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How the WTO Can Help Tackle Climate Change through Fossil Fuel Subsidy Reform:

Lessons from the Fisheries Negotiations

Heloísa Pereira



International Centre for Trade
and Sustainable Development

Issue Paper

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Lessons from the Fisheries Negotiations

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Ministry of Industry, Foreign Trade and Services, Brazil



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LIST OF ABBREVIATIONS

APEC	Asia-Pacific Economic Cooperation
ASCM	Agreement on Subsidies and Countervailing Measures
CO ₂	carbon dioxide
CVD	countervailing duty
DSB	Dispute Settlement Body
FAO	Food and Agriculture Organization
FFSR	fossil fuel subsidy reform
G7	Group of Seven advanced economies
G20	Group of Twenty major economies
GDP	gross domestic product
GHG	greenhouse gas
IEA	International Energy Agency
IMF	International Monetary Fund
IUU	illegal, unreported, and unregulated
LDC	least developed country
MC11	11th Ministerial Conference of the WTO
MEA	multilateral environmental agreement
MW	megawatt
NDC	nationally determined contribution
NGO	non-governmental organisation
OECD	Organisation for Economic Co-operation and Development
OECD Arrangement	OECD Arrangement on Officially Supported Export Credits
SDG	Sustainable Development Goal
S&DT	special and differential treatment
TPP	Trans-Pacific Partnership
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UNFCCC	United Nations Framework Convention on Climate Change
WTO	World Trade Organization

FOREWORD

Two years after the world's governments adopted the Paris Agreement on climate change and the 2030 Agenda for Sustainable Development, climate action has reached a crossroads. While the United States, the largest carbon emitter, has expressed its intent to leave the Paris Accord, climate change is becoming increasingly pronounced. The international community's need to act on climate change and reduce emissions is thus more urgent than ever.

The use of fossil energy remains the biggest cause of greenhouse gas emissions. Addressing the climate challenge therefore requires a shift from fossil fuel production and consumption to clean energy use and increased energy efficiency. In practice, however, all major economies continue to subsidise the exploration, processing, and use of fossil fuels, thereby undermining the prospects of a speedy transition.

Members of the G20, G7, and Asia-Pacific Economic Cooperation have committed to phasing out inefficient fossil fuel subsidies and the international community has introduced relevant provisions to this end in the Paris Agreement and the Sustainable Development Goals. Progress to implement these commitments has been slow, however. What appears to be missing is a legally binding tool for disciplines.

The multilateral trading system has an important role to play in this context. With the binding nature of its agreements and its effective enforcement mechanism, the World Trade Organization (WTO) could make a difference if members agreed on international rules that disciplined the use of fossil fuel subsidies.

It is against this background that ICTSD, through a series of analytical papers and dialogues, seeks to explore options on how to strengthen the international trade system to assume the challenge of climate change by disciplining fossil fuel subsidies. As part of this endeavour, Heloísa Pereira, Former Deputy Director, Department of Trade Remedies, Ministry of Industry, Foreign Trade and Services of Brazil, has authored the present paper, drawing lessons from the fisheries negotiations on how to reform fossil fuel subsidies through the WTO.

The analysis has been informed by a series of workshops held in Geneva with trade delegates in 2016-17 and builds on work undertaken by the joint ICTSD-World Economic Forum's E15 Initiative. It serves as a basis for the continuation of the project, which aims to outline options and lessons for disciplining fossil fuel subsidies through the trade system and to inform the deliberations of trade and climate delegates and policymakers towards a more sustainable future.



Ricardo Meléndez-Ortiz
Chief Executive, ICTSD

EXECUTIVE SUMMARY

Fossil fuel subsidies harm the environment, add to health hazards caused by air pollution, and slow down the energy transition to a cleaner energy supply mix - with clear local as well as global consequences. The need to phase them out is thus urgent and the trade system may have a possible role to play in this context. Given the World Trade Organization's (WTO) effective enforcement mechanism, its members' commitment to sustainable development, and the existence of a subsidies agreement, the Agreement on Subsidies and Countervailing Measures, the organisation is well-placed to address the issue of fossil fuel subsidies. To make progress to this end, lessons could be drawn from the ongoing fisheries subsidies negotiations in the WTO which, like fossil fuel subsidies, cause drastic negative, environmental effects.

This paper assesses whether the WTO should have a role within the broader context of climate change and, more specifically, in advancing fossil fuel subsidy reform (FFSR). It does so by drawing parallels with the fisheries subsidies negotiations, which provide a number of lessons for FFSR. In looking at the fisheries talks as a model for FFSR, the paper acknowledges the limitations of this approach. Nevertheless, the paper shows that the two may have more in common than not, which can turn the fisheries negotiations into a proper benchmark against which to assess how the WTO can advance FFSR.

The piece identifies four overarching lessons that can be drawn from the fisheries negotiations: on designing new substantive disciplines, on special and differential treatment, on how to craft a specific negotiating mandate, and on starting plurilateral/regional talks.

As for designing new substantive disciplines, the fisheries negotiations illustrate the challenge of defining new categories of subsidies, and, ultimately, how to articulate and measure their environmental effects. In regard to the latter, the effects-based approach used in the fisheries negotiations may be a useful path for addressing the complex issue of fossil fuel subsidies, classifying fossil fuel subsidies into three categories: prohibited subsidies that cause the most harm to the environment; actionable subsidies that, for instance, benefit energy-efficiency technologies without increasing carbon emissions; and non-actionable subsidies, including those given to research and development in both fossil fuels and renewable energy industries provided that they do not lead to an increase in carbon emissions.

On special and differential treatment, the fisheries negotiations have shown that negotiating flexibilities and carve-outs became the only feasible way to balance the interests of a wide range of countries with different degrees of ambition. As the situation is anticipated to be similar for fossil fuel subsidy reform, a wide exception for least developed countries and another exception based on the contribution to the environmental problem by each member could be envisaged.

The fisheries negotiations may also provide lessons for FFSR in terms of the role of commitments outside the WTO framework and on focusing on a plain Ministerial Declaration text. The fisheries negotiations relied on external mandates to advance, in particular, the Sustainable Development Goals. Given the intricacies of FFSR, the proponents of reform should be prepared to embrace a similar strategy, by, for instance, tabling proposals that show the need for a WTO role in advancing the SDGs and the implementation of the Paris Agreement in the realm of fossil fuel subsidies. In addition, the assertive and direct language of the fisheries negotiating mandate has played a role in helping the fisheries discussions to get focused and move forward. This illustrates the importance of crafting a plain negotiating mandate, which in the case of fossil fuel subsidy reform may help advance the negotiations.

Lastly, the fisheries negotiations have shown that a plurilateral agreement may be a useful pathway to advance talks when a multilateral initiative may not be politically feasible. By generating the right momentum for a multilateral agreement at a later stage through peer pressure or by leading the process by example, while not compromising urgent short-term needs, a clubs-based approach could lead the way for FFSR as well. Given that a relatively small subset of states comprises the greatest grantors of fossil fuel subsidies, a plurilateral tactic as a driver for the engagement of other members would complement rather than substitute for multilateral negotiations.

1. INTRODUCTION: WHY THE WTO?

When searching for a response to the question of *how* the World Trade Organization (WTO) can help efforts to mitigate climate change by discussing fossil fuel subsidies reform (FFSR), one question inevitably comes up: *why* should the WTO have a role in reforming fossil fuel subsidies and involve itself with the environmental debate? Answering that question is not an easy task. One could argue that (1) the WTO is a trade organisation, rather than an energy agency; (2) other intergovernmental organisations have already taken the lead to move FFSR forward; and (3) fossil fuel subsidies should merit no special attention under the WTO rules as compared to all other subsidies. Trade rules however have a considerable impact on public incentives that can play a key role in the fight against climate change—either contributing to, or holding back, mitigation efforts. That fact alone suggests that the question is worth exploring.

1.1 Commitment to Environmental Protection and to Sustainable Development within and outside the WTO Framework

First, the WTO is an international organisation that deals specifically with trade matters, rather than an energy or sustainability agency, and thus has no energy-specific rules in its legal framework. Even so, trade rules do have an impact on sustainability concerns within the broader context of climate change, as illustrated by the FFSR debate. In the Marrakesh Agreement establishing the WTO, members have explicitly committed to sustainable development. In its preamble, it states the objective of achieving more sustainable and equitable development through trade, while at the same time acknowledging the need to preserve and protect the environment. In particular, it says that WTO members recognise that their relations in the trade and economic fields should allow “for the optimal use of the world’s resources in accordance with the objective of sustainable

development, seeking both to protect and preserve the environment and to enhance the means for doing so in a manner consistent with their respective needs and concerns at different levels of economic development” (WTO 1995). According to the Appellate Body in *US - Shrimp* “this language demonstrates a recognition by WTO negotiators that optimal use of the world’s resources should be made in accordance with the objective of sustainable development.”¹

This recognition is reinforced by means of the members’ pledges under the Doha Declaration. Paragraph 6 of the Declaration states the members’ belief that the multilateral trade system, the protection of the environment and the promotion of sustainable development “can and must be mutually supportive.” Paragraph 6 further expresses the members’ commitment to continue “cooperation with UNEP [United Nations Environment Programme] and other inter-governmental environmental organizations” and to promote “cooperation between the WTO and relevant international environmental and developmental organizations” (WTO 2001). The Doha mandate can, therefore, serve as a stepping stone to advance existing environmental and sustainable development commitments outside the WTO. In particular, there are the directives under the United Nations (UN) Agenda 2030 and the Sustainable Development Goals (SDGs) that expressly address the issue of climate change. More specifically, these commitments underlie (1) the need to phase out inefficient fossil fuel subsidies (SDG 12.c); (2) the need to foster a substantial increase in the share of renewable energy in the global energy supply mix (SDG 7.2) and consumption (SDG 7.2.1); and (3) the need to double the global rate of improvement in energy efficiency (SDG 7.3). Or even the commitments under Article 2.1.c of the Paris Agreement, whereby the parties pledge to “[m]aking finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development.” Or even the undertaking under

1 Appellate Body report, *United States - Import Prohibition of Certain Shrimp and Shrimp Products*, WT/DS58/AB/R, 12 October 1998, at para. 153.

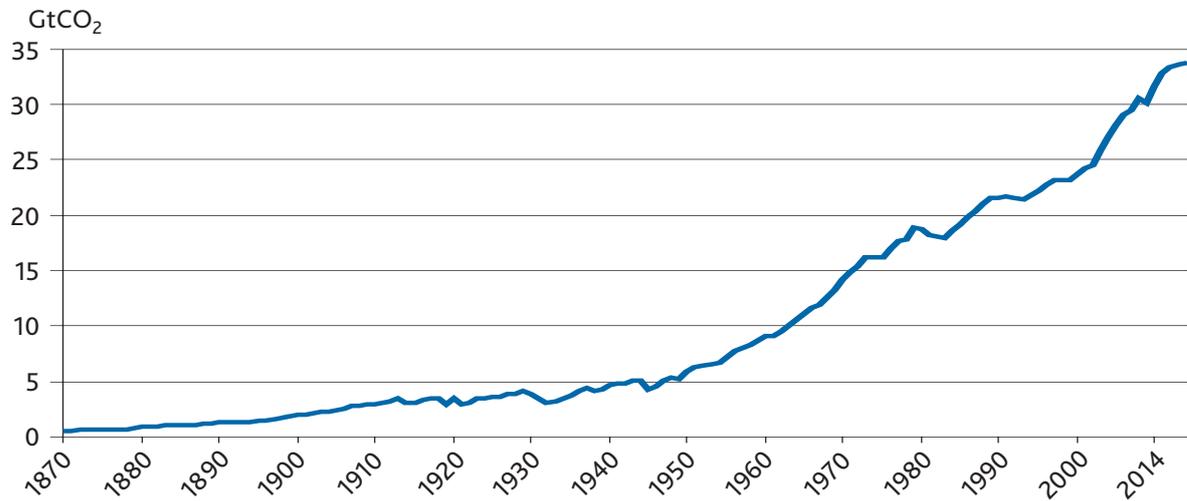
paragraph 82 of the Addis Ababa Action Agenda, whereby the states parties commit to “integrate sustainable development into trade policy at all levels” (UN 2015).

1.2 Enforceability of WTO Agreements

Second, for over more than 20 years other intergovernmental organisations and plurilateral initiatives—the Intergovernmental Panel on Climate Change (1988), the Rio Earth Summit (1992), the Copenhagen Accord (2009), the G20 (2009), Asia-Pacific Economic Cooperation (APEC) (2009), the Kyoto Protocol (signed in 1996, and in effect in 2005), Rio+20

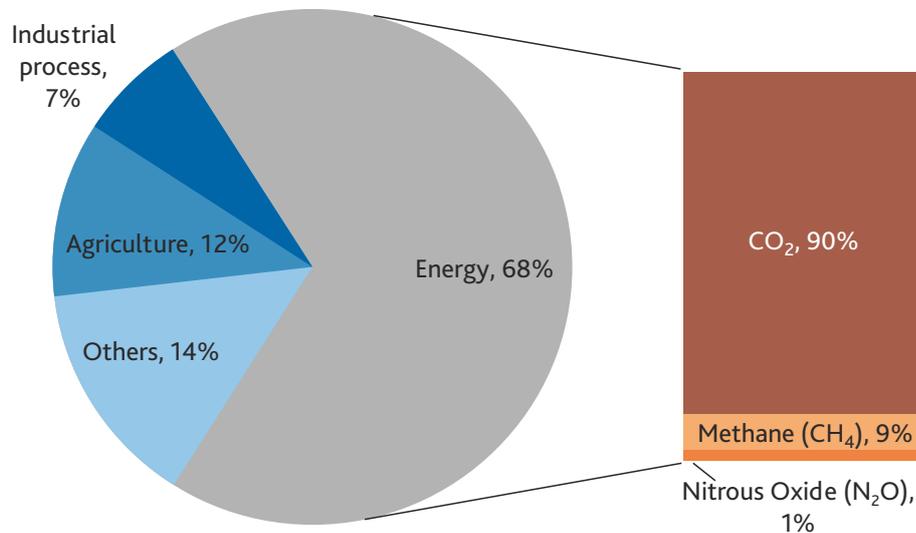
(2012) and, more recently, the UN Agenda 2030 and SDGs (2015) and the Paris Agreement (signed in 2015, and in effect in 2016)—have put in place a range of initiatives to tackle climate change, including through, but not limited to, phasing out fossil fuel subsidies. But despite all these efforts, carbon dioxide (CO₂) emissions from burning fossil fuels have continued to rise (Figure 1) and more than two-thirds of these CO₂ emissions come from energy activities (Figures 2 and 3). It was only in 2015 that CO₂ emissions from fossil fuel combustion flattened for the first time, while the global economy kept growing (IEA and OECD 2017).

Figure 1. Trend in CO₂ emissions from fossil fuel combustion 1870-2014



Source: IEA-OECD (2017, 4)

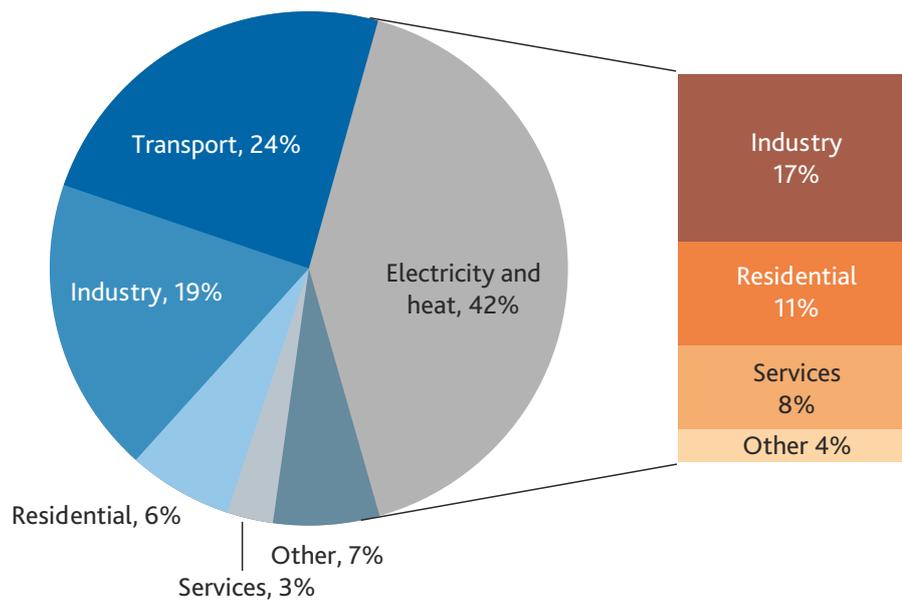
Figure 2. Estimated share of global anthropogenic GHGs by activity



Source: IEA-OECD (2017, 4)

Note: Others include large-scale biomass burning, post-burning decay, peat decay, indirect N₂O emissions from non-agricultural emissions of NO_x and NH₃, waste and solvent use.

Figure 3. World CO₂ emissions from fuel combustion by sector in 2015



Source: IEA-OECD (2017, 4)

Note: Other includes agriculture/forestry, fishing, energy industries other than electricity and heat generation, and other emissions not specified elsewhere.

A common shortcoming, however, has beset all of these initiatives, with the exception of the Paris Agreement (which remains yet to be assessed): all of them lack effective international accountability mechanisms with built-in and effective follow-up procedures (sanctions, periodic peer reviews, transparency, a mechanism to ratchet-up national climate commitments over time, reporting) which could smooth the path towards domestic buy-in among the parties' constituencies (Pauwelyn et al. 2011) and allow the parties to comply with the agreed commitments. Relying exclusively on frameworks lacking a strong anchor in follow-up procedures can be translated, as has been the case, into non-fulfilment of long-standing promises, leaving the environment and humankind much further from the track towards a global warming temperature well below 2°C above preindustrial levels. In the context of FFSR, soft rules can actually have behavioural effects. However, without effective follow-up procedures built into the rules (either soft or hard), which would allow domestic buy-in at home, states party to international (formal or informal) agreements affecting climate change can, as they often have done so far, and despite

any commitment otherwise, consent to leave the status quo unscathed.

By contrast, the WTO framework has a well-established "sanction" mechanism. The dispute settlement system has shown over its history, despite the current challenging momentum of criticism,² that it is well suited to effectively and in a timely way ensure the implementation of new fossil fuel subsidy disciplines. In particular, the complaining member of a dispute is allowed, under the Agreement on Subsidies and Countervailing Measures (ASCM), to take "appropriate countermeasures" if a recommendation by the Dispute Settlement Body (DSB) on violation of disciplines on prohibited subsidies is not followed by the challenged member in due time (Article 4.10 ASCM), and also to take appropriate countermeasures which are "commensurate with the degree and nature of adverse effects determined to exist" in case of violation of actionable subsidy disciplines (Article 7.9 ASCM). Even though the current ASCM rules establish that countermeasures (or suspension of concessions) normally amount to the value of the trade injury (which could

2 This refers to the crisis related to the uncertain process, not yet initiated, to replace the Appellate Body members Ricardo Ramírez Hernández, whose second four-year term of office expired on 30 June 2017, Peter Van den Bossche, whose second four-year term of office will expire on 11 December 2017, and Hyun Chong Kim, who resigned from the Appellate Body as of 1 August 2017.

not work easily in the case of environmental injury), WTO jurisprudence has also stated that countermeasures under the ASCM could be directed not only at “countering its effects on the affected party” (e.g. trade injury effect) but also at “countering the measure at issue” (e.g. a prohibited fossil fuel subsidy programme).³

1.3 Subsidy disciplines

Third, one can argue that fossil fuel subsidies, looked at exclusively from a trade-distorting point of view, may not justify differential treatment under the WTO rules as compared to the other trade-distorting subsidies.

In fact, the WTO ASCM already disciplines the use of governmental fossil fuel subsidies to the extent that they distort trade. However, fossil fuel subsidies, as a general rule, have the potential to adversely affect the environment even when they do not obviously distort trade. Other forms of subsidies are more environmentally benign insofar as they support climate change mitigation and adaptation actions, including subsidies to non-conventional energy or more efficient use of conventional energy, even when they may somehow distort trade.

As a result, the existing WTO rules are neither adequately designed to curb the use of subsidies to environmentally harmful conventional energy nor properly devised to allow the use of subsidies to foster development and use of energy efficiency and non-conventional energy. While estimates of subsidies to fossil fuel industries have ranged from US\$325 billion in 2015 (IEA 2016, 21) to US\$5.3 trillion in 2015 (IMF 2016), including externalities not otherwise compensated for, the level

of subsidies to renewables is substantially less, amounting to US\$150 billion in 2015 (IEA 2016, 24).

At the same time, the number of trade disputes concerning fossil fuel subsidies is practically zero within the WTO framework. To date, the dispute *European Union and its Member States - Certain Measures Relating to the Energy Sector (DS476)* is the sole dispute that directly challenges fossil fuel governmental subsidies.⁴ A possible explanation is that it is a difficult task to classify a fossil fuel subsidy either as a prohibited subsidy or as an actionable subsidy (which is specific and causes injury) under the ASCM (De Bièvre et al. 2017; Asmelash 2015; Espa and Rolland 2015; Horlick and Clarke 2016).

By contrast, seven disputes under the WTO dispute system have targeted government policies that support the scaling up of renewable energy since 2010 (Table 1). While the scaling up of renewable energy still heavily depends on investment from the private sector, but also on government support, this support is often target of antidumping or countervailing duties issued by investigating authorities (Kampel 2017) or challenged at the DSB as inconsistent with WTO provisions. However, only three disputes to date have progressed as far as the panel report and appeal stages. In *Canada - Renewable Energy (DS412)*, *Canada - Feed-in Tariff Program (DS426)*, and *India - Solar Cells (DS456)*, the Appellate Body upheld the panels' findings that the Canadian and Indian measures at issue were inconsistent with Articles 2.1 of the Agreement on Trade-Related Investment Measures and III.4 of the General Agreement on Tariffs and Trade 1994.⁵ In those disputes, although the Appellate Body did not decide

3 Decision by the Arbitrators, *US – FSC (Article 22.6 – US)*, paras 5.4-5.7.

4 At the time of writing this paper, the report of the panel has not yet been issued. According to the WTO website, on 4 April 2017, the Chair of the panel informed the DSB that, due to the complexity of the dispute and the large volume of evidence, the panel expected to issue its final report to the parties no later than the end of 2017, in accordance with the revised timetable adopted after consultation with the parties. See *European Union and Its Member States - Certain Measures Relating to the Energy Sector: Request for Consultations by the Russian Federation*, WT/DS476/1, S/L/409 G/L/1067, G/SCM/D102/1 G/TRIMS/D/40.

5 See Appellate Body Report, *Canada - Certain Measures Affecting the Renewable Energy Generation Sector, Canada - Measures Relating to the Feed-In Tariff Program*, WT/DS412/AB/R, WT/DS426/AB/R, 6 May 2013, at p. 143; Appellate Body Report, *India - Certain Measures Relating to Solar Cells and Solar Modules*, WT/DS456/AB/R, 16 September 2016, at p. 57.

whether the Canadian measure was inconsistent with Articles 3.1 and 3.2 of the ASCM and the United States did not challenge the Indian measure under the ASCM, the Appellate Body's ultimate decision was a finding of inconsistency

with the local content requirement built into those measures. In any case, the driving force behind these disputes was related more to commercial interests and competition rather than based on environmental concerns.

Table 1. WTO disputes on clean energy technologies

Dispute Number	Dispute Name	Type of Challenged Subsidies	Complainant	Current Status
DS510	United States – Certain Measures Relating to the Renewable Energy Sector	Prohibited	India	Panel established, but not yet composed on 21 March 2017
DS476	European Union - Certain Measures Related to the Energy Sector	Prohibited	Russian Federation	Panel report expected to be issued by the end of 2017, as informed by the Chair of the panel on DSB meeting on 4 April 2017
DS459	European Union (formerly EC) – Certain Measures on the Importation and Marketing of Biodiesel and Measures Supporting the Biodiesel Industry	Prohibited	Argentina	In consultations since 15 May 2013
DS456	India – Certain Measures Relating to Solar Cells and Solar Modules	Prohibited	US	Appellate Body report and the panel report, as modified by the Appellate Body report, adopted on 14 October 2016. Reasonable period for implementation expires on 14 December 2017.
DS452	EU – Certain Measures Affecting the Renewable Energy Generation Sector	Prohibited	China	In consultations since 5 November 2012
DS426	Canada – Measures Relating to the Feed-in Tariff Program	Prohibited	EU	Implementation notified by respondent on 5 June 2014
DS419	China – Measures concerning wind power equipment	Prohibited	US	In consultations since 22 December 2010
DS412	Canada – Certain Measures Affecting the Renewable Energy Generation Sector	Prohibited	Japan	Implementation notified by respondent on 5 June 2014

Source: WTO. *Dispute Settlement Gateway*. Available at https://www.wto.org/english/tratop_e/dispu_e/dispu_agreements_index_e.htm verified as of 28 November 2017.

1.4 Why Fisheries Subsidies Negotiations?

In a similar way to fossil fuel subsidies, before navigating their way onto the WTO agenda the fisheries subsidies negotiations came across the very same question: why should the WTO have a role in fisheries subsidies reform and involve itself with an environmental issue? The fisheries subsidies negotiations have become the first major negotiations to bring a hybrid trade-and-sustainability issue onto the WTO agenda. In a sense, the fisheries experience may shed some light on the path the FFSR should follow to reach the WTO. Similarly to fisheries subsidies, the objective of new WTO disciplines would be to address the environmental injury underlying public support given to fossil fuels rather than purely trade-distorting effects, which are already covered by the ASCM.

1.5 This paper

This paper aims to contribute to the debate on what role the WTO should have, if any, in the broader context of climate change and, more specifically, in advancing FFSR, by drawing lessons from the fisheries subsidies negotiations. Initially, the paper explores the reasons that could justify such a comparison. It assesses pros and cons of using the fisheries

subsidies negotiations as a benchmark against which to assess how the WTO can move FFSR forward. This will set the stage for the next two sections, which focus on procedural and substantive lessons to be learned from the fisheries negotiations. Drawing on these lessons, options presented for WTO members to advance with FFSR are then summarized in Table 2.

The options include strategies for including FFSR on the WTO agenda. New categories of prohibited, actionable and non-actionable energy subsidies are suggested, depending on whether they have an adverse impact on the environment (“prohibited”), whether, despite certain negative externalities to the environment, they also have positive externalities (“actionable”), or whether they have market-correcting objectives, or are covered by exceptions (“non-actionable”). In addition, the options also include a proposal to redefine the traditional special and differential treatment WTO disciplines. With respect to strategies of starting negotiations, emphasis is given to the importance of building on the existing external mandates - and, more specifically, the SDGs - crafting a clear text in the Ministerial Declaration in the MC11 and engaging in plurilateral talks, in an attempt to seek more effective alternatives to the single undertaking approach.

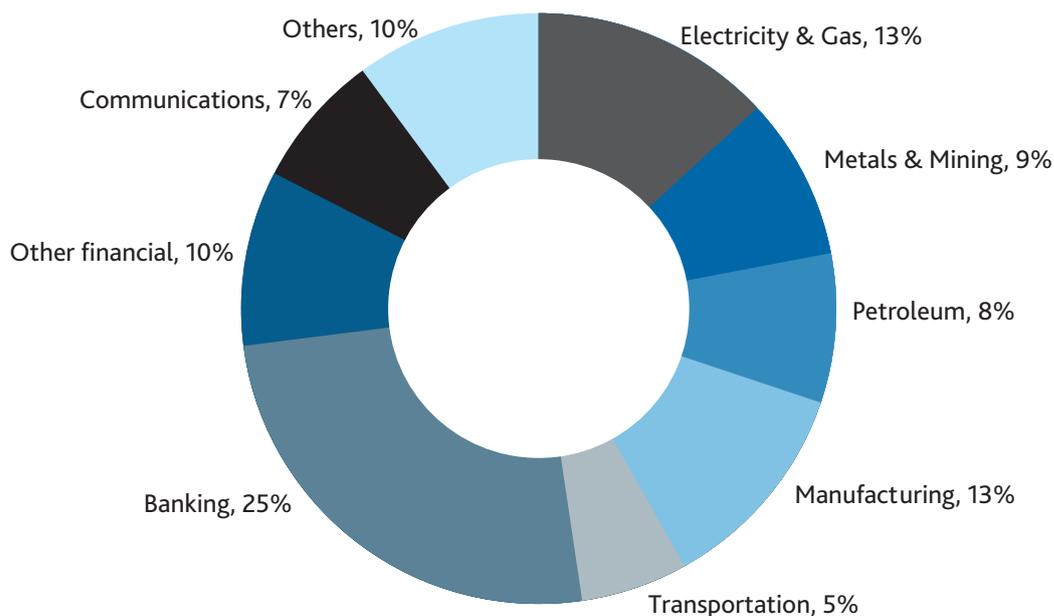
2. ASSESSING WHETHER FISHERIES NEGOTIATIONS CAN SERVE AS A BENCHMARK FOR FFSR

There is no clear-cut answer to the question of how the WTO can meaningfully advance FFSR within the broader context of climate change. More specifically, finding the answer to the question of how to design and reach consensus on new multilateral, sector-specific disciplines to address the negative externalities associated with certain forms of subsidies beyond their trade-distorting effect is still an elusive exercise. The fisheries subsidies negotiations, being the first negotiations to bring sustainability concerns underlying trade measures (fisheries subsidies) onto the WTO agenda, may shed some light on the puzzle—in terms of both substance (“what?”) and process (“how?”).

It is important to recognise the limitations this approach might entail. First, it is still unclear whether the current fisheries negotiations will materialise into one of the covered agreements at the 11th Ministerial Conference of the WTO (MC11). Second, although both types of subsidies may have an impact on the social sphere, such as

on food security and energy access in developing and least developed countries, regulation on fossil fuel subsidies tends to increase pressure to a much higher level than that seen in the fisheries talks. This higher pressure can be attributed to the vested geopolitical interests and energy security concerns—linked to who reliably supplies and secures energy at affordable prices, who demands energy, who is dependent upon energy imports, and to what extent—generally intertwined with fossil fuel subsidies (Pascual 2015, 5). Third, there is the importance of state-owned enterprises involved with fossil fuel production and state-owned banks or governmental export credit agencies involved with the public financing of fossil fuel production projects, another aspect less relevant to fisheries. Evidence shows that, among the world’s largest state-owned enterprises, 48 percent are involved with fossil fuels either directly (electricity, gas and petroleum) or indirectly (metals, mining, manufacturing and transportation) (OECD 2016, 22) (Figure 4).

Figure 4. Sectoral distribution of the world’s largest state-invested enterprises in Forbes Global 2000, at end-2014



Source: *Forbes Global 2000*, in *OECD (2016)*

Nonetheless, some facts observed in both the fisheries and fossil fuel subsidies sectors can rationally justify a comparison: (1) they have the potential to distort trade, and yet come out practically unscathed by WTO disciplines and trade disputes; (2) they are intertwined with the tragedy of the commons, where the externalities of both kinds of subsidies are not duly taken into account; (3) both cause a situation where environmental injury looms larger than trade injury; (4) they are related to the inefficient allocation of funds and the perpetuation of inefficient industries; (5) they operate within a global governance framework lacking coherence; and (6) they lack harmonised definition, classification and measurement. These issues are detailed in what follows.

2.1 Potential Trade-Distorting Effects

One important feature shared by both types of subsidies is related to the fact that they can potentially distort trade in a way not always captured by the ASCM disciplines. In the one case, subsidies to fishing fleets, where management systems are poorly enforced, if at all, can artificially increase fishing catch, with a resulting impact on prices and trade flows (OECD 2005, 5). The provision of financial resources to support fisherworkers can also give rise to artificial trade advantages in comparison to other non-subsidised fleets, thus potentially distorting the market and competition (Chen 2010, 42; Tipping 2015, 6).

In the other case, fossil fuel production subsidies often lower the energy-related production costs of domestic firms to the detriment of non-subsidised international competitors. They can assume the forms of dual-pricing mechanisms (price controls or ceilings), export restrictions (export taxes), research and development grants, preferential loans, or loan guarantees. Fossil fuel consumption subsidies also alter the prices at which conventional energy inputs—oil, gas and coal—are consumed. Either the inputs are provided for less than adequate remuneration or otherwise are subsidised in other forms (e.g. loans, grants) and the subsidies

pass through to the cost and price of the final good. By keeping the input prices artificially low, consumption subsidies potentially distort the price at which energy-intensive final goods are traded internationally. Not to mention that fossil fuel subsidies have additionally the potential to distort the market for renewable energy, although this type of “injury” does not qualify as trade injury under the ASCM.⁶

2.2 Subsidies and the WTO Rules

Notwithstanding their magnitude, fisheries and fossil fuel subsidies have remained largely unscathed by the WTO rules. In particular, the ASCM has done little to effectively curb the provision of prohibited subsidies or subsidies that cause adverse effects and are specific within the meaning of the ASCM to both fossil fuels and the fisheries industries on the grounds of trade effects. In effect, members may be either unwilling (due to political, budgetary or strategic concerns) or unable (due to lack of technical capacity) to use the WTO system to enforce the existing rules. Although it is not clear which (or both) applies to fisheries and fossil fuel subsidies, it remains the case that disputes targeting either type of subsidy are uncommon, despite the effect on international trade.

To date, only once has a challenge been filed with respect to countervailing duties (CVD) applied to fisheries subsidies. In particular, in *United States - Countervailing Duty Investigation of Imports of Salmon (DS97)* Chile initiated a dispute challenging certain procedural aspects of the US CVD investigation that applied CVDs on salmon imports from Chile. However, this dispute did not go beyond the “request for consultations” phase. Likewise, there appear to be very few cases of the application of CVDs to fisheries (Chen 2010, 4). There may be several reasons together serving to justify so few challenges against fisheries subsidies to date. Although the space in this paper is not sufficient to cover all of them, they may include lack of transparency of reported fisheries subsidies, the difficulty of assessing the real impact of a subsidy on the final

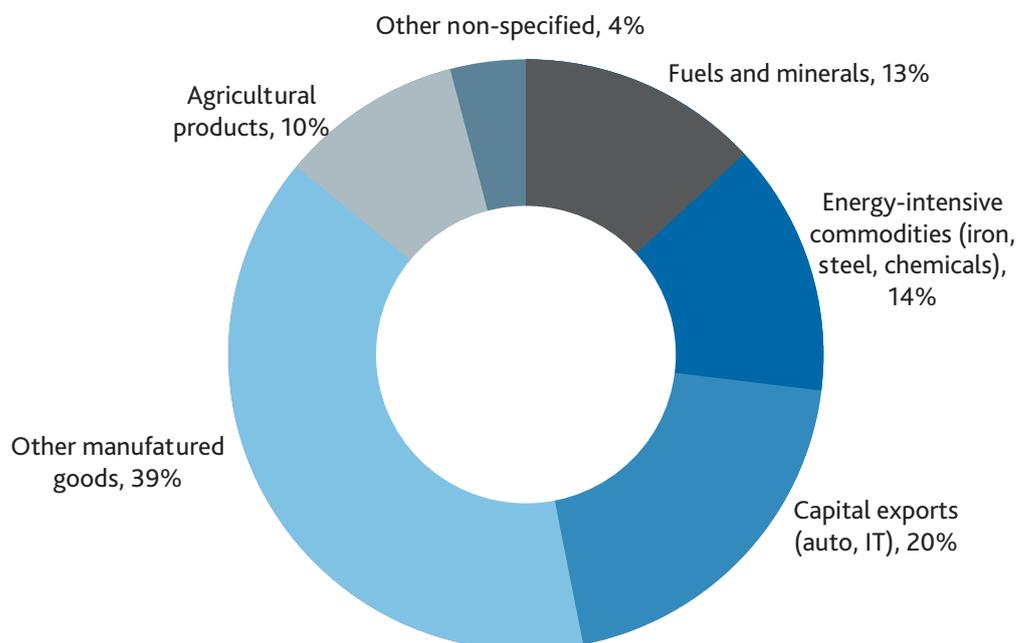
⁶ For more detailed discussion of fossil fuel production and consumption subsidies, see Bigdeli (2008), Morgan (2007) and OECD (2000).

price of imported fish, or the heterogeneity of the global fish trade (Tipping 2015, 6).

By the same token, fossil fuels and energy-intensive products (iron, steel and chemicals) make up a considerable share of total global trade. Evidence shows that 27 percent of global merchandise exports are made up of fuels and energy-intensive commodities (iron, steel, chemicals, and non-fuel minerals) (WTO 2017a, 30) (Figure 5). However, the sole dispute directly targeting fossil fuel production

subsidies is *EU - Energy Package (DS476)*.⁷ Few others are related to countervailing and/or antidumping actions⁸ or to the issue of dual-pricing schemes (Bigdeli 2008, 86; Selivanova 2004). In any case, complainants have, in accordance with the structure of the current disciplines, built their cases on the grounds of economic losses and effects on the competitiveness of their domestic industry. The potential negative environmental impacts of these measures have not been taken into account.

Figure 5. World merchandise exports by major product groups, 2016, share %



Source: *World Trade Statistical Review (2017)*

2.3 The Tragedy of the Commons

Both fisheries and fossil fuel subsidies have been identified as possible causes of negative impacts on the environment. Considering the “tragedy of the commons” (Hardin 1968), both

kinds of subsidy can exacerbate the tendency for the actions of benefited industries to create externalities (overfishing or climate change) in the pursuit of other national goals (food security, access to energy or export earnings). In the case of fisheries subsidies, the problem derives from

⁷ See European Union and Its Member States - Certain Measures Relating to the Energy Sector: Request for Consultations by the Russian Federation, WT/DS476/1, S/L/409 G/L/1067, G/SCM/D102/1 G/TRIMS/D/40.

⁸ See, for example, *Certain Cold-Rolled Steel Flat Products from the PRC* (81 USFR 100 May 24, 2016); *Certain Carbon and Alloy Steel Cut-to-Length Plate from the PRC* (82 USFR 8507 January 26, 2017); *Certain Uncoated Paper from the PRC* (81 FR 3110 January 20, 2016); *Circular Welded Carbon-Quality Steel Pipe from India: Final Affirmative Countervailing Duty Determination* (77 FR 64468 October 22, 2012); *Alleged Subsidisation of Steel Reinforcing Bar and Rod in Coils Exported from the PRC* (Australian Anti-Dumping Commission, Statement of essential facts 322 and 331; final report 322). See also DS523 (US CVD on steel pipes and tube products); DS514 (US CVD on cold- and hot-rolled steel flat products); DS476 (EU Third Energy Package); DS437 (US CVD on steel & oil country tubular goods); DS436 (US CVD on hot-rolled carbon steel); DS385 (CVD and antidumping duties on PET resin). See, for example, *China - Subsidies to Producer of Primary Aluminium*, Request for consultations by the United States (DS519).

taking something out of the commons, more fish, whereas fossil fuel subsidies contribute to putting something into the commons, that is, more CO₂. A major problem of the current ASCM disciplines is that they have not been designed to either curb negative or encourage positive environmental externalities associated with subsidies (with the exception of the now expired Article 8).

As a result, countries either harvest more fish than they would in the absence of subsidies, or emit more anthropogenic greenhouse gases (GHGs), in particular CO₂, than they would in the absence of increased production and consumption of fossil fuels helped by subsidies. In fact, evidence shows that fisheries subsidies contributing directly or indirectly to overcapacity and overfishing can be the main cause of marine fisheries depletion and the destruction of livelihoods that depend on them (Clark, Munro and Sumaila 2005; Sumaila et al. 2010). Likewise, evidence confirms that fossil fuel subsidies, by acting to reduce end-user prices, drive up fossil fuel consumption, thus adversely affecting the environment and accelerating climate change. International Monetary Fund (IMF) studies show that a complete elimination of fossil fuel subsidies would decrease global CO₂ emissions by 15-23 percent (Parry et al. 2014; Clements et al. 2013).

2.4 Inefficient Allocation of Funds

Both types of subsidies are associated with a vastly inefficient allocation of public funds. The Food and Agriculture Organization (FAO) and the World Bank estimate that the global fisheries catch could be harvested with half the amount of the fishing effort deployed by subsidised fishing fleets (Arnason, Kelleher and Willmann 2009, xviii). As a result, fisheries subsidies exacerbate social effects. Evidence shows that fisheries subsidies (because fuel is a major proportion of them—22 percent out of US\$35 billion) have the same socially misleading effect as fossil

fuel subsidies: the richest fisheries industries, often with the biggest fleets, capture most of the benefit, rather than the poorest as often advocated (Sumaila et al. 2013). Fossil fuel consumption subsidies cushion the impact of world energy prices on domestic energy prices, by shielding fixed-price regimes for electricity, natural gas, petroleum and petroleum products (diesel, gasoline, liquefied petroleum gas, kerosene). As a result, domestic consumers have little incentive to switch to alternative sources of energy. According to IMF studies, fossil fuel subsidies often fail to fulfil the social objective of supporting the poorest segment in society. Rather, fossil fuel consumption subsidies mostly benefit the richest households, which in general are the largest consumers of energy. In Senegal, for example, the lowest income households only capture 1 percent of the subsidies to diesel consumption, while the richest 20 percent benefit with 70 percent (IMF 2014).

2.5 Lack of a Coherent Governance Framework

The global governance frameworks that affect both the fisheries sector and the energy sector still need to improve coherence and build-up an effective cooperation mechanism. On the one hand, there is a multiplicity of fora and players for the discussions of both reforms. The UN Food and Agriculture Organization, the UN Environment Programme, WWF (Worldwide Fund for Nature), different non-governmental organisations (NGOs), and groups of members in the WTO have taken the lead in addressing concerns over the state of world fisheries stock and the impact of fisheries subsidies on the oceans (von Moltke 2011). In the fossil fuel subsidies context, the UN's Agenda 2030, the Paris Agreement, the Organisation for Economic Co-operation and Development (OECD), the IMF, the G20 and the Friends of FFSR,⁹ the International Energy Agency (IEA) and different NGOs have also had a key role in addressing global concerns about fossil fuel subsidies, their

9 The Friends of Fossil Fuel Subsidy reform are an informal group of non-G20 countries set up in June 2010 with the aim to further FFSR. In particular, the Group has worked towards building consensus on the benefits of FFSR in different fora including the G20, APEC, OECD, World Bank, UNFCCC and the UN Sustainable Development Agenda. Current members are Costa Rica, Denmark, Ethiopia, Finland, New Zealand, Norway, Sweden, Switzerland, and Uruguay.

impact on climate change and the need for reform.

On the other hand, global climate governance still lacks an effective accountability structure and follow-up procedures. What is missing in particular are built-in structures - such as reporting, monitoring, and effective, not only voluntary, review procedures - capable of putting the world on track to a global warming temperature below 2°C above pre-industrial levels. Despite the voluntary peer-review procedures for fossil fuel subsidies under the G20 and APEC and the ratchet-up mechanism for reviewing national climate commitments on a periodic basis under the Paris Agreement, much still remains to be done in terms of fulfilling the global climate governance promises.

Before the fisheries subsidies had found their place in the Doha negotiating mandate, none of these types of subsidies were explicitly mentioned in any of the WTO-covered agreements. Work on FFSR could benefit from including the WTO in current efforts, given its strength on subsidies regulation, just as NGOs and some WTO members pushed to involve the WTO in efforts to address fisheries subsidies (and for the same reason).

2.6 Lack of an International Consensual Definition

Finally, a corollary of this lack of governance coherence and coordination is that both types of subsidies are also affected by definitional inconsistency. This lack of definitional consistency in turn harms transparency, quantification, and measurement of both types of subsidies. In the case of fisheries, different

organisations and researchers have developed several definitions, classifications, and estimates (see, for example, FAO 2002; Milazzo 1998; APEC 2000; UNEP 2004; OECD 2006; Sumaila et al. 2016), and the lack of coherence among them has led to further complications during the fisheries negotiations. Not only was this issue crucial to defining the level of ambition for kicking off the negotiations—whether to adopt a top-down (general prohibition with a list of permitted fisheries subsidies) or bottom-up (general permission with a list of prohibited fisheries subsidies) approach to the fisheries subsidies members want to prohibit—but it has also been a thorny issue ever since. In particular, the discussions have mainly focused on the types of subsidies to be included in the prohibition list—for example subsidies to illegal, unreported and unregulated (IUU) fishing.

Likewise, different organisations—the IEA, the OECD and the IMF—have collected data on the scale of fossil fuel subsidies, albeit using very different definitions, different samples of countries and different methodologies. As a result, the estimates also show very different figures, ranging from US\$160 to 200 billion annually from 2010 to 2014 (OECD 2015, 37) to US\$325 billion in 2015 (IEA 2016) or US\$5.3 trillion in 2015 if externalities not otherwise compensated for are included (IMF 2016).¹⁰ Notwithstanding these different definitions, if an appropriate cooperation mechanism is established to bring together the different intergovernmental organisations and the WTO, which is already well known for its definition of subsidies—which, in turn, is already adopted by the OECD in its statistics—progress could be made towards common ground.

¹⁰ The OECD limits its calculation to certain types of subsidies to fossil fuel consumption and production (subsidies and tax-breaks) in its 34 member states plus six partner countries (the BRICS—Brazil, Russia, India, China and South Africa—plus Indonesia), on the grounds of an inventory-based approach. The IEA estimates, by contrast, refer to subsidies only to fossil fuel consumption and in only 41 developing countries, based on a price-gap approach. The IMF, in turn, considers a broader and more comprehensive approach that includes explicit, or “pre-tax subsidies” and implicit, or “post-tax subsidies,” including negative externalities (not internalized through corrective environmental policies, such as local air pollution, faster climate change and congestion), of 176 member states.

3. LESSONS LEARNED FROM THE FISHERIES NEGOTIATIONS

In analysing the differences that may set the fisheries and fossil fuel subsidies apart and the similarities that connect them, it makes sense to use the fisheries negotiations as a benchmark against which to assess how governments could use the WTO to advance FFSR. Drawing on lessons from the fisheries negotiations, this section focuses on both “process” and “substance,” specifically trying to address the question: how can we design and reach consensus on new multilateral, sector-specific disciplines to meaningfully address the negative externalities of certain forms of fossil fuel subsidies beyond their trade-distorting effects?

Broadly, answering that question implies addressing the following additional questions, which, in turn, will guide the organisation of the remainder of this paper:

- What can we learn from the fisheries talks about differentiating types of subsidies based on the effect they have on natural resources or their negative environmental externalities? How can we redefine adverse effect based on environmental harm?
- Can we learn something from the negotiations on how to define exceptions and how to circumscribe them through socio-economic criteria (e.g. small-scale carve-outs)? What can we learn from the approach taken to special and differential treatment in the fisheries negotiations?
- Can we draw lessons from the fisheries negotiating process and tactics to bring the FFSR onto the WTO agenda?

The lessons for FFSR that can be learned from the fisheries subsidies negotiations are then translated into policy options. The options are summarised in Table 2 towards the end of this paper.

The remainder of this section does not purport to cover 20 years of the history of the fisheries negotiations, which would be

beyond the scope of this paper. Many of the highlighted fisheries disciplines reflect the contents of the WTO’s 2007 draft text by the Chair on fisheries negotiations (WTO 2007c), the 2011 report by the Chair of the negotiating group (WTO 2011a), and selected submissions by WTO members on this issue.

3.1 Lessons on Designing New Substantive Disciplines

One important feature of the fisheries negotiations relates to the challenges of defining new categories of fisheries subsidies, and, ultimately, how to articulate and measure their environmental effect. This has been one of the key elements—or even the key element—in the fisheries negotiations. The complexities underlying the exercise to classify those activities considered mostly harmful through the depletion of world fish stocks deepened with the absence of uniformity in the definition of fisheries subsidies, and soon became central to the discussions.

Defining the notion of “overfishing and overcapacity” has proven to be an elusive task. In the absence of effective metrics, the negotiations have focused on proxies. In particular, proxies have been used with respect to certain “situations” (industry practices, e.g. stop support to vessels/operators found to have engaged in IUU; existing level of deterioration of the resource locally, e.g. activities targeting stocks already in an overfished condition; geographical delimitation according to where the activity is taking place—territorial sea, Exclusive Economic Zone, high seas, regional fisheries management organisations with a potential modulating element, e.g. on fuel). Likewise, proxies also related to certain “characteristics”: type of producers/economic agents (large-scale industrial versus small-scale artisanal) or type of support provided (construction, repair, acquisition, inputs, equipment, income support, resource management). The 2007 Chair text of the WTO fisheries negotiations reflected that

reality (WTO 2007c). The text embedded different approaches to differentiate among the different types of fisheries subsidies. The effects-based approach was one of them. That is, it differentiated the fisheries subsidies in accordance with the degree of negative externalities affecting the environment:

1. *prohibited* (Article I.1): fisheries subsidies which, according to evidence and the consent of WTO members, contributed directly to overfishing and/or overcapacity and, therefore, had the most negative externalities for the environment;
2. *actionable* (Article IV.1): included as a “general discipline,” this type of fisheries subsidy would not be prohibited outright, but made subject to an ex post prohibition depending on whether a subsidy provided by one member would have an adverse effect on (“depletion of or harm to”) a fish stock in which another member has an “identifiable fishing interest”;
3. *non-actionable* (Article II.a, II.b and II.d): fisheries subsidies that do not increase fishing capacity or catch provided that effective management systems are in place.

With respect to the actionable category, the redefined “adverse effects test” would move beyond the trade injury assessment to the demonstration of a “hybrid” trade and environmental injury. Earlier proposals from Brazil (WTO 2007a; WTO 2007b) addressed this issue. Brazil suggested disciplines aimed to identify specific adverse effects on the fishing sector (“fishery adverse effects”: overcapacity or overfishing), while “keeping the fundamental principle of the ASCM by which no member should cause, through the use of any subsidy, adverse effects to the interests of other members” (WTO 2007a, 2).

Currently, the discussion on the outcomes for fisheries in Buenos Aires has taken a different approach. This approach combines narrow prohibitions—on IUU and overfishing focused on the most egregious kinds of subsidies, with less flexibility for departure from the general rule—with broader prohibitions with exceptions (WTO 2017b). That tactic was adopted to simplify the process (as compared to the 2007 Chair text) but, depending on the outcome, could consider a built-in agenda in order to expand the scope of the agreement in the future.

Lessons

One important lesson from the fisheries negotiations is that the separation of the different types of fossil fuel subsidies is likely to be a complex and technical exercise, and deeply connected to the level of ambition set for the negotiations. A possible path for this complex discussion could be an “effects-based approach,” which, as a general rule, permeates the discussion on climate change from its outset (von Moltke 2011). This would require members to move away from the traditional mercantilist approach to negotiations (on the basis of give-and-take) towards an approach more focused on collective action on the delivery of a public good. A possible and very significant outcome could be to classify fossil fuel subsidies in the following categories, which are not exhaustive:

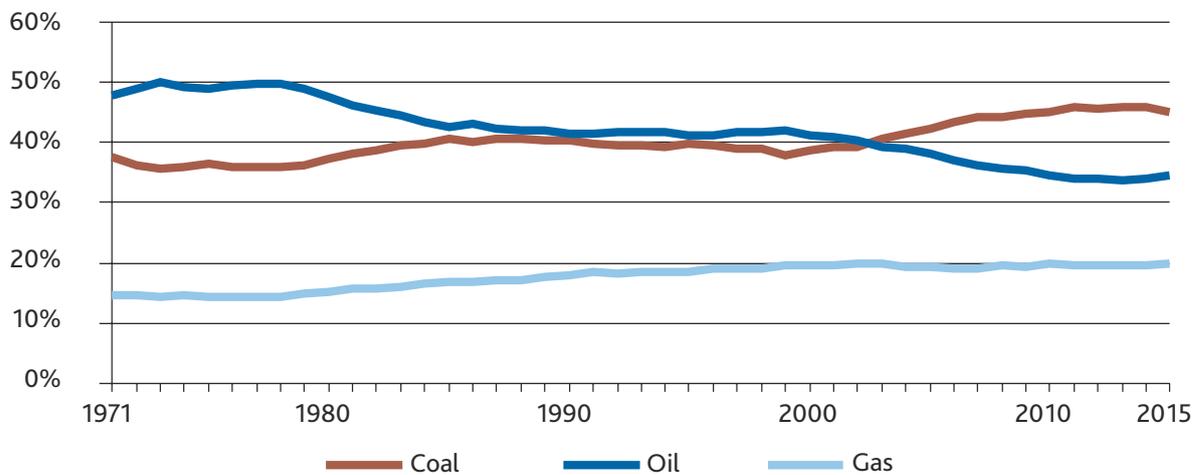
1. Prohibited subsidies could include those subsidies that cause the most harm to the environment, for example, on the basis of share in global CO₂ emissions by fossil fuel type¹¹ (IEA 2016) (Figure 6). Drawing on the fisheries example, the prohibited subsidies could be subsidies to the following:
 - a. New coal-fired power plants, which have the potential to lock in investments for at least 20 more years until investors recoup their investments, with a disastrous effect on climate change.

11 According to the 2006 IPCC Guidelines default carbon emission factors (tC/tJ) are: 15.3tC/TJ for gas; 15.7 to 26.6 tC/TJ for oil products, and 25.8 to 29.1 tC/TJ for primary coals, where tC/TJ represents the carbon intensity of fuel. This index could serve as a starting point to guide the FFSR discussions on whether certain type of fossil-fuel-based power technology is more or less energy-intense than other types and, therefore, help the exercise to define fossil-fuel subsidies prohibitions (IPCC 2006). Cited in IEA and OECD 2016 at p. 11 ft. 2.

- b. Capital or variable costs most likely to enhance existing energy-inefficient fossil fuel production and inefficient fossil-fuel based plants.
- c. New exploration, extraction, development, plant construction and operations of energy-inefficient fossil fuel industries, or parts thereof.
- d. Increasing the existing infrastructure of energy-inefficient fossil fuel industries.
- e. The most energy-intensive fossil-fuel based transport.
- f. Consumption of fossil fuels with the highest carbon footprint.

Energy inefficiency should be measured in terms of a member's carbon intensity per unit of energy/gross domestic product (GDP) generated in relation to the previous year.

Figure 6. Fuels Share in Global CO₂ Emissions



Source: IEA-OECD (2017, 5)

2. Actionable subsidies could include subsidies to the following:
 - a. Fossil fuel production provided that the negative impact on the environment caused by the fossil fuels is offset by a proportional decrease in GHG emissions by means of investment in clean energy, energy efficiency, and/or carbon capture, utilisation and storage technologies. Adverse effects would be demonstrated if a member fails to decrease its carbon intensity per unit of energy/GDP generated in relation to the previous year, despite subsidies to renewables and energy efficiency technologies.
 - b. Energy-efficiency technologies whereby benefits to the environment of producing energy more efficiently are neutralised

by a disproportionate effective increase in fossil fuel production. Adverse effects would be demonstrated if a member fails to demonstrate that it decreased its carbon intensity per unit of energy/GDP generated in relation to the previous year. Subsidies in this category could include, for example, subsidies for research and development to improve the efficiency of existing fossil fuel industries. The use of these subsidies would have a direct effect on the environment (less use of fuel, less carbon emission), but the research may lead to an increase in the firm's total effective output. For example, idle capacity may start to be operational after subsidies to improve energy efficiency are provided. This increased production could, in turn, offset the gains in carbon footprint.

c. Finance, in the form of official public financing that meets certain thresholds. Adverse effects would be demonstrated if the subsidising country does not observe agreed thresholds with respect to (i) maximum loan repayment terms, (ii) minimum cash payments to be made at or before the starting point of export credit, (iii) minimum loan premium rates, (iv) minimum interest rates when a transaction benefits from official financing support.

3. Non-actionable subsidies could be subsidies to research and development in both fossil fuel and renewables industries, taking into account the broader energy supply mix of each member. Expanding on the conditional non-actionable fisheries subsidies if adequate fishing management systems are in place, this category could include subsidies to the following:

- a. Adoption of selective technologies that increase emission efficiency of fossil fuel production insofar as they do not increase production.
- b. Research and development and investment that lead to the scale-up of clean energy and carbon capture, utilisation and storage technologies.
- c. Modification of existing fossil fuel facilities exclusively for the adoption of equipment necessary for compliance with carbon-reducing technologies.
- d. Decommissioning power plants fed by fossil fuels, or fossil fuel production facilities.

Non-actionability of subsidies can be established provided that (i) effective systems of carbon capture, utilisation and storage are already in place, and/or (ii) a proportional amount of subsidies

are also directed to develop and scale up clean energy technologies.

The effectiveness of systems of carbon capture, utilisation and storage can be assessed according to international best practice.¹² The discussions could also involve the participation of international organisations such as the UN, the United Nations Conference on Trade and Development (UNCTAD), the OECD, the IEA and the IMF, which could play an important role in the definition of best practice used in the WTO. Such interaction is not new in the WTO system.

Currently, WTO members already rely on a specific type of export subsidy definition that derives from the work of another organisation. The OECD Arrangement on Officially Supported Export Credits (OECD Arrangement), in force since 1978 and updated annually, has been incorporated into the ASCM through the second paragraph of item (k) of Annex I to the ASCM. Item (k) explicitly carves out an exemption from the list of prohibited export subsidies (within the meaning of Article 3 of the ASCM) to permit officially supported export credit subsidies referenced in the OECD Arrangement. Therefore, it exempts officially supported export credits falling within two sub-arrangements under the OECD Arrangement related to energy. First, the Renewable Energy, Climate Change Mitigation and Adaptation, and Water Projects (Annex IV of the OECD Arrangement). Second, the Sector Understanding on Export Credits for Coal-Fired Electricity Generation Projects (Annex VI of the OECD Arrangement).

Subsidies in the form of export credits have a significant weight in trade finance (export credit and guarantees) and are crucial to foster the scale-up of renewable energy and of energy-efficiency technologies. In effect, the technicalities embedded in the OECD Arrangement signal that WTO/OECD cooperation—especially on the issue related to this specific type of subsidy—could further the discussions on fossil

12 For a broader discussion of the pros and cons of environmental and economic impacts of carbon capture and storage (CCS) technologies, see Choptiany et al. (2015); World Nuclear Association (2017); “Estimates from Engineering Studies of Total Plant and Levelized Electricity Costs for New Coal-Fired Power Plants with and without CCS Technology,” table, at <http://i.bnet.com/blogs/coal-lcoe-chart-cbo.jpg>; Goldenberg (2014).

fuel subsidy reform. Although incorporating an OECD definition into WTO agreements can be politically thorny (WTO 1998; WTO 1999), an option could be to use the sectoral understanding as a starting point for discussions towards a feasible and practical definition and/or categorisation (prohibited, actionable and non-actionable) of fossil fuel subsidies. For example, the Sector Understanding on Export Credits for Coal-Fired Electricity Generation Projects under 'Annex VI' of the OECD Arrangement, in effect since January 2017, encourages both exporters and buyers of coal-fired power plants benefiting from officially supported export credits to move away from low-efficiency towards high-efficiency technologies (according to emissions level) (OECD 2017). Thus, it includes restrictions on official export credits for the least efficient coal-fired power plants following a combination of three criteria: (1) power plant size (large, >500 megawatts (MW); medium, ≥300 to 500 MW; and small, <300 MW); (2) geographical location of plants (according to a country's level of development), and (3) technology type (ultra-supercritical; supercritical; and subcritical) (Article 2.a) (OECD 2017). In addition, under the new coal sectoral understanding, restrictions on officially supported export credits will not apply to any coal-fired plants equipped with operational carbon capture and storage (Article 1.a.1).¹³ As the understanding is already incorporated into the ASCM, these parameters could well inform the discussions on definitions and/or categorisations of fossil fuel subsidies at the WTO.¹⁴

3.2 Lessons on Special and Differential Treatment

As a consequence of the high demands put forward by the most ambitious demandeurs

in the fisheries negotiations, there was a proliferation of proposals for broad exceptions (von Moltke 2011). In fact, negotiating carve-outs became the only feasible way forward to balance the defensive interests of a wide range of members which had less ambitious demands towards prohibiting fisheries subsidies. The more ambitious the proposal became, the more exceptions were needed to accommodate members' sensitivities. Soon negotiators were trying to classify and separate artisanal from industrial activities, or the size and the capacity of vessels in order to find the right threshold to "make the cut" on what would be prohibited and what would be granted an exception. The possibility of excluding certain activities, programmes or even whole countries took place in two main forms: first, through complex discussions on definitions of types of subsidies and activities to be conditionally or unconditionally considered as non-actionable; and, second, and most importantly, through the use of special and differential treatment.

The 2007 Chair text embodied a pragmatic, yet sophisticated approach to special and differential treatment (S&DT) (WTO 2007c). It was necessary simultaneously to ensure the support of a variety of countries, many of which were least developed or developing members that relied on fisheries subsidies to alleviate poverty in vulnerable coastal communities, and the effectiveness of new disciplines. The system of carve-outs and special and differential treatment included:

1. exemption from the prohibition for least developed countries (LDCs) (III.1) and for exceptional cases of natural disaster relief (I.1);

13 According to David Drysdale, head of the export credit division in the OECD's trade and agriculture directorate, over two-thirds of the coal-fired power projects receiving official export credit support between 2003 and 2013 would not have been eligible for such support under the new rules. See www.oecd.org/newsroom/statement-from-participants-to-the-arrangement-on-officially-supported-export-credits.htm.

14 In addition, the OECD Arrangement places limitations on the terms and conditions of export credits that benefit from official support, and this could also be used to frame discussions about differentiating types of subsidy, including (1) maximum repayment terms, (2) the minimum cash payments to be made at or before the starting point of credit, (3) minimum premium rates, (4) minimum interest rates when a transaction benefits from official financing support, (5) flexibilities for project finance-type transactions and (6) minimum concessionality levels, and (7) country eligibility for tied aid (OECD 2017).

2. wide exemption on the basis of socio-economic needs, such as subsidies to small-scale inshore fishing (subsistence fishing/artisanal fisheries) if certain conditions are met and proper fishing management systems are in place (III.1);
3. carve-outs based on geographical criteria, such as narrower exemptions for subsidies to larger-scale fishing for fishing activities within the Exclusive Economic Zones of LDCs or developing countries, subject to sustainability criteria (including a prior stock assessment (III.2.b.3));
4. across-the-board exemptions for subsidies for re-education, retraining, redeployment of fisherworkers or for early retirement in developed, developing and least developed countries.

Lessons

Another lesson from the fisheries negotiations to advance FFSR is therefore that defining flexibilities and carve-outs was central to addressing developing countries' concerns. A multilateral agreement on fossil fuel subsidies would also need to ensure the consent of a wide range of governments, and many low-income countries that rely on cheap energy obtained from fossil fuels to meet their energy needs and poverty alleviation goals. The discussion on carve-outs and S&DT could be two-pronged: a wide exception for least developed countries and another exception based on the contribution of each member to the environmental problem.

First, S&DT could include an exemption from prohibition disciplines for least developed countries. This would include, for example, subsidies for fossil fuel energy based on small-scale GHG emitters (where fossil fuels are mainly used for subsistence in remote areas and other non-conventional energy cannot be developed), provided that proper criteria are identified to define such "subsistence/small-scale" fossil fuel subsidies to ensure that legitimate socio-economic goals are met while not providing a loophole for circumvention. This S&DT would also mean LDCs were provided with adequate

capacity-building, technical assistance and cooperation mechanisms to help them to start to adopt adequate, simple and feasible energy-efficiency solutions during a transition period.

Second, S&DT could also include narrower progressive exemptions on the basis of each member's "contribution" to the environmental problem. While this approach is reasonable, and needed, from an environmental standpoint, it may be unattractive from a trade perspective. In fact, this would represent a departure from the traditional notion of S&DT, and could, in principle, deter some big contributors from joining. However, in view of the climate change imperatives, a frank and open discussion is needed on the traditional S&DT definition whereby all developing and least developed countries are treated equally. That principle must "evolve" in order to adequately respond, in a timely fashion, to the new challenges imposed by climate change needs. This could imply treating countries differently, not as blocs.

Therefore, countries that pollute less would face fewer restrictions or get more flexibility, and countries that pollute more would face more restrictions or get less flexibility. Facing more restrictions for polluting more could, in turn, be balanced with more flexibilities for polluting members to provide subsidies (1) to scale up production of clean energy and energy-efficiency technologies; and (2) for re-education, retraining and redeployment of workers in fossil fuel facilities or for early retirement, combined with transitional periods established according to each member's needs. In turn, facing fewer restrictions for polluting less could include, in addition to the flexibilities guaranteed for those countries which pollute more, the following flexibilities: (1) subsidies for consumption of renewable energy, clean energy technologies and energy-efficiency technologies; and (2) a waiver from prohibited subsidies under Article 3 ASCM if subsidies are used to scale up renewable energy production and accelerate the share of renewable energy in the member's energy supply mix, combined with transitional periods.

This carve-out, in turn, would be applicable to developed, developing and least developed

country members. While politically sensitive, this “new” approach would have the benefit of steering away from contentious concepts that certainly divide, upfront, the whole membership. In addition, this type of approach would bring all members’ attention to the level of contribution of each country to the problem, in a pragmatic and measurable way.

Real and adequate social safety nets should also be designed. Fossil fuel subsidy reform could potentially alter the lives of hundreds of millions of poor people in developing countries who rely partially or fully on fossil fuels for their livelihood and energy security, and many other people in developed countries who also depend on fossil fuels and cannot, for whatever reason, be reallocated or retrained.

3.3 Lessons on How to Craft a Specific Negotiating Mandate

The fisheries mandate crafted in Doha (WTO 2001), and detailed in Hong Kong (WTO 2005), laid the groundwork for intense negotiations in the following years. This work set the parameters for the 2007 draft text by the Chair of the Negotiating Group on Rules (WTO 2007c), the 2008 “roadmap” for discussions (WTO 2008), and finally the 2011 Chair’s report on the state of the negotiations (WTO 2011a). However, as in the other areas of the Doha Round, the discussions on the fisheries negotiations paused in 2011, gaining force again in 2015 in the run-up to the 10th Ministerial Conference in Nairobi. Despite several proposals for a fisheries outcome in Nairobi, ultimately the fisheries subsidies agreement was left out of the Nairobi Package and the Nairobi Declaration (WTO 2015a).

Many delegations expressed the view that work on fisheries subsidies should continue post-Nairobi. In particular, a subgroup of 28 members issued a Ministerial Statement in which they committed to securing a ban on fisheries subsidies that negatively affect overfished fish stocks, and on subsidies to vessels engaged in illegal, unreported and unregulated fishing (WTO 2015b). They further committed to advancing the Target 14.6 of the UN’s new Sustainable Development Goals on fisheries subsidies (WTO

2015b). Post-Nairobi, political commitments outside the WTO played an important role in advancing the fisheries negotiations in the WTO, especially in a context where the original negotiating mandates started to be questioned by some, if not outright rejected (WTO 2015b, para. 30). By means of reference to political commitments, more specifically SDG 14.6, demandeurs have been able to table some important proposals that have led the talks through 2016 (WTO 2016a) and 2017 (WTO 2017b). Currently, the fisheries negotiations are focusing on a small and manageable package (WTO 2017c).

Lessons

Role of commitments outside the WTO framework

The role of commitments outside the WTO framework might also be important for the fossil fuel subsidy negotiations. FFSR has found a way onto the UN’s Agenda 2030 and the SDGs, which make express reference to both FFSR and the trade regime. In particular, SDG 12.c calls on members to “rationalize inefficient fossil fuel subsidies” by “removing market distortions,” including “by restructuring taxation and phasing out those harmful subsidies.” Likewise, SDG 7 also calls for enhanced “international cooperation” to facilitate access to “advanced and cleaner fossil fuel technologies” within the broader context of climate change mitigation measures. SDG 17, coupled with elements of the UN Addis Ababa Action Agenda, also calls for policy coherence between the trade and environmental frameworks with a view to fostering sustainable development. Drawing on the fisheries example, which has also relied on external mandates to advance (SDG 14.6), the demandeurs of FFSR should be prepared to embrace a similar strategy and table proposals showing the need for a WTO role in advancing SDG 7 and SDG 12, and making sure the promises under SDG 17 are fulfilled.

The Paris Agreement went further than what was established by the SDGs, setting a roadmap, within pre-established timeframes, for the parties to “strengthen the global response to

the threat of climate change, in the context of sustainable development” (Article 2.2). Most importantly, the agreement also makes reference to the need to phase out governmental measures that increase GHG emissions—that is, subsidies that, among others, support fossil fuels. In effect, Article 2.2(c) specifies that the parties, within the broader context of climate change mitigating measures, agree to make “finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development.” Additionally, the nationally determined contributions (NDCs) pledged contain specific trade-related measures, some with express reference to national FFSR or border carbon adjustments. These commitments largely touch on the parties’ obligations under their WTO obligations, a fact that only reinforces the need for a more active role of the WTO in advancing FFSR.

Within the broader context of climate change, WTO members could establish inter-regime mechanisms, putting the WTO together with the UN, UNCTAD, OECD, IEA, or the UN Framework Convention on Climate Change (UNFCCC). This joint partnership would not be entirely new for the WTO, given that it has already partnered with the World Bank and the International Chamber of Commerce in other circumstances.¹⁶ Those mechanisms could contribute to an informed debate, bringing trade negotiators closer to the specifics of the environmental discussion and raising awareness about the commitments countries have already made elsewhere and that need to be fulfilled. Additionally, joint work could be begun to aim at (1) harmonising the

definition of fossil fuel subsidies, (2) clarifying trade-specific and environmental aspects related to the implementation of energy-efficiency mechanisms and clean energy technologies, and (3) improving the WTO’s existing notification mechanism, by establishing, for example, a shared system for surveillance, notification and peer review mechanisms.

A joint partnership like this could be particularly important in the context of transparency. In effect, the ASCM rules currently suffer from patchy notifications and even weaker disciplines to enforce the fulfilment of transparency commitments. Under the ASCM, where the notion of non-actionable subsidies has faded away (Article 8), there is a lack of incentive for the members themselves to notify subsidies programmes. By contrast, one could envisage that, as with the Agreement on Agriculture, were Article 8 still in effect, members would actually have a greater incentive to notify their subsidies programmes to prove they were in compliance with allowed subsidies disciplines.¹⁷ The information that has already been collected by organisations such as the UN, UNCTAD, OECD, and IEA, especially on fossil fuel subsidies, could fill this gap, at least for a first stage, showing a more accurate panorama of the real situation on this matter. This information could be taken solely as voluntary contributions from the organisations, and not as a way to incriminate countries that have been granting support for fossil-fuel or renewable energy. Additionally, that approach could also help to increase mutual understanding of the way each forum

15 Brunei, Burkina Faso, Egypt, Ethiopia, Ghana, India, Nigeria, Saudi Arabia, Venezuela, and Vietnam include reference to fossil fuel subsidy reform, while 6 percent of all climate contributions point to plans to pursue such a reform, and Mexico includes reference to border carbon adjustment (Brandt 2017, 14).

16 With the Integrated Trade Intelligence Portal (I-TIP), the WTO has partnered with the World Bank to jointly develop and maintain a database on trade in services, an area that is becoming increasingly important and yet for which, as with the fossil fuel subsidies, little information is publicly available. The innovative partnership recently launched of the WTO with the International Chamber of Commerce, entitled ICC-WTO Small Business Champions, aims to provide an international framework for the private sector to propose original, practical ideas designed to encourage micro, small and medium-sized enterprises to do business across borders. Albeit not related to the issue of FFSR, these inventive initiatives have opened the WTO gateway to partnerships with other international organisations, private and public. In effect, this new approach reinforces the argument that there may be a momentum to bring climate change and, more specifically, FFSR onto the WTO agenda.

17 By contrast, the notification system under the Agreement on Agriculture appears to have achieved the best progress. By notifying agricultural subsidies, members can actually prove that they are in compliance with allowed subsidies.

defines the concept of subsidy, which still lacks consensus.

Focusing on a plain Ministerial Declaration text

Another lesson from the fisheries negotiations is the importance of crafting a plain negotiating mandate, while avoiding language which is too broad, confusing and unclear, giving a margin to over-broad interpretations, as seen in the G20 or the SDG commitments. Indeed, by establishing a mechanism that combines self-declared notifications and excessively broad concepts like “wasteful consumption” and “inefficient subsidies,” without proper articulation of their relation to climate change or the environmental rationale, these commitments created a large loophole for circumvention which is hard to overcome. By contrast, the fisheries negotiating mandate in the Doha Declaration stated that members shall “clarify and improve WTO disciplines on fisheries subsidies” (WTO 2001, para. 28), while the Hong Kong declaration specifically called on 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” (WTO 2005, Annex D, para. 9). While not decisive for effective compliance, the assertive and direct language of the fisheries negotiating mandate has certainly played a role in helping the fisheries discussions to get focused and move forward. In fact, the very issue of prohibition of subsidies that lead to overcapacity and overfishing has guided the debate on prohibition of IUU fishing, which appears to be the issue on which there has been greater consensus. Based on the foregoing experience of the fisheries negotiations, one possible alternative to move FFSR forward could be to seek an early agreement on the “worst forms of fossil fuel subsidies.”

Members could also build upon existing negotiating mandates in order to craft narrower, more specific mandates to advance FFSR. Currently, members can count on two pieces of the original Doha mandate that, if not bearing on it directly, at least set the stage for a more specific discussion on fossil fuel subsidies and their relation to newly stated objectives for sustainable development. The first refers to the mandate on rules aimed at improving and clarifying the ASCM under paragraph 28 of the Doha Declaration (WTO 2001). The second, paragraph 31(i) of the same declaration, also calls on members to enhance “the mutual supportiveness of trade and environment,” and agree to further negotiations on “the relationship between existing WTO rules and specific trade obligations set out in multilateral environmental agreements.”

WTO members opened a path in Bali and widened it in Nairobi, thus carving out and successfully negotiating small, bite-size issues in the last two ministerial meetings. This also seems to be the path that the fisheries negotiations are following. In fact, even the small-packages agreements recently agreed upon by WTO members in Bali (WTO 2013) and Nairobi (WTO 2015a) could shed some light on the small steps approach that FFSR could follow.¹⁸

3.4 Lessons on Starting Plurilateral/Regional Talks

Despite the well-known argument of free riders benefiting from plurilateral agreements on subsidies, we have seen an important innovation on how interested countries can organise themselves to press for a new agreement in the format of “clubs,” also in the fisheries negotiations. In Nairobi, a subgroup of countries interested in continuing the fisheries talks issued a Ministerial Statement reaffirming

18 The work on trade facilitation started with the mandate given in the Singapore Ministerial Declaration back in 1996, further reinforced in the Doha Declaration. As a result, this mandate laid the groundwork for the discussions to advance within the negotiating committees in the WTO in the years that followed, until the Trade Facilitation Agreement was finally agreed in Bali in 2013 (WTO 2013). Likewise, the issues in the Nairobi Package also had former mandates crafted in WTO Ministerial Declarations (WTO 2015). While the special safeguard mechanism, the preferential roles of origin for LDCs and cotton and cotton by-products treatment were introduced as part of the Hong Kong Declaration (WTO 2005), the agricultural export subsidies and cotton by-products were included in the Bali Declaration (WTO 2013) and the “services waiver” was originally adopted as part of the 8th Ministerial Meeting decisions (WTO 2011b).

their commitment to continue the negotiations, even though fisheries had not been part of the Nairobi Package itself. This initiative had a positive impact on the fisheries negotiations through 2016 and 2017 (WTO 2015b).

Another important feature seen in the fisheries negotiations is the “uniqueness” relevance of a regional agreement—the signed Trans-Pacific Partnership (TPP) text—in the multilateral negotiations. For the first time, different tabled negotiating proposals found support in the signed TPP text.¹⁹ In the text, the parties expressly acknowledge that “fisheries subsidies that contribute to overfishing and overcapacity, and illegal, unreported and unregulated (IUU) fishing” can have a significant impact on the environment—a key concept in the fisheries negotiations—and recognise the need for individual and collective action (Article 20.16.2). The text further spelled out the parties’ commitment to include, within the scope of fisheries management systems, measures to control, reduce and eventually eliminate all subsidies that contribute to overfishing and overcapacity, with certain exceptions that included fuel subsidies (Article 21.16.5).

In September 2016, a group of like-minded countries reaffirmed their desire to advance fisheries subsidy reform, signalling that it could be reached in a plurilateral format (WTO 2016a). This initiative helped stimulate momentum in the multilateral talks by prompting countries which didn’t want to join the plurilateral (e.g. European Union, the African, Caribbean and Pacific Group of States, LDCs, Indonesia, and others) to revive multilateral talks in the WTO’s Negotiating Group on Rules. Even though the plurilateral talks never gathered a critical mass in terms of either producers, exporters or even subsidisers, they have played a role by signalling to the countries opposing an agreement (e.g. India or China) that they could be excluded and that the United States was not ready to accept trade-offs with other rules issues (namely trade remedies). Through this kind of

bargaining power, the US move may have helped multilateral talks to advance.

Despite this alternative initiative, a fisheries multilateral agreement at the WTO would be more effective insofar as it would cover a greater portion of the marine fisheries (Tipping 2015, 9). While a plurilateral agreement could reach a more ambitious outcome in a shorter period, it would solve only one part of the problem—and, even then, not necessarily the major part of it, as important fisheries subsidisers could be left out. Although this could be seen as a second-best solution, this is what is already happening at the WTO in the ongoing fisheries negotiations. Fisheries discussions in “small clubs” appear to be seen as an alternative way for members to advance negotiations in, and generate the right momentum for, a multilateral agreement at a later stage by peer pressure or by leading the process by example, while not compromising urgent short-term needs. It might be worth noting that, in the case of FFSR, specific interests from the national constituencies defending the status quo could pose a threat to this approach.

Lessons

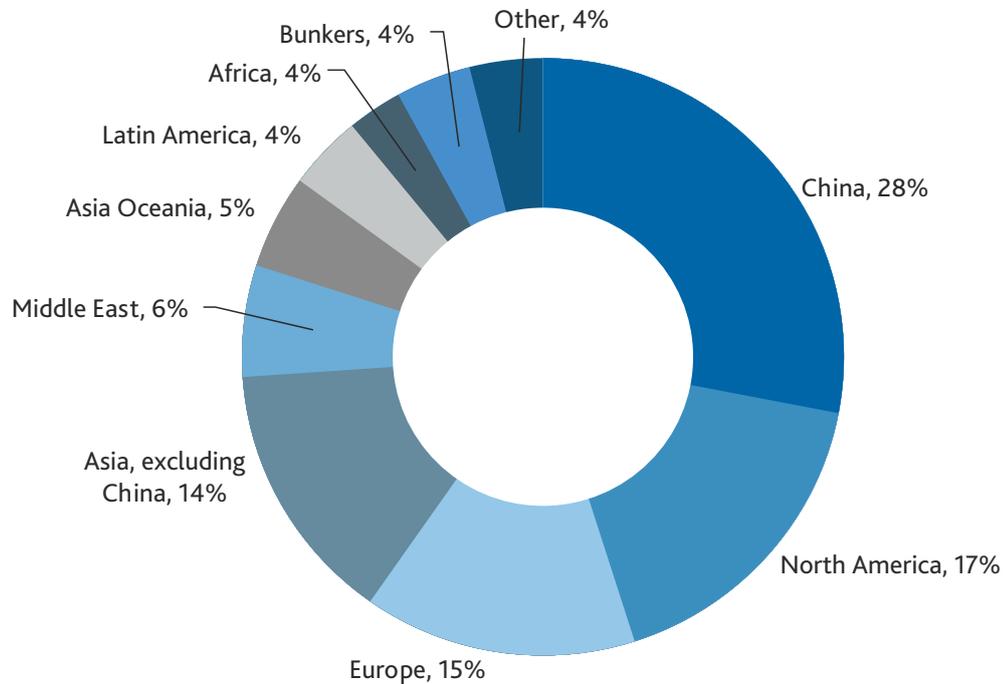
One important lesson is that the plurilateral path may also be an efficient alternative for those WTO members in favour of moving FFSR forward. Differently from the fisheries negotiations, where the globalised nature of the fishing industry affects the efficacy of a plurilateral approach (Tipping 2015, 9), in the case of FFSR the central players are largely concentrated. Estimates show that only a few countries are responsible for more than a half of greenhouse gas emissions (Figure 7) (IEA and OECD 2017, 12), and only few countries, albeit not exactly the same ones but with some overlaps, are also responsible for bringing challenges with respect to illegal subsidies to either fossil fuel production, energy intensive products or renewables energy industries at the WTO. Therefore, given that a significant portion of the problem is caused by fossil fuel subsidised

¹⁹ See for example, African, Caribbean and Pacific Group of States (WTO 2016b), the European Union (WTO 2016c) and Argentina, Australia, Canada, Chile, Colombia, New Zealand, Norway, Papua New Guinea, Peru, Singapore, Switzerland, Uruguay (WTO 2016d).

industries, which, in turn, are concentrated in only a few countries, it makes sense to approach the reform using the plurilateral tactic as a

driver for the engagement of other members—a complement to, rather than a substitute for, multilateral negotiations.

Figure 7. CO₂ emissions by region, 2015



Source: IEA-OECD (2017, 6)

Looking at regional agreements does not make much sense for FFSR at the present stage. The TPP worked for the fisheries negotiations because, in addition to substantive rules on the need to address environmental externalities of fisheries subsidies, the agreement was bringing together major players which included long-standing opponents of fisheries subsidies reform like Japan. This was really key. By contrast, the signed TPP text touches only superficially on the need to address the environmental externalities of fossil fuel subsidies. First, it excludes fuel subsidies from the scope of fisheries subsidies to be eliminated (Article 20.16.5). Second, and most importantly, there is no substantive commitment addressing climate change or the need to phase out certain environmentally harmful fossil fuel subsidies. The text merely acknowledges the need for collective action and cooperation to advance the transition to a lower emissions economy, while also recognising the need to consider the different circumstances and capabilities of each party

(Article 20.15). Using the precedent of other regional trade agreements among like-minded countries—like the signed EU-Singapore free trade agreement that touches on the issue of including fossil fuel subsidies in the category of prohibited subsidies, but excludes coal in Articles 12.7 and 13.11.3—would be much less powerful. TPP showed what could be possible among key countries with opposing views and created an incentive for such players to push for similar disciplines on other countries.

Against this background, a multilateral agreement on fossil fuel subsidy reform would still be the best alternative. While it might reach a less ambitious outcome, take more time to conclude, and need to accommodate the different interests and needs of the biggest subsidisers and developing countries mostly dependent on fossil fuels for energy security, it would avoid the “free rider problem” normally associated with plurilateral subsidy reform (those outside the agreement benefiting from positive externalities generated by the

members' subsidy reform, without an incentive to change their own practices). Moreover, with its wide and diverse membership, a multilateral negotiation is also better placed to address energy security concerns of developing countries and LDCs, where many of their existing populations, still growing, lack access to reliable and cheap energy. A multilateral agreement could also be enforced using the

WTO dispute settlement system, making it more likely that governments would actually implement, and not circumvent, the new agreed subsidy disciplines, as opposed to the current situation of questionable compliance with fossil fuel subsidy commitments made at the G20, G7, APEC, and in the UN's Agenda 2030—all of which lack an effective, legally binding mechanism.

4. CONCLUSION

This paper has drawn on the fisheries subsidies negotiations to explore how the WTO might foster a reform of fossil fuel subsidies to combat climate change. It looks at whether the WTO should have a role in the reform, and concludes, not only that it should, but also that it is better suited to carry the reform forward than other intergovernmental organisations.

One way forward is to see what lessons WTO members can learn from the fisheries subsidies negotiations. Although both types of subsidies are related to environmental and development concerns, the geopolitical vested interests underlying fossil fuel subsidies can set them apart from the fisheries subsidies. This divergence notwithstanding, this paper has shown that they may have more in common than not, and that can turn the fisheries subsidies negotiations into a proper benchmark against which to assess how the WTO can advance

FFSR. Evidence suggests that, in spite of the massive size of fossil fuel subsidies, they have come out of the scrutiny of the WTO dispute system largely unscathed. At the same time, the potential is high that they will hold back the climate change mitigation efforts necessary to keep global warming well below 2°C above preindustrial levels by 2050, as set out in the Paris Agreement.

WTO members pushing for FFSR could bring the discussion to the agenda of the Committee on Subsidies and Countervailing Measures. They have been discussing fisheries subsidies for years, and lessons from the fisheries negotiations, as pointed out in this paper, could serve as an appropriate starting point for raising other members' awareness of the importance of bringing the discussion on FFSR to the WTO before properly bringing the issue to the MC11.

Table 2. Policy Options

Policy options	Description
<p>Defining new categories of prohibited, actionable and non-actionable subsidies</p>	<p>(1) The FFSR talks could adopt an “effects-based approach,” based on an energy subsidy’s injury to the environment. The new disciplines could envisage new classification as follows:</p> <ul style="list-style-type: none"> a) prohibited subsidies to fossil fuels that cause the most harm/injury to the environment, thus hampering climate change mitigation and adaptation efforts. Injury to the environment would be assessed on the basis of share in global CO₂ emissions by fossil fuel type. This category could include subsidies to (i) new coal-fired power plants; (ii) capital or variable costs that enhance existing energy-inefficient fossil fuel production and inefficient fossil fuel-based plants; (iii) new exploration, extraction, development, plant construction and operations of energy-inefficient fossil fuel industries, or parts thereof; (iv) energy-intensive fossil-fuel based transport; and (v) consumption of fossil fuels with the highest carbon footprint; b) actionable subsidies to fossil fuel industries which have the potential to increase a member’s CO₂ emissions in comparison to the previous year, and, if so, have adverse effects on the environment. Adverse effects would be demonstrated if a member fails to (i) decrease its carbon intensity per unit of energy/GDP generated in relation to the previous year, despite subsidies to renewables and energy efficiency technologies; or (ii) demonstrate it met agreed thresholds with respect to the terms and conditions of officially supported export credits related to fossil fuel projects related to exploration, extraction, development, plant construction and operations. c) non-actionable subsidies that support the (i) adoption of selective technologies that increase emission efficiency of fossil fuel production insofar as they do not increase production; (ii) research, development and investment that lead to the scale-up of clean energy and carbon capture, utilisation and storage technologies; (iii) modification of existing fossil fuel facilities exclusively for the adoption of equipment necessary for compliance with carbon-reducing technologies; or (iv) decommissioning power plants fed by fossil fuels, or fossil fuel production facilities. <p>(2) The FFSR discussions could involve other specialised agencies, such as the OECD (which already coordinates two international sectoral understandings on coal and renewables under the OECD Arrangement on Officially Supported Export Credits), the Intergovernmental Panel on Climate Change (which has an active role under the Paris Agreement), and the UN frameworks dealing with climate change (UNFCCC, UN’s Agenda 2030, UNCTAD, UN Environment Programme).</p>

Table 2. *Continued*

Policy options	Description
Adding special and differential treatment disciplines	<p>(3) FFSR could foster the design of a new approach to S&DT that could imply:</p> <ul style="list-style-type: none"> a) broad exemption from prohibition for LDCs, with adequate capacity-building, technical assistance and cooperation mechanisms to help them during a transition period. For example, this exemption could include subsidies to small-scale GHG emitters, provided that proper criteria are identified to define “subsistence/small-scale” fossil fuel subsidies so as to ensure the legitimate socio-economic goals are met without providing a loophole for circumvention; b) narrower progressive exemption from prohibition on the basis of the member’s “contribution” to the environmental problem (applicable to developed and developing country members); c) broad additional restrictions on the provision of fossil fuel energy subsidies (besides the general rules under the ASCM) for countries that have contributed more to the climate change problem. These disciplines could envisage certain flexibilities for subsidies (i) to scale up production of clean energy and energy-efficiency technologies; and (ii) for re-education, retraining or redeployment of workers at fossil fuel facilities or for early retirement, combined with transitional periods established according to each member’s needs; d) narrower additional restrictions on the provision of fossil fuel energy subsidies (besides the general rules under the ASCM) for countries that have contributed less to the climate change problem. These disciplines could embody the flexibilities allowed for the countries that contributed more to the problem, in addition to some other flexibilities. The additional flexibilities could include (i) an exemption for subsidies for consumption of renewable energy, clean energy technologies and energy-efficiency technologies; (ii) a waiver from prohibited subsidies under Article 3 ASCM for subsidies used to scale up renewable energy production and to accelerate the share of renewables in a member’s energy supply mix, combined with transitional periods; e) design of real and adequate social safety nets for both developed and developing country members.

Table 2. *Continued*

Policy options	Description
Building on external mandates	<p>(4) The <i>demandeurs</i> of FFSR could table proposals at the WTO establishing the need for a WTO role in advancing FFSR in support of the SDGs 7.2, 7.3, 12.c, and 17, and the Agenda 2030 goals.</p> <p>(5) WTO members which have signed the Paris Agreement could explicitly include a reference to more ambitious “specific trade obligations” in their climate commitments (NDCs) in the next round of the mandatory five-year NDC review cycle in 2020 (the “ratchet mechanism”).</p> <p>(6) WTO member <i>demandeurs</i> of FFSR could also seek to establish an inter-regime mechanism between the WTO, on the one hand, and the IEA, OECD, UNFCCC and/or the IMF, on the other, which could put in place a joint framework for (i) clarifying trade-specific and environmental aspects related to the implementation of energy efficiency mechanisms and clean energy technology; (ii) working on a harmonised classification of fossil fuel subsidies; (iii) enhancing the notification and transparency mechanisms already in place; (iv) raising awareness among trade negotiators regarding commitments in the climate change arena.</p>
Crafting a clear text in the Ministerial Declaration	<p>(7) The <i>demandeurs</i> of FFSR could craft a specific negotiating mandate in the Buenos Aires Ministerial Declaration—a “Hong Kong-like” mandate for FFSR—laying the ground for FFSR and calling on members to “further the goals set out in the Paris Agreement and in Agenda 2030 for Sustainable Development, in particular those related to fossil fuels subsidy reform (SDG 12c) and climate change mitigation efforts (SDG 7.2, 7.3, 7.a and 7.b)”, and to “create a mutually reinforcing relationship between the climate and trade regimes” (SDG 17).</p> <p>(8) The FFSR talks could also build on existing mandates on subsidies (paragraph 28) and multilateral environmental agreements (paragraph 31(i)) of the Doha Declaration.^a</p>
Engaging in plurilateral talks	<p>(9) A group of country members interested in bringing the discussions on FFSR to the WTO agenda could issue a Ministerial Statement at the MC11 in Buenos Aires reaffirming their commitment to start plurilateral negotiations.</p>

^a Under paragraph 28 of the Doha Declaration, the ministers agreed to “negotiations aimed at clarifying and improving” disciplines under the ASCM, and to “indicate the provisions,” including disciplines on trade-distorting practices, that they seek “to clarify and improve.” Paragraph 31(i) calls on members to enhance “the mutual supportiveness of trade and environment,” and agree to further negotiations on “the relationship between existing WTO rules and specific trade obligations set out in multilateral environmental agreements.”

REFERENCES

- APEC (Asia-Pacific Economic Cooperation). 2000. "Study into the Nature and Extent of Subsidies in the Fisheries Sector of APEC Members' Economies." APEC Committee on Trade and Investment, PricewaterhouseCoopers, and Asia Pacific Economic Cooperation Secretariat, Singapore.
- Arnason, R., K. Kelleher, and R. Willmann. 2009. *The Sunken Billions: The Economic Justification for Fisheries Reform*. Washington, DC: World Bank.
- Asmelash, H. B. 2015. "Energy Subsidies and WTO Dispute Settlement: Why Only Renewable Energy Subsidies Are Challenged." *Journal of International Economic Law* 18: 261-85.
- Bigdeli, S. Z. 2008. "Will the 'Friends of Climate' Emerge in the WTO? The Prospects of Applying the 'Fisheries Subsidies' Model to Energy Subsidies." *Carbon and Climate Law Review* 2 (1): 78-88.
- Brandi, C. 2017. *Trade Elements in Countries' Climate Contributions under the Paris Agreement*. Geneva: International Centre for Trade and Sustainable Development (ICTSD).
- Chen, C.-J. 2010. *Fisheries Subsidies under International Law*. Berlin: Springer.
- Choptiany, J. M. H., R. Pelot, J. Brydie and W. Gunter. 2015. "An MCDA Risk Assessment Framework for Carbon Capture and Storage." *International Journal of Decision Support Systems* 1 (4): 349-90.
- Clark C. W., G. R. Munro, and U. R. Sumaila. 2005. "Subsidies, Buybacks, and Sustainable Fisheries." *Journal of Environment and Economic Management* 50: 47-58.
- Clements, B., D. Coady, F. Fabrizio, S Gupta, T. Alleyne, and C. Sdrarevich, eds. 2013. "Energy Subsidy Reform: Lessons and Implications." Washington, DC: International Monetary Fund.
- De Bièvre, D., I. Espa,, and A. Poletti. 2017. "No iceberg in sight: On the absence of WTO disputes challenging fossil fuel subsidies". *International Environmental Agreements: Politics, Law and Economics*. doi:10.1007/s10784-017-9362-0.Google Scholar.
- Espa, I., and S. E. Rolland. 2015. *Subsidies, Clean Energy, and Climate Change*. E15 Initiative. Geneva: International Centre for Trade and Sustainable Development (ICTSD) and World Economic Forum.
- FAO. 2002. *The State of World Fisheries and Aquaculture*. Rome: Food and Agriculture Organization.
- FAO. 2003. "Introducing Fisheries Subsidies." *FAO Fisheries Technical Paper* 437. Food and Agriculture Organization.
- Goldenberg, S. 2014. "Canada Switches on World's First Carbon Capture Power Plant." *The Guardian*, 1 October. <http://www.theguardian.com/environment/2014/oct/01/canada-switches-on-worlds-first-carbon-capture-power-plant>
- Hardin, G. 1968. "The Tragedy of the Commons." *Science* 162 (3859): 1243-8.
- Horlick, G., and P. A. Clarke. 2016. *Rethinking Subsidies Disciplines for the Future*. E15 Initiative. Geneva: International Centre for Trade and Sustainable Development (ICTSD) and World Economic Forum.
- IEA. 2016. *World Energy Outlook 2016*. Paris: International Energy Agency.

- IEA-OECD. 2017. "CO₂ Emissions from Fuel Combustion." *Highlights*. Paris: International Energy Agency and Organisation for Economic Co-operation and Development.
- IMF. 2014. "Energy Subsidies in the Middle East and North Africa: Lessons for Reform." Middle East and Central Asia Department, International Monetary Fund.
- IMF. 2016. "How Large Are Global Energy Subsidies"? By David Coady, Ian Parry, Louis Sears, and Baoping Shang. *IMF Working Paper*, WP/15/105.
- IPCC. 2006. *2006 IPCC Guidelines for National Greenhouse Gas Inventories*. Geneva: Intergovernmental Panel on Climate Change.
- Kampel, K. 2017. *Options for Disciplining the Use of Trade Remedies in Clean Energy Technologies*. Geneva: International Centre for Trade and Sustainable Development (ICTSD).
- Milazzo, M. 1998. "Subsidies in World Fisheries: A Re-examination." World Bank Technical Paper, Fisheries Series 406. Washington, DC: World Bank.
- Morgan, T. 2007. *Energy Subsidies: Their Magnitude, How They Affect Energy Investment and Greenhouse Gas Emissions, and Prospects for Reform*. UNFCCC Secretariat, Financial and Technical Support Programme. Bonn: Menecon Consulting.
- OECD. 2000. "Environmental Effects of Liberalising Fossil Fuels Trade: Results from the OECD Green Model." Paris: Organisation for Economic Co-operation and Development. COM/TD/ENV (2000)38/FINAL.
- OECD. 2005. "Subsidies: A Way Towards Sustainable Fisheries?" Policy Brief. Paris: Organisation for Economic Co-operation and Development.
- OECD. 2006. *Financial Support to Fisheries: Implications for Sustainable Development*. Paris: Organisation for Economic Co-operation and Development.
- OECD. 2015. "OECD Companion to the Inventory of Support Measures for Fossil Fuels 2015." Centre for Tax Policy and Administration, Environment Directorate, Organisation for Economic Co-operation and Development. COM/ENV/EPOC/CTPA/CFA(2015)14/FINAL.
- OECD. 2016. *SOEs as Global Competitor: A Challenge or an Opportunity?* Paris: Organisation for Economic Co-operation and Development.
- OECD. 2017. "Arrangement on Officially Supported Export Credits." 1 October. Paris: Organisation for Economic Co-operation and Development.
- Parry, I., D. Heine, E. Lis, and S. Li. 2014. *Getting Energy Prices Right: From Principle to Practice*. Washington, DC: International Monetary Fund.
- Pascual, Carlos. 2015. "The New Geopolitics of Energy." New York: Columbia Center on Global Energy Policy.
- Pauwelyn, Joost, Ramses A. Wessel and Jan Wouters (eds.). 2011. *Informal International Lawmaking*. Oxford: Oxford University Press.
- Selivanova, J. 2004. "World Trade Organization Rules and Energy Pricing: Russia's Case." *Journal of World Trade* 38: 559-602.
- Sumaila U. R., A. S. Khan, A. J. Dyck, R. A. Watson, G. R. Munro, P. H. Tyedmers, and D. Pauly. 2010. "A Bottom-up Re-estimation of Global Fisheries Subsidies." *Journal of Bioeconomics* 1:, 201-25.

- Sumaila, U. R., V. Lam, F. Le Manach, W. Swartz, and D. Pauly. 2013. "Global Fisheries Subsidies." Note for the European Parliament's Committee on Fisheries. [http://www.europarl.europa.eu/RegData/etudes/note/join/2013/513978/IPOL-PECH_NT\(2013\)513978_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/note/join/2013/513978/IPOL-PECH_NT(2013)513978_EN.pdf).
- Sumaila, U. R., V. Lam, F. Le Manach, W. Swartz, and D. Pauly. 2016. "Global Fisheries Subsidies: An Updated Estimate." *Marine Policy* 69, 189-193.
- Tipping, Alice V. 2015. *A 'Clean Sheet' Approach to Fisheries Subsidies Disciplines*. E15Initiative. Geneva: International Centre for Trade and Sustainable Development (ICTSD) and World Economic Forum.
- UNEP. 2004. "Analyzing the Resource Impact of Fisheries Subsidies: A Matrix Approach." By Porter, G. United Nations Environment Programme Workshop on Fisheries Subsidies and Sustainable Fisheries Management, Geneva.
- United Nations. 2015. Addis Ababa Action Agenda of the Third International Conference on Financing for Development. Ethiopia: Addis Ababa, UN.
- von Moltke, A., ed. 2011. *Fisheries Subsidies, Sustainable Development and the WTO*. Abingdon: Earthscan.
- World Nuclear Association. 2017. "'Clean Coal' Technologies, Carbon Capture and Sequestration." <http://www.world-nuclear.org/information-library/energy-and-the-environment/clean-coal-technologies.aspx>.
- WTO. 1995. "Marrakesh Agreement Establishing the World Trade Organization." https://www.wto.org/English/docs_e/legal_e/04-wto_e.htm.
- WTO. 1997a. "Environmental and Trade Benefits of Removing Subsidies in the Fisheries Sector—Submission by the United States." World Trade Organization, 19 May. WT/CTE/PARTIES/51.
- WTO. 1997b. "The Fisheries Sector—Submission by New Zealand." World Trade Organization, 21 May. WT/CTE/PARTIES/52.
- WTO. 1998. "Minutes of the Regular Meeting Held on 23-24 April 1998." Committee on Subsidies and Countervailing Measures, World Trade Organization, 15 July. G/SCM/M/16.
- WTO. 1999. "Minutes of the Regular Meeting Held on 2 November 1998." Committee on Subsidies and Countervailing Measures, World Trade Organization, 12 February. G/SCM/M/18.
- WTO. 2001. "Ministerial Declaration: Adopted on 14 November 2001." Doha WTO Ministerial 2001, World Trade Organization, 20 November. WT/MIN/(01)/DEC/1.
- WTO. 2005. "Doha Work Programme: Ministerial Declaration, Adopted on 18 December 2005." Ministerial Conference, Hong Kong. World Trade Organization, 22 December. WT/MIN(05)/DEC.
- WTO. 2007a. "Possible Disciplines on Fisheries Subsidies—Paper from Brazil." World Trade Organization, 13 March. TN/RL/GEN/79/Rev.4.
- WTO. 2007b. "Fisheries Subsidies: Fisheries Adverse Effects and S&D Treatment—Paper from Brazil." World Trade Organization, 29 June. TN/RL/GEN/212.
- WTO. 2007c. Draft Consolidated Chair Texts of the AD and SCM Agreements. 30 November. TN/RL/W/213. WTO. 2008. New Draft Consolidated Chair Texts of the AD and SCM Agreements, 19 December. TN/RL/W/236.

- WTO. 2011a. Negotiating Group on Rules. Communication from the Chairman. 21 April. TN/RL/W/254.
- WTO. 2011b. Eighth Minsiterial Meeting Decision. Preferential treatment to services and service suppliers of least-developed countries. WT/L/847.
- WTO. 2013. Bali Ministerial Declaration. 7 December 2013. WT/MIN(13)/DEC.
- WTO. 2015a. "Nairobi Ministerial Declaration: Adopted on 19 December 2015." World Trade Organization, 21 December 2015. WT/MIN(15)/DEC.
- WTO. 2015b. "Fisheries Subsidies Ministerial Statement on Behalf of Australia, Argentina, Brunei Darussalam, Canada, Colombia, Costa Rica, Fiji, Haiti, Iceland, Mexico, New Zealand, Norway, Pakistan, Paraguay, Papua New Guinea, Peru, Senegal, Solomon Islands, Switzerland, United States, Uruguay, Vanuatu and OECS Economic Union WTO Members (Antigua And Barbuda, Dominica, Grenada, St Kitts And Nevis, St Lucia and St Vincent and the Grenadines)." World Trade Organization 10th Ministerial Conference. WT/MIN(15)/37.
- WTO. 2016a. "Joint Statement Regarding Fisheries Subsidies." Statement by Argentina, Australia, Canada, Chile, Colombia, New Zealand, Norway, Papua New Guinea, Peru, Singapore, Switzerland, Uruguay, and the United States.
- WTO. 2016b. "Principles and Elements for Concluding Negotiations on Fisheries Subsidies Rules in the WTO: Submission by Rwanda on Behalf of the ACP Group." World Trade Organization, 16 November. TN/RL/GEN/182.
- WTO. 2016c. "*European Union and Its Member States - Certain Measures Relating to the Energy Sector: Request for Consultations by the Russian Federation.*" WT/DS476/1, S/L/409 G/L/1067, G/SCM/D102/1 G/TRIMS/D/40.
- WTO. 2016d. "Joint Statement Regarding Fisheries Subsidies." Statement by Argentina, Australia, Canada, Chile, Colombia, New Zealand, Norway, Papua New Guinea, Peru, Singapore, Switzerland, Uruguay, and the United States. 14 September.
- WTO. 2017a. World Trade Statistical Review.
- WTO. 2017b. "Principles and Elements for Concluding Negotiations on Fisheries Subsidies Rules in the WTO: Submission by Rwanda on Behalf of the ACP Group." TN/RL/GEN/182/Rev.1.
- WTO. 2017c. "Fisheries Subsidies: Compilation Matrix of Textual Proposals Received to Date." TN/RL/W/273.

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