with

fisheries management policy settings, establishing rules for fishing activities, while surveillance is "outsourced" to navy and air force, or the police. Such diverse organisational and administrative set-ups make it challenging for some countries to ensure a coherent set of signals on management, surveillance and enforcement, and subsidies.

In the meantime, national fisheries management and subsidies regulations would need to be updated to be able to cut off the provision of subsidies to identified IUU offenders. In addition to the implementation options already outlined, a further rule might usefully be included specifically in domestic fisheries regulations. This would be to the effect that should a vessel not comply with the rules and not provide the fisheries management authorities with the relevant information in a timely manner (e.g., logbook information, catch and landings data, areas of fishing), then the authorities can stop subsidies payments. However, this would only apply to subsidies to be paid in the future.

Implementation challenges

While all members recognise the importance of addressing IUU fishing, including barring subsidies to activities which support it, as called for by Sustainable Development Goal target 14.6, the implementation of a WTO subsidies discipline may be challenging for some members. One concern is that in some cases the fisheries management or enforcement system is not "strong" enough to capture all IUU activities. The lack of sufficient resources and/or fisheries management implementation capacity might then result in difficulties in complying with the disciplines, particularly with respect to the unreported and unregulated elements of IUU. Clearly, as part of a WTO discipline, capacity-building would be needed, in particular for least developed countries, and a role for the FAO in supporting the implementation of a fisheries subsidies discipline would be important.

One option might be to design the discipline in such a way that it integrates assistance and underlines the fact that national definitions of IUU are used for national infractions. While the deadline of 2020 for the elimination of subsidies to IUU, as called for in the SDG, is not far away, it could provide the benchmark of a transitional period of three years during which members can work on ensuring that the discipline is given effect. While that period is not long, it does provide a window of opportunity to work on improving fisheries management and enforcement rules and procedures. Finally, should there still be outstanding concerns, one option might be to consider a time-limited provision under which the WTO dispute settlement system would provide special consideration to the situation of developing countries.

The international community at large signed up to the Sustainable Development Goals for a reason and with a view to undertaking action for our common prosperity. IUU fishing has been singled out because the same international community has experienced difficulties in eliminating these activities for too long. Hence, rather than postponing action, the time has come to ensure the effectiveness of the measures designed to deal with these activities. A WTO subsidies discipline is a welcome addition to the toolbox, in particular when set against the backdrop of domestic legislation.

Conclusion

The previous sections have highlighted some of the key challenges and options in designing disciplines on subsidies related to IUU activities. A WTO subsidies discipline could be a welcome addition to the existing rules and regulations developed over the past decades to eliminate illegal, unreported and unregulated fishing activities. The first challenge is in defining the scope of new disciplines. The IPOA-IUU description of IUU could be a useful point of reference in establishing the scope of the disciplines. The range of activities it covers is very broad, however, including some activity that is not per se blameworthy. Meanwhile, illegal activities are in practice defined by the rules of the jurisdiction where the fishing activity is taking place, that is, primarily by national legislation.

Identification of IUU fishing activities for the purpose of subsidy disciplines would need to be done both nationally and internationally to be effective, as the existing rules and the variety of situations warrant different approaches vis-à-vis domestic and international IUU fishing activities.

National IUU legislation exists in most countries as required by the Code of Conduct for Responsible Fisheries, the IPOA-IUU, and the Port State Measures Agreement. National legislation tends to reflect the particularities of the national fisheries sector and fisheries practices, so what activity is illegal (and subject to subsidy discipline once it is identified) will vary from member to member. As suggested earlier, a text analogous to the TRIPS agreement by which WTO members are obliged to include in relevant national laws a prohibition on subsidies to IUU activities could be an option. Even if identifications of IUU activity by domestically-flagged vessels are not publicised, national implementing legislation could require that subsidies to these vessels are stopped. Where foreign-flagged vessels are identified as engaged in IUU fishing within a national jurisdiction, procedures exist for notifying the flag state of the vessel, but the WTO's SCM Committee could concurrently also be notified. The SCM Committee could prove a valuable forum for encouraging non-compliant flag states which are members of the WTO to be more vigilant in addressing the IUU problem, and likewise encourage WTO members to implement their obligations under a new agreement not to subsidise these activities.

Insofar as international IUU activities are concerned, the RFMO vessel listings could be a useful option for identifying the activities to which the subsidies prohibition would apply. A third way of identifying IUU activities could be to draw on the information generated through the implementation of the PSMA. This information, along with international RFMO vessel listings, when these also contain information on flag state and (beneficial) owner, could be discussed in the SCM Committee to encourage offending companies and subsidising and flag states to address IUU fishing activities.

The application of disciplines on subsidies to IUU activities is likely to be primarily of an ex post character. Vessels may have been constructed with subsidies prior to such vessels engaging in IUU activities, a past event which it may be difficult to undo. However, domestic legislation requiring that subsidies not be provided to vessels and potentially also to operators or owners of vessels once IUU activity is discovered could have an impact on future subsidies,

in particular to further operational subsidies (e.g., fuel tax rebates, interest rebates, subsidies to buying bait or ice). In addition, once vessels, their owners and operating companies have been involved in IUU activities and no longer receive subsidies, it could prove useful to continue monitoring these vessels, owners and operators for any future illegal activity. The extent of such surveillance is clearly to be assessed on a case-by-case basis. Similar procedures exist for tax avoidance: once caught by the national tax system, offenders are usually subject to tax surveillance for years to come.

As noted by the OECD, illegal, unreported and unregulated fishing activities exist because they pay off. Reducing or eliminating such activities requires higher penalties and/or an increase in the chance of being caught through surveillance and enforcement. Eliminating subsidies that contribute to IUU activities, having enforceable WTO rules, and using a well-established forum for informed discussions among flag, coastal and subsidising states could prove very useful. This would be a novel addition to the toolkit of international and national laws and regulations addressing IUU activities. Above all, it would provide a forum for an open and frank discussion among WTO members concerned about the link between subsidies and illegal fishing activities.

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Annex: RFMO Vessel Listing Procedures

The following summaries are abridged extracts of the relevant vessel listing procedures for each RFMO, as set out on websites and legal instruments. Full texts are available on the websites as cited in the Annex headings and listed in the references.

Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR 2013)

CCAMLR has adopted conservation measures to specifically address the threat of IUU fishing. Members that detect possible or known IUU vessels in the Convention Area, through direct observation by their own vessels or during surveillance activities, are required to provide the details of these sightings to CCAMLR. The Flag States of the sighted vessels are notified and encouraged to investigate the activities of such vessels and to advise CCAMLR of steps taken to investigate and eliminate IUU activity in the Convention Area. CCAMLR annually reviews available information, including Member sighting reports, on IUU fishing activities and has established the Contracting Party IUU Vessel List and the Non-Contracting Party IUU Vessel List. These lists are made available to the Members, non-Contracting Parties, other inter-governmental organisations, non-governmental organisations and the public and are updated regularly as new information is provided by Members and non-Contracting Parties. Vessels included on the Contracting Party IUU Vessel List or the Non-Contracting Party IUU Vessel List are deemed by the Commission to have engaged in IUU activities that undermine the effectiveness of CCAMLR conservation measures and threaten toothfish stocks, marine habitats and by-catch species in the Convention Area. The CCAMLR Standing Committee on Implementation and Compliance will consider the list of contracting parties' vessels and provides recommendation for action to the Commission.

Inter-American Tropical Tuna Commission (IATTC 2005)

This list of vessels presumed to have carried out illegal, unreported, and unregulated fishing activities in the eastern Pacific Ocean has been established and adopted by the Commission in compliance with its 2005 Resolution on IUU fishing.

Vessels fishing for species covered by the IATTC Convention are presumed to have carried out IUU fishing activities in the eastern Pacific Ocean (EPO), inter alia, when an IATTC Party, cooperating non-Party, fishing entity or regional economic integration organization (collectively "CPCs") presents evidence that such vessels have engaged in a number of possible infractions. On the basis of the information received, the Director shall draw up a draft IATTC IUU Vessel List and shall transmit it, together with all the supporting evidence provided, to all CPCs, as well as to non-parties with vessels on the List, before 1 March of each year. CPCs and non-parties shall, before 15 April, transmit their comments to the Director, as appropriate, including evidence showing that the vessels neither have fished in contravention of IATTC conservation and management measures nor had the possibility of fishing for species covered by the IATTC Convention in the EPO. Upon receipt of the draft IATTC IUU Vessel List, CPCs shall closely monitor the vessels included in the draft List to determine their activities and possible changes of name, flag and/or

registered owner. On this basis, the Director shall draw up a provisional IATTC IUU Vessel List, and transmit it, two weeks in advance of the Annual Meeting of the Commission, to the CPCs and the non-parties concerned, together with all the evidence provided. CPCs may at any time submit to the Director any additional information which might be relevant for the establishment of the IATTC IUU Vessel List. The Director shall circulate the information, together with all the evidence provided, to the CPCs and to the non-parties concerned, at least two weeks before the Annual Meeting of the Commission. The IATTC-AIDCP Joint Working Group on Fishing by Non-Parties (Joint Working Group) shall each year examine the provisional IATTC IUU Vessel List, as well as the information provided. The results of this examination may, if necessary, be referred to the Permanent Working Group on Compliance. The Joint Working Group shall remove a vessel from the provisional IATTC IUU Vessel List if the vessel's flag State demonstrates that:

- a. The vessel did not engage in any of the IUU fishing activities described above or
- b. Effective action has been taken in response to the IUU fishing activities in question, including, inter alia, prosecution, and imposition of sanctions of adequate severity.

International Commission for the Conservation of Atlantic Tunas (ICCAT 2017)

Recommendation (11-18) specifies that the fishing vessels flying the flag of a non-Contracting Party, or a Cooperating non-Contracting Party, Entity or Fishing Entity, or a Contracting Party are presumed to have carried out illegal, unreported and unregulated fishing activities in the ICCAT Convention area, inter alia, when a Contracting Party or a Cooperating non-Contracting Party, Entity or Fishing Entity (CPC) presents evidence that such vessels have engaged in specific fishing activities.

Based on information received the Executive Secretary shall draw up a Draft IUU List. The Secretary shall transmit it together with the current IUU List as well as all the evidence provided to CPCs, and to non-Contracting Parties whose vessels are included on these lists before at least 90 days before the annual meeting. CPCs and non-Contracting Parties, shall transmit their comments, as appropriate, including evidence showing that the listed vessels have neither fished in contravention to ICCAT conservation and management measures nor had the possibility of fishing tuna and tuna-like species in the Convention area, at least 30 days before the annual meeting of ICCAT. The Commission shall request the flag State to notify the owner of the vessels of its inclusion in the Draft IUU List and of the consequences that may result from their inclusion being confirmed in the IUU list adopted by the Commission.

On this basis the Executive Secretary shall draw up a Provisional List which he will transmit two weeks in advance to the Commission meeting to the CPCs and to the non-Contracting Parties concerned, together with all the evidence provided.

The Permanent Working Group for the Improvement of ICCAT Statistics and Conservation Measures (PWG n.d.) shall examine, each year, the Provisional List. The results of this examination may, if necessary, be referred to the Conservation and Management Measures Compliance Committee. The PWG shall remove a vessel from the Provisional List if the flag State demonstrates that: the vessel did not take part in any IUU fishing activities, or if effective action has been taken in response to the IUU fishing activities in question, including, inter alia, prosecution and imposition of sanctions of

adequate severity. Following the examination at each ICCAT annual meeting, the PWG shall adopt a Provisional IUU Vessel List following consideration of the Draft IUU List. The Provisional IUU Vessel List shall be submitted to the Commission for approval.

A non-Contracting Party whose vessel appears on the IUU List may request the removal of this vessel from the list during the inter-sessional period by providing the following information:

- It has adopted measures so that this vessel conforms with ICCAT conservation measures,
- It is and will continue to assume effectively its responsibilities with respect to this vessel in particular as regards the monitoring and control of the fishing activities executed by this vessel in the ICCAT Convention area,
- It has taken effective action in response to the IUU fishing activities in question including prosecution and imposition of sanctions of adequate severity; and/or
- the vessel has changed ownership and that the new owner can establish the previous owner no longer has any legal, financial or real interests in the vessel or exercises control over it and that the new owner has not participated in IUU fishing.

Indian Ocean Tuna Commission (IOTC 2017)

IOTC Members and Cooperating non-Contracting Parties (CPC) (Resolution 11/03) shall transmit every year to the Secretary at least 70 days before the Annual Meeting, a list of the vessels presumed to have been carrying out Illegal, Unreported and Unregulated (IUU) fishing activities in the IOTC area of competence during the current and previous year, accompanied by evidence supporting the presumption of IUU fishing activity. CPCs and non-Contracting Parties may at any time submit to the Secretary any additional information, which might be relevant to the establishment of the IUU Vessels List. The Secretariat shall circulate the information before the annual meeting to CPCs concerned, together with all the evidence provided. CPCs and non-Contracting Parties to transmit any comments to the Secretary at least 30 days before the next Commission Meeting.

No further information readily available.

Northwest Atlantic Fisheries Organization (NAFO 2017a; 2017b)

A non-Contracting Party (NCP) vessel is presumed to have engaged in IUU fishing, if it has been: (a) sighted or identified by other means as engaged in fishing activities in the Regulatory Area; (b) involved in transshipment with another NCP vessel sighted or identified as engaged in fishing activities inside or outside the Regulatory Area; and/or (c) included in the IUU list of the North East Atlantic Fisheries Commission (NEAFC).

The Executive Secretary: (a) establishes and maintains a list of NCP vessels presumed to have engaged in IUU fishing in the Regulatory Area referred to as the Provisional IUU Vessel List; (b) upon receipt, records if available, the name of the vessel, its flag State, call sign and registration number, and any other identifying features, in the Provisional IUU Vessel List; (c) posts the

Provisional IUU Vessel List and all updates to the secure part of the NAFO website; and (d) advises the flag State of the NCP vessel listing.

The Standing Committee on International Control (STACTIC) may advise that the Fisheries Commission recommend that General Council delete a vessel from the IUU Vessel List where it is satisfied that the flag State of a vessel concerned has provided sufficient evidence to establish that: (a) it has taken effective action to address the IUU fishing of such vessel, including prosecution and imposition of sanctions of adequate severity; (b) it has taken measures to prevent such vessel from engaging in further IUU fishing under its flag; (c) such vessel has changed ownership, and (i) the previous owner no longer has any legal, financial or real interest in such vessel, or exercises no control over it; or (ii) the new owner has no legal, financial or real interest in, nor exercises control over, another vessel listed in the IUU Vessel List or any similar IUU list maintained by an RFMO, and has not otherwise been engaged in IUU activities; (d) such vessel did not take part in IUU fishing; or, (e) such vessel has sunk, been scrapped, or been permanently reassigned for purposes other than fishing activities.

The Fisheries Commission may recommend to the General Council any changes to listings in the IUU Vessel List. The General Council determines the final composition of the IUU Vessel List.

North East Atlantic Fisheries Commission (NEAFC 2011)

When Non-Contracting Party fishing vessels are sighted or by other means identified as engaging in IUU fishing activities in the Convention Area, they are immediately put on the A-List (provisional list). A vessel on the A-List entering a port will not be authorised to land or tranship and will be thoroughly inspected. The vessel will not have access to services such as supplies of any provisions or fuel. Assistance from Contracting Parties' vessels (fishing vessels, refuelling vessels) is prohibited, as is transhipment and joint fishing operation.

The Secretary requests explanations and information from the Flag State. If these are not satisfactory, the vessel will be put on the confirmed B-List. The Flag State of the vessel must justify the action of the vessel in the Regulatory Area. The Secretary submits this information during the meeting of the Permanent Committee of Control and Enforcement (PECCOE), which generally takes place twice a year in April and in October. The PECCOE meeting decides whether the justification is acceptable or not. The Secretary publishes both lists on the NEAFC website.

A vessel on the B-List will not be authorised:

- To enter into port
- To fish in waters under the jurisdiction of Contracting Parties (CPs).

Furthermore, CPs will not grant their flag to such vessels and they will encourage importers or transporters not to contract with those vessels and CPs will collaborate and exchange information in order to avoid falsification.

Vessels are removed from the B-List by the Commission on a case by case basis with attention given to the following criteria:

- Effective action against IUU activities (prosecutions, sanctions)
- Measures to ensure that the granting of its flag will not result in IUU activities.
- New ownership of the vessel, without any interest by the previous owner.
- No IUU activity
- Fishing of unregulated resources but the fishing must have been reported, otherwise it is still IUU.
- Fishing under a cooperation quota.

South East Atlantic Fisheries Organisation (SEAFO 2017)

At its Annual Meeting in October 2007, SEAFO Commission has adopted a Conservation Measure 08/06 to ensure that IUU fishing in the whole of Atlantic Ocean is minimised. In so doing, the Commission has adopted a measure to list IUU vessels that are in the IUU lists of Northwest Atlantic Fisheries Organisation (NAFO), Northeast Atlantic Fisheries Commission (NEAFC) and the Commission for the Conservation of Antarctic Living Marine Resources (CCAMLR). In this context, their listed IUU vessels are adopted into SEAFO IUU Vessel List.

Western and Central Pacific Fisheries Commission (WCPFC 2010)

At each annual meeting, the Commission will identify those vessels which have engaged in fishing activities for species covered by the Convention within the Convention Area in a manner which has undermined the effectiveness of the WCPF Convention and the WCPFC measures in force, and shall establish, and, as necessary, amend in subsequent years, a list of such vessels (the IUU Vessel List), in accordance with the procedures and criteria set out in this conservation measure. This identification shall be suitably documented, inter alia, on reports from Members, Cooperating Non-Members and Participating Territories (CCMs) relating to WCPFC Conservation measures in force, trade information obtained on the basis of relevant trade statistics such as Food and Agriculture Organization of the United Nations (FAO) data, statistical documents and other national or international verifiable statistics, as well as any other information obtained from port States and/or gathered from the fishing grounds that is suitably documented.

At least 70 days before the annual meeting of the Technical and Compliance Committee (TCC), CCMs shall transmit to the Executive Director their list of vessels presumed to be carrying out IUU activities in the Convention Area during the current or the previous year, accompanied by suitably documented information concerning the presumption of this IUU activity. Before or at the same time as transmitting a list of presumed IUU vessels to the Executive Director, the CCM shall notify, either directly or through the Executive Director, the relevant flag State of a vessel's inclusion on this list and provide a copy of the pertinent suitably documented information. The flag State shall promptly acknowledge receipt of the notification. If no acknowledgement is received within 10 days of the date of transmittal, the CCM shall retransmit the notification through an alternative means of communication.

The Executive Director shall draw up a draft IUU Vessel List incorporating the lists of vessels and suitably documented information received and any other suitably documented information at his disposal, and shall transmit it, together with all the supporting information provided, to all CCMs, as well as to non-CCMs with vessels on the list, at least 55 days before the TCC's annual meeting. The Executive Director shall request each CCM and non-CCM with vessels on the draft IUU Vessel List to notify the owner of the vessels of their inclusion in that list, and of the consequences of their inclusion being confirmed in the IUU Vessel List.

At its annual meeting the Commission shall review the Provisional IUU Vessel List, taking into account any new suitably documented information related to vessels on the Provisional IUU Vessel List, and any recommendations to amend the current WCPFC IUU Vessel List made and adopt a new WCPFC IUU Vessel List. To the maximum extent possible CCMs and non CCMs shall provide any new suitably documented information at least two weeks before the annual meeting of the Commission.

CCMs and non-CCMs with a vessel on the WCPFC IUU Vessel List may request the removal of the vessel from the list at any time during the intersessional period by submitting to the Executive Director suitably documented information demonstrating that: a) it has adopted measures that will seek to ensure that the vessel complies with all WCPFC measures; and b) it will be able to assume effectively flag state duties with regards to the monitoring and control of the vessel's fishing activities in the Convention Area; and c) it has taken effective action in response to the IUU fishing activities that resulted in the vessel's inclusion in the WCPFC IUU Vessel List, including prosecution or the imposition of sanctions of adequate severity; or d) the vessel has changed ownership and that the new owner can establish that the previous owner no longer has any legal, financial or real interests in the vessel or exercises control over it, and that the new owner has not participated in IUU fishing activities, or e) the case regarding the vessel or vessels that conducted IUU fishing activities has been settled to the satisfaction of the CCM that originally submitted the vessel for listing and the flag State involved.

South Pacific Regional Fisheries Management Organisation (SPRFMO 2017)

Members and Cooperating Non-Contracting Parties (CNCs) shall transmit every year to the Executive Secretary at least 120 days before the annual meeting, their list of vessels presumed to be carrying out IUU fishing activities in the Convention Area over the past two years, accompanied by suitably documented evidence concerning the presumption of IUU fishing activity. This list shall be based, inter alia, on reports by Members and CNCs relating to SPRFMO Conservation and Management Measures (CMMs) in force, trade information obtained on the basis of relevant trade statistics such as Food and Agriculture Organization of the United Nations (FAO) data, statistical documents and other national and international verifiable statistics, as well as any other information obtained from port States and/or gathered from the fishing grounds that is suitably documented. Before or at the same time as transmitting a list of presumed IUU vessels to the Executive Secretary, the Member or CNCP shall notify, either directly or through the Executive Secretary, the relevant flag State of a vessel's inclusion on this list and provide a copy of the pertinent suitably documented information. The flag State shall promptly acknowledge

receipt of the notification. On the basis of the information received or any other suitably documented information at his/her disposal, the SPRFMO Executive Secretary shall draw up a Draft IUU List. The Secretary shall transmit it together with the current IUU List, including any inter-sessional amendments, as well as all the supporting evidence provided, to Members and CNCPs whose vessels are included on these lists at least 90 days before the annual meeting.

The Compliance and Technical Committee (CTC) shall remove a vessel from the Draft IUU List if the flag State demonstrates that: a) the vessel did not take part in any IUU fishing activities or b) effective action has been taken in response to the IUU fishing activities in question, including, inter alia, prosecution and/or imposition of sanctions of adequate severity. Members and CNCPs will report any actions and measures taken to promote compliance by their flagged vessels with SPRFMO CMM.

At its annual meeting the Commission shall review the Provisional IUU List, taking into account any new suitably documented information related to vessels on the Provisional IUU list, and any recommendations to amend the current IUU list made by CTC and adopt a new IUU list. On adoption of the list, the Commission shall request Members, CNCPs and non-Members, whose vessels appear on the IUU List:

- to notify the owner of the vessel identified on the IUU List of its inclusion on the List and the consequences which result from being included on the List;
- to take all the necessary measures to eliminate these IUU fishing activities, including if necessary, the withdrawal of the registration or of the fishing licenses of these vessels, and to inform the Commission of the measures taken in this respect.

A Member, CNCP or non-Member whose vessel appears on the IUU List may request the removal of this vessel from the list during the intersessional period by providing to the Executive Secretary suitably documented information demonstrating that:

- it has adopted measures so that this vessel conforms with SPRFMO CMMs; and
- it is and will continue to assume effectively its responsibilities with respect to this vessel in particular as regards the monitoring and control of the fishing activities executed by this vessel in the SPRFMO Convention Area; and
- it has taken effective action in response to the IUU fishing activities in question including prosecution and/or imposition of sanctions of adequate severity; and/or
- the vessel has changed ownership and that the new owner can establish the previous owner no longer has any legal, financial or real interests in the vessel or exercises control over it and that the new owner has not participated in IUU fishing.

General Fisheries Commission for the Mediterranean (GFCM 2009)

The General Fisheries Commission for the Mediterranean (GFCM) considers that fishing vessels flying the flag of a non-Contracting Party, Contracting Party or Cooperating non-Contracting Party are presumed to have carried out illegal, unreported and unregulated fishing activities in the GFCM

Area, inter alia, when a Contracting Party or Cooperating non-Contracting Party presents evidence that such vessels have engaged in one or more of the following activities: a) undertake any of the following activities in contravention of GFCM conservation and management measures: i) harvest fish in the GFCM Area; ii) fail to report the catches or make false or misleading reports; iii) take or land undersized fish; iv) fish during closed fishing periods or in closed areas; v) use prohibited fishing gear; or vi) engage in fishing activities contrary to any other GFCM conservation and management measure. b) tranship or participate in joint operations such as re-supply or refuelling with vessels included in the GFCM IUU Vessel List; c) harvest fish in maritime waters under the national jurisdiction of a coastal State in the GFCM Area, without the permission of that State or in contravention of its laws and regulations; and d) being without nationality, harvest fish in the GFCM Area.

Contracting Parties and Cooperating non-Contracting Parties shall transmit every year to the Executive Secretary, at least 120 days before the annual GFCM Session, information on vessels flying the flag of a non-Contracting Party, and vessels flying the flag of a Contracting Party or Cooperating non-Contracting Party, presumed to be carrying out IUU fishing activities accompanied by evidence reported by Contracting Parties and Cooperating non-Contracting Parties supporting the presumption of IUU fishing activity. On the basis of the information received, the Executive Secretary shall draw up a Draft IUU Vessel List. The Executive Secretary shall transmit it, together with the evidence supporting the presumption of IUU fishing activity, together with the current IUU Vessel List, to Contracting Parties and Cooperating non-Contracting Parties, as well as to non-Contracting Parties whose vessels are included on either list at least 90 days before the GFCM annual Session. Contracting Parties and Cooperating non-Contracting Parties and relevant non-Contracting Party flag States may transmit their comments to the GFCM Secretariat as appropriate, including evidence showing that the listed vessels have not fished in contravention to GFCM conservation and management measures or had the possibility of fishing in the GFCM Area, at least 30 days before the annual Session. Contracting Parties and Cooperating non-Contracting Parties shall closely monitor the vessels included in the draft IUU Vessel List in order to determine their activities and possible changes of name, flag and/or registered owner. Where a vessel appears on a Draft IUU Vessel List the flag State shall notify the owner of the vessel flying its flag of its inclusion in the Draft IUU Vessel List and of the consequences that may result from being confirmed in the IUU Vessel List to be adopted by the Commission.

A flag State whose vessel appears on the IUU Vessel List may request the removal of the vessel from the list during the intersessional period by providing the following information: a) the actions or measures it has taken to ensure that the vessel complies with GFCM conservation and management measures; b) the actions or measures it has taken to effectively discharge its responsibilities with respect to the vessel, including the monitoring and control of the vessel's fishing activities in the GFCM Area; c) the actions it has taken against the vessel in response to the relevant IUU fishing activities, including the prosecution and imposition of sanctions of adequate severity, if relevant; and, as appropriate, d) the vessel has changed ownership and the new owner can establish the previous owner no longer has any legal, financial or real interests in the vessel or exercises control over it and the new owner has not participated in IUU fishing, if relevant.

Commission for the Conservation of Southern Bluefin Tuna (CCSBT 2016)

The Commission for the Conservation of Southern Bluefin Tuna (CCSBT) has recently established procedures for dealing with IUU vessels. At each annual meeting, the Extended Commission will identify those vessels which have engaged in fishing activities for Southern Bluefin Tuna (SBT) in a manner which has undermined the effectiveness of the Convention and the CCSBT measures in force. The Extended Commission shall establish, and amend as necessary in subsequent years, a list of such vessels (the CCSBT IUU Vessel List), in accordance with the procedures and criteria set out in this Resolution (or subsequent revision).

A Draft IUU Vessel List will first be drawn up by the Executive Secretary based on information received from Members/Cooperating non-Members (CNMs) and, with agreement from the Extended Commission pursuant to Rule 6(5) of the Rules of Procedure, any other suitably documented information at his/her disposal. The Compliance Committee (CC) will then adopt a Provisional IUU Vessel List based on the initial Draft IUU List and any information provided in relation to the vessels on this Draft List. The CC will also consider the current CCSBT IUU Vessel List and may make recommendations to remove vessels from it as appropriate. Finally, the Extended Commission will consider both the Provisional IUU List and any recommendations made by the CC to amend the current CCSBT IUU Vessel List, and then adopt a final CCSBT IUU Vessel List.

The fishing vessels are presumed to have carried out Southern Bluefin Tuna (SBT) IUU fishing activities, inter alia, when a member or CNM presents suitably documented evidence that such vessels: a. Harvested SBT and were not authorised by a member or CNM to fish for SBT, or; b. Did not record and/or report their SBT catches or catch-related data in accordance with CCSBT reporting requirements, or made false reports, or; c. Used prohibited or non-compliant fishing gear in a way that undermines CCSBT conservation and management measures, or; d. Transhipped with, or participated in joint operations such as re-supplying or re-fuelling vessels included in the CCSBT IUU Vessel List, or; e. Harvested SBT in the waters under the national jurisdiction of the coastal State or entity without authorisation and/or committed a serious infringement of its laws and regulations directly related to the SBT fishery, without prejudice to the sovereign rights of the coastal State or entity to take measures against such vessels, or; f. Engaged in fishing activities for SBT, including transshipping, resupplying or re-fuelling, contrary to any other CCSBT conservation and management measures.

Overfishing, Overfished Stocks, and the Current WTO Negotiations on Fisheries Subsidies

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Introduction

The decline of global fish stocks has implications for both the food security and the livelihoods of many communities around the world. A World Trade Organization (WTO) agreement on the prohibition of harmful fisheries subsidies, currently under negotiation, could make an important contribution to the sustainability of global fisheries. In the context of these negotiations, several WTO members have proposed new disciplines on subsidies related to overfishing, and on subsidies related to stocks that are already overfished. Assessing and managing fisheries is a complex scientific field, and requests for technical clarifications about terms and processes have come up in the negotiations. This note hopes to aid in the understanding of concepts and processes related to overfishing and overfished stocks, in order to support progress towards an agreement on fisheries subsidies.

Background

In 2001, at the WTO Ministerial Meeting in Doha, countries agreed to clarify and improve WTO rules applicable to fisheries subsidies.¹ While the issue of fisheries subsidies had been discussed by the WTO Trade and Environment Committee for many years and, in legal terms, their trade effects were already covered by the WTO Agreement on Subsidies and Countervailing Measures (ASCM), it was not until the issue was specifically mentioned in the Doha Ministerial that fisheries subsidies became a negotiating topic within the Negotiating Group on Rules. Notably, the resulting WTO Doha Ministerial Declaration explicitly mentioned the importance of the fishery sector for developing countries.

The original Doha mandate on fisheries subsidies was then further refined at the Hong Kong Ministerial in 2005. In Hong Kong, it was agreed that fisheries subsidies rules should be strengthened, including “through the prohibition of certain forms of fisheries subsidies that contribute to overcapacity and overfishing.” Ministers also urged countries to promptly detail future work in this area, “including the nature and extent of those disciplines, including transparency and enforceability.” In addition, the development aspect mentioned in the Doha Ministerial was further highlighted, with ministers indicating that the negotiations should take into consideration the importance of the fishery sector to development priorities, poverty reduction, and livelihood and food security concerns.² This call for specific rules on fisheries subsidies resulted from concern about the effect of such subsidies on overfishing and overcapacity—widely considered to be two of the main challenges affecting the sustainability of global fisheries resources.

The fisheries subsidies negotiations have largely focused on production from marine wild capture fishing, as distinct from production from aquaculture. In the case of aquaculture, the existing WTO rules on subsidies are already able to regulate government support measures to the sector. A farmed fish product is a national product produced in the territory of a country and thus is no different from other domestic products covered by the current rules.

For capture fishing operations in areas outside national jurisdictions, however, the fish has no specific origin before it is caught and can be considered a common good. If subsidies are provided in some countries to promote this particular fishing activity, access to the resource at sea as well as trade of

1 See Paragraph 28 of the Doha WTO Ministerial Declaration of 20 November 2001: WT/Min(01)/DEC/1.

2 See Annex D – Paragraph 9 of the Hong Kong WTO Ministerial Declaration of 18 December 2005: WT/MIN(05)/DEC.

the product can be distorted. Taking into consideration that the general pattern of trade involves developing countries supplying fish to developed countries, the distortion of access to resources caused by subsidies can particularly affect developing countries, with negative spillover effects on income generation, poverty alleviation, food security, and nutrition. In addition, unsustainable wild capture fishing can have environmental impacts that are borne by, or are of concern to, countries other than the fishing nation.

More recently, the 2015 United Nations Sustainable Development Goals (SDGs), which included a specific target on regulating fisheries subsidies (target 14.6), bolstered the push for new rules on fisheries subsidies. Complementing the WTO mandates, SDG target 14.6 sets the goal of prohibiting certain forms of fisheries subsidies linked to overfishing and overcapacity and the elimination of subsidies to Illegal, Unreported and Unregulated (IUU) fishing by 2020. It also recognises the need for special treatment for developing countries and the WTO's role in regulating this issue.

At the WTO, the proposals being discussed and the associated debate gravitate around specific issues that could be addressed in future rules on fisheries subsidies, including concepts like overfishing, overfished stocks, overcapacity, small-scale and artisanal fisheries, Regional Fisheries Management Organisations (RFMOs),³ and IUU fishing. For example, among the proposals under discussion are prohibiting subsidies to any stock that was assessed to be overfished, prohibiting just those subsidies with negative impacts on an overfished stock or even subsidies to vessels that target an overfished stock. In all cases, the operationalisation of the disciplines would require tackling the issue of determining when a stock can be considered overfished, and what to do in the case of stocks which are currently unassessed because of insufficient scientific information (ICTSD 2017).

Fisheries, including fisheries subsidies, are a complex issue. Therefore, a good understanding of the main fisheries-related concepts being discussed at the WTO could facilitate the overall process of negotiation and help lead to a final positive outcome at the current round of talks—namely, an agreement on subsidy reforms where trade, the environment, and sustainable development all win.

In this context, the present note aims to describe some of the basic concepts behind the assessment of marine fish stocks, in particular, the concepts of overfishing and of when a stock is overfished. It also provides a summary of some of the main findings of the assessment by the Food and Agriculture Organization of the United Nations (FAO) of the status of global marine fish stocks.

Assessing Fish Stocks

Overfishing and overfished stocks

Defining appropriate stock units of a species is a science of its own, involving basic knowledge of taxonomy, species biology, population dynamics, species distribution, and migratory behavior,

3 RFMOs have the legal competence to adopt binding conservation and management measures for fisheries on the high seas, covering most of the high seas area. RFMOs operate in the Atlantic, Southern, Indian and Pacific Oceans, as well as the Mediterranean. Their membership is made up of states with a fishing interest in the region. RFMOs can manage the fish stocks found in a specific area, or can focus on particular highly migratory species (i.e. tuna species) throughout a vast geographical area. Most RFMOs have the competence to agree on binding conservation and management decisions, including catch and fishing effort limits, technical measures, and monitoring, control, and surveillance measures. RFMOs usually hold annual meetings where conservation and management measures are discussed and agreed, taking into account the state of fish stocks.

among other parameters. Furthermore, a stock unit can be defined based on either a biological or a management unit, which may or may not coincide. Most commonly, a fish stock is understood to mean a discrete group of fish that share similar biological characteristics and do not mix with adjacent groups of the same species (see Box 1).

Box 1: Definition of a fish stock

A fish stock is a subset of a species (fish, crustacean, mollusk, etc.) or population inhabiting a particular geographical area and participating in the same reproductive process. A fish stock can be seen as a discrete group of animals of the same species having similar biological characteristics (growth, mortality) and little or no mixing with adjacent groups of the same species.

Source: FAO (1997)

With rare exceptions, a fishery usually has effects on more than one species and consequently on multiple stocks. For instance, a shrimp fishery in a tropical area may have one or more species of shrimp as target species because of their high commercial values, but may also unintentionally catch dozens of other commercial or non-commercial species, which may be the target species of other fisheries. In addition, in many situations the boundaries of a stock do not coincide with the jurisdiction of a country, such as in the case of straddling and highly migratory fish stocks (e.g. tunas). The appropriate monitoring and management of these stocks cannot be done separately by each country, but only jointly through regional organisations or other international arrangements. Such situations need to be taken into account when discussing different proposals for controlling subsidies to overfished stocks.

Establishing the status of fish stocks

The potential productivity of a fish stock is given by the balance between its intrinsic capacity to reproduce and to grow in size and weight and the losses caused by natural sources of mortality. Any fisheries operation adds a source of mortality to this balance. The losses due to fishing can reduce the biomass of a fish stock and affect its productivity and resilience to natural variations in environmental conditions.

The status of a fish stock is normally assessed based on the relationship between stock biomass and productivity, established through a process of stock assessment. The assessment methodologies vary widely, depending on the nature of the fishery and the resources available to authorities. They are typically based on different sources of information, including resource surveys, knowledge of the fish species, catch statistics, and fishers' knowledge (see Box 2).

Box 2: Stock assessments and reference points

A stock assessment is the process of collecting and analysing biological and statistical information to determine the status of a fish stock in relation to agreed reference points and the changes in its abundance in response to fishing and environmental conditions. Stock assessments are typically based on different sources of information, including resource surveys, knowledge of the habitat requirements, life history and behaviour of the species, catch statistics, fishers' knowledge, among others. Stock assessments are normally conducted by a scientific body of experts, at a national or international level, taking into consideration coordination needs for shared stocks.

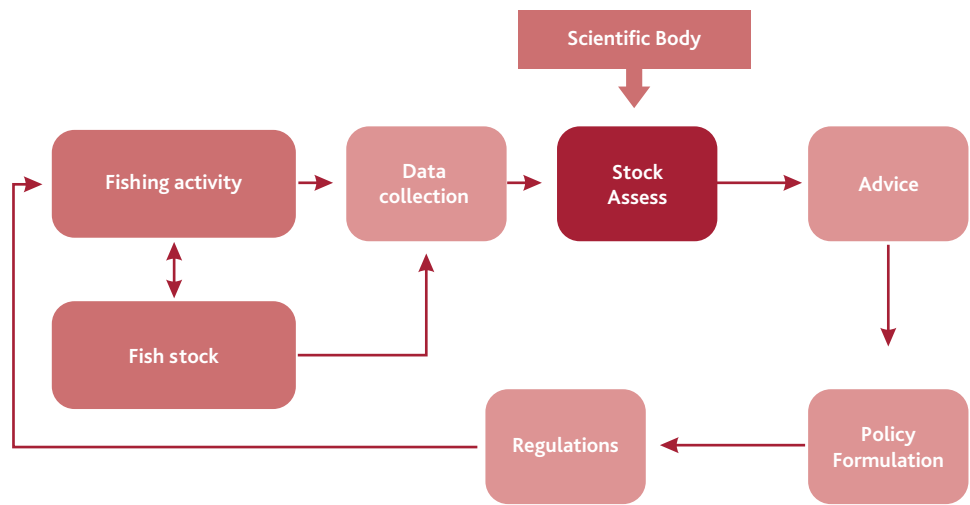
Management reference points are agreed values of indicators of the desirable or undesirable state of a fishery resource or the fishery itself. Reference points could be biological (e.g. expressed in spawning biomass or fishing mortality levels), technical (fishing effort or capacity levels), or economic (employment or revenues levels). Biological reference points are usually estimated from models in which they may represent critical values or thresholds.

Sources: Hoggarth et al. (2006), Berkes et al. (2001), FAO (2014a)

The conventional process of assessing fish stocks follows more or less the same procedure in any jurisdiction (Figure 1). A fishery-data collection programme is put in place to collect information about catches of a stock of interest, including information about the total weight (or number) of individuals in the catch as well as the size composition of the catch. Fish samples are routinely collected and brought to laboratories to determine (where possible) the age of individuals being caught, their reproductive status, and other biological characteristics of interest. In parallel to this fishery-data collection programme, some countries run scientific surveys to obtain direct observations about the biomass, density, size, age, and other biological characteristics of the stock at sea. This "fishery-independent" information is very useful as it provides complementary and less biased data about the stock, compared to the data obtained from the fishery, which can be affected by the market value of the catch, the selectivity of the fishing gear, and also by the regulations in place. After data (from the fishery and/or from surveys) is collected over a number of years, it is then used by scientists to evaluate the impacts of the fisheries on the stock. Models are used to estimate how the stock has responded to different levels of fishing and to estimate how it might respond to future management scenarios.

There is much uncertainty in these estimates due to incomplete and/or possibly biased data as well as natural variabilities. Therefore it is a good practice in stock assessments to inform managers in fishery authorities about the uncertainties of the predictions and the risks associated with their management decisions. There is a variety of methods which can be employed to provide management advice. Even in data-limited situations, advice can be provided based on the available knowledge and using, for instance, expert judgement. However, in line with the precautionary approach, decisions made with limited information should be much more cautious and conservative than in "data-rich" situations.

Figure 1: The process of stock assessment and fisheries management advice



Source: Authors' elaboration.

For areas and stocks managed by RFMOs, such as the ones managing the main stocks of tunas, the assessment of stocks is carried out by a specific scientific body of experts that meet regularly to analyse the available data and provide scientific advice to a decision-making body. Similar systems are also used by many countries to provide advice on the management of fish stocks within their exclusive economic zone (EEZ).

A key concept in the assessment of fish stocks is that of maximum sustainable yield (MSY); broadly, the surplus production of a stock (see Box 3). Two MSY-based reference points are commonly used in assessing the status of a fish stock. One is observed fishing mortality relative to the optimal mortality at MSY (FMSY). The other is the level of a fish stock in relation to the level that can produce MSY (BMSY). Ideally, the two indicators should be evaluated together to understand the exploitation rate and status of a stock.

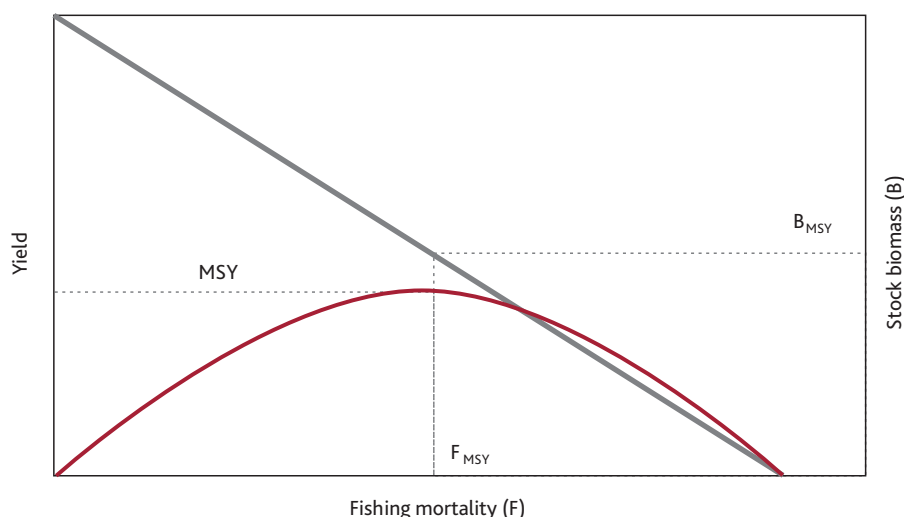
Box 3: Maximum sustainable yield (MSY)

The surplus production of a stock varies according to diverse factors, including the biological characteristics of the species, the environmental conditions in the stock distribution area and the size of the stock relative to the ecosystem carrying capacity. The maximum sustainable yield (MSY) is defined as the highest catch that can be continuously taken from a stock under existing environmental conditions.

Source: Caddy and Mahon (1995)

The relationship between the two indicators is set out in Figures 2 and 3. Commonly, if the fishing mortality applied to the stock is above F_{MSY} , the stock is considered subject to overfishing, while a stock with biomass values below B_{MSY} is considered overfished. The process of overfishing, which relates to the level of fishing effort, can thus go on for a period of time before the biomass of a stock is reduced to the point at which it is considered overfished. So a stock is commonly only defined as overfished if fishing has reduced the stock to a size below the level that can produce MSY. In these cases, fishing harvest needs to be reduced in order to allow the fish stock to recover to a level at which it can produce MSY. As Figure 3 illustrates, overfishing and a stock being overfished do not necessarily coincide. For example, if fishing effort has been reduced to allow a stock to rebuild, then a stock may be overfished, but overfishing may not be currently taking place.

Figure 2: Relationship between MSY, yield and stock biomass

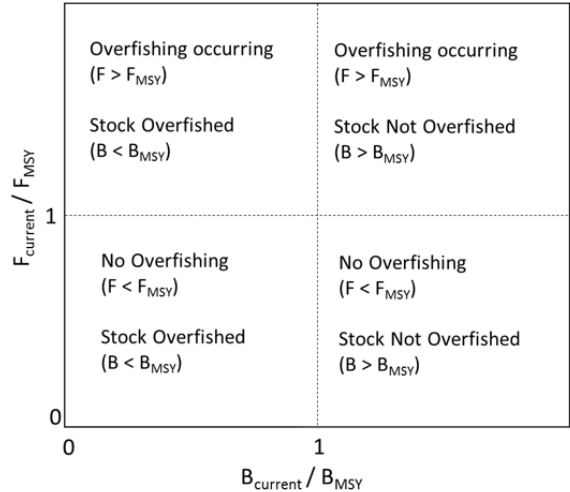


Note: This graph illustrates the theoretical relationship between stock biomass (B, grey line) and yield (red line) of a stock according to different levels of fishing mortality (F).

Source: Authors' elaboration.

Although MSY is a key component of many fisheries management plans and programmes and is used as a reference in several international instruments (see Figure 3), there is no multilaterally agreed definition of when overfishing is taking place, or when a stock is already overfished (see Box 4). National and international organisations may apply additional or different criteria when determining stock status. To account for uncertainties in the assessment of fish stock status, some fishery advisory bodies adopt a precautionary approach to reference points. Those additional benchmarks usually set a more conservative basis for a trigger to reduce fishing pressure by management actions in order to bring the stock back to the target stock level. Exceeding those reference points can also be classified as being overfished. A wide variety of reference points are available and used as benchmarks to take into account different economic, social, and biological management objectives.

Figure 3: Kobe plot illustrating the difference between fishing effort and stock status



Note: The first joint meeting of the tuna RFMOs (held in Kobe, Japan, in January 2007) agreed on the use of this four quadrant framework, now referred to as the “Kobe plot”, as the standardised way of presenting stock assessment results and reference points. The diagram represents an MSY-based reference point system used to determine the status of stocks in terms of overfishing and being overfished. One reference point is observed fishing mortality relative to the optimal mortality at MSY (F_{MSY}). The other is the level of a fish stock in relation to the level that can produce MSY (B_{MSY}). Source: Maunder and Aires-da-Silva (2011)

Box 4: The concept of over-exploitation in international fisheries instruments

There is no internationally binding definition of overfishing. Nor is there an internationally binding definition of when a fish stock is overfished. However, the United Nations Convention on the Law of the Sea (UNCLOS) states in Article 61 on the conservation of living resources that “[t]he coastal State [...] shall ensure through proper conservation and management measures that the maintenance of the living resources in the exclusive economic zone is not endangered by over-exploitation. Such measures shall also be designed to maintain or restore populations of harvested species at levels which can produce the maximum sustainable yield [...]”. This article, therefore, implies the use of MSY as a reference for measuring the risk of over-exploitation. The same wording is also used in the United Nations Fish Stocks Agreement (UN 1995) and the FAO Code of Conduct for Responsible Fisheries (FAO 1995).

Status of global marine fish stocks

The FAO has been periodically assessing the status of marine fish stocks since 1974.

Due to the high data demands of formal stock assessment methods, assessed fish stocks represent only 17–25 percent of global landings, the majority of which are in developed countries. To balance the global representativeness of the assessment results and aiming to use the best available information, FAO employs a wide range of data and methods to extend its assessment to fish stocks that account for 70–80 percent of global landings.

A detailed description of the approach used by FAO is available in the Appendix of the Review of the State of World Marine Fishery Resources (FAO, 2011). In summary, this methodology combines the results of formal stock assessments available, including those carried out at the regional level by RFMOs and those on a smaller, more detailed scale by national institutions and scientific working groups. For stocks that do not have a formal stock assessment, the FAO collects data and information from the literature, or from local experts, that could be used to infer stock status (for instance trends in catch rates, size frequency distribution of the catch, occasional fishing mortality estimates through surveys, etc.). This information from various sources is analysed and synthesised to classify the exploitation status of fish stocks.

It is also worth noting that despite the overall expanded coverage of FAO's assessments, the level of uncertainty in the assessment of stock status still varies greatly among stocks and areas due to data deficiencies. Areas such as the Northwest Pacific and Western Indian Ocean have a relatively lower coverage because a considerable proportion of the catches are reported in heavily aggregated taxonomic categories (e.g. catch of all marine fish species), which precludes the assessment of particular species or stocks.

Stocks periodically assessed by FAO are grouped into two major categories:

- *Stocks within biologically sustainable levels*

These include stocks at or close to their maximum sustainable production and considered fully fished (i.e., at the biomass that produces MSY) and stocks with biomass substantially above the level that could produce MSY or are underfished, with potential for expansion in total production. To avoid overfishing, effective and precautionary management plans should be established before increasing the fishing rate of these underfished stocks.

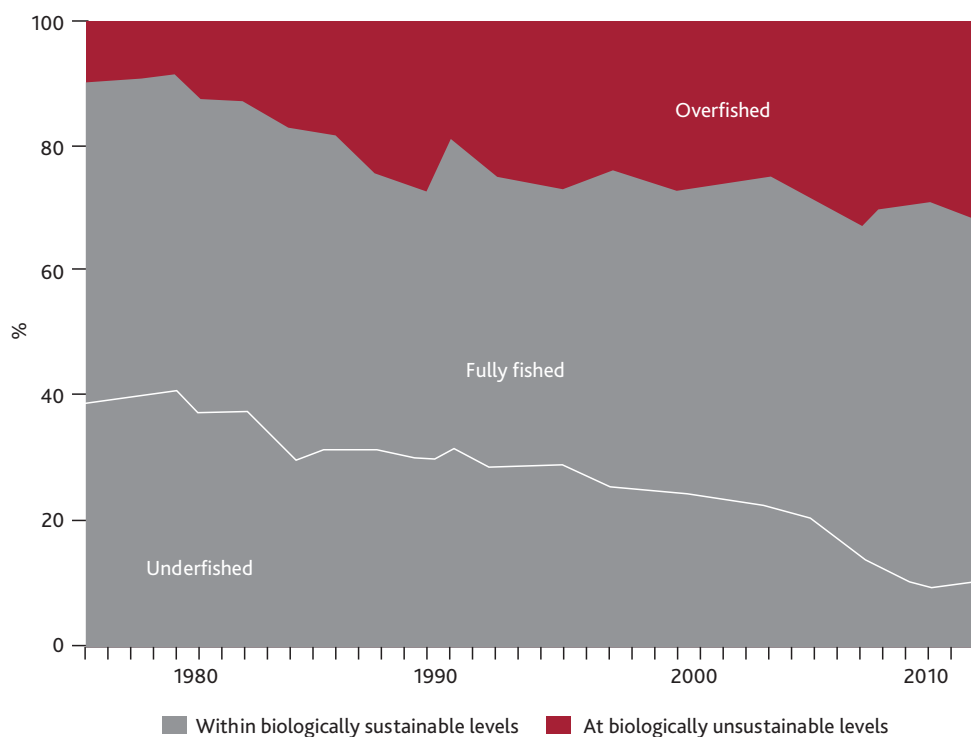
- *Stocks at biologically unsustainable levels*

These include stocks with biomass estimated to be below the abundance that can produce MSY in the long term. These stocks are considered overfished and require strict management plans to rebuild stock biomass to the level associated with MSY.

According to the last available global assessment (FAO 2016), the share of fish stocks within biologically sustainable levels has exhibited a downward trend, declining from 90 percent in 1974 to 68.6 percent in 2013 (Figure 4). Thus, in 2013, 31.4 percent of fish stocks were estimated to be at biologically unsustainable levels and therefore overfished. Of all the stocks assessed, 58.1 percent were fully fished and 10.5 percent underfished.

More detailed information on the status of commercially significant fish stocks is available in the report itself (FAO 2016). A small group of species accounts for about a third of marine capture fisheries production. Most of their stocks are fully fished and, therefore, there is no potential for increasing production without compromising their long-term sustainability. On the other hand, some stocks are overfished and increases in their production may be possible only after successful rebuilding.

Figure 4: Global trend in the state of world marine fish stocks monitored by FAO (1974–2013)



Source: FAO (2016)

For example, the two main stocks of anchoveta in the Southeast Pacific, Alaska pollock in the North Pacific, and Atlantic herring stocks in both the Northeast and Northwest Atlantic are all fully fished, i.e., their statuses are within biologically sustainable levels. Atlantic cod is overfished in the Northwest Atlantic, but fully fished to overfished in the Northeast Atlantic. Chub mackerel stocks are fully fished in the Eastern Pacific and overfished in the Northwest Pacific. Skipjack tuna stocks are either fully fished or underfished. Among the principal tuna species, 41 percent of the stocks were estimated to be at biologically unsustainable levels, while 59 percent were within biologically sustainable levels (fully fished or underfished) in 2013.

Significant variations exist in the productivity and status of fish stocks among FAO major fishing areas (see Table 1). The highest proportion of overfished stocks was found in the Mediterranean and Black Seas (59 percent), followed by the Southwest Atlantic (50 percent). On the other hand, areas such as the Northeast Pacific (14 percent) and Southwest Pacific (12 percent) are below the global average in terms of percentage of overfished stocks.

Table 1: Total catches (tonnes) and percentage of stocks assessed as overfished, by FAO major fishing areas (2010–2013)

FAO Major Fishing Areas	FAO Area Code	Total average catches (2010-2013)	Stocks overfished of stocks assessed
Northwest Atlantic	21	1,974,716	31
Northeast Atlantic	27	8,309,792	21
Western Central Atlantic	31	1,291,750	44
Eastern Central Atlantic	34	3,915,728	46
Mediterranean and Black Sea	37	1,290,512	59
Southwest Atlantic	41	1,774,855	50
Southeast Atlantic	47	1,383,828	44
Western Indian Ocean	51	3,468,078	32
Eastern Indian Ocean	57	5,443,390	15
Northwest Pacific	61	20,829,609	24
Northeast Pacific	67	2,876,677	14
Western Central Pacific	71	8,790,687	23
Eastern Central Pacific	77	1,460,566	41
Southwest Pacific	81	587,608	12
Southeast Pacific	87	8,822,087	42

Note: The table excludes the catches in the Southern Ocean and also of tunas globally.

Source: FAO (2016)

Challenges and opportunities regarding the assessment of fish stocks

The assessment of marine fish stocks can be a substantial challenge at the regional and country level due to limitations in the availability of data and capacity for the assessment and monitoring of fishery resources.

Data limitation tends to be more prominent in areas with high species diversity and small stocks where fisheries (normally small-scale) play an important role in food security, such as in many tropical, low-income countries of Africa, Asia, Oceania, and the Caribbean.

These data limitations can be attributed to different interrelated factors, such as:

- the difficulty in monitoring and assessing fisheries in tropical areas of high biological diversity, dominated by multi-species and multi-fleet small-scale activities, where conventional fisheries assessment methods are not suited;
- the tendency of countries to allocate human and financial resources preferentially to large and economically important fisheries;
- the lack of financial support for the development and maintenance of national fisheries statistical systems; and

- weak fisheries management systems that lack mechanisms for monitoring and reporting management performance to stakeholders and the public at large.

Although data limitations are a reality, given the complexity of the issue, the methods employed by FAO can compensate for many imbalances and produce an assessment of a significant number of representative stocks.

In 2003 the FAO Committee on Fish (COFI) adopted the *International Strategy for Improving Information on Status and Trends of Capture Fisheries* (FAO 2003). This strategy applies to the assembly and dissemination of information on fishery status and trends at the national, regional, and global levels. Within its policy section, high priority is given to capacity building and the provision of technical assistance to developing countries with a focus on the particular requirements of the small-scale fisheries sector.⁴

In this context, the FAO has implemented several work schemes to enhance the capacity of developing countries for data collection, monitoring, and assessment, including the development and testing of novel approaches for fisheries assessment and management advice in data-limited situations. The end goal of this work is to support countries in improving the knowledge and understanding of fishery status and trends, and to use that knowledge as a basis for fisheries policy-making and management. Such improvements will also be instrumental in preparing developing countries to implement any negotiated fisheries subsidies disciplines linked to the status of fish stocks.

Conclusion

While there is no internationally agreed definition of when overfishing is taking place or when a stock is overfished, the concept of MSY is in practice central to many assessments of fishing and the status of fish stocks. The process of overfishing (a measure of the level of fishing effort) is quite distinct from the situation of a stock being overfished (a measure of the level of a stock's biomass). Although data limitations in fisheries management are a reality, it is currently possible to infer, with different levels of uncertainty, the status of the stocks accounting for about 80 percent of global landings.

Improvement in data collection and technical capacity for fisheries stock assessment and management will be instrumental in preparing developing countries to address any fisheries subsidies disciplines linked to the status of fish stocks.

⁴ This was reinforced by the FAO's *Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication* (FAO 2014b).

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Shared Stocks and Fisheries Subsidies Disciplines: Definitions, Catches, and Revenues

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Introduction

The concept of shared versus exclusively “national” fish stocks has been a central question of fisheries governance for several decades and has recently appeared in negotiations at the World Trade Organization (WTO) over subsidies to the fishing industry. During these negotiations, Members have raised the question of identifying shared fish stocks several ways. In the context of discussions regarding the establishment of prohibitions on subsidies; for example, New Zealand, Iceland, and Pakistan offered a proposal prohibiting subsidies to all fishing in areas beyond the subsidising government’s national jurisdiction. Alternatively, in the context of establishing a prohibition of subsidies on overfished stocks, a group of Latin American countries proposed that the determination of the status of overfished stocks should be made with the cooperation of the states involved in the fishery. Several proposals (including those by the ACP and LDC groups, and a group of Latin American countries) suggest that some prohibitions should not apply to subsidies provided to fishing within developing country Members’ Exclusive Economic Zones (EEZs)—which could cover shared or non-shared stocks—and for fishing of quota established under Regional Fisheries Management Organizations (RFMOs)—which, by definition, govern stocks that spend at least some time on the high seas and are therefore “shared.”

This note aims to contribute to this ongoing debate by setting out how the distinction between shared and non-shared stocks has been drawn in the academic literature and what the potential implications are of such distinctions within the context of subsidy disciplines. The specific objectives of this information note are as follows: i) to explain succinctly how shared fish stocks are identified in technical literature, international instruments (including UNCLOS), and the author’s own recent work; ii) using the author’s own method of identifying shared stocks, to explain the share of fisheries catch that is caught in shared fisheries and the landed value of this catch; and iii) to discuss briefly the likely implications of using the distinction of shared and non-shared to apply subsidy disciplines to shared fish stocks.

What are Shared Fish Stocks?

Since the United Nations Convention on the Law of the Sea (UNCLOS) was agreed, it has been clear to fisheries scientists (both natural and social), policy makers, and managers that it is important to define and distinguish between fish stocks that spend their entire lives in a country’s EEZ from those that do not and are therefore shared with other countries. Determining which species are shared or not is necessary not only because of scientific curiosity, but also because this information is crucial for developing management institutions and regimes that are likely to succeed. For fish stocks that are not shared, successful management depends solely on the effectiveness of domestic institutions and policies. In contrast, if a stock is shared with two or more countries, the fate of the fish stock, and the fisheries that depend on it, are determined by all the countries that share the fish (Munro 1979; Sumaila 2013).

The work involved in disciplining harmful subsidies gives rise to a new dimension in the need to define and distinguish shared from non-shared fish stocks. Policy-makers could consider splitting the world’s fisheries into domestic and international (or shared fisheries) in order to align the incentives to remove subsidies with national interests (Sumaila 2012). The argument is that, with this distinction, the battle for eliminating harmful subsidies on domestic non-shared fish stocks would shift to home

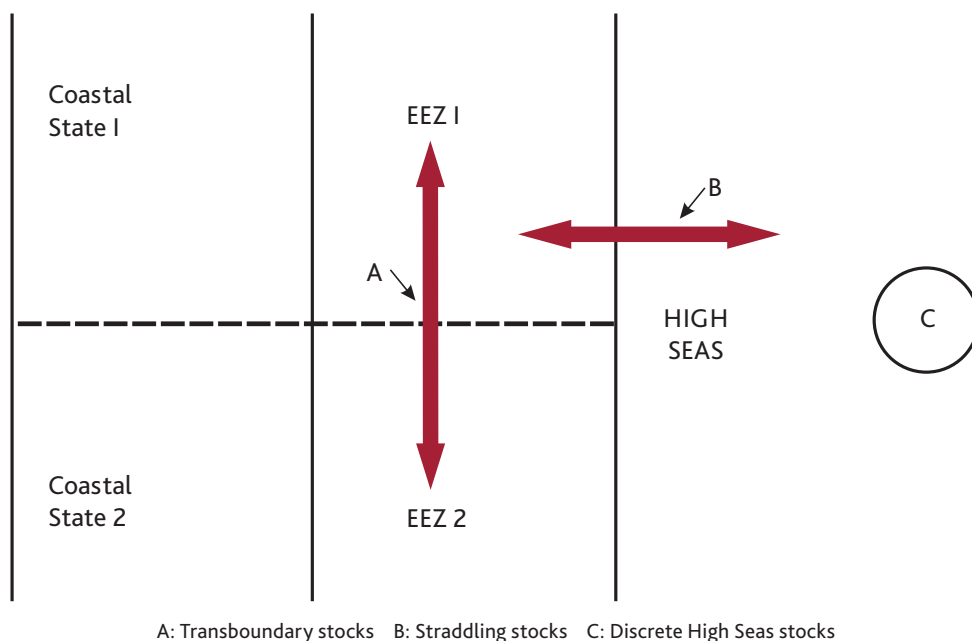
countries, while the incentive to negotiate limits on subsidies that affect shared stocks would still rest with the countries sharing the stock and the international community as a whole (Sumaila 2012).

At the Fisheries Economics Research Unit (FERU), we consider a targeted fish species to be shared if it has a spatial range which potentially spans beyond the boundaries of a country's EEZ, or occurs in the high seas (Teh and Sumaila 2015). In this sense, our definition is consistent with the definition of shared fish stocks according to the Food and Agriculture Organization of the United Nations (FAO), which includes the following:

- Transboundary stocks: fish that cross from the boundary of one EEZ into the EEZs of one or more coastal countries;
- Highly migratory fish stocks: fish that are, by nature, highly migratory, and are found both within a country's EEZ and the adjacent high seas. This follows the list of 17 highly migratory species under UNCLOS;
- Straddling stocks: fish stocks that are found both within the coastal country and the adjacent high seas; and
- Discrete high seas stocks: fish stocks that are only found in the high seas (Munro, van Houtte, and Willmann 2004).

These different parts of the definition are illustrated in Figure 1.

Figure 1: Different types of shared fish stocks



Source: Munro, van Houtte, and Willmann (2004)

Share of Fisheries Catch and Landed Value Generated in Shared Fisheries¹

To determine the share of fisheries catch and landed value generated in shared fisheries, we obtained the taxon names (family/genus/species) corresponding to these potentially shared fish species from the *Sea Around Us* (SAU) database (www.seaaroundus.org). This resulted in a list of 354 fish taxon names² that, based on current knowledge of the species' behaviour and ranges, we considered to be "shared" fish species because they fit one of the parts of the definition above (e.g. are straddling, transboundary, highly migratory, or discrete high seas stocks) (Teh and Sumaila 2015). It is important to note that, while these are fish species or families which may potentially be shared, depending on where they occur, they may not actually be caught by more than one country. To account for the spatial aspect, we compiled a list of shared fish species caught within each FAO major fishing area and used the list to filter the 354 potential shared fish species, resulting in 206 shared fish species–FAO area pairs (Teh and Sumaila 2015).

To obtain country specific shared fish catch, countries within each FAO area were allocated to the shared fish species associated with the respective FAO area. We obtained shared fish species for 14 FAO regions (Teh and Sumaila 2015). The Northeast Atlantic (Area 27) had the highest number of shared fish species (71), while the Southern Oceans (Areas 48, 58, and 88) had the lowest (8). We then extracted annual catch data by EEZ for these spatially matched shared fish species from the SAU catch database. In cases where a country's EEZ extended across multiple FAO fishing areas, a species was considered to be shared if it occurred as a shared species in at least one FAO area.

The catch data from the SAU database is spatialized based on the known spatial distribution and habitat preferences of fish taxa, global fishing access agreements, and statistical reporting areas. This information is used to allocate reported catches to a global system of 30-minute latitude by 30-minute longitude cells. The time series of global marine fisheries landed values is calculated by combining the spatially allocated catch data with a database on global ex-vessel prices, created by FERU in collaboration with the SAU.

It should also be noted that the SAU database assigns catches to each country's EEZ inclusive of both domestic and foreign caught fish—i.e. catch data for species *x* in country *y* reflects the amount of species *x* caught in country *y*'s EEZ as well as the catch of species *x* by country *y* in other EEZ(s). Per the FERU definition of shared fish species, we are interested in the overall catch and value of fish species which make up shared fishery resources. As such, we did not distinguish between domestic and foreign portions of each country's catch or landed value.

We found that, globally, shared fisheries accounted for around 35-50% of total global catches, reaching around 50% in the mid-1960s, followed by a decrease to a low of 34% in the early 1970s. A second peak occurred in the mid-1990s to approximately 52%, then remained relatively stable in the mid-40% range to 2006 (Figure 2) (Teh and Sumaila 2015).

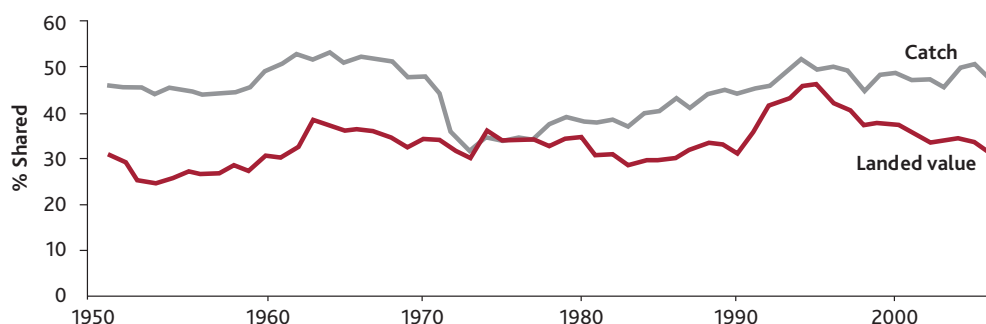
We estimated that the global landed value of shared fish species totalled US\$6.3 billion in 1950, and increased to US\$30.7 billion by 2006. Shared fisheries' landed value made up a smaller proportion of total global landed value compared to catch, averaging about 33% for the entire 1950-2006

1 This section draws on Teh and Sumaila (2015).

2 For simplicity, we use "species" to encompass fish taxa identified to family, genus, or species level.

period. The temporal trend was similar to the catch until the early 1970s. While the percentage of shared catch rose from the mid-1970s to mid-1990s, the percentage of shared landed value showed a decreasing trend from the mid-1970s to mid-1980s, then reached a peak of around 45% in the mid-1990s, and decreased steadily thereafter (Teh and Sumaila 2015).

Figure 2: Trends in shared fisheries catch and landed value worldwide



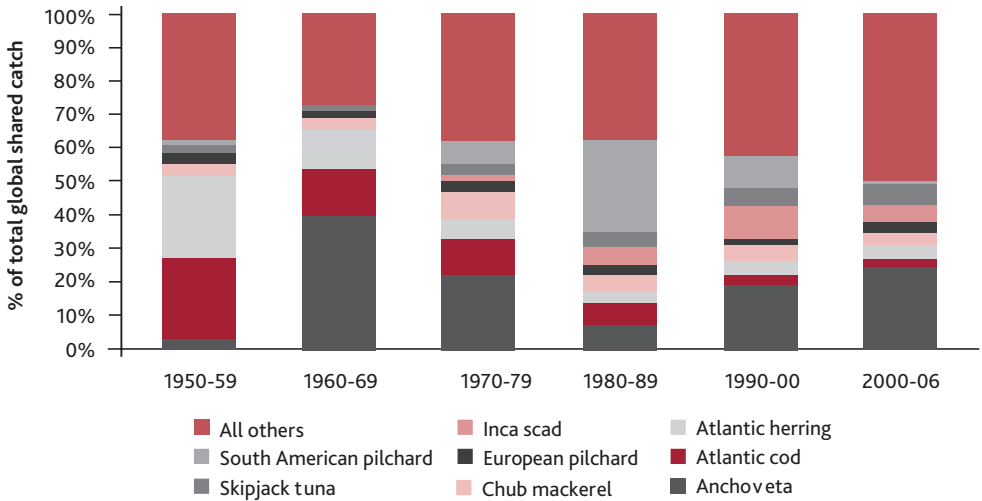
Source: Teh and Sumaila (2015)

The number of countries catching shared fish species almost doubled between 1950 and 2005, from 76 in 1950 to 151 in 2005. African and Caribbean countries and territories were responsible for over 50% of the increased participation (28% and 26%, respectively), followed by Asia and Oceania (both 17%), and finally, South America (5%). But since the annual catch data presented here is inclusive of foreign caught fish landed in each home country, the increase in the number of countries partially reflects the spatial expansion of the global fishing effort, rather than the fishing effort of an individual country. This occurred as the major distant water fishing nations took to fishing in the territorial waters of other less developed countries in the south, following the depletion of fisheries in the northern hemisphere (Swartz, Sala, Tracey, Watson, and Pauly 2010). South America and Europe experienced the largest changes in their contributions to global shared fishery catch between 1950 and 2005. While the contribution of South America grew dramatically, from less than 1% in 1950 to 38% in 2005, Europe's contribution decreased from 56% to 19% in the same period (Teh and Sumaila 2015).

Similar patterns observed in regional catches by shared fisheries are also observed in the landed values they generate. The only clear exception is that there was a bigger difference in temporal change in Asia and North America's contribution to shared landed value compared to their shared catch. Our results are generally consistent with the "changing face of global fisheries" found by Watson and Pauly, in which global fisheries landings were dominated by Europe and Asia in the 1950s, but were overtaken by South America by the 2000s (Watson and Pauly 2013).

Atlantic cod and herring were the two fish species that together made up around 48% of global shared fish catches. However, their contribution to total global shared fish catch decreased from 1960 onwards, while the proportional catch of anchovy, South American pilchards, and Inca scads increased. Skipjack tuna started to make up a larger part of global shared fish catch starting in the 1980s (Figure 3) (Teh and Sumaila 2015).

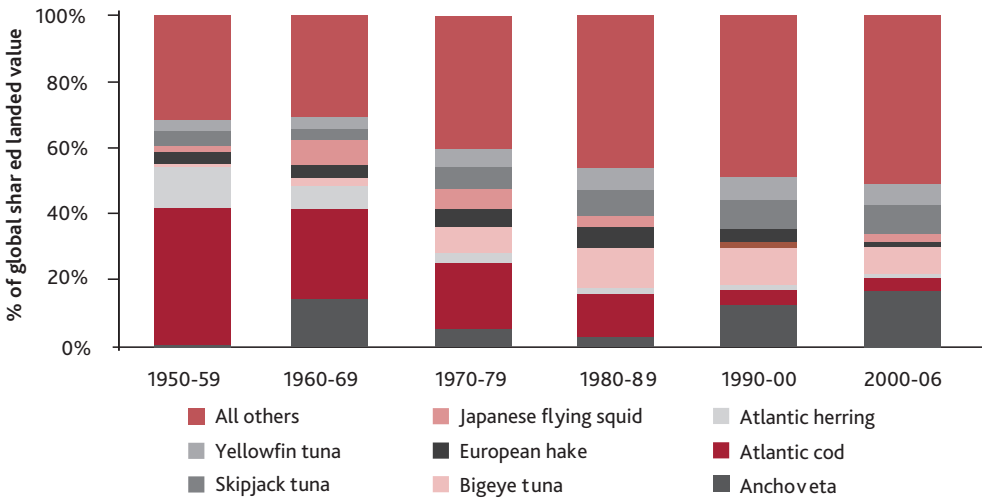
Figure 3: Major fish groups contributing to total global shared fish catch



Source: Teh and Sumaila (2015)

Atlantic cod was also the largest single contributor to global shared fish landed value from 1950 to 1959. Similar to the global shared fish catch trend, the proportional contribution of Atlantic cod to global shared fish landed value decreased after the 1960s, while that of tunas started to increase from the 1970s. Japanese flying squid and European hake were among the top contributors to global shared fish landed value for the entire analysis period, even though these two groups were not among the top contributors to global shared fish catch, an indication of the high price per unit weight that they command (Figure 4) (Teh and Sumaila 2015).

Figure 4: Major fish groups contributing to total global shared fish landed value



Source: Teh and Sumaila (2015)

The temporal trend of targeted shared species reflects the transition from European to South American dominance of fisheries. As stated above, starting in the 1950s, Atlantic cod, as a species, made up the single largest contribution to global shared catch, but was replaced by anchoveta in later periods, which accounted for 25% of global shared catches. The trend of targeted shared species was slightly different for landed value. While Atlantic cod was also the single largest contributor to landed value in the 1950s, both anchoveta and tunas became increasingly important in later periods. From 2000 to 2006, tunas (skipjack, yellowfin, and bigeye) together contributed slightly more than half of global shared landed value, surpassing anchoveta, which contributed 38% (Teh and Sumaila 2015). The WTO Members which accounted for the largest proportion of the world's tuna landed value from 2000 onwards were Japan, Korea, Chinese Taipei, Philippines, and Indonesia. It is significant that Japan, Korea, and Chinese Taipei maintain large distant water fleets that operate throughout the Pacific in order to catch tunas. The heavy presence of foreign fishing fleets adds pressure to tuna fish stocks that are, in many cases, under weak national governance.

In contrast, a different group of WTO Members are among those most dependent on shared fish stocks. The countries with the highest average percentage catch from shared stocks for the period studied were Finland (95%), followed by Greenland (90%), Peru (88%), Barbados (87%), and Sweden (86%) (Table 1). Throughout the period, Greenland, Finland, and Peru were consistently among the top five countries most dependent on shared stocks. Since 2000, Barbados, Marshall Islands, and Micronesia have joined Peru and Finland among the top five. The pattern was similar for landed value. The top five countries with the highest average percentage of landed value from shared stocks to total national landed value across the 1950–2006 period were Greenland (92%), Finland (86%), Barbados (80%), Martinique (79%), and Peru (75%). Finland and Greenland were consistently among the top five countries until 2000. From 2000–2006, the top five countries consisted of Vanuatu and Marshall Islands (both 94%), Peru (91%), Micronesia (87%), and Slovenia (86%) (Teh and Sumaila 2015).

Table 1. Countries in which shared species made up 75% and above of total catch and landed value in 2006

CATCH			LANDED VALUE		
Country	% shared fish	Top fish group/species	Country	% shared fish	Top fish group/species
Faeroe Is	75	Blue whiting	Barbados	76	Common dolphinfish
Chile	76	Inca scad	Nauru	76	Yellowfin tuna
Algeria	77	European pilchard	Slovenia	76	European anchovy
Ireland	78	Blue whiting	Martinique	76	Atlantic cod
Croatia	79	European pilchard	St Vincent and the Grenadines	76	Yellowfin tuna
Maldives	79	Skipjack tuna	Cook Islands	79	Albacore
Slovenia	79	European anchovy	Netherlands Antilles	79	Yellowfin tuna
Papua New Guinea	81	Skipjack tuna	Poland	80	Atlantic cod
St Vincent and the Grenadines	81	Yellowfin tuna	American Samoa	81	Albacore
Ecuador	82	Skipjack tuna	Ecuador	81	Skipjack tuna
Norway	82	Atlantic herring	Guatemala	82	Yellowfin tuna
American Samoa	84	Albacore	Peru	87	Anchoveta
Cook Islands	84	Albacore	Georgia	92	European anchovy
Poland	84	Atlantic cod	Marshall Islands	93	Skipjack tuna

Table 1. Continued

CATCH			LANDED VALUE		
Sweden	84	Atlantic herring	Greenland	94	Northern prawn
Nauru	85	Skipjack tuna	Vanuatu	95	Skipjack tuna
Barbados	86	Flying fishes			
Tuvalu	86	Skipjack tuna			
Micronesia	87	Skipjack tuna			
Estonia	88	European sprat			
Georgia	88	European anchovy			
Guatemala	89	Yellowfin tuna			
Netherlands Antilles	89	Skipjack tuna			
Greenland	92	Northern prawn			
Finland	97	Atlantic herring			
Peru	97	Anchoveta			
Marshall Islands	98	Skipjack tuna			
Vanuatu	98	Skipjack tuna			

Source: *Teh and Sumaila (2015)*

In contrast, the top five countries that contributed most to global shared fish catches and landed value were not highly dependent on shared fish stocks nationally, except for Peru. From 1950–2006, shared species accounted for around half of the total national landed value for “Top LV” countries: Chile (45%), Japan (47%), Spain (50%), Norway (65%). Likewise, with the exception of Peru, the top five countries that contributed the most to global shared fish catches were not highly dependent on shared fish stocks. Shared fish species made up between 20% (USA) to 88% (Peru) of national catches for these countries (Table 2).

Table 2. Top shared fisheries countries and their rankings in global fisheries catch and landed value

Top shared catch country	Rank in global catch	Top shared LV country	Rank in global LV
Peru	2	Japan	6
Chile	5	Peru	2
Japan	6	Chile	5
China	1	China	1
Norway	10	Korea	13

Source: *Teh and Sumaila (2015)*

These figures show that in most cases, countries which account for the highest proportion of global shared catch and landed value are different from those where shared species constitute the majority of their national catch and landed value. This implies a disparity in the interests that each group may have in the sustainability of shared fisheries resources. It also brings up the issue of equity; most RFMO allocation schemes are based on historical catch, thus favouring the “top catch” countries, which tend to be the major fishing powers (Bailey, Ishimura, Paisley, and Sumaila 2013). However, many of the “large catch” share and particularly “large landed value” share countries tend to be

smaller developing countries that have a disproportionate dependence on the same shared fisheries resources to support food security and economies (Teh and Sumaila 2015).

Our analysis shows that there are two groups of countries with particularly strong interests in shared stocks (Teh and Sumaila 2015). First are distant water fishing entities—such as Japan, Korea, and Chinese Taipei—that are responsible for most of the catch of shared species, particularly on the high seas (White and Costello 2014; Sumaila, Lam, Miller, Teh, Watson, et. al. 2015). Second are countries like Greenland, as well as Caribbean and Small Island Developing countries, which are highly dependent on shared stocks but do not catch a significant portion of them, in global terms.

Using the recent peak shares of 52% and 45% in the mid-1990s for catch and landed value, respectively and the total global catch and landed value of 112 million tonnes and US\$154 billion per year, respectively (Teh and Sumaila 2015), we estimate that ~58 million tonnes of catch are of shared stocks per year, generating ~US\$69 billion from shared fish stocks annually, on average from 2015 to 2014.

Implications of Using the FERU Approach to Subsidy Disciplines to Shared Fish Stocks

In theory, the suggestion to organize efforts in disciplining subsidies based on whether a fish stock is shared or not makes economic sense. This is because this approach attempts to align the costs and benefits of a country providing harmful subsidies to its fishery. If the subsidies provided by a government help to drive the country's domestic fish stocks to depletion, the resulting economic and social cost would bear on the country in question. The argument for shared fish stocks is a bit different because the cost of depletion resulting from a country providing harmful subsidies to its fleet would be borne by all the countries that share the stock.

The challenge is in the practical implementation of the suggestion. One major difficulty is in distinguishing shared from non-shared fish stocks. Efforts to do this are in their infancy, with very few papers directly addressing the issue. Our above approach attempts to draw the distinction based on our current knowledge of how and where different species of fish live. However, our current knowledge is limited; it does not extend to every stock of every species, and global catch figures are not comprehensive. This means only high-level applications of our suggestion are possible. We can, however, draw several broad conclusions from the current available data.

First, we know that some FAO areas contain more shared fish stocks than others. For instance, we know that FAO areas 61 (Northwest Pacific), 87 (Southeast Pacific), 21 (Northwest Atlantic), and 71 (West Central Pacific) contain more than forty shared fish stocks/groups each (Teh and Sumaila 2015). The implication here is that there is a particularly strong rationale for collective action, particularly among countries whose fishing vessels are active in these FAO areas, to eliminate or re-direct subsidies that may be harmful to those shared stocks.

Second, the data provides a good indication of the WTO Members that account for the highest percentage of global total shared catch and landed value (Teh and Sumaila 2015). From a global perspective, these Members arguably have a moral duty to ensure that they are not providing subsidies that contribute to overfishing of these stocks because the social and economic costs of overfishing due to any such subsidies may negatively affect countries other than their own.

Finally, within this line of thinking, we also identified the top shared species and the number of countries that target them. Governments of these countries could, therefore, consider giving particular attention to subsidies provided to fishing of species whose exploitation appears to be most in need of international cooperation.

Conclusion

Several proposals in the WTO fisheries subsidies negotiations attempt to draw, for different purposes, a distinction between domestic fishing of resources under a coastal state's jurisdiction, and fishing of shared resources, particularly in areas beyond national jurisdiction. This author and his colleagues have suggested drawing a similar distinction in order to align incentives for international cooperation with international resources. The definition of which stocks are shared is clear. Our research builds on this definition and uses current knowledge about the behaviour of fish species to estimate which species are in fact "shared" and, thence, what proportion of fish catch and landed value comes from these shared species. The limitations of current knowledge, however, mean that this approach would be difficult to implement directly in the context of subsidy negotiations. However, our research does have several implications that negotiators could consider. Overall, it is clear that a substantial portion of global catch comes from shared stocks, which means that there is a strong argument for international cooperation to limit subsidies that could lead to the overfishing of shared stocks, particularly those that are not under the responsibility of any national jurisdiction. Further, there are regions of the world where many fish stocks are shared; as such, the rationale for collective action to limit subsidies that could lead to overfishing of those stocks is particularly high. It also appears that some countries are more heavily involved in fishing of shared stocks, so they arguably have a duty to ensure they are not contributing, via subsidies, to the depletion of those stocks. Finally, there are certain species that are "shared" far more heavily than other species, in the sense that a large number of countries exploit them; it is suggested that governments make a particular effort to ensure that subsidies provided to their fisheries are not directed to the exploitation of these species.

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Small-scale Fisheries and Subsidies

Disciplines: Definitions, Catches, Revenues, and Subsidies

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Introduction

Small-scale fishing plays a crucial role in supporting livelihoods as well as food and nutrition security in communities around the world.

In the World Trade Organization (WTO) negotiations on new rules on subsidies for fishing, several proposals suggest that some kinds of subsidies that would be otherwise prohibited—such as those to capital or operating costs—might continue to be provided to small-scale fishing of different kinds. Some of these proposals suggest that flexibilities for subsidies to different kinds of small-scale fishing could be based on agreed-to definitions. The EU proposal, for example, defines “subsistence” fishing by the use to which catch is put; meanwhile, the proposal by Indonesia defines “artisanal” fishing by the geographic location of the fishing activity, the type of gear used, and the purpose to which catch is put, and defines “small scale” fishing primarily by vessel length. Other proposals, including those by the African, Caribbean, and Pacific countries (ACP) and the least-developed countries (LDC) groups, suggest relying on national definitions of small-scale fishing to establish the scope of the exception. The need for exceptions for some subsidies provided by developing country WTO members is not, however, a point of consensus in the negotiations; whether exceptions are provided is likely to depend on the eventual shape of prohibitions. This note aims to help inform this on-going debate over whether, and what, exceptions might be provided to developing country WTO members.

The specific objectives of this information note are as follows: i) to explain succinctly how the distinction between small-scale and large-scale fisheries has been drawn in the technical literature and international instruments and, in particular, in the author's own recent work; ii) using the author's own method of identifying small-scale fishing, to explain the share of fisheries catch that is caught by small-scale fisheries, the landed value of this catch, and what proportion of different kinds of subsidies are provided to these fisheries; and iii) to discuss briefly what the implications could be of using either a common definition, or relying on national definitions, to define fisheries with greater subsidy flexibilities.

This note begins by providing a brief literature review of the subject of small-scale fisheries (SSF). In particular, it presents recent approaches to define the “degree of small scaleness” of fisheries. This is followed with a presentation of data on the share of fisheries catch, revenues, and subsidies to small-scale fisheries. The last section discusses the implications of using a common definition or relying on national definitions of small-scale fishing for the purpose of subsidy disciplines at the WTO.

Distinguishing Between Small-scale and Large-scale Fisheries

It is widely agreed that small-scale fisheries are a crucial part of the global fisheries sector that needs to be protected and supported (FAO 2015).¹ For instance, it is estimated that small-scale fisheries contribute approximately 30 percent of the global landed value (revenues at the dock), and employs millions of people living in coastal communities, some of them in remote and rural regions. Hence, small-scale fisheries provide crucial livelihood opportunities where such opportunities are limited. They therefore make vital contributions to some of the world's most vulnerable communities and people.

¹ However, it should be noted that a recent model law on artisanal fishing developed by the Latin American Parliament includes a broad definition encompassing artisanal and small-scale fishing together (see Parlamento Latinoamericano y Caribeño 2017).

Agreeing on a clear, universally accepted definition and distinction between small- and large-scale fisheries is truly difficult; a fact acknowledged by the Food and Agricultural Organization of the United Nations' (FAO) Advisory Committee on Fisheries Research (ACFR) in 2003. Since the FAO's decision was made, it has been supported both in the literature and by key global documents, such as the Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries, where country-level definitions are applied (FAO 2015). The main argument against trying to develop a universally accepted definition for small-scale fisheries, as stated in the Voluntary Guidelines, is the fact that the sector is very diverse and dynamic, compounded by the fact that SSF are generally place- and local community-based fisheries that are rich in customs, traditions, and values.

Even though there is no internationally agreed definition of small-scale fishing, the FAO use 24m vessel length as a broad cut-off between small- and large-scale fisheries. Academic studies have developed different methods for identifying small-scale fishing, four of which are described briefly in the paragraphs below.

Cumulative percent distribution: This approach categorises fisheries as small- or large-scale on a relative, rather than absolute, scale. There are three steps in this approach: (i) categorise the fisheries in the political entity being analysed by gear types and vessel sizes; (ii) list and rank gear/vessel combinations in ascending order according to annual catch or landed value per vessel; and (iii) construct a cumulative percentage distribution of catch or landed value with the ranked fisheries and the group of fisheries that provides the first 50 percent of landed value is then classified as "small-scale" and the remainder as "large-scale." The approach, first proposed by Ruttan et al. (2015) has been applied in a number of countries/regions, including the North Atlantic (Sumaila, Liu, and Tyedmers 2001), New England (Therkildsen 2007), Northeast of Brazil (Damasio, Lopes, Pennino, Carvalho, and Sumaila 2016), and British Columbia, Canada (Gibson and Sumaila 2017a).

Vessel length split: This approach simply chooses a vessel length that serves as the cut-off for determining what is small-scale and what is large-scale. In Atlantic Canada, for example, a vessel length of 67m has been used as a cut-off: any vessel that is less than 67m in length is classified as small-scale and a vessel more than 67m in length is considered large-scale. This is generally a very high cut-off point for SSF. As stated earlier, the FAO uses 24m as the cut-off. Also, the European Maritime and Fisheries Fund (Regulation (CE) N° 508/2014) considers vessels to be small-scale if their length is less than 12m and they do not use towed gear. In the last example, SSF are typically "artisanal" and coastal, using small vessels, and targeting multiple resource species using traditional gears (Villasante et al. 2016).

Point-based framework: This method uses a numerical descriptors approach (NDA), which was originally proposed for the segmentation of European fishing fleets (García-Flórez et al. 2014). It is a score-based approach that uses several structural and functional descriptors. The approach identifies a group of relevant technical, biological, and economic descriptors that are used to categorise marine fishing fleets (Table 1). Each descriptor is awarded a score of between 1 and 5 according to a pre-determined range for each descriptor. The scores for each fishery are then tallied, and if the total score is above a certain threshold (e.g. 21), then the fishery is considered to be artisanal or small-scale (Villasante et al. 2016). It should be noted that the NDA can be used at any geographical scale by adapting the final score and/or numerical ranges of each descriptor.

Table 1. Point-based framework for separating the Canadian Pacific fleet

Features	Points				
	1	2	3	4	5
Overall vessel length (m)	<35	35-45	45-65	65-100	>100
Type of Gear		Passive		Seine/Active	
Catch/Vessel (t)	<100,000	100,000-300,000	300,000-700,000	700,000-1,000,000	>1,000,000
Crew Numbers	<2	3	4	5	>6
Gross Revenue per harvester (US\$)	<50,000	50,000-250,000	250,000-1,000,000	1,000,000-2,000,000	>2,000,000
License Value (US\$)	<150,000	150,000-250,000	250,000-500,000	500,000-1,000,000	>1,000,000
Vessel Replacement Cost (US\$)	<137,000	137,000-218,000	218,000-500,000	500,000-750,000	>750,000
ITQ fishery	No		Partial		Full

Note: A fishery will be assigned a point based on where it falls on the scale for each feature. The totals will range from 9 to 39. Everything scoring 20 points and below is considered SSF. Note that blanks appear in the "Gear" and "ITQ" features as they are categorical and non-numerical categories.

Source: Gibson and Sumaila (2017b)

The degree of "small scaleness": A more recent attempt at providing a lens through which small-scale fisheries can be distinguished from large-scale fisheries, pioneered by our group at UBC, asked the question: what is the degree of "small scaleness" of a given fishery? (Gibson and Sumaila 2017a). The approach consists of the following steps: (i) identify features or characteristics associated with SSF that are widely accepted by academics and practitioners (Table 2); (ii) determine how many fisheries are active in the country or region to be studied; (iii) run all the fisheries identified through the features and characteristics of small-scale fisheries to determine whether or not they have a given feature or not, and give a score of, for example, 1 if it has the feature or 0 otherwise; (iv) add up the scores for each fishery to obtain the total score, which is then an indicator of "small scaleness." Achieving a total maximum score implies the fishery in question is as small-scale as possible, while a score of 0 implies the opposite. Scores between 0 and the maximum depict the degree of "small scaleness." An application of this approach found that commonly identified features of small-scale fisheries are present in British Columbia's fishing fleets to a varying degree (Gibson and Sumaila 2017a). Aboriginal Food, Social, and Ceremonial fisheries and all commercial fisheries in British Columbia are analysed to determine the presence or absence of each of these small-scale fisheries features. The results of this research create a gradient of fisheries, from smallest to largest scale, indicating that many fisheries in British Columbia can be classified as small-scale (Gibson and Sumaila 2017a).

One particular advantage of the above methods is that they are applied at the scale of political entities (e.g. countries or regions within countries), and therefore allow for the fact that gear that is large-scale in one political entity may be categorised as small-scale in another. Still, no approach has universal acceptance. For instance, the 2012 Hidden Harvest study used context-specific definitions for small-scale fisheries (e.g., dated or low levels of technology; labour intensive) (World Bank, FAO,

and WorldFish Center 2012). In practice, therefore, country-based definitions are what is currently used in fisheries economics.

Notwithstanding the absence of an agreed international definition of small-scale fishing, there are some elements—referred to above—that are widely accepted by practitioners to be features of small-scale fishing. These are set out in Table 2.

Table 2. List of common features of small-scale fisheries

Vessel features	Economic features	Social features
Vessel under 12m (39.3 ft.)	Low fuel consumption (e.g., < US\$10,000)	Fish for food and community use
Non-motorised vessel	Relatively little capital and energy input (e.g. < US\$250,000)	Support social and cultural values
Passive gear	Relatively low yield and income	Regulated through customary rules with some government involvement
Multi-gear	Part-time, seasonal, multi-occupational	
Multi-species	Sold in local markets	
Dated or low levels of technology, labour intensive*	Sustain local or regional economies	
Inshore, limited range to fish, fishing pressure adjacent to community	Individual or community ownership	

Note: Labour Intensity is used in qualitative terms and is not a quantitative measure of labour in proportion to capital required for fishing.

Source: Gibson and Sumaila (2017a)

Share of Fisheries Catch, Revenues, and Subsidies to Small-scale Fisheries

For the analysis of catch proportion to SSF and large-scale fisheries (LSF), we relied on the approach developed by the Sea Around Us (SAU), with small-scale fisheries consisting of subsistence, artisanal, and recreational fisheries (Pauly and Zeller 2016). In contrast, large-scale fisheries are comprised of the entire industrial fleet of a country. It should be noted that the definition of each of these sectors is based on national categorisations sourced from national legislation reviewed by researchers. The catch data used are 10-year averages for the period 2005 to 2014.

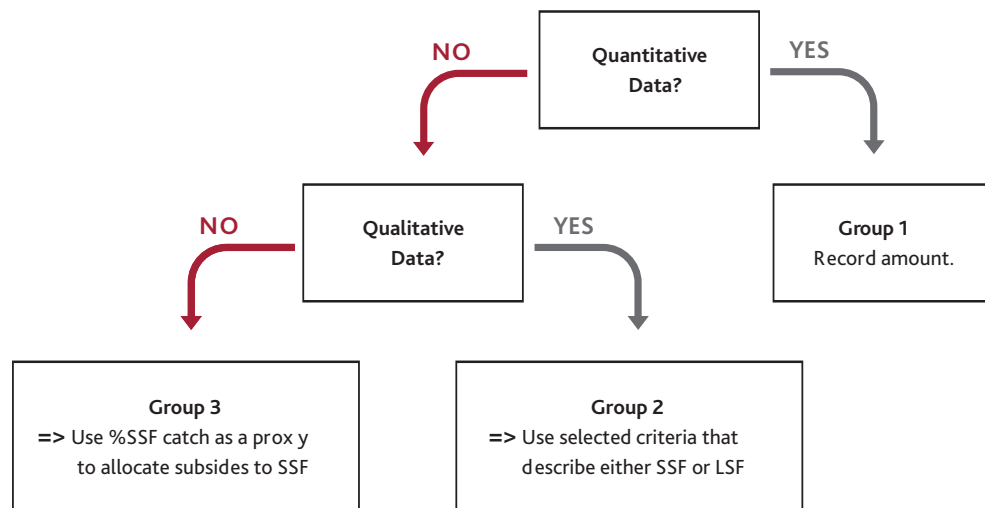
In the case of landed value, we combined the catches from the SAU with the ex-vessel price database developed by the Fisheries Economics Research Unit (FERU) in collaboration with SAU (Sumaila, Marsden, Watson, and Pauly 2007; Swartz, Sumaila, and Watson 2013; Tai, Cashion, Lam, Swartz, and Sumaila 2017). Similar to the catch data, we used 10-year averages for the period 2005 to 2014.

The country-level fisheries subsidies database is the starting point for splitting national subsidies into the proportion that goes to small-scale (Sumaila et al. 2016). Of the 146 maritime countries that are included in the database, subsidies in 81 countries were analysed by Schuhbauer et al. (2017),

selected based on data availability and the total amount of subsidies they provide globally. In all, these 81 countries gave 98 percent of the estimated US\$35 billion annual global fisheries subsidies.

Details of the methodology used to split national subsidies estimates into the portion that goes to SSF are provided in Schuhbauer et al. (2017). Briefly, the method is depicted below by Figure 1. For each subsidy subtype, the collected information that was found in the literature was grouped into three data categories, as illustrated in Figure 1.

Figure 1: Methodology used to divide 2009 subsidy amounts into SSF and LSF



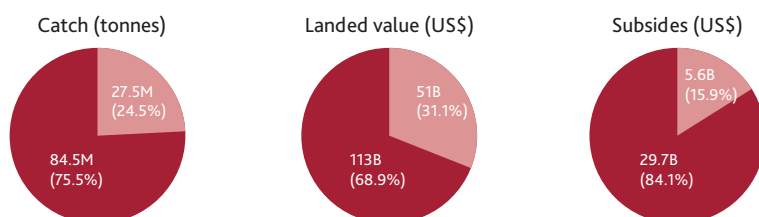
Source: Schuhbauer et al. (2017)

For Group 1, we asked whether there was quantitative data available. If yes, then the indicated subsidy quantity to SSF is recorded (Figure 1). For Group 2, we asked again whether there was qualitative data available? If yes, we used the qualitative information to estimate the amount of subsidies provided to SSF (Figure 1). Qualitative data is often found in government documents or technical reports, in the form of bullet points and tables, which are broken down into objectives. If a subsidy amount was described by more than one objective/bullet point, we split the total subsidy equally between the stated objectives (see example in Figure 1). To be consistent, the following terms and phrases are used to describe SSF: “artisanal,” “subsistence,” “small-scale,” “non-motorised,” “coastal,” and “community-based.” In contrast, the following terms and phrases are used to describe LSF: “industrial,” “large-scale,” “freezer trawlers,” “off-shore,” “over sea,” and “deep sea” (Schuhbauer et al. 2017).

Figure 2 displays the proportions of catch, landed value and subsidies that go to small-scale fisheries versus those that go to their large-scale counterparts. The figure reveals that, globally, small-scale fisheries caught 27.5 million tonnes, which was about 25 percent of the average annual catch of 112 million tonnes from 2005 to 2014.

Of the estimated average annual landed value of US\$164 billion generated in the period from 2005 to 2014, US\$51 billion—or 31 percent of the total—was generated by the small-scale sector (Figure 2).

Figure 2: Share of annual average catch, landed value, and subsidies that goes to small-scale versus large-scale fisheries globally



Note: Light red is small-scale and deep red is large-scale fisheries. "M" and "B" stand for "million" and "billion," respectively.

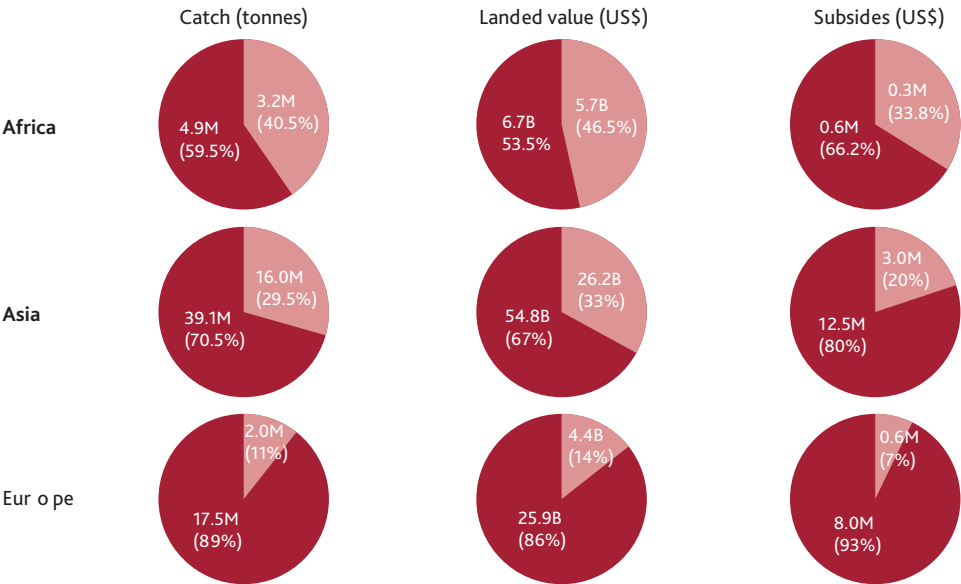
Source: Author's own calculations based on cited sources of data.

Annually, fishing subsidies of US\$35 billion (using 2009 estimate as an example) are given by governments worldwide to the fisheries sector. Figure 1 shows that only US\$5.6 billion (i.e. 16 percent of the total) goes to small-scale fisheries. The disparity between the small-scale and large-scale is even worse when one looks at the capacity enhancing subsidies, where 90 percent of the nearly US\$20 billion is estimated to go to large-scale fisheries (Swartz, Sumaila, and Watson 2013). The largest subsidy is that for fuel, over 90 percent of which is estimated to be given to large-scale fisheries through marine diesel subsidies, which is mostly outside the reach of small-scale fishers because of the high cost of purchasing and maintaining diesel motors (Swartz, Sumaila, and Watson 2013). These fuel subsidies promote fuel-inefficient technology and help large-scale fishers stay in business, even when operating costs exceed total revenue gained from fishing. Subsidies for port development and boat construction, renewal and modernisation are also likely to give the large-scale fisheries sector an advantage over their small-scale counterparts, who appear to receive only a small percentage of those subsidies.

Regionally, we see similar patterns to the global picture with the bias against small-scale fisheries being stronger in some regions (Figures 3a and 3b).

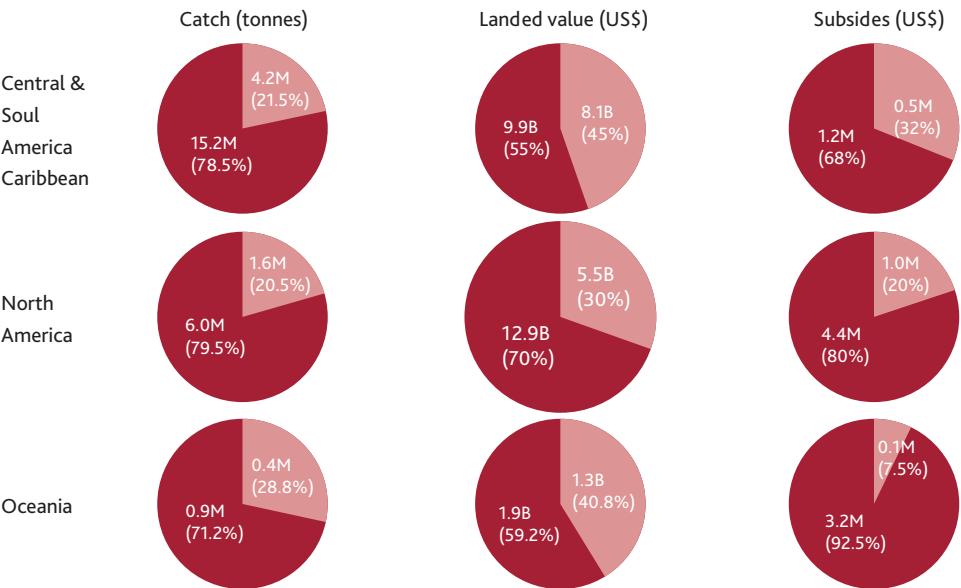
Several interesting observations can be drawn from Figures 3a and 3b: (i) for all regions of the world, the share of landed values generated by small-scale fisheries are larger than the share of their catch, implying that, on average and on a per unit weight basis, their catch is more valuable than those of large-scale fisheries; (ii) the proportion of total subsidies given to small-scale fisheries is lower than the proportion of the landed values they generate; and (iii) large-scale fisheries receive approximately four times more subsidies than their small-scale counterparts, with up to 60 percent of those subsidies promoting overfishing (Swartz, Sumaila, and Watson 2013).

Figure 3a: Share of annual average catch, landed value (LV), and subsidies given to small-scale versus large-scale fisheries in Africa, Asia, and Europe



Note: Light red is small-scale and deep red is large-scale fisheries.
Source: Author's own calculations based on cited sources of data.

Figure 3b: Share of annual average catch, landed value (LV), and subsidies given to small-scale versus large-scale fisheries in Central & South America, North America, and Oceania



Note: Light red is small-scale and deep red is large-scale fisheries.
Source: Author's own calculations based on cited sources of data.

Implications of Using a Common Definition or Relying on National Definitions for the Purpose of Subsidy Disciplines

In principle, the scope and application of a multilateral agreement on fisheries subsidies that include exceptions for subsidies to small-scale fishing would be clearer if the agreement contained a universally accepted definition of small-scale fisheries. There are, it seems, some descriptive elements that are frequently used to identify small-scale fishing in different contexts which could conceivably be used to generate a common definition in a subsidies agreement. However, the reality in the field is that small-scale fisheries are very diverse, within a country as well as globally, making it difficult to develop and apply a single definition worldwide. Further, if consensus over a definition of small-scale fishing has eluded fisheries management experts, it is probably neither appropriate nor practical for governments to try to develop an agreed definition of small-scale fishing in the context of negotiations over subsidies in the WTO.

It might therefore seem more feasible to define the scope of exceptions in a subsidy agreement by using national definitions rather than a global definition. It should be acknowledged, though, that this approach could introduce a lot of flexibility into the disciplines, as governments could (legitimately, in this circumstance) choose to include activity of considerable scale in their national definitions of what is small-scale fishing. As such, if a WTO agreement included exceptions for small-scale fishing, this considerable scale of activity could be eligible for subsidisation. A wide degree of flexibility could potentially undermine the effectiveness of an agreement in supporting the reform of subsidy patterns.

Negotiators face a dilemma: a common definition would be difficult for countries to accept as it may not capture the place and community aspects of their fisheries. Adopt national definitions and you may end up with potentially very wide exceptions that could reduce the effectiveness of subsidies disciplines.

If there were agreement that some flexibility should be provided for WTO members to continue to subsidise small-scale fisheries, negotiators could consider establishing the scope of these exceptions by combining a degree of flexibility towards generally accepted concepts of small-scaleness. They could, for example, reference national definitions that can capture the differences in small-scale fisheries found in different countries, but also include reference in the agreement to an illustrative list of features that are commonly accepted of small-scale fisheries, such as the features in Table 2.

Negotiators could also consider ensuring that there is a minimum level of transparency that would allow subsidy disciplines to be effectively monitored. This could include requiring notification of the subsidies provided to the small-scale sector, along with the national definition of what is small-scale, to the WTO Subsidies and Countervailing Measures (SCM) Committee. To help countries implement this obligation, the SCM Committee could seek the advice of a group of experts and practitioners who can work with countries to help define their small-scale fisheries in a manner that captures key local aspects of the sector without being too flexible to rectify harmful subsidies.

Conclusion

Currently, national definitions of small-scale fisheries are used in international guidelines, academic literature, and in fisheries management practice. This is because a universally accepted global definition of small-scale fisheries is not yet in place. It is probably neither realistic nor appropriate for the WTO to seek to agree on a new global definition of small scale fishing. If there was agreement in the WTO to applying different rules to subsidies to small-scale fishing, rather than trying to negotiate a new international definition, governments could consider agreeing to use national definitions of small-scale fishing for the purpose of subsidy rules, along with an illustrative list of features commonly accepted as describing small-scale fishing. Governments could also consider requiring that national definitions, and subsidies provided to fisheries meeting these definitions, were notified to the SCM Committee.

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Options for Improving the Transparency of Fisheries Subsidies

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Objectives of This Paper

The main purpose of notification requirements under the Agreement on Subsidies and Countervailing Measures (SCM Agreement) is to provide WTO members with the information they need to establish whether other members' subsidies are causing trade effects and whether members are abiding by their obligations with respect to prohibited or actionable subsidies. In the context of a fisheries subsidies agreement, the objectives of notification would include monitoring compliance with the disciplines established and could also include helping members to assess the environmental impact of subsidies (their own and those of others) on fish stocks.

Several proposals that would expand subsidy notification requirements are on the table in the WTO fisheries subsidies negotiations. They include proposals to notify fisheries-related information, such as the capacity of subsidized fleets and the status of stocks exploited by subsidized fleets. This information could help assess the environmental impact of subsidies. These proposals also raise important technical and policy questions related both to the ability of developing countries to provide new and additional information and to the means by which WTO members might structure disciplines so as to incentivise the members to provide new and additional information.

WTO negotiations on fisheries subsidies have taken on renewed urgency in 2017. This paper seeks to support the on-going negotiations by identifying common ground and differences with respect to notifications and transparency, analysing the feasibility of various ideas, and discussing how new transparency requirements could be designed to address notification challenges. Based on a review of existing subsidy obligations and tabled proposals, the objectives of this paper are twofold:

1. Identify the common elements of additional fisheries-related information proposed for new notification disciplines and discuss the feasibility of requiring all WTO members to provide this information; and
2. Identify and briefly discuss a range of options through which WTO members could establish incentives to notify this information.

Background

Current subsidy notification requirements: GATT Article XVI and SCM Article 25

The obligation of WTO members to notify subsidies regularly, including subsidies to the fisheries industry, is present in both Article XVI:1 of the General Agreement on Tariffs and Trade (GATT) 1994 and Article 25 of the WTO SCM Agreement. Additional notification disciplines are set forth in G/SCM/6/Rev.1 of 11 November 2003, reproduced as Annex 1 to this paper, which provides a format for subsidy notifications (WTO 2003).

In the event that a member "grants or maintains any subsidy, including any form of income or price support, which operates directly or indirectly to increase exports of any product from, or to reduce imports of any product into, its territory," GATT Article XVI:1 requires that members provide a written notification to other members "of the extent and nature of the subsidization, of the estimated effect

of the subsidization on the quantity of the affected product or products imported into or exported from its territory and of the circumstances making the subsidization necessary."

In addition, Article 25 of the SCM Agreement (Notifications) requires members to notify "specific" subsidies, as defined by Article 2 of the SCM Agreement, by 30 June of each year and sets forth the framework for such notifications. The content of members' "regular"¹ notifications is set forth in Article 25.3. Among other requirements, the notification must be "sufficiently specific to enable other Members to evaluate the trade effects and to understand the operation of notified subsidy programmes," and the notification must contain the following information: the form of the subsidy, the subsidy per unit (and, if not possible, the total or annual amount of the subsidy), the objective of the subsidy, the duration of the subsidy, and statistical data permitting an assessment of the trade effects of a subsidy.

There are existing mechanisms in the SCM Agreement by which WTO members can inform other members of information that another member has not notified. Pursuant to Article 25.8, members may make written requests for information on the "nature and extent" of a subsidy, and the requested member has an obligation pursuant to Article 25.9 to "provide such information as quickly as possible and in a comprehensive manner." Under Articles 25.9 and 25.10, any member that considers that required information has not been provided, or that a subsidy has not been notified, may bring the matter to the attention of the other member and to the Committee's attention. This procedure is referred to as "counter-notification." For example, the United States reported in April 2017 that it had submitted counter-notifications identifying over 470 Chinese subsidies that China had not notified to the WTO, including 44 in the fisheries sector (WTO 2017).

SCM Article 26 establishes a "Surveillance" mechanism that requires the Committee to examine subsidy notifications in special session every third year, and during the regular meetings of the Committee, although the paucity of notifications means this mechanism does not function nearly as well as it should.

Neither Article 25 nor Article 26 establish sanctions for non-compliance with notification obligations, nor do they provide incentives (beyond "naming and shaming") for noncompliance. While failure to notify could result in a WTO dispute, this would be an unlikely event, unless the subsidy had enormous trade effects within the territory of the complaining member. There are, therefore, few risks, other than reputational risks, arising from the failure to notify subsidies.

Low compliance rate

Compliance with existing notification obligations is patchy. Based on the 2017 report by the WTO Secretariat (WTO 2017a), the Chairman of the SCM Committee characterised the subsidy notification rate as "discouraging" (WTO 2017). This is in line with his 2016 assessment of notifications as "discouragingly low" (WTO 2016). The chairman also noted in 2017 that "79 members have yet to make their 2015 subsidy notifications [...], 60 had not yet submitted notifications for 2013, and 55 had not submitted notifications for 2011" (WTO 2017). He went on to state that "The chronic low compliance with the fundamental transparency obligation to notify subsidies constitutes a serious

¹ In addition to the regular notification procedures set forth in Article 25, Article 27 (Special and Differential Treatment of Developing Country Members) provides developing countries with certain special notification procedures that are not relevant for purposes of this note.

problem in the proper functioning of the [SCM] Agreement" (*ibid*). Other committee members echoed his concern remarking, "the problem was not only missing notifications but the poor quality of some of those submitted" (*ibid*).

There are several possible explanations for this poor performance. They include factors ranging from the lack of member capacity within trade ministries, the burden of translating information between one of the WTO official languages and the language used by national governments, a lack of clarity as to notification requirements (e.g. difficulty in benchmarking what constitutes a financial contribution; difficulty in knowing what constitutes specificity), difficulties in obtaining information – particularly with respect to sub-national programmes where a lack of trust between government officials could make cooperation difficult, lack of political will, and the fear of being held accountable in the event that a Member notifies illegal subsidies.² However, very few WTO disputes have involved evidence gathered from a defendant's subsidy notifications. This information is more frequently used by domestic industries in lobbying for duties to be imposed to countervail a WTO member's subsidy.³

Recent efforts to increase compliance with subsidy notification obligations

At the behest of the Chairman of the General Council, since 2009 there has been an on-going discussion in the SCM Committee to improve subsidy notifications (WTO 2017a, 2). Nevertheless, as described above, notifications remain low, particularly among new members (para. 8). The SCM Committee has based its recent discussions on G/SCM/W/546 which recounts notification obligations and tracks member notifications. This document is now in its eighth revision.

G/SCM/W/546/Rev.8 notes some of the steps members have taken to increase compliance:

- They have developed a questionnaire format to improve subsidy notifications;
- They have employed a "naming and shaming" exercise in the form of Annex B of W/546, which provides a list of new and full subsidy notifications by member for various time periods and identifies members that have never notified their subsidies;
- They have developed a list of Requests for Information filed by members under Article 25.8 (Annex C of W/546) (para. 10).⁴
- They have created a list of subsidies notifications made as a result of requests lodged under Article 25.10 which can be found in Annex D (counter-notifications) (para. 11).⁵

2 See also Wolfe 2013; Wolfe and Mavroidis 2015.

3 Some of these explanations were discussed in a presentation made by Iain Sandford at an ICTSD E15 Roundtable held on 5 October 2017. Talking points from Mr Sandford's presentation are on file with the author.

4 Article 25.8 "stipulates that any Member may make a written request for information on the nature and extent of a subsidy granted or maintained by another Member, or for explanation why a specific measure is not considered as subject to the requirement of notification" (WTO 2017a, 4).

5 "Article 25.10 provides that where a Member fails to notify a subsidy the notification of which is required under the SCM Agreement, any other Member may bring this matter to the attention of the Member failing to notify. If the subsidy is still not notified, such Member may bring the matter to the notice of the Committee" (WTO 2017a, 4).

The attempt by members to improve the notification of fisheries subsidies is one manifestation of the on-going effort to improve subsidy notifications across-the-board. These efforts face challenges. One challenge concerns the effectiveness of existing rules — it is difficult to compel members that do not make proper notifications to fulfil their notification obligations. It is unlikely that a member will resort to WTO dispute settlement solely to challenge another member's failure to notify a subsidy. Furthermore, according to G/SCM/W/546/Rev.8, only the European Communities and the United States have taken advantage of SCM Article 25.10 (counter-notifications). This may be in part because producing a counter-notification is both resource-intensive, making it more difficult for members with smaller bureaucracies, and risky, as the targeted member may resort to a tit-for-tat response: for example, they may counter-notify subsidies provided by the first member. A second challenge concerns the coverage of new subsidy notifications. How could members usefully expand existing rules to cover new disciplines, when many are not complying with the existing rules?

Proposals to Include Fisheries Information in Subsidy Notifications

Notification proposals

Although notification obligations applicable to fisheries subsidies are already present under Article 25.3 of the SCM Agreement and Article XVI:1 of GATT 1994, as noted above, many members are not in full compliance with their obligations. Members of the Negotiating Group on Rules are discussing ways to improve existing notification disciplines to better assess compliance with new fisheries subsidies rules and, in light of the negotiations' objectives, to help assess the potential environmental effects of these subsidies, beyond their potential distortions of trade flows. Through a review of proposals on the table, this section addresses the fisheries-related notification proposals, listing them by frequency of appearance (thus reflecting which elements of information are identified by all, some, or only one proponent).⁶

Some proposals (such as those by Iceland et al and by the United States of America) also suggest members should provide information on specific kinds of subsidies, such as fuel subsidies. The EU also suggests that developing country members should notify the use of flexibilities provided under proposed disciplines. Some of the proposals go beyond notification requirements and set forth a broader role for the SCM Committee in monitoring and surveillance of the proposed disciplines. The proposal by Argentina et al, for example, includes a provision for the SCM Committee to receive information from regional fisheries management organisations (RFMOs) and members to identify vessels engaged in IUU fishing activities (discussed below). The proposal by Iceland et al suggests the Committee should hold a biennial review of the implementation of the Agreement, informed by information from members and relevant international organisations.

6 The proposals are: TN/RL/GEN/186 from Iceland, New Zealand, Pakistan; TN/RL/GEN/181/Rev.1 from the European Union; TN/RL/GEN/187/Rev.2 from Argentina, Colombia, Costa Rica, Panama, Peru, and Uruguay; TN/RL/GEN/193 from Cambodia on behalf of the LDC Group; and JOB/GC/148 from the United States of America. Note that the proposal by the United States would require all of the elements of information listed be notified "to the extent possible."

Table 1: Notification elements on the table

	Iceland, New Zealand, and Pakistan	European Union	Argentina, Colombia, Costa Rica, Panama, Peru and Uruguay	LDC Group	USA
Programme name*	✓	✓	✓	✓	✓
Legal basis and granting authority for the programme*	✓	✓	✓	✓	✓
Conservation and management measures in place: (a) for the relevant fish stock; (b) in the relevant fishery; (c) applied to the fish stock targeted by the vessel benefitting from the subsidy.	✓ (a)	✓ (c) (best endeavour)	✓ (a)	✓ (b)	✓ (a)
Level of support provided* #		✓	✓	✓	
Fleet capacity in the fishery for which the subsidy is provided	✓		✓	✓	✓
Status of the fish stocks in the fishery for which the subsidy is provided (for example, overfished, fully fished, underfished; or overexploited, depleted, fully exploited, recovering, underexploited) ⁷	✓	✓ (best endeavour)	✓		✓
Type or kind of marine fishing activity supported by the programme	✓			✓	
Members shall also provide information in relation to other subsidies granted to the fisheries sector (for example, fuel subsidies)*	✓		✓ Granted or maintained, in particular fuel subsidies		✓
Catch data by species in the fishery for which the subsidy is provided	✓		✓ (to extent possible)		✓
Total imports and exports per species [#] (discretion in G/SCM/6/Rev.1)	✓		✓ (to extent possible)		✓
Vessels and operators fishing in areas beyond national jurisdiction, for which the subsidy is provided			✓		
Any fishing capacity management plan applied to the fleet to which the vessels benefitting from the subsidy belong			✓ (best endeavour)		
Name of recipient					✓
Vessel name, identification number					✓

Notes: An asterisk (*) indicates that an item is already covered by SCM Article 25 and GATT Article XVI:1.

A hash sign (#) indicates that an item already falls within existing notification disciplines set forth in G/SCM/6/Rev.1 of 11 November 2003.

Unmarked items appear to go beyond existing disciplines.

Dark shaded cells indicate an item that is present in only one proposal. Lighter shading indicates ideas with a bit more support (in some cases qualified by "to the extent possible").

Source: Author's elaboration based on the proposals cited.

7 Note that the indicator for Sustainable Development Goal 14.4.1 speaks of the "Proportion of fish stocks within biologically sustainable levels." See <https://sustainabledevelopment.un.org/sdg14>.

Several conclusions can be drawn from the table:

- Several members propose items for notification that should already be notified under existing WTO rules (see items with asterisk);
- Proposals with *fisheries-specific* details are largely additional to existing reporting requirements (see items without asterisks);
- For “new items” where WTO rules presently do not require notifications, there seems to be most support across proposals for notifying:
 - o Conservation and management measures in place;
 - o Fleet capacity in the fishery for which the subsidy is provided, either for the relevant fish stock or in the relevant fishery; and
 - o The status of the fish stocks in the fishery for which the subsidy is provided.

Special and differential treatment

Two of the proposals referenced above and a proposal by the ACP Group contain provisions that qualify or leave room for special and differential treatment (S&DT):

1. The transparency proposal set forth by the *LDC Group* would apply to developed and developing countries, but not LDC members (TN/RL/GEN/193).
2. The ACP Group's proposal is largely silent with respect to transparency issues, only supporting the existing notifications provisions in SCM Article 25 and GATT Article XVI:1, but it leaves room for less burdensome notification requirements for LDC Members (TN/RL/GEN/192).
3. The proposal from Iceland, New Zealand, and Pakistan provides a placeholder for special and differential treatment that does not undermine the effectiveness of SCM disciplines.

In summary, there appears to be some support for S&DT with respect to LDC subsidy notifications, in the form of relaxed notification disciplines. Since LDCs generally lack the financial resources to subsidise their fisheries sectors extensively, this issue should not be an obstacle to the negotiations.

Feasibility of Collecting and Reporting of Fisheries Subsidy-Related Information

In assessing the feasibility of requiring WTO members to collect and report fisheries subsidy-related information and other fisheries-related information to the WTO, it is useful to begin by establishing where this data is already collected. This section identifies information that is already available in the OECD and the FAO — the two most important inter-governmental sources collecting the type of information proposed by some members for notification in the fisheries negotiations.

OECD data

The Organisation for Economic Co-operation and Development (OECD) collects very detailed information from its members, and from some third countries, on use and allocation of fisheries support.⁸ Much of the data collected by OECD members is the subject of various WTO notification proposals.

In May 2017, the OECD published a report entitled *Support to Fisheries: Levels and Impacts* which “contains information on support policies implemented in 31 countries, including four outside the OECD” (OECD 2017). This important database is due to be expanded by the end of 2017 to “37 countries representing more than half of global landings” (*ibid*, 4).

Another source, OECD.stat, provides a wide variety of fisheries-related information that may be relevant in WTO fisheries negotiations as it demonstrates the variety of data available:

- International trade of fisheries products;
- Fisheries Support Estimate;
- Government financial transfers — Historical Archive;
- National landings in domestic ports;
- National landings in foreign ports;
- Foreign landings in domestic ports;
- Production from aquaculture;
- Employment in fisheries;
- Fishing fleet; and
- Inland Fisheries.

Of particular importance is the OECD Fisheries Support Estimate (FSE) database, which provides fisheries-related data on OECD countries (with the exception of Austria, Finland, Israel, Luxembourg, the Slovak Republic, and Switzerland). In addition, the FSE provides data on several non-OECD WTO members: Argentina, Chinese Taipei, Colombia, and Indonesia (OECD n.d.). This report is designed “to measure fisheries support policies in a way that allows users to compare how fisheries supports differ between countries and evolve over time” (*ibid*).⁹

8 See also “Annex 2” to this paper. The OECD is now using the term “fisheries support,” rather than “fisheries subsidies,” stating that “Fisheries support is defined as the financial transfers from governments to the fisheries. The support consists of direct revenue enhancing transfers (direct payments), transfers that reduce the operating costs, and the costs of general services provided to the fishing industry. These general services consist mainly of fishery protection services and fisheries management. In some cases, they also include the costs of local area weather forecasting and the costs of navigation and satellite surveillance systems designed to assist fishing fleets. This indicator is presented as a total and per type of support, and is measured in USD. Support for R&D is measured as a share of total fisheries support” (OECD 2017). Previously, the OECD divided “fisheries subsidies” into market price support, direct income support, indirect income support, and other support (see Cox and Schmidt 2002, in particular para. 12).

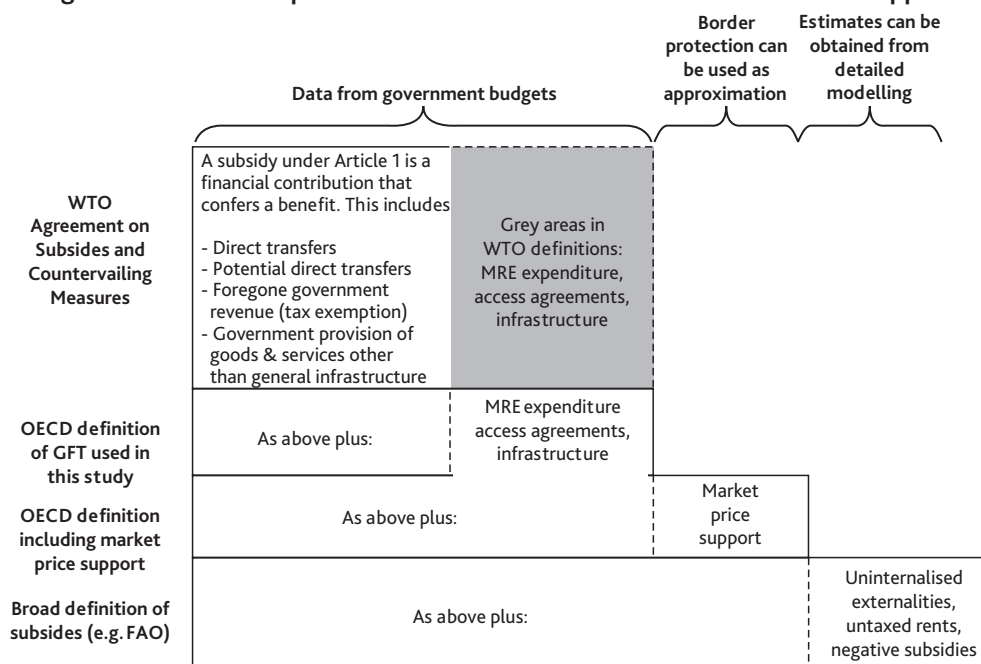
9 The *OECD Review of Fisheries: Country Statistics 2015* is an earlier report that sets forth some of the categories of data collected by the OECD, such as data on (i) Fishing fleet capacity, (ii) Employment in fisheries, (iii) Fish landings, (iv) Aquaculture production, (v) Recreational fisheries, (vi) Fisheries support estimates, and (vii) Imports and exports of fish (OECD 2016).

The OECD is also in the process of implementing a new “targets and thresholds” questionnaire that seeks to determine whether fish stocks, for which targets and thresholds are set, are in acceptable condition.

This list above demonstrates that the OECD has considerable information concerning many of the types of subsidy-related issues under discussion in the WTO fisheries negotiations, including statistics reflecting fleet capacity and imports and exports of fish products proposed for notification. The OECD work also demonstrates that it is possible to collect detailed information on fisheries subsidies and other fisheries industry statistics (at least from relatively financially well-off countries). It should, therefore, be feasible for OECD countries to provide fisheries industry information to the WTO that is already reflected in OECD databases (for example, on fleet capacity). Of course, as noted above, not all important fishing members participate in OECD data collection activities, but the number of countries participating in these activities appears to be increasing, as evidenced by the participation of certain non-OECD members in various OECD surveys, and perhaps eventually by participation in the “targets and threshold questionnaire.”

Using OECD financial support data as input in WTO subsidies notifications would require additional analysis, in particular because the definitions of fisheries support in each forum are different. The WTO notification obligations, designed to help monitor compliance with the SCM Agreement, require notification of subsidies as defined in that agreement. The OECD collects data on a wider range of financial programmes. Figure 1 illustrates the issue schematically. The difference in definitions means that, at a minimum, data notified to the OECD would need to be adapted if it were also to be used in WTO notifications.

Figure 1: Schematic representation of alternative definitions of fisheries support



Note: MRE refers to management, research and enforcement.

Source: OECD (2017)

FAO data

Although the United Nations Food and Agriculture Organization (FAO) does not deal specifically with subsidies issues, it is another very important source of fisheries information with data on many countries. Within the context of WTO fisheries subsidies negotiations, WTO members may wish to consider whether the FAO's information-gathering *methods* could be adapted to support notification of fisheries information, including subsidies information, and to support monitoring of new WTO rules.

The FAO is mandated by its constitution to "undertake the worldwide collection, compilation, analysis and diffusion of data and information in fisheries and aquaculture" (FAO 2015).¹⁰ In light of the FAO's broad and important mission, FAO fisheries data provides considerably more granularity than that of the WTO or other international organisations. The following FAO programmes, identified below, may be of particular interest to negotiators.

National Fishery Sector Overviews

The FAO's National Fishery Sector Overview examines fisheries for all featured countries, "including economic and demographic information, structure of the industry, development prospects, sector management and status and trends" (FAO 2017a). The FAO commissions a *national expert to collect data from a particular country*, and produces fishery country profiles for approximately 170 countries.

The National Fisheries Sector Overview includes some information about conservation measures put in place by certain FAO members, which suggests that when conservation measures exist they could be notified to the WTO by governments on their own or through the FAO.

While data obtained is of varying degrees of quality, the fact that the FAO employs national experts for data collection, as opposed to relying solely on notifications from UN members, suggests two alternative approaches to subsidy notification that WTO members could consider:

1. The WTO Secretariat could work with the FAO to *collect* data on subsidies as part of the National Fisheries Sector Overviews (provided the FAO's members agree); or
2. The WTO Secretariat, with agreement of the members, could commission national experts to collect missing subsidy data for inclusion in national notifications.

FAOLEX and FISHLEX Databases

FAOLEX is a database administered by the Development Law Service of the FAO's Legal Office that contains "national legislation, policies and bilateral agreements on food, agriculture and natural resources management" (FAO 2017b). FAOLEX is updated with, on average, 8,000 new entries per year. The database contains "legal and policy documents drawn from more than 200 countries, territories and regional economic integration organizations," as well as a well-developed system of readily accessible country profiles.

10 The State of World Fisheries and Aquaculture (SOFIA) is the flagship publication of the FAO's Fisheries and Aquaculture Department (see <http://www.fao.org/fishery/sofia/en>).

In addition to FAOLEX, the FAO maintains FISHLEX, which "contains the coastal state requirements for foreign fishing" and allows searches by country and maritime delimitation (FAO n.d.). Like FAOLEX, FISHLEX is a source of legislation, but one that is more oriented towards fishing licenses, fishing agreements, and fisheries.

These databases may be relevant to WTO discussions on the notification of fisheries subsidies and conservation policies. The possibility exists that, with UN members' approval and sufficient resources, FAOLEX (or FISHLEX) could be expanded to collect subsidies-related legislation and policies in the fisheries sector, including programmes' names, their legal basis and granting authority, the level of support provided, and the conservation measures in place in relevant fisheries. This information could be transmitted to the WTO and would complement on-going but presently lagging efforts on the part of WTO members to compile similar information through the notification process.

*FAO Global Fishery and Aquaculture Statistics Programme*¹¹

FAO Data on Global Fleet Statistics - Four proposals in the WTO negotiations would require members to notify the *fleet capacity* in the fishery for which a subsidy is provided. Fleet statistics are currently reported by approximately 70 countries (many of which are EU member states), with on average 55 countries reporting by vessel length overall. The relatively small number of reports may suggest that notifying fleet capacity and vessel length overall in specific fisheries might currently be a challenge for some WTO Members.

FAO Data on Global Capture Production - Three proposals would require WTO members to notify (one only to the extent possible) data on catch by species in various fisheries for fishing activity that benefits from subsidies. The FAO also collects this data, updated annually for approximately 230 countries and territories. The level of detail available in this information is variable: more data is available from industrial fisheries than small-scale fisheries and from EEZ fishing rather than High Seas fishing (although no such distinctions are provided in the FAO database). Overall, reporting the catch by species for large-scale fishing activity would be possible for most countries. Reporting catch by species for small-scale fishing activity is currently possible for developed countries and for some, but not most, developing countries; this is a focus of current FAO efforts.

FAO Commodity and Trade Statistics - *Information on imports and exports per fish species* is part of three tabled proposals, and may be included—albeit at members' discretion—in existing subsidy notifications. This information may be among the most feasible for members to notify, as the FAO's Fishery Commodity and Trade Statistics provide information on imports and exports of fish products covering approximately 1,000 fish species, by volume and by value. The data is based on annual updates from national authorities in roughly 130 countries. Where data is not available (some data from African countries and Pacific and Caribbean islands is incomplete), the FAO provides estimates based on statistics from trading partners.

11 This sub-section and the next draw on a presentation made by the FAO at a Knowledge-Sharing Seminar on Fisheries Subsidies organised by ICTSD on 16 November 2017, available at www.ictsd.org.

Fisheries and Resources Monitoring System (FIRMS)

The FAO also maintains its Fisheries and Resources Monitoring System (FIRMS) database, which “provides access to a wide range of high-quality information on the global monitoring and management of fishery marine resources” (FAO 2017c). FIRMS operates as a partnership between FAO and intergovernmental fisheries organisations. Data is collected by FIRM partners, as well as through the FAO’s Strategy-STF Framework which works at the national level to collect fisheries-related information.¹² FIRMS provides an extensive database¹³ dealing with fisheries and fish stocks, including species captured. The FAO also holds information and factsheets on regional fisheries bodies (RFB),¹⁴ and countrywide information on legislation.¹⁵ The FAO databases include some of the fisheries information proposed for notification in the WTO, which suggests that WTO notification of this information should be feasible and that FAO data could be used to fill gaps in national notifications. The WTO Secretariat could be mandated, for example, to collate and make available to the SCM Committee summaries of relevant data available in the FAO.

Four proposals also call for notifications to include information on the *status of fish stocks* whose exploitation is subsidised. The FAO collects information on the status of fish stocks that cover about 70-80% of captured marine species by volume. National governments provide information on stocks under national mandates, while regional fisheries management organisations and bodies provide information for shared and straddling stocks. Where information is not available or is not reliable, the FAO undertakes its own analysis of the status of particular stocks based on catch trends per species by FAO-defined areas.

There are synergies that could be exploited by WTO members and the WTO Secretariat working in cooperation with the FAO. Stock status information will be required as part of monitoring efforts under the UN Sustainable Development Goals, and some of this information could be notified, as relevant, to the WTO. Importantly, the FAO offers technical assistance to help countries build their ability to assess stocks. As this capacity is developed (hopefully in the short-term), SOFIA and FIRMS estimates could be used in WTO notifications, in particular for High Seas catch and stock assessments.

Two proposals would require WTO members to notify the *type and kind of marine fishing activity* supported by a notified subsidy programme. While it may be feasible for most WTO members to provide a general description of the kinds of fishing activity that benefit from subsidy programmes, many members may find it challenging to identify such activities with precision, particularly if small-scale. The FAO’s Global Record of Stocks and Fisheries, which is expected to be released in 2018, could eventually provide a single set of references for fisheries activities that members may be able to correlate with various subsidy programmes.

12 The FishCode-STF database is available at <http://www.fao.org/fishery/fishcode-stf/en>.

13 See the Fisheries and Resources Monitoring System (FIRMS) at <http://firms.fao.org/en>.

14 Regional Fishery Body information is available at: <http://www.fao.org/fishery/rfb/collection/en>.

15 National fisheries legislation and country profiles are available at: <http://www.fao.org/faolex/country-profiles/en/>.

In summary, FAO data covers an enormous number of countries, including almost all WTO members active in the fisheries sector. The FAO already has considerable data available on certain matters that WTO members have proposed for inclusion in fisheries subsidy-related notifications:

- Fleet capacity (FAO's Global Fishery and Aquaculture statistics);
- Catch by species (FAO's Global Fishery and Aquaculture statistics);
- Status of fish stocks (FIRMS);
- Conservation and management measures (National Fisheries Sector Overview); and
- Imports and exports by species (FAO's Global Fishery and Aquaculture statistics).

Data for several matters that WTO members have proposed for inclusion in WTO notifications could be reported to or obtained by the FAO, including:

- Programme names (FAOLEX);
- Legal basis and granting authority (FAOLEX);
- Level of support provided (FAOLEX); and
- Conservation measures in place (FAOLEX).

Challenges to information collection

The challenges that WTO members experience with respect to subsidy-related and fisheries-related information collection take several forms:

1. WTO members may face resource challenges to the extent that they lack the human, financial, and technical resources to collect and notify fishery-related information. In the context of subsidy information, these difficulties may be compounded by the need to make a legal assessment of whether programmes meet the requirements for notification; and
2. Members may lack the political will to make subsidy and other fishery-related information public and may be wary of the information being used against them in dispute settlement proceedings.

Only the *first* challenge is readily curable. WTO members and the Secretariat could provide additional technical assistance and financial resources to help with the collection and notification of fisheries subsidy-related information, perhaps working to the extent feasible with the FAO, which is also helping UN members improve their domestic data collection skills.

Alternatively, data could be collected outside of normal government channels, through national experts and staff members of international organisations (the FAO approach), or through the WTO Secretariat, as is done with the reports produced by the Secretariat in conjunction with Trade Policy Reviews (TPRs).

The second challenge, increasingly the political will to notify, is more difficult to address and would take concerted action on the part of members – perhaps through naming and shaming exercises in

SCM Committee meetings. However, it appears that, until now, notified information has rarely been used against a member in dispute settlement; work to confirm this view is underway.¹⁶

Several conclusions can be drawn from information challenges faced by members. Providing additional technical assistance and financial resources to help members meet notification disciplines will help those members who want to notify their subsidy regimes, but such provisions will not overcome problems stemming from political will. Addressing the harmful effects of fisheries subsidies may be addressed within the WTO by working with organisations like the FAO and the OECD. In addition, WTO Members could adopt the FAO approach of dedicating Secretariat resources to data collection, and engaging national experts to assist in data collection. This data could then be submitted by the Secretariat to the SCM Committee and incorporated by the Secretariat into TPR Reports.

Redesigning Notification Requirements and Developing Incentives to Notify

Introductory thoughts

First, it is useful to remember that most WTO member governments know when, at least at the national level, they allocate subsidies to their fisheries sectors, and they generally know how much money they have appropriated as subsidies. This is a typical task entrusted to senior government officials exercising either a legislative or executive function. As the knowledge of subsidy allocations is generally available within national government circles, if not publicly available to all, the mechanics of federal-level subsidy notification to the WTO should not in principle be a difficult task, particularly as “instructions” are available on the WTO website with respect to notification procedures,¹⁷ as are sample notifications.¹⁸ In practice, however, governments face very real challenges in developing comprehensive notifications. Federal government officials may not, for example, know exactly what has been disbursed to the fishing industry at sub-national levels, and government officials—particularly at the sub-national level—may struggle to establish exactly what subsidies are required to be notified under WTO rules.

Second, it might be advantageous for negotiating purposes to separate certain issues. Ensuring that members fulfil their WTO obligations to report subsidies, including fisheries subsidies, could be considered separately from members’ desire to obtain additional fisheries data—such as data that could be used to link overfishing and illegal, unreported and unregulated (IUU) fishing with the provision of subsidies.

Third, it is useful to remember that, as described above, the FAO is already collecting, through its members, national experts, and its Secretariat, considerable fisheries-related information, even if not directly related to subsidies.

Focusing first on the issue of obtaining additional fisheries data, WTO members may find it easier in the long run to agree to notify to the WTO the same fisheries data they already provide to the FAO, in

16 See presentation by Robert Wolfe at the Knowledge-Sharing Seminar on Fisheries Subsidies, organised by ICTSD on 16 November 2017 (<https://www.ictsd.org/themes/environment/events/knowledge-sharing-seminar-on-fisheries-subsidies-0>).

17 See WTO 2003.

18 See WTO 2013.

particular with respect to fish stocks, fleet capacity, marine fishing activity, and marine management activities. In order to help fill gaps where fisheries data is missing from individual notifications, WTO members could authorise the WTO Secretariat to source, and table in the SCM Committee, specific kinds of fisheries information gathered by the FAO beyond that provided in national notifications (such as estimates of stock status). To be clear, this might involve a commitment of both WTO and FAO resources, and a degree of duplication of effort, which could be minimised if the FAO and WTO Secretariats work together to ensure that WTO and FAO databases are updated as necessary. The importance of nevertheless requiring governments to notify subsidy and related fisheries information in the WTO is that this would allow both the subsidizing member and other members to identify more easily where subsidisation may be having negative environmental effects. Alternatively, to reduce duplication, the range of information to be notified by WTO members to the Committee could be narrowed if the members agreed that the SCM Committee could draw information from other reliable sources, such as the FAO.

With respect to compliance with obligations to notify subsidies, another option could be to eliminate the incentive not to report, or to make a qualitatively poor report, by establishing a mechanism to feed information about subsidies into the WTO when it is not being provided by members. For example, the FAO and WTO Secretariats could be instructed to work together to obtain missing subsidy-related information (using the WTO definition of a subsidy, if the information will be discussed in the WTO), and this could be published on both websites, thus serving to incentivize WTO members to make adequate fisheries subsidies notifications. Members could eventually discuss this information in the SCM Committee. A more general discussion of financial support to fisheries and relevant fisheries information could also be included in Trade Policy Reviews.

If FAO members were to agree that FAO staff and experts begin to collect subsidy-related information, and if sufficient financial and human resources were allocated to this task, the way forward for developing country WTO members would be easier as resource constraints would be less likely to be an obstacle. Likewise, members that lack the political will to provide fisheries subsidies notifications might then have an incentive to begin to produce notifications, as the information would be available from other sources. However, increased FAO involvement in the fisheries subsidy field would require either allocating more resources to the FAO Secretariat or prioritising subsidy-related fisheries work over other FAO activities. FAO involvement would also be facilitated if the FAO were to exchange data on financial support to fisheries support with the OECD.

With these introductory points in mind, several of which point to complementary means of achieving the results sought in the fisheries subsidies negotiations, this paper now turns to elements in the proposals that may incentivise improved notifications.

Elements of proposals that seek to incentivise improved notifications

A number of WTO members have proposed ways in which incentives could be created to encourage members to provide better subsidy notifications, including using data generated outside the WTO and building incentive mechanisms into notification rules.

Argentina, Colombia, Costa Rica, Panama, Peru, and Uruguay

In the context of the fisheries subsidies negotiations, Argentina, Colombia, Costa Rica, Panama, Peru, and Uruguay propose that “to enable the effective surveillance of subsidies” the SCM Committee shall receive communications from Regional Fisheries Management Organizations (RFMOs) that a vessel or operator has engaged in IUU activity and from Members that a vessel of a third country flag has engaged in IUU activity.

The proposals by Argentina, Colombia, Costa Rica, Panama, Peru, and Uruguay (hereafter “Latin Group”) that the Committee receive notifications from RFMOs is sensible and virtually cost-free. Regional Fisheries Management Organizations are in a good position to know about IUU fishing within their region of competence. From the WTO perspective, an important point would be that the detail available to the RFMO is included in the notification, in order to help members assess whether subsidies are facilitating IUU activity. The Latin Group’s proposal could be expanded to allow international organisations, such as the FAO, and other organisations (such as the OECD), to notify or share information about IUU activities and various state and local subsidy schemes.

The Latin Group’s proposal, that the Committee receive notifications from other members that a vessel or operator has engaged in IUU fishing within its waters, would be one means of building awareness of IUU fishing in foreign EEZs under new fisheries subsidy rules. To the extent that this approach would enable members to make other members aware of possible subsidy-related IUU activity, this proposal could be cost-effective and would increase transparency. The Latin Group’s support for notification of technical assistance and capacity building activities and review of these activities by the Committee would also seem to be a sensible and cost-effective way forward, as is WTO co-operation with FAO and UNCTAD on fisheries issues.

The European Union

The EU has tabled proposals within the context of general industrial subsidy notifications that could conceivably be applied to fisheries. The EU suggests two steps: an examination of members’ semi-annual CVD reports to ascertain whether notifications were made, and to have the Secretariat prepare notifications when subsidies have not been notified (WTO 2015a). This could be a reasonable fall-back provision in instances when members are not fulfilling their legal notification requirements. Given the quantity and quality of the problems plaguing the existing SCM notification system, the WTO Secretariat would need to dedicate one or more staff members, with some degree of fisheries knowledge, to this task. One could envision this task being undertaken in cooperation with the FAO and data being shared between the two organisations.

The EU has also suggested that notified subsidies would benefit from a rebuttable presumption of non-actionability or an increase in the standards governing *de minimis* or serious prejudice thresholds; or conversely that the failure to notify would lead to a rebuttable presumption of actionability (with technical assistance for developing countries) (*ibid*; WTO 2015b). This proposal suggests that notifications may have more value as a source of information than as the basis for a dispute (Wolfe 2017).

United States

The United States has also tabled a proposal for a Ministerial Decision at the December 2017 Ministerial Conference that is designed to improve notifications across the WTO Agreements, including a commitment to provide, *to the extent possible*, information about fisheries subsidies and related fishing activities (WTO 2017b). The proposal draws on the procedures applicable to members in arrears in setting out a range of significant consequences that would apply to members that did not submit timely notifications under existing WTO Agreements and did not cooperate with the WTO Secretariat in completing alternative notifications. The consequences listed would provide a strong incentive to comply with notification requirements, which might help address challenges related to political will. It is less clear how challenges related to a member's capacity would be addressed.

Designing rules to meet transparency objectives and address notification challenges

There are several ways in which WTO members could design new notification obligations to help meet the overall objectives of transparency in the fisheries subsidies context and to help meet some of the challenges they face with respect to notification.

What Should WTO Members Notify?

As noted in the first section, the main goal of SCM notifications is to provide WTO members with the information they need to establish whether subsidies are causing trade effects and whether members are abiding by their obligations with respect to prohibited or actionable subsidies. In the context of a fisheries subsidies agreement, the objectives of notification would be similar, but because the objective of the new disciplines is primarily environmental, notifications should help discern whether subsidies are having a negative effect on fish stocks. Notifications should also help members to assess whether other members are complying with their obligations under the new disciplines.

Notifications related to the prohibition of subsidies furthering IUU activity and the fishing of overexploited stocks: In the absence of new disciplines from an eventual agreement on fisheries subsidies, it is difficult to define precisely what information should be notified to the Committee. On the basis of what is currently on the table, negotiators could consider whether it would be useful for members to commit to notify the SCM Committee of some or all of the following:

- Members could agree to notify the SCM Committee of national lists of IUU vessels, where these exist;
- If the disciplines allowed identification of vessels engaged in IUU activities by coastal states, those coastal state WTO members could notify the SCM Committee of the name, registry (and to the extent possible known ownership information) of vessels found fishing illegally in their waters;
- Members could agree that RFMOs inform the SCM Committee of vessels and operators engaged in IUU activities in waters under the RFMO's management; and

- If Members decide to prohibit subsidies that facilitate the catch of overfished stocks, they could require the subsidising member to notify the Committee whether it, or an RFMO, has assessed the status of the stock(s) exploited by subsidised vessels, and the determination made.

Where information is politically sensitive, such as lists of vessels engaged in IUU fishing, the SCM Committee could simply take note of the notifications made, rather than engage in lengthy discussion of whether a vessel should or should not have been listed by an RFMO. Similar suggestions were made by the E15 Expert Group on Oceans and Fisheries, which noted that the SCM Agreement already requires notifications of subsidies, but that there is a need to verify notifications and that this could be facilitated, not only by counter-notifications, but by receiving information from other sources (Sumaila 2016, 31).

Prohibitions on subsidies for capital costs, variable costs (such as operating costs), fishing in distant waters, and price support: Alice Tipping noted in 2015, in a paper focused on the fisheries sector that “Subsidies that incentivize further production aggravate the commons problem” (Tipping 2015, 2).¹⁹ Subsidies for operating costs (such as fuel subsidies) or capital costs (ship construction), for purchasing licenses to fish in distant waters, and for price support, usually fall into this category as they encourage overfishing.

It would be important, from an economic perspective, to eliminate one possible cause of overfishing (by prohibiting subsidies for capital costs, variable costs, fishing in distant waters, and price support), as well as the potential “downstream” result of a subsidy (IUU fishing). Members could be required to notify as part of the programme design what specific costs the subsidy is designed to reduce. Such subsidies could be phased out over a transition period.

Alternative sources of information: It is unlikely that members appropriate money specifically for IUU activity, or for fishing in overexploited waters. It is also unlikely that a WTO member will, of its own volition, notify the Committee of information admitting that its subsidised fishing fleet, or a particular vessel under its flag, is engaged in IUU activities.

The solution, therefore, may lie in looking for additional sources of information that can cast some light on compliance with new fisheries disciplines. It is likely that increased cooperation between organisations with greater expertise in fisheries (the OECD, FAO, UNCTAD, and RFMOs) and the WTO Secretariat, as a collator of information for the SCM Committee, would produce additional information about IUU activities and fleets that fish for overexploited stocks; this information could be used to encourage recalcitrant members to take action against subsidies provided for poor fishing practices.

Cooperation between the WTO Secretariat and other international and regional organisations is not only sensible, it is politically and economically wise as members would not be placed in the difficult position of “turning themselves in” to the Committee (without prodding), and the Committee and the WTO Secretariat would benefit by contributing their subsidies expertise to, and working with, organisations that have greater strength working on fisheries issues (OECD, FAO, UNCTAD, etc.). Input could also be sought by the Committee from other entities and perhaps even non-governmental organisations that closely follow fisheries issues.

¹⁹ Tipping notes that UNEP breaks fishing subsidies into eight categories: subsidies to capital costs, subsidies to variable costs, subsidies for access to foreign countries' waters, fisheries infrastructure, income support and unemployment insurance, price support subsidies, vessel decommissioning and license retirement subsidies, and management services and research (3).

Improving the Notification Process

As indicated above, the subsidy notification process is not functioning efficiently: too many members are not fulfilling their notification obligations, and those that do make timely notifications do not always produce quality notifications. Prohibiting certain types of fisheries subsidies should be the priority; amending the notification process would play a supporting role.

If members want to improve the notification process, there is a need for a better economic understanding of what particular subsidy programmes are designed to accomplish and incorporating this understanding into notifications:

- Notifications of fishery-related subsidy programmes could contain an explanation of the objectives behind a particular subsidy programme; and
- Capacity-building initiatives designed to help members better comprehend the economic effects of their fisheries subsidies may further a member's understanding of why a particular subsidy is being employed, and the net economic effect that the subsidy is designed to produce.

Streamlining the fisheries subsidy notification process may result in more and better-quality notifications:

- Training could be given to members on how to make fisheries subsidy notifications;
- Time periods for notifications, in particular for LDCs, could be extended, and technical assistance could be provided to LDCs by the WTO Secretariat; and
- FAO and RFMOs could work with members to improve the quality of both notifications and data collection (and help them to better understand the economic effects of fisheries subsidies).

Avoid disincentives to notification:

- Members could encourage the WTO Secretariat, other international organisations, RFMOs, and NGOs to notify the Committee of information that is relevant to the application of the disciplines, such as lists of vessels from RFMOs engaged in IUU activity;
- More ambitiously, international organisations or NGOs could be allowed to notify the SCM Committee when it appears that subsidies are leading to poor fishing practices, or when a member that makes heavy use of subsidies fails to discipline ship owners and captains engaged in poor practices; and
- New disciplines could encourage counter-notifications from members under SCM Article 25.

Duplication should be avoided where possible:

- Notification requirements should be simple and clear, and cross-reference relevant existing information available from other sources; and
- Training could be given to members with respect to what fisheries data is already available from other sources.

How the information provided is used is also crucial. A dedicated annual session of the SCM Committee on fisheries subsidies would enable members to pose questions and discuss information provided in notifications as well as from other sources. This would enable members to learn more about their own and other members' subsidy policies and their environmental effects (Wolfe 2017).

Conclusion

This paper (i) identifies common elements of additional fisheries-related information proposed for new *notification* disciplines and discusses the feasibility of requiring all WTO members to provide this information; and (ii) identifies and briefly discusses a range of options by which WTO members could establish incentives to notify this information.

In fulfilling these objectives, this paper recognises that members are already required to notify certain fisheries subsidies under the SCM Agreement, and that other information proposed by certain members for notification is already being collected by the OECD, the FAO, and other organisations that could either be incorporated into the member's notifications or provided independently to the SCM Committee.

The paper concludes by suggesting steps to simplify and improve the notification process, and calls for wider engagement between WTO members and the OECD, FAO, RFMOs, and NGOs, to the extent that each follow fisheries issues.

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Annex I: Questionnaire Format For ASCM And GATT Subsidy Notifications

World Trade Organization

G/SCM/6/Rev.1

11 November 2003

(03-6007)

Committee on Subsidies and Countervailing Measures

Original: English

QUESTIONNAIRE FORMAT FOR SUBSIDY NOTIFICATIONS UNDER ARTICLE 25 OF THE AGREEMENT ON SUBSIDIES AND COUNTERVAILING MEASURES AND UNDER ARTICLE XVI OF GATT 1994¹

Revision

General Rules

1. The following subsidies are subject to notification under Article 25 of the Agreement on Subsidies and Countervailing Measures and under Article XVI of GATT 1994:
 - (a) all specific subsidies, as defined in Articles 1 and 2 of the Agreement on Subsidies and Countervailing Measures ("the SCM Agreement"), shall be notified pursuant to Article 25.2 of the SCM Agreement;
 - and
 - (b) all other subsidies (i.e., in addition to those described in (a)), which operate directly or indirectly to increase exports of any product from, or to reduce imports of any product into, the territory of the Member granting or maintaining the subsidies, shall be notified pursuant to Article XVI:1 of GATT 1994.
2. It is understood that notifications made in accordance with the following questionnaire format will satisfy the notification requirements of both Article 25 of the SCM Agreement and Article XVI of GATT 1994.
3. Any Member considering that there are no measures in its territory requiring notification under the SCM Agreement and Article XVI of GATT 1994 shall so inform the Secretariat in writing.
4. The content of notifications should be sufficiently specific to enable other Members to evaluate the trade effects and to understand the operation of notified subsidies.
5. It is recognized that notification of a measure does not prejudice either its legal status under GATT 1994 and the SCM Agreement, the effects under the SCM Agreement, or the nature of the measure itself.
6. To the extent that subsidies are provided on the basis of specific products or sectors, notifications of those subsidies should be organized by product or sector.
7. To the extent that information called for in any question is not provided, the response to that question shall explain why not.

¹ This format replaces G/SCM/6. This document is prepared solely to assist Members in the preparation of subsidy notifications under Article 25 of the *Agreement on Subsidies and Countervailing Duties*, and is without prejudice to the legal obligations therein.

8. In accordance with Article 25.1 of the SCM Agreement, subsidy notifications shall be submitted no later than 30 June of each year.
9. Members shall submit new and full notifications each third year (with 1995 understood to be the year for the first new and full notifications under Article 25 of the SCM Agreement and under Article XVI of GATT 1994), and shall submit updating notifications in the intervening years.

Information to be Provided²

1. Title of the subsidy programme, if relevant, or brief description or identification of the subsidy.
2. Period covered by the notification. The period to be covered by the notification should be the most recently completed calendar or fiscal year. In the latter case, the start and end dates of the fiscal year should be specified.
3. Policy objective and/or purpose of the subsidy.
4. Background and authority for the subsidy (including identification of the legislation under which it is granted).
5. Form of the subsidy (i.e., grant, loan, tax concession, etc.).
6. To whom and how the subsidy is provided (whether to producers, to exporters, or others; through what mechanism; whether a fixed or fluctuating amount per unit; if the latter, how determined).
7. Subsidy per unit, or in cases where this is not possible, the total amount or the annual amount budgeted for that subsidy (indicating, if possible, the average subsidy per unit in the previous year). Where provision of per unit subsidy information (for the year covered by the notification, for the previous year, or both) is not possible, a full explanation.
8. For the information cited in items 3 to 7 above, the notification does not necessarily have to have an independent heading corresponding to each item, and may provide information on multiple items in one heading (e.g. provide information on items 3 and 4 under one heading). In this case, the notification must clearly specify what items are covered by which heading.
9. Duration of the subsidy and/or any other time limits attached to it, including date of inception/commencement.
10. Statistical data permitting an assessment of the trade effects of the subsidy. The specific nature and scope of such statistics is left to the judgement of the notifying Member. To the extent possible, relevant and/or determinable, however, it is desirable that such information include statistics of production, consumption, imports and exports of the subsidized product(s) or sector(s):
 - (a) for the three most recent years for which statistics are available;
 - (b) for a previous representative year, which, where possible and meaningful, should be the latest year preceding the introduction of the subsidy or preceding the last major change in the subsidy.

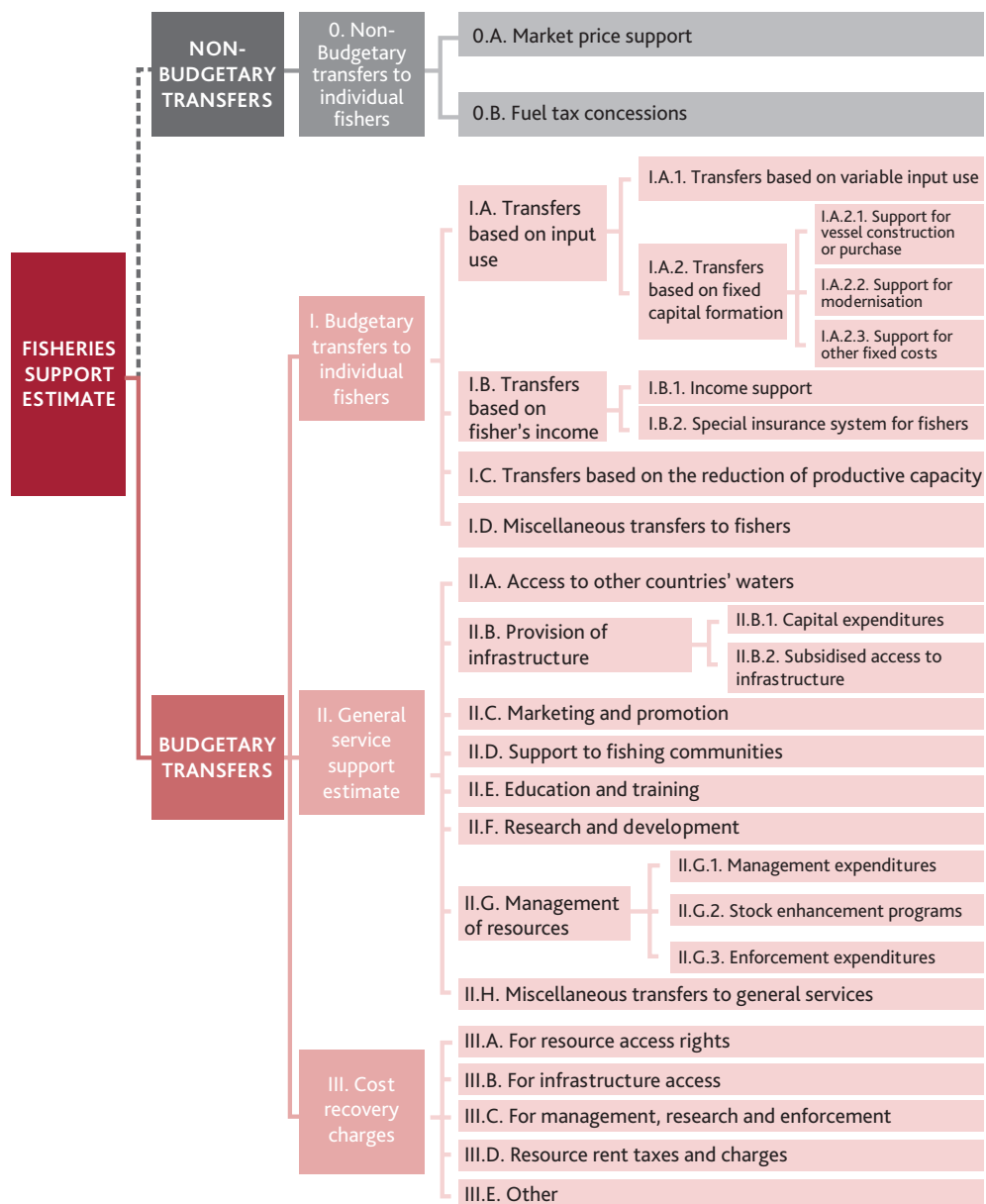
2 The information requested in points 1-9 below must be provided in full:

(a) for all subsidies in the case of full notifications

(b) for subsidies notified for the first time in update notifications.

In the case of subsidies which have previously been notified, the information provided in update notifications under points 3, 4, 5, 6 and 8 may be limited to indicating any modifications (or the absence thereof) from the previous notification.

Annex II: Components of OECD Fisheries Support Estimates



Source: OECD. 2017. "Support to fisheries: Levels and impacts." *OECD Food, Agriculture and Fisheries Papers 103*. Paris: OECD Publishing.

Options for the Legal Form of a WTO Agreement on Fisheries Subsidies

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Introduction

This paper looks at various legal options for implementing possible WTO disciplines to reduce fisheries subsidies. It considers several scenarios.

The first scenario assumes the adoption of a stand-alone text with multilateral effect. The main questions concern how this should be done; that is, as a new multilateral agreement on goods (following the model of the 2017 Trade Facilitation Agreement (TFA)), as a stand-alone annex to the SCM Agreement (following the model of the 2017 Amendment to the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS)), or as a Ministerial Decision adopted at a Ministerial Conference (following the model of the 2001 Doha Declaration on TRIPS and Public Health or the 2015 Nairobi Ministerial Decision on Export Competition). These options differ in terms of their adoption procedure, the binding force of the text, including enforcement in dispute settlement proceedings, and their political feasibility.

There are also other scenarios. One is that new disciplines be effected by other means, such as a new stand-alone plurilateral agreement (like the Government Procurement Agreement). Another is that the disciplines take the form of individual scheduled commitments, which could be unilateral or follow a multilateral agreement (e.g. the 1996 Ministerial Declaration on Trade in Information Technology Products or the 2015 Nairobi Ministerial Decision on Export Competition). Again, these scenarios differ in terms of their adoption, legal force, and feasibility.

This reference paper is structured in four parts.

First, the paper provides a short summary of the *context* in which the current negotiations on fisheries subsidies within the WTO have arisen. This section outlines the overall structure of the WTO Agreements and introduces the main issues arising in relation to the legal form of new fisheries disciplines, as these have emerged in members' proposals to date.

Then, the paper explores two means of establishing a new *stand-alone multilateral agreement* to regulate fisheries subsidies. One is a new agreement annexed to, and thus made part of, the SCM Agreement (Option A). The second is a new agreement on trade in goods to be inserted, alongside the SCM Agreement, into Annex 1A of the WTO Agreement (Option B).

The next section of the paper explores the option of using a *Ministerial Decision* to establish fisheries subsidies disciplines. Such a Decision could be of a type specifically provided for in the Marrakesh Agreement Establishing the World Trade Organization, namely an authoritative interpretation of the SCM Agreement (Option C1) or a waiver of existing obligations under the SCM Agreement (Option C2). Or it might be of another, unspecified type, as provided for in Article IV:1 of the WTO Agreement (Option C3). Ministerial Declarations are considered separately (Option C4).

The penultimate section discusses another option, namely that of members states setting *individual commitments* in their schedules annexed to the General Agreement on Tariffs and Trade (GATT) 1994 (Option D).

Finally, the paper briefly analyses the option of a new plurilateral agreement (Option E).

The paper concludes with a summary of the available options and an evaluation of their various advantages, trade-offs required, and political feasibility and viability.

Context

The current fisheries subsidies negotiations result from the WTO Hong Kong Ministerial Declaration, which noted that there was broad agreement among members to "strengthen disciplines on subsidies in the fisheries sector, including through the prohibition of certain forms of fisheries subsidies that contribute to overcapacity and over-fishing,"¹ and which also indicated that such disciplines should take the form of amendments to the SCM Agreement.²

Current negotiations have been reinvigorated by the United Nations Sustainable Development Goals (SDGs), and in particular SDG 14.6 which aims, by 2020, to

prohibit certain forms of fisheries subsidies which contribute to overcapacity and overfishing, eliminate subsidies that contribute to illegal, unreported and unregulated fishing and refrain from introducing new such subsidies, recognising that appropriate and effective special and differential treatment for developing and least developed countries should be an integral part of the World Trade Organization fisheries subsidies negotiation.

The 2007 Chair Text³ and subsequent proposals by members have generated several substantive options for regulating fisheries subsidies. These centre on the prohibition of certain subsidies (as defined in the SCM Agreement) that have negative effects on fisheries. Importantly, because the reason for prohibiting certain fisheries subsidies is not contained in the existing text of the SCM Agreement, the envisaged disciplines aim to prohibit subsidies that might not otherwise be prohibited or actionable under that agreement. It is also important to note proposed exceptions to the prohibitions, but also that some exceptions have also been proposed to existing SCM disciplines. There is therefore a strong interrelationship between the disciplines under discussion and the existing text of the SCM Agreement.

Stand-Alone Multilateral Agreement (Options A & B)

Annex to SCM Agreement (Option A) or Annex 1A Agreement (Option B)

Since the 2007 Chair Text, members' proposals have generally been drafted in the form of new disciplines that would be contained in a stand-alone legally binding text with the status of a multilateral WTO agreement. The 2007 Chair Text on the other hand proposed that this stand-alone text be set out as a new annex to the SCM Agreement, similar to the way that the TRIPS Amendment (mainly) took the form of an annex to the TRIPS Agreement (Option A). However, a stand-alone legally binding text with the status of a multilateral WTO agreement could also take the form of a completely new multilateral agreement on trade in goods alongside the SCM Agreement in Annex 1A of the GATT 1994, along the lines of the new Trade Facilitation Agreement (Option B). The following evaluates these two options. Box 1 sets out the current structure of the WTO Agreements, for reference.

1 WTO Hong Kong Ministerial Declaration, WT/MIN(05)/DEC, 22 December 2005, Annex D: Rules I. Anti-Dumping and Subsidies and Countervailing Measures including Fisheries Subsidies, para. 9.

2 WTO Hong Kong Ministerial Declaration, Annex D: Rules I. Anti-Dumping and Subsidies and Countervailing Measures including Fisheries Subsidies, para 1.

3 TN/RL/W/213, 30 November 2007.

Box 1: WTO Agreements

Agreement Establishing the World Trade Organization

Annex 1: Multilateral Trade Agreements

- Annex 1A: Multilateral Agreements on Trade in Goods
- Annex 1B: General Agreement on Trade in Services
- Annex 1C: Agreement on Trade-Related Aspects of Intellectual Property Rights

Annex 2: Dispute Settlement Understanding

Annex 3: Trade Policy Review Mechanism

Annex 4: Plurilateral Trade Agreements

- Agreement on Government Procurement
- Agreement on Trade in Civil Aircraft

Source: World Trade Organization (1999)

Legal issues

Both Options A and B involve a legally binding agreement establishing new obligations enforceable through the WTO dispute settlement system (although with some variations to be discussed). Both options would therefore have a strong effect on members' fisheries subsidies policies.

Considerations in support of Option A

This said, there are two main reasons why Option A is preferable. The first is one of legal architecture. All of the proposals to date are based on definitions in the SCM Agreement. This means that it is more elegant for an annex to the SCM Agreement to cross-reference to those definitions than for a new agreement to cross-reference to them. Second, and more importantly, having the new text as an annex to the SCM Agreement would facilitate the use of the SCM Committee to administer the new disciplines.

Considerations ambivalent as between Options A and B

There is also a third consideration, with ambivalent effects on a choice between these two options. This has to do with the way the new obligations can be enforced.

WTO law is ordinarily enforced by permitting a successful complainant to suspend concessions or other WTO obligations "equivalent" in value to the negative trade effects suffered by that complainant as a result of the violation.⁴ This is different for remedies concerning prohibited subsidies under the SCM Agreement. In that case, a successful complainant will be authorised to adopt "appropriate countermeasures." These are more flexible than the usual WTO enforcement mechanism insofar

⁴ Article 22.7 of the WTO Dispute Settlement Understanding.

as they do not need to be calculated in terms of trade effects. This is particularly relevant to fisheries subsidies disciplines, which are not primarily intended to protect economic interests, but rather are intended to protect environmental interests. An appropriate countermeasure could therefore be the restriction of access to ports, such as proposed by New Zealand and others,⁵ regardless of whether its economic effect is equivalent to the loss of any market access for any given WTO member.

It must be acknowledged that there is a mixed jurisprudence on the extent to which "appropriate countermeasures" for existing prohibited subsidies can be delinked from trade effects. Support for such an interpretation can be found in the *Brazil – Aircraft* arbitration, where the arbitrator determined that "when dealing with a prohibited export subsidy, an amount of countermeasures which corresponds to the total amount of the subsidy is 'appropriate'."⁶ On the other hand, some years later, the arbitrator in *US – Cotton* took the view that there should be a link between appropriate countermeasures and trade effects of prohibited subsidies. That arbitrator said that "the trade-distorting impact of that measure on the complaining party provides a basis from which to assess the appropriateness of proposed countermeasures in a given case."⁷ What this shows is that it is, in principle, perfectly possible for "appropriate countermeasures" to be delinked from the trade effects of the obligations being enforced. For clarity, it would be desirable to state expressly that "appropriate countermeasures" to enforce prohibited fisheries subsidies should not be linked to the trade effects of these subsidies.

The question then is whether this means that it would make sense for the new disciplines to take the form of an annex to the SCM Agreement, to facilitate resort to "appropriate countermeasures" under that agreement. On one view, this would certainly be the case. However, there is a counter-argument, which is that some members may be reluctant to admit that "appropriate countermeasures" under the SCM Agreement should ever be delinked from the trade effects of the measures against which these countermeasures are directed. It might be possible to respond to such a counter-argument by ensuring that any express description of "appropriate countermeasures" as delinked from trade effects should be limited to those targeted at prohibited fisheries subsidies, and not other prohibited subsidies. But, in practice, there might be a legitimate concern that even with such a qualification, such delinkage would affect the determination of ordinary "appropriate countermeasures." In conclusion, what could be an argument in favour of a new annex to the SCM Agreement could also be an argument in favour of a new stand-alone text.

Issues equally applicable to Options A and B

There is another issue that needs to be resolved for both Options A and B. This is the need to anticipate and resolve potential conflicts between the new text and existing WTO law, including the existing SCM Agreement. For example, a number of proposals have identified exceptions to the new disciplines for certain subsidies, for example to promote fisheries management, as well as in relation to special and differential treatment for developing countries. In general, these proposals appear to intend to limit the application of the new exceptions to the new rules (thereby ensuring that subsidies covered by these exceptions could still be actionable under the SCM Agreement if they

⁵ TN/RL/GEN/186, para. 3.3 (27 April 2017).

⁶ WT/DS46/ARB, para. 3.60 (28 August 2000).

⁷ WT/DS267/ARB/1, para. 4.72 (31 August 2009).

had trade-distorting effects). In such cases, the new disciplines do not raise any conflicts issues. A proposal by Indonesia, in contrast, suggests that developing countries should be able to subsidise certain fishing activities "[n]otwithstanding the provisions of the ASCM ..."⁸ Whether to establish such an exception to existing rules is an important policy question that would need to be resolved regardless of which option is chosen.

Adoption procedure

Both Options A and B involve an amendment to the annexes of the WTO Agreement. This means, in both cases, resort to the procedure for amending those annexes as set out in Article X of the WTO Agreement,⁹ and in particular Article X:3, which concerns "[a]mendments to provisions of this Agreement, or of the Multilateral Trade Agreements in Annexes 1A ... of a nature that would alter the rights and obligations of the Members."

Article X establishes three procedural stages. First, an amendment must be proposed to the Ministerial Conference by a member or a relevant council, which in this case would be the Council on Trade in Goods.¹⁰ Next, the Ministerial Conference takes a decision on whether to submit the proposed amendment to the members. This decision should be taken by consensus within 90 days, or within a longer period if this is decided by the Ministerial Conference.¹¹ If consensus is not reached within that period, a decision to submit the proposed amendment to members may be taken by a two-thirds majority vote.¹² Once put to the members for acceptance, amendments "shall take effect for the Members that have accepted them upon acceptance by two thirds of the Members and thereafter for each other Member upon acceptance by it." This procedure was adopted for the Trade Facilitation Agreement, which was concluded in December 2013 and entered into force in 2017.

Political feasibility

The main difficulty with amendment under Article X:3 (which applies equally to Options A and B) is, in practice, the requirement for a consensus requirement, even if in theory it is possible for an amendment to be put to members and adopted with a mere two-thirds majority vote. This does not mean that an amendment of this type is impossible. The Trade Facilitation Agreement followed this procedure, and the TRIPS Amendment was adopted by similar means. However, there can be a time lag for such amendments to come into force. The TFA was finalised at the 2013 Bali Ministerial Conference, and came into force a little over three years later, on 22 February 2017. The TRIPS Amendment took significantly longer, from 2003 to January 2017.

8 TN/RL/GEN/189/Rev.1 (13 July 2017).

9 There are several types of amendments that are not relevant here. These are amendments to provisions on decision-making, scheduled commitments to the GATT, and the principal WTO most favoured nation obligations, which require acceptance by all WTO members (Article X:2), amendments to the Dispute Settlement Understanding (DSU) and the Trade Policy Review Mechanism, which likewise require acceptance by all WTO members (Article X:8), amendments that do not alter the rights and obligations of WTO members, which take effect for all WTO members upon acceptance by two-thirds of members (Article X:4), and some amendments to GATS and TRIPS (Article X:5 and X:6).

10 Article X:1 of the WTO Agreement.

11 Article X:1 of the WTO Agreement. Presumably this decision would be taken by consensus or, failing that, a simple majority, as per Article IX:1 of the WTO Agreement.

12 Article X:1 of the WTO Agreement.

Ministerial Decision or Ministerial Declaration (Option C)

Another option for the adoption of a stand-alone text is a Ministerial Decision or Ministerial Declaration. There are several types of Ministerial Decision, each with different legal implications. One is an authoritative interpretation under Article IX:2 of the WTO Agreement (Option C1). The second is a waiver under Article IX:3 of the WTO Agreement, such as the 2003 waiver on TRIPS and Public Health (Option C2). A third is a Ministerial Decision taken under Article IV of the WTO Agreement, such as the Ministerial Decision on Export Competition adopted at the 2015 Nairobi Ministerial Conference (Option C3). A fourth option is a Ministerial Declaration, also taken under Article IV of the WTO Agreement, but which usually does not purport to establish the same type of legal obligations as Ministerial Decisions under that provision (e.g. the Ministerial Declaration on Export Competition adopted at the 2013 Bali Ministerial Conference) (Option C4).

Legal issues

Option C1 (authoritative interpretations under Article IX:2 of the WTO Agreement)

The most straightforward use of an authoritative interpretation is to reduce the meaning of an ambiguous term to one single meaning. In theory, however, it could also be used to expand the meaning of a term to include a meaning that is not the ordinary meaning of the term. However, there are three limits to the use of authoritative interpretation as an effective means of giving legal effect to fisheries subsidy disciplines.

The first limit is that authoritative interpretation always requires that there be an existing term that can be interpreted. Authoritative interpretation cannot be used to invent an entirely new rule delinked from an existing word. Relevantly, the SCM Agreement does not have terms that are capable of being interpreted in such an expansive way as to incorporate the sophisticated disciplines that have been proposed for prohibited fisheries subsidy disciplines. In addition, Article IX:2 states that authoritative interpretations cannot “undermine the amendment provisions in Article X.” This operates as a further limit on the use of such a mechanism to alter the rights and obligations of members.¹³ It is true that there may be some flexibility on this point. Thus, Ehlermann and Ehling have argued that:

One should not speak of an instance of “undermining” each time when an authoritative interpretation attempts to achieve something that could also be achieved through an amendment. ... The last sentence of Article IX:2, therefore, does not stand in the way of permitting authoritative interpretations to modify the law, it only limits the extent to which this may occur. (2005, 811)

They suggest for example that a “should” might become a “shall.” But they also draw the line at the introduction of entirely new rules (2005, 811–12). As the proposals on the table are directed at substantive new prohibitions, this means that an authoritative interpretation would not be a suitable legal form for more extensive new disciplines.

¹³ It is less clear how Article XI:2 decisions relate to amendments under Article X:4 that do not alter WTO rights and obligations.

Option C2 (waivers under Article IX:3 of the WTO Agreement)

Another type of Ministerial Decision is a waiver of WTO obligations. It is not necessary to discuss these in any detail, however, because this type of Ministerial Decision does not seem to be of practical use for the new disciplines being proposed, in particular because waivers cannot create obligations, only diminish them. Further, it is an instrument that should only be used "in exceptional circumstances" and that is subject to annual review to establish that such circumstances continue to be present. This does not seem appropriate for fisheries subsidy disciplines which would be designed to be permanent.

Option C3 (Ministerial Decisions under Article IV:1 of the WTO Agreement)

WTO members also have a practice of using a third kind of instrument to signal a legal change, these being Ministerial Decisions adopted at the WTO's biennial Ministerial Conferences (or in the interim by the General Council). These decisions typically refer to Article IX:1 of the WTO Agreement, which concerns voting rules, but formally they are adopted under Article IV:1 of the WTO Agreement (Nottage and Sebastian 2006, 1004). This provision states that:

The Ministerial Conference shall have the authority to take decisions on all matters under any of the Multilateral Trade Agreements, if so requested by a Member, in accordance with the specific requirements for decision-making in this Agreement and in the relevant Multilateral Trade Agreement.

Even though Ministerial Decisions are customarily adopted by consensus, formally they can be adopted by a simple majority of the votes cast.¹⁴ This leads Nottage and Sebastian (2006) to sound a note of caution as to the extent to which these decisions might alter WTO rights and obligations. They suggest that such decisions might have interpretive value, as per Article 31(3)(a) and (b) of the Vienna Convention on the Law of Treaties,¹⁵ but would stop short of being able to amend rights and obligations. In addition, such Decisions might also be used to relinquish the right to invoke dispute settlement procedures, provided the relinquishment is made clearly.¹⁶ But this is as far as they can go.

In short, insofar as they are not enforceable under the WTO Dispute Settlement Understanding,¹⁷ Ministerial Decisions (whether described as such or contained in Ministerial Declarations) are not legally binding, although they could, as noted, be used to interpret existing provisions of the WTO Agreements under certain circumstances. However, Ministerial Decisions can still have an important political function, by signalling a political commitment to undertake further action.

14 Article IX:1. The number of "votes cast" can be fewer than that of the total WTO membership.

15 Vienna Convention on the Law of Treaties, 1969. The Appellate Body has treated as "subsequent agreements" both a Ministerial Decision and a Committee Decision which for different reasons did not satisfy the conditions of Article IX:2 of the WTO Agreement: WTO Appellate Body Report, *US – Clove Cigarettes*, WT/DS406/AB/R, adopted 24 April 2012, paras 260–267 and WTO Appellate Body Report, *US – Tuna II (Mexico)*, WT/DS381/AB/R, adopted 13 June 2012, paras 371–372. The Appellate Body also indicated that the Panel might have considered referring to the Accountancy Disciplines developed under the GATS as a "subsequent agreement": WTO Appellate Body Report, *US – COOL*, WT/DS384/AB/R, adopted 23 July 2012, para. 451 n 914.

16 See WTO Appellate Body Report, *Peru – Agriculture*, WT/DS457/AB/R, adopted 31 July 2015, para. 5.25.

17 WTO dispute settlement procedures apply only to obligations contained in the "covered agreements" specified in Annex 1 of the DSU.

Option C4 (Ministerial Declarations under Article IV:1 of the WTO Agreement)

A final option is a Ministerial Declaration adopted at a biennial Ministerial Conference. It is frequently observed that there is no provision in the WTO Agreement providing for Ministerial Declarations, but by necessity, if these are truly decisions of the WTO and not of the WTO members operating outside the WTO, Ministerial Declarations must be considered to be adopted under Article IV:1 of the WTO Agreement, discussed earlier. This means that they have the same legal status as the Ministerial Decisions just described. The difference between Ministerial Decisions and Ministerial Declarations lies not in their legal form, but rather in their content. Often the former are used in relation to conduct, while the latter are used in relation to facts, for example, to indicate that members share a certain understanding of a legal or factual state of affairs. But sometimes Declarations are used to express a softer form of conduct obligation, and Decisions a harder form of conduct obligation. For example, the Bali Ministerial Declaration on Export Competition stated that members "reaffirm our commitment ... to the parallel elimination of all forms of export subsidies and disciplines on all export measures with equivalent effect" and "undertake to ensure to the maximum extent possible that ... The progress towards the parallel elimination of all forms of export subsidies and disciplines on all export measures with equivalent effect will be maintained."¹⁸ The Nairobi Ministerial Decision on Export Competition stated, in contrast, that "[d]eveloped Members shall immediately eliminate their remaining scheduled export subsidy entitlements as of the date of adoption of this Decision."¹⁹ But even this dichotomy is porous, with some Ministerial Declarations containing very fixed obligatory language. For example, the Declaration containing the so-called Information Technology Agreement stated that "each party shall bind and eliminate customs duties and other duties and charges of any kind, within the meaning of Article II:1(b) of the General Agreement on Tariffs and Trade 1994, with respect to [certain products]."²⁰ Exactly the same could—and probably should—have been said in a Ministerial Decision.

The difference between Decisions and Declarations therefore appears to be one of diplomatic choice. While Declarations are usually used to express factual agreement, they can also be used to signal a political commitment to undertake certain conduct. That strays into the territory normally occupied by Decisions. But it does not really matter, because both have the same legal status, which is essentially interpretative, although these instruments could probably also be used to signal restraint in exercising dispute settlement or other rights. To the extent that the commitments begin in a softer way, and end up in harder form, one possibility is to work with a trajectory from a Declaration to a Decision and finally to a formal amendment of the WTO Agreement. That was the path followed with the 2001 Doha Ministerial Declaration on TRIPS and Public Health, which was followed by the 2003 General Council Decision on the Implementation of paragraph 6 of the Doha Declaration on the TRIPS Agreement and public health,²¹ and finally the TRIPS Amendment which came into effect in 2017.

18 WT/MIN(13)/40, 11 December 2013, paras 2 and 8.

19 WT/MIN(15)/45, 19 December 2015, para. 6.

20 WT/MIN(96)/16, 13 December 1996, para. 2. This Declaration was not multilateral, but was rather made on behalf of 15 WTO members (counting the European Communities as one and Switzerland representing the customs union of Switzerland and Liechtenstein).

21 WT/L/540 and Corr.1, 1 September 2003.

Adoption procedure

The adoption procedure for these different forms of Ministerial Decision differs slightly.

Article IX:2 of the WTO Agreement establishes a two-stage procedure for "authoritative interpretations." First, the Council for Trade in Goods (in this case) is to make a recommendation to the Ministerial Conference (or the General Council). The decision to make the recommendation must be by consensus, or failing that majority vote. Next, the Ministerial Conference may decide to adopt the recommendation by a three-quarters majority of all WTO members.

For waivers, Article IX:3 of the WTO Agreement establishes a slightly different procedure. The Council for Trade in Goods (in this case) must submit a request for a waiver to the Ministerial Council, but this time the decision to submit the request for a waiver must be by consensus within the Council for Trade in Goods. The Ministerial Conference then decides, by consensus or majority vote, on a period of a maximum of 90 days to consider the request. During that period it may adopt the request by consensus. If it does not, the waiver may be adopted by three-quarters of all WTO members. Waiver requests and decisions must also state the exceptional circumstances justifying the waiver, and decisions must be kept under annual review.

For other Ministerial Decisions (and Declarations), the procedure is much simpler. Under Article IV:1 of the WTO Agreement, such decisions are taken by consensus or failing that by simple majority vote.

Political feasibility

There have not yet been any authoritative interpretations within the WTO. This may be because this mechanism has not been appropriate for the sorts of legal change that have been proposed to date, or it may be a signal of the political difficulty of changing WTO law by this route (or possibly both). Nonetheless, as this is not an appropriate mechanism in the case of fisheries subsidy disciplines, it is not necessary to speculate on this point. In contrast, there have been many waivers, but again, this solution is not appropriate in the present case. Most importantly, there have been numerous WTO Ministerial Declarations and Decisions, beginning with those adopted at Marrakesh in 1994. This indicates that, at least as a fall-back option, such a decision should be relatively easier to obtain than a formal amendment to members' rights and obligations.

Scheduled Commitments (Option D)

Thought might perhaps be given to another solution, which is the adoption of individual bound commitments in members' schedules of concessions and commitments pursuant to a Ministerial Decision (either as a stand-alone Decision or contained in a Ministerial Declaration, as discussed previously). Precedents for such Decisions, with implementation in members' schedules of concessions annexed to the GATT 1994, are the Information Technology Agreement and the Nairobi Decision on Export Competition. In both cases, members undertook in these instruments to amend their schedules and commitments.

Legal issues

The legal effect of Ministerial Decisions and Declarations has already been discussed. The legal effect of scheduled commitments is another issue. So far, the mechanism for enshrining scheduled commitments on trade in goods in WTO law has been to annex them to the GATT 1994. Such schedules then have the binding status of treaty law pursuant to Article II:7 of the GATT 1994. Their binding effect can arise through two provisions. Normally, commitments would be rendered obligatory under Article II:1(a) of the GATT 1994, which states: "Each contracting party shall accord to the commerce of the other contracting parties treatment no less favourable than that provided for in the appropriate Part of the appropriate Schedule annexed to this Agreement."

There is no restriction on the commitments that can be undertaken in such a schedule, provided that they relate to trade in goods (Bartels and Häberli 2010). In the case of subsidies, it works a little differently. The Agreement on Agriculture required WTO members to include subsidy commitments in Part IV of their schedules, which were also annexed to the GATT 1994. However, rather than relying on Article II:1(a) of the GATT 1994 (recourse to which, incidentally, might still be possible), the Agreement on Agriculture contains its own obligations referring to these scheduled commitments. So, for example, Article 3.2 of the Agreement on Agriculture states: "Subject to the provisions of Article 6, a Member shall not provide support in favour of domestic producers in excess of the commitment levels specified in Section I of Part IV of its Schedule."

In practice, this has meant that disputes on agricultural subsidy commitments have cited provisions such as this in the Agreement on Agriculture rather than Article II:1(a) of the GATT 1994. However, there is no reason in principle why Article II:1(a) of the GATT 1994 could not also be invoked in response to a failure to abide by a commitment contained in a schedule annexed to the GATT 1994.

This has several consequences in relation to the possibility of enshrining fisheries subsidy disciplines in members' schedules. First, it is legally possible for members to include a prohibition on fisheries subsidies in their own schedules. Such prohibitions could also be subject to exceptions qualifying the prohibitions, although such exceptions would not be able to override any other WTO obligations (and therefore there would be a difficulty with the Indonesian proposal mentioned earlier). Moreover, failure to respect such prohibitions could be raised under Article II:1(a) of the GATT 1994. However, as discussed, the remedy for non-compliance with such an obligation would be the suspension of WTO concessions or other obligations of a value calculated in terms of the trade effects of any violation. That would be an inappropriate sanction for a violation of fisheries subsidy obligations.

Adoption Procedure

A WTO member has a right to modify its own schedule pursuant to Article XXVIII of the GATT 1994. In practice, other WTO members can object to the certification of such modifications, although there are also mechanisms for failures to agree on such modifications. In this case, it is unlikely that there would be any objections, as the modifications would entail further commitments only on the modifying member.²²

This solution might not carry all the advantages of a multilateral agreement on fisheries subsidies. It would also run into the difficulty already identified in terms of enforcement, namely, that retaliation

22 Procedures for Modification and Rectification of Schedules of Tariff Concessions, Decision of 26 March 1980 (L/4962).

would take the form of the suspension of concessions and other obligations calculated in terms of trade effects.

Political feasibility

A possible difficulty with Option D is political. It could be difficult to convince members to amend their schedules individually without the security of knowing that other members will amend their schedules at the same time. However, the individual amendment of schedules could be effectively coordinated through use of a protocol that conditions the entry into effect of the amended schedules, based on reaching a "critical mass" of participants as defined in the protocol.²³ Moreover, this procedure could be used prior to obtaining the degree of agreement that would be required for other formal changes, in particular amendments to the WTO Agreement under Article X:3.

Plurilateral Agreement (Option E)

A further option is for a subset of WTO members to adopt fisheries subsidy disciplines in the form of a new plurilateral agreement, along the lines of the Government Procurement Agreement and the Agreement on Trade in Civil Aircraft.

Legal issues

Plurilateral agreements have legal effect only for the parties that have concluded them. This makes them a useful means of establishing rights and obligations in cases where consensus cannot be achieved. They are (or can be made) enforceable using the WTO dispute settlement procedures, as between the parties to the agreement.

Adoption procedure

A plurilateral agreement may be adopted under Article X:9, which states that "[t]he Ministerial Conference, upon the request of the Members parties to a trade agreement, may decide exclusively by consensus to add that agreement to Annex 4."

Political feasibility

There is not much advantage in a plurilateral over a multilateral agreement (whether a stand-alone Annex 1A agreement or an Annex to the SCM Agreement). A plurilateral agreement would have the same disadvantages, legally speaking, as those discussed, and it would also have the political disadvantage of reducing the formal scope of coverage of any such agreement in terms of enforceable rights and obligations. It would, therefore, be very much second-best as an alternative to a multilateral agreement.

However, a plurilateral agreement could play a role in a longer sequence of reform. A plurilateral agreement could in theory establish more ambitious disciplines than it would be possible to agree

23 This protocol mechanism has been used advantageously in the case of modifications to services schedules on basic telecommunications and financial services.

multilaterally: plurilateral members could take on obligations in order to establish a benchmark for further multilateral agreement. Given that the commitments would relate to unilateral subsidy reductions, which by definition would benefit all other WTO members without discrimination, it might not be difficult to generate consensus to incorporate a plurilateral agreement on subsidies into Annex 4 of the WTO Agreements.

Conclusion

In terms of the effectiveness of new disciplines on fisheries subsidies there is little doubt that the most appropriate option is to establish a new binding multilateral agreement enforceable by WTO dispute settlement procedures. There are essentially two options for such an agreement. Option A is for such an agreement to take the form of an annex to the SCM Agreement; Option B is for such an agreement to take the form of a new multilateral agreement on trade in goods, like the Trade Facilitation Agreement. There are architectural advantages to Option A, as well as dispute settlement advantages, in the sense that remedies for non-enforcement can more easily be made flexible under the SCM Agreement. However, it is possible, with creative drafting, also to incorporate these elements in a stand-alone agreement as per Option B. In terms of the adoption procedure and political feasibility of these two options, there is no difference. Both can only be achieved by a formal amendment of the WTO Agreement (and its annexes) under Article X:3 of the WTO Agreement, requiring a minimum of a two-thirds vote of the total WTO membership. That this can be achieved in a relatively short time is borne out by the Trade Facilitation Agreement, which took only a little over three years from negotiations being finalised to coming into force. But it can take longer, as for example the 14 years it took for the TRIPS Amendment, although one explanation for this lengthy delay is that the ratification hold-outs already benefited from the same rights under the 2003 TRIPS Decision.

Other multilateral techniques for achieving legal change would be less immediately effective, but could be used sequentially to work towards formal amendments to the WTO Agreements. Given the substance of the proposals, which are concerned with establishing new obligations, it makes no sense to adopt a waiver from existing obligations (Option C2). An authoritative interpretation (Option C1), a Ministerial Decision (Option C3) and a Ministerial Declaration (C4) could also not be used to add binding new obligations. Nonetheless, a Ministerial Decision or Declaration would have significance as signalling a political commitment to institute legal change either on a unilateral basis (as with the Information Technology Agreement or the Nairobi Decision on Export Competition), or to set the framework for a later binding formal amendment (as with the Doha Declaration on TRIPS and Public Health). These two types of Decision could also most likely be used to relinquish dispute settlement rights, as discussed. In this respect, there is a trade-off between the legal effectiveness and the political feasibility of these options.

There are two other legally effective options, but these have legal and political drawbacks. The first of these is for WTO members to amend their GATT 1994 schedules to incorporate binding commitments on the prohibition of fisheries subsidies (Option D). Such commitments could be conditional, or include exceptions to their coverage. They could also be enforced under the GATT 1994, although that enforcement would have to take the form of the suspension of concessions or other WTO obligations calculated according to the trade effects of the illegal subsidies. Given that under the new disciplines, fisheries subsidies are prohibited regardless of their trade effects, this is

an undesirable outcome. Another possible drawback with this option is one of reciprocity: a protocol or some other means would be needed to ensure that the commitments of participating members enter into force at the same time.

Finally, Option E is to institute new fisheries subsidy disciplines by way of a new plurilateral agreement. The only real advantage to such an option would be to set a higher benchmark for disciplines than would be achievable multilaterally. A plurilateral fisheries subsidies agreement would require a consensus decision to take effect, and although other WTO members might enjoy the benefits of the participants' subsidy reform, the agreement would only be enforceable as between the participants themselves.

The result is that members desiring to achieve an effective outcome should aim for a binding multilateral agreement, preferably by way of an annex to the SCM Agreement (as most propose) or, with creative drafting, as a stand-alone multilateral agreement on trade in goods. However, work towards the same disciplines could also be set in train in the form of a Ministerial Declaration or a Decision, which could then be given more binding legal force at a later date, either by way of individual commitments (properly sequenced to preserve reciprocity) or by a subsequent multilateral agreement.

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Fisheries Subsidies Rules at the WTO

A Compilation of Evidence and Analysis

At the WTO's Eleventh Ministerial Conference in December 2017, ministers adopted a Decision on Fisheries Subsidies directing negotiators to continue talks with a view to adopting an agreement by 2019, the year of the next ministerial conference. The ministerial decision also specifically re-commits WTO members to implementing their existing notification obligations in order to strengthen transparency of the subsidies provided to fishing.

Reaching a comprehensive and effective outcome will require solutions that respond to the many technical and legal questions the negotiations have brought up. The papers in this compilation aim to respond to some of these questions. They cover the law of the sea rules relevant to the development of fisheries subsidy disciplines, options for the identification of illegal, unreported and unregulated (IUU) fishing activities, technical input on the definition and measurement of overfished stocks, small-scale fisheries and shared fish stocks, and ways in which better transparency of fisheries subsidies and an eventual legal outcome to the negotiations could be built into the WTO framework.