The Potential Role of the International Trade Regime to Phase Out Fossil Fuel Subsidies

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As an international community we are currently falling well short of meeting the goals of the Paris Agreement and the gap is widening. We must take dramatic and rapid action to scale up mitigation efforts, including a massive global energy shift to clean energy. However, countries are spending billions of dollars annually in fossil fuel subsidies, incentivising the production and consumption of harmful fossil fuels. There have been widespread calls for the careful phase-out of these subsidies but it is clear that international coordination and economic incentives are required for countries to take meaningful action in this regard. The World Trade Organization (WTO) has the potential to play a crucial role in the reform and eventual phase-out of fossil fuel subsidies. It is suggested the WTO could increase transparency and build political momentum in the first instance, with a view to creating binding legal obligations in the longer term. The WTO is well placed to advance fossil fuel subsidy reform given its wide membership, binding nature, effective enforcement mechanisms and the ability to generate rewards in exchange for concessions. Such reform falls within the WTO's mandate given fossil fuel subsidies have a distorting impact on trade and investment as well as encouraging significant environmental harm. Further, the WTO has a mandate to ensure economic progress is achieved in accordance with the objective of sustainable development. Regional and bilateral trade agreements

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could play an important role alongside the WTO, with the potential to entail more detailed commitments than the WTO dependent on the parties involved. Whilst ambitious steps pose numerous political and other challenges, the gravity and urgency of climate change as a global crisis demands the international community to overcome such challenges and cooperate to take rapid action.

1. INTRODUCTION

The objectives of the Paris Agreement are to limit global average temperature increases to well below 2°C above pre-industrial levels, enhance the ability to adapt to climate change, and to make financial flows consistent with a low emissions pathway and climate resilient development.[1] These are intended to be achieved through universal participation by parties via increasingly ambitious nationally determined contributions (NDCs). NDCs currently fall short of meeting the goals of the Paris Agreement and the gap is widening, assisted by the fact that we are burning fossil fuels at record levels.[2] In 2018 an estimated 37.1 gigatonnes of fossil carbon dioxide (Gt CO_2) was emitted globally — representing a 2.7 per cent increase from 2017 levels.[3] *The Emissions Gap Report 2018* published by the United Nations Environment Programme (UNEP Report) warns that if the gap is not closed by 2030, limiting the temperature rise to below 2°C will be unlikely.[4] All nations need to take dramatic and rapid action to scale up mitigation efforts and key to these efforts will be a massive energy shift away from fossil fuels to clean energy. Meanwhile, countries continue to spend billions of dollars annually in fossil fuel subsidies — incentivising the production and consumption of these harmful fossil fuels.

It is estimated that the careful phase-out of fossil fuel subsidies could significantly reduce global emissions, but despite widespread political calls to do so, little progress has been made towards removing them. It appears that it will not be sufficient to rely on individual actions via the NDC process alone to phase out fossil fuel subsidies, instead it will require greater economic incentives and international coordination for countries to take meaningful

1 Paris Agreement 2015 (signed 22 April 2016, entered into force 4 November 2016) FCCC/CP/2015/10/Add.1 [Paris Agreement], art 2.

2 Intergovernmental Panel on Climate Change *Summary for Policymakers* in *Global Warming of 1.5°C* (IPCC, Geneva, 2018) at 20.

3 Corinne Le Quere and others "Global Carbon Budget 2018" (5 December 2018) 10(4) Earth Syst Sci Data 2141.

4 United Nations Environment Programme *The Emissions Gap Report 2018* (UNEP, Nairobi, November 2018) [UNEP Report].

action.[5] The international trade regime has a crucial role to play in this regard, particularly as fossil fuel subsidies have a distorting impact on trade and investment as well as encouraging significant environmental harm. With its wide membership, binding nature, effective enforcement mechanism, and ability to generate rewards in exchange for concessions, the World Trade Organization (WTO) and broader trade system (including bilateral and regional trade agreements) could make a significant contribution to international efforts to phase out fossil fuel subsidies.[6] The WTO has a well-established record of addressing subsidies. However, fossil fuel subsidies have been absent from the WTO's dispute resolution mechanism to date (whilst there have been a number of cases concerning renewable energy subsidies in recent years) for various legal and political reasons. This article will explore this issue in a discussion of how the WTO and international trade agreements can contribute to phasing out fossil fuel subsidies via existing or new frameworks to help meet the objectives of the Paris Agreement.

By way of background, part 2 will overview the interface between the international trade and climate regime under the Paris Agreement. Part 3 will turn to fossil fuel subsidies to define what they are, the importance of removing them and how they are currently regulated. Part 4 will discuss ways in which the trade regime may help to phase out these subsidies — namely the WTO could help increase transparency and build political momentum in the first instance, with a view to creating binding legal obligations in the longer term. Regional and bilateral trade agreements have the potential to play an important role alongside the WTO and, depending on the parties, these agreements could be more efficient and entail more detailed commitments than the WTO. As we look to next steps in the pathway to reform, part 5 will briefly overview some of the key drivers of a successful subsidy reform process.

2. THE RELATIONSHIP BETWEEN THE INTERNATIONAL TRADING AND CLIMATE REGIMES

2.1 The Climate Regime under the Paris Agreement

The United Nations Framework Convention on Climate Change (UNFCCC) sets the main objective of the climate regime as the "stabilization of greenhouse

5 Intergovernmental Panel on Climate Change *Climate Change 2014: Synthesis Report — Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* (IPCC, Geneva, Switzerland, 2014) at 17.

6 Joel P Trachtman *Fossil Fuel Subsidies Reduction and the World Trade Organization* (International Centre for Trade and Sustainable Development, Geneva, Issue Paper, October 2017).

gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system".[7] With 197 parties, the UNFCCC benefits from near-universal participation giving it broad legitimacy and, whilst it does not specify legal obligations to achieve this objective, it provides the basis for further international agreements to specify action. The Paris Agreement, adopted in December 2015 by 196 parties to the UNFCCC, heralds a new era of international cooperation on climate change.[8] The purposes of the Paris Agreement are to (1) limit the global average temperature increase to "well below" 2°C above pre-industrial levels and "to pursue efforts" to limit the temperature increase to 1.5°C above pre-industrial levels;[9] (2) enhance the ability to adapt to climate change, to foster climate resilience and to establish low greenhouse gas development;[10] and (3) make financial flows consistent with a low emissions pathway and climate resilient development.[11]

In a move towards a more bottom-up approach, the Paris Agreement requires all parties to submit NDCs every five years which outline mitigation pledges with increasing ambition over time.[12] Thus the Agreement provides for universal participation on the basis of common but differentiated responsibilities and respective capabilities (CBDRRC).[13] Current NDCs differ in ambition, nature and scope and, absent strong centralised enforcement, will likely face uneven implementation. Taken together their ambitions are far from adequate to meet the goal of limiting temperature increases to well below 2°C.[14] The success of the Paris Agreement relies upon sufficiently ambitious NDCs being committed to and effectively implemented by all parties. The support of other international regimes, including the international trade regime, will be vital in achieving this goal.

7 United Nations Framework Convention on Climate Change 1992 (adopted 9 May 1992, entered into force 21 March 1994) 1771 UNTS 107 [UNFCCC], art 2.

8 Kasturi Das and others *Making the International Trade System Work for Climate Change: Assessing the Options* (Climate Strategies, July 2018) at 6.

9 Paris Agreement, above n 1, art 2.1(a).

10 Article 2.1(b).

11 Article 2.1(c).

12 Article 4.

13 Article 2.2.

14 Das and others, above n 8.

2.2 The International Trade Regime

2.2.1 The WTO

The modern WTO was established in 1994 with a primary purpose to open trade for the benefit of all.[15] Comprising 164 member states, the WTO operates a global system of trade rules as well as acting as a forum for negotiating trade agreements, settling trade disputes between its members and supporting the needs of developing countries.[16] Central to the WTO are a series of agreements regulating various aspects of international trade.

The WTO regime recognises environmental protection as a fundamental principle. The preamble to the 1995 Marrakesh Agreement Establishing the World Trade Organization (Marrakesh Agreement) acknowledges the need for the "optimal use of the world's resources in accordance with the objective of sustainable development" in the pursuit of trade and economic goals.[17] This has come to play an important role in the interpretation of the core principles of the General Agreement on Tariffs and Trade (GATT) and,[18] in particular, the exceptions to its trade disciplines.[19] Article XX sets out two general exceptions to GATT's obligations based on environmental grounds: (1) nothing in the GATT should be construed to prevent adoption or enforcement of measures necessary to protect human, animal or plant life or health;[20] or (2) relating to the conservation of exhaustible natural resources, provided such measures are effected in conjunction with restrictions on domestic production or consumption.[21] However, environmental measures must not be misused for protectionist ends.[22]

The WTO's Committee on Trade and Environment (CTE), open to the entire WTO membership, provides a dedicated framework to address the links between trade and environment at the institutional level.[23] The CTE's mandate is broad and has contributed to identifying and understanding the

15 Marrakesh Agreement Establishing the World Trade Organization (concluded 15 April 1994) 1867 UNTS 154 [Marrakesh Agreement].

16 See World Trade Organization <www.WTO.org>.

17 Marrakesh Agreement, above n 15, preamble.

18 General Agreement on Tariffs and Trade 1994 (15 April 1994) LT/UR/A-1A/1/GATT/1 [GATT].

19 Daniel Bodansky, Jutta Brunnee and Lavanya Rajamani *International Climate Change Law* (Oxford University Press, Oxford, 2017).

20 GATT, above n 18, art XX(b).

21 Article XX(g).

22 Article XX, chapeau.

23 Richard Baron and Justine Garrett *Trade and Environment Interactions: Governance Issues* (Organisation for Economic Co-operation and Development, Background Paper for the 35th Round Table on Sustainable Development, 28–29 June 2017) at 13.

relationship between trade and the environment in order to promote sustainable development.[24] An important feature of the WTO is its strong dispute settlement mechanism which plays a key role in providing legal clarity in cases of conflict and has provided an important interface between trade and the environment in recent times.[25]

2.2.2 Trade agreements

Alongside the WTO system is an increasing number of bilateral and regional trade agreements (RTAs). Such agreements are perceived to help enhance market access, promote foreign policy objectives and influence the policies of trading partners.[26] In recent times, states have sought to streamline the increasing number of trade arrangements through "mega-regional agreements" such as the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP).[27] The potential impact of mega-regional agreements is significant given the number of parties involved (including some of the world's major trading nations) and the expansive scope of the agreements (incorporating market access and regulatory coherence).[28] As a result, the success or failure of these agreements may influence multilateral rule development. However, success is not guaranteed and the various mega-regional agreements to date have come under significant scrutiny, triggered partly by civil society demands for transparency and partly by political opposition.[29]

Environmental provisions have become increasingly prevalent in RTAs. These provisions take different forms, but depending on the mandate and budget allocations by the parties involved, such provisions can form the basis for subsequent technical cooperation, information exchange and capacity building, and could even go beyond the commitments under the UNFCCC.[30] The trend of including environmental provisions is continuing in the negotiation of mega-

24 See WTO <https://www.wto.org/english/tratop_e/envir_e/wrk_committee_e.htm>.

25 Susanne Droege and others "The Trade System and Climate Action: Ways Forward under the Paris Agreement" (2017) 13 SC J Int'l L & Bus at 205–206.

26 At 206.

27 The Comprehensive and Progressive Agreement for Trans-Pacific Partnership is a free trade agreement between Australia, Brunei Darussalam, Canada, Chile, Japan, Malaysia, Mexico, Peru, New Zealand, Singapore and Vietnam. The deal was signed on 8 March 2018 and entered into force on 30 December 2018 for Australia, Canada, Japan, Mexico, New Zealand and Singapore. It incorporates, by reference, the provisions of the Trans-Pacific Partnership (TPP) (signed but not in force) with the exception of a limited set of provisions to be suspended <https://www.mfat.govt.nz/en/trade/free-trade-agreements/free-trade-agreements-in-force/cptpp/comprehensive-and-progressive-agreement-for-trans-pacific-partnership-text/> [CPTPP].

28 Droege and others, above n 25, at 208.

29 At 208.

30 At 227–228.

regional agreements — for example, Chapter 20 of the CPTPP is dedicated to the environment and recognises "the importance of mutually supportive trade and environmental policies and practices to improve environmental protection in the furtherance of sustainable development".[31]

2.3 Should Trade be used to Support Climate Goals?

The UN climate regime takes somewhat of an "arms-length" stance with the international trade regime in that it neither relies on trade restrictions to advance mitigation goals, nor takes a position on recourse to such measures in the climate context.[32] The UNFCCC states:[33]

> The Parties should cooperate to promote a supportive and open international economic system that would lead to sustainable economic growth and development in all Parties, particularly developing country Parties, thus enabling them better to address the problems of climate change. Measures taken to combat climate change, including unilateral ones, should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade.

As such, the UNFCCC effectively refers parties to existing trade law by reiterating the rule contained in GATT, art XX, as opposed to expressly condoning or prohibiting the use of trade measures.[34] The Paris Agreement does not reference trade therefore the UNFCCC approach remains authoritative.[35]

There are divergent views on whether trade should be used to support climate goals. The Paris Agreement does not reference trade mainly due to diverging positions of developed and developing countries in this regard.[36] As trade measures may involve differentiated groups of countries, including substantive environmental provisions may run afoul of the UNFCCC's principle of CBDRRC.[37] It is also feared by some that an increased reliance on trade to support climate goals will burden the negotiation and ratification of otherwise growth-improving trade agreements, or that it will spark a proliferation of causes for the trade system to address.[38] However, climate change is a global

31 CPTPP, above n 27, art 20.3.
32 Bodansky, Brunnee and Rajamani, above n 19, at 347.
33 UNFCCC, above n 7, art 3.5.
34 Bodansky, Brunnee and Rajamani, above n 19, at 347.
35 At 347.
36 Droege and others, above n 25, at 200–201.
37 Baron and Garrett, above n 23, at 17–18.
38 James Bacchus *Global Rules for Mutually Supportive and Reinforcing Trade and Climate Regimes* (E15 Expert Group on Measures to Address Climate Change and the Trade

problem and requires a global response to which the cooperation of other international regimes is vital. The trade regime has an important role to play in this regard and the WTO has a clear mandate to ensure economic progress is achieved in accordance with the objective of sustainable development under the Marrakesh Agreement. Baron and Garrett describe:[39]

> The reference to sustainable development and the need to protect and preserve the environment as a parallel objective in the preamble to the WTO's founding agreement demonstrates intent by governments for the international trade regime to take environmental considerations into account. The broad international consensus in the COP21 Paris Agreement and on Agenda 2030's Sustainable Development Goals supports the view that trade policy settings should consider public well-being in addition to the aim of promoting economic growth. Because environmental challenges like climate change are systemic and cut across policy domains, beyond traditional environmental policy mandates, they require economy-wide action. This includes in the area of trade.

The relationship between international trade and climate change is complex. International trade has significantly contributed to climate change by enabling worldwide consumption of carbon-intensive products. However, it can also play an important role in the mitigation of climate change — for example, trade liberalisation can promote uptake of climate-friendly goods and services and foster deployment of clean technologies.[40] The relationship is changing particularly with the universal NDC approach adopted under the Paris Agreement which will likely see a change in synergies and conflicts between the two regimes, and changes to the political landscape will also pose new challenges for trade and climate policy interactions (particularly following the USA's indicated withdrawal from the Paris Agreement).[41] Ultimately, many call for greater cooperation between the regimes as a whole to advance the goals of the Paris Agreement and benefit international trade and development.[42]

One area in this regard is working together to achieve massive improvements in energy efficiency, a huge scale-up in the production of renewable

System, E15Initiative: International Centre for Trade and Sustainable Development and World Economic Forum, Geneva, Policy Options Paper, January 2016).

39 Baron and Garrett, above n 23, at 16.

40 See Droege and others, above n 25; and Philipp Aerni and others "Climate Change and International Law: Exploring the Linkages between Human Rights, Environment, Trade and Investment" (2010) 53 German YB Int'l L 139 at 159.

41 Droege and others, above n 25, at 196–197.

42 See Bacchus, above n 38.

energy and enhanced access to clean energy technologies, vital to limit temperature increases to well below 2°C.[43] As part of this objective, it is widely agreed that the international community must phase out fossil fuel subsidies to reduce incentives to the production and consumption of fossil fuels.

3. FOSSIL FUEL SUBSIDIES

3.1 Defining Fossil Fuel Subsidies

There is no universal definition of what constitutes a fossil fuel subsidy nor is there a consensus on the best methodology to measure them, and as a result, estimates of the size of fossil fuel subsidies vary hugely.[44] Several international organisations including the International Energy Agency (IEA), the International Monetary Fund (IMF) and the Organisation for Economic Co-operation and Development (OECD) report on fossil fuel subsidies, but do so with different definitions, methods and estimates.[45]

The only internationally agreed legal definition of a subsidy as a whole is in the WTO Agreement on Subsidies and Countervailing Measures (ASCM) which defines subsidies as a financial contribution or any form of income or price support that confers a benefit upon the recipient.[46] This definition is relatively narrow as it must meet the ASCM's subsidy requirements, ultimately with a view to capturing trade-distorting subsidies, as described in section II.D. Taking a broader approach, at the most basic level, fossil fuel subsidies can be described as government policies to support the consumers or producers of fossil fuels.[47] Consumer subsidies reduce the cost of fossil fuels for consumers and are mainly used in developing countries. Producer subsidies benefit the producers of fossil fuels by raising the price or lowering production costs

43 Das and others, above n 8, at 10.

44 Thijs Van de Graaf and Harro van Asselt "Introduction to the special issue: energy subsidies at the intersection of climate, energy, and trade governance" (2017) 17(3) International Environmental Agreements: Politics, Law and Economics 313 at 316–317.

45 At 317.

46 Agreement on Subsidies and Countervailing Measures (15 April 1994) 1869 UNTS 14 [ASCM], art 1.

47 Van de Graaf and van Asselt, above n 44, at 317. In comparison to the ASCM, the broader definition makes it possible to capture better the wide range of government measures commonly used to support the production or consumption of fossil fuels/energy — for the purposes of this article, fossil fuel subsidies will refer to subsidies in the broader sense, unless otherwise specified.

and are present in a wide range of countries, including both developed and developing countries.[48]

Fossil fuel subsidies can be interpreted in a way that includes a range of direct and indirect government measures. Some of the most common types of government support to fossil fuel production and consumption include the direct transfer of funds (eg cash payments, grants), foregone tax revenue (eg deviations and exemptions from standard tax rules), other foregone government revenue (eg beneficial terms of access to resources), transfer of risk (eg provision of loans or loan guarantees at below market rates, government ownership, insurance or indemnification provided by government at below market prices), and induced transfers of funds (eg measures whereby funds are transferred to actors following government intervention such as cross-subsidies between regions or sectors, import or export restrictions).[49] However, there is a lack of consensus as to whether all of these constitute a subsidy. Further, whether the value of non-internalised externalities should be included in subsidy accounting is a major source of contention among environmental economists.[50]

These differing approaches have led to widely varying calculations of how much global fossil fuel subsidies add up to. The OECD 2017 "Inventory of Support to Fossil Fuels" (Inventory) tracked annual support measures for fossil fuel production and consumption in OECD countries and eight partner economies,[51] and estimated the overall value of these measures at US$150–250 billion annually from 2010 to 2016.[52] Combining the OECD's bottom-up estimates of government support to individual programmes with the IEA's top-down estimates of consumer price support results in an aggregate estimate of between US$373–617 billion annually over the period 2010 to 2015 (for production and consumption subsidies).[53] The IEA itself estimates global fossil fuel consumption subsidies at more than US$300 billion in 2017,[54] whilst the

48 Cleo Verkuijl and others *Tackling Fossil Fuel Subsidies through International Trade Agreements* (Climate Strategies, November 2017) at 11.

49 At 13. Van de Graaf and van Asselt, above n 44, at 317.

50 Van de Graaf and van Asselt, above n 44, at 317.

51 Argentina, Brazil, Colombia, China, India, Indonesia, Russia and South Africa.

52 Organisation for Economic Co-operation and Development *OECD Companion to the Inventory of Support Measures for Fossil Fuels 2018* (OECD Publishing, 2018) <http://www.oecd.org/environment/oecd-companion-to-the-inventory-of-support-measures-for-fossil-fuels-2018-9789264286061-en.htm> [OECD Inventory] at 9.

53 At 10. The combined dataset covers 76 economies that collectively contribute 94 per cent of global CO_2 emissions.

54 World Energy Outlook "Fossil Fuel Subsidies" (2018) International Energy Agency <https://www.iea.org/weo/energysubsidies/>. "The IEA estimates subsidies to fossil fuels that are consumed directly by end-users or consumed as inputs to electricity generation. The price-gap approach, the most commonly applied methodology for quantifying consumption

IMF includes consumption-related externalities in its definition of "post-tax subsidies", which brings its estimate of global fossil fuel subsidies to US$5.3 trillion in 2015.[55]

OECD statistics indicate there has been somewhat of a general downward trend in fossil fuel subsidies. However, there is still significant work to be done to phase them out.[56] The OECD claims that over the past two decades only a quarter of the total number of measures in the Inventory have been phased out, whilst 21 measures have been added over the past two years.[57] Whilst estimates vary, even by the most conservative estimates, fossil fuel subsidies clearly involve vast amounts of money and amount to significantly more than subsidies to renewables.[58]

3.2 The Importance of Phasing Out Fossil Fuel Subsidies

Burning fossil fuels will continue to provide us with a primary source of energy until clean energy sources become more competitive than carbon-intensive fuels, even though we know that this produces harmful greenhouse gases. New data projects global fossil carbon dioxide (CO_2) emissions increased by 2.7 per cent in 2018 to 37.1 gigatonnes (Gt) of CO_2 — the largest increase in seven years.[59] Whilst some countries have prioritised a transition away from fossil fuels (as discussed below in part 3.3), governments still spend significant funds to incentivise their production and consumption.

Governments often justify fossil fuel subsidies on socio-economic and political grounds, in particular that they are beneficial to the poor. However, these subsidies frequently do not fulfil this objective — the IMF states that existing fossil fuel subsidies overwhelmingly go to the rich, with the wealthiest 20 per cent of people getting six times as much as the poorest 20 per cent in low- and middle-income countries.[60] It is now widely recognised that fossil

subsidies, is used for this analysis. It compares average end-user prices paid by consumers with reference prices that correspond to the full cost of supply …."

55 David Coady and others *How Large Are Global Energy Subsidies?* (International Monetary Fund, Working Paper, WP/15/105, 2015) at 17–22.

56 OECD Inventory, above n 52.

57 At 10.

58 Laura Merrill and others *Tackling Fossil Fuel Subsidies and Climate Change: Levelling the energy playing field* (Nordisk Ministerrad, Copenhagen, 2015) at 7.

59 Le Quere and others, above n 3.

60 Damian Carrington "Fossil fuels subsidized by $10m a minute, says IMF" *The Guardian* (online ed, London, 18 May 2015) <https://www.theguardian.com/environment/2015/may/18/fossil-fuel-companies-getting-10m-a-minute-in-subsidies-says-imf>. See also Chris Wold, Grant Wilson and Sara Foroshani "Leveraging Climate Change Benefits through the World Trade Organization: Are Fossil Fuel Subsidies Actionable?" (2012) 43 Geo J Int'l L 635 at 642.

fuel subsidies have huge environmental, economic and social implications. Firstly, they encourage carbon emissions and lock in carbon-intensive energy systems for decades into the future;[61] they also have distorting impacts on trade and investment and artificially enhance the competitiveness of fossil fuels.[62] Furthermore, they are a burden on government budgets and divert investment from other pressing development objectives such as healthcare and education, as well as the development and deployment of renewable energy technologies which represents a major impediment to a transition to sustainable energy.[63]

The impacts of phasing out fossil fuel subsidies are estimated to be significant, although figures vary depending on what is classified as a subsidy. The 2018 UNEP Report estimates that if all fossil fuel subsidies were removed, emissions could be reduced by up to 10 per cent by 2030.[64] Other models show that the removal of global consumption subsidies could lead to a reduction in emissions of between 6 per cent and 13 per cent by 2050, with potential for more if the savings were at least partially reinvested in renewables and energy efficiency.[65] A 2017 study by the International Institute for Sustainable Development (IISD), Global Subsidies Initiative (GSI) and the Overseas Development Institute (ODI) claims that a complete removal of global production subsidies would reduce the world's emissions by 37 $GtCO_2$ over 2017 to 2050.[66] The IMF claims that eliminating post-tax subsidies could cut global CO_2 emissions by over 20 per cent, raise worldwide government revenue by $2.9tn (3.6 per cent of global GDP in 2015), and cut air pollution deaths by more than half.[67] The scope for reduction is significant. However, the varying figures produced by different organisations highlight the need for greater certainty on what constitutes a subsidy and greater transparency on what subsidies are in existence.

61 Henok Birhanu Asmelash "Energy Subsidies and WTO Dispute Settlement: Why only Renewable Energy Subsidies Are Challenged" (2015) 18 Journal of International Economic Law 261.

62 Das and others, above n 8, at 39.

63 Wold, Wilson and Foroshani, above n 60.

64 UNEP Report, above n 4, at XXII.

65 Laura Merrill and others *Fossil-Fuel Subsidies and Climate Change: Options for policy makers within their Intended Nationally Determined Contributions* (Nordic Council of Ministers, Global Subsidies Initiative of the International Institute for Sustainable Development, Working Paper, Copenhagen, 2015) at 5; and Merrill and others, above n 58.

66 Ivetta Gerasimchuk *Zombie Energy: Climate benefits of ending subsidies to fossil fuel production* (International Institute for Sustainable Development, Global Subsidies Initiative, Overseas Development Institute, Working Paper, 2017).

67 Coady and others, above n 55, at 6.

3.3 International Support for Fossil Fuel Subsidy Reform

The 2009 G20 Pittsburgh Communiqué called on its members to "rationalize and phase out inefficient fossil fuel subsidies that encourage wasteful consumption over the medium term while providing targeted support for the poorest",[68] a pledge subsequently echoed by the Asia Pacific Economic Cooperation (APEC) group.[69] It was reiterated by the G7 in 2016 who called for an end to government support for coal, oil and gas by 2025 and encouraged all countries to join them in eliminating "inefficient fossil fuel subsidies" within a decade.[70] Since 2009, the G20 and APEC have created processes for reporting their fossil fuel subsidies and for conducting voluntary peer reviews.[71] Whilst self-reports of subsidies have attracted criticism for their omissions,[72] the peer reviews have at least increased a level of transparency (if not ambition).[73]

Another example of the widespread recognition of the issue is part of the UN sustainable development goals (SDGs) in which Goal 12.C states the target to:[74]

> Rationalize inefficient fossil-fuel subsidies that encourage wasteful consumption by removing market distortions, in accordance with national circumstances, including by restructuring taxation and phasing out those harmful subsidies, where they exist, to reflect their environmental impacts, taking fully into account the specific needs and conditions of developing countries and minimizing the possible adverse impacts on their development in a manner that protects the poor and the affected communities.

68 Group of 20 "G20 Leaders Statement: The Pittsburgh Summit" (Pittsburgh, 24–25 September 2009) <http://www.g20.utoronto.ca/2009/2009communique0925.html>.

69 Asia-Pacific Economic Cooperation "2009 Leaders' Declaration" (Singapore, 14 November 2009) <https://www.apec.org/Meeting-Papers/Leaders-Declarations/2009/2009_aelm>.

70 Group of 7 "G7 Ise-Shima Leaders' Declaration" (Ise-Shima, 26–27 May 2016) <https://www.mofa.go.jp/files/000160266.pdf >.

71 Ronald Steenblik, Jehan Sauvage and Christina Timiliotis "Fossil Fuel Subsidies and the Global Trade Regime" in Jakob Skovgaard and Harro van Asselt (eds) *The Politics of Fossil Fuel Subsidies and Their Reform* (Cambridge University Press, Cambridge, 2018) at 135.

72 See, for example, Elizabeth Bast and others *Empty promises: G20 subsidies to oil, gas and coal production* (Overseas Development Institute, Research Report, November 2015).

73 Karl Mathiesen "US and China release fossil fuel subsidy peer reviews" *The Guardian* (online ed, London, 20 September 2016) <https://www.theguardian.com/environment/2016/sep/20/us-and-china-release-fossil-fuel-subsidy-peer-reviews>; Steenblik, Sauvage and Timiliotis, above n 71, at 135.

74 *Transforming our World: The 2030 Agenda for Sustainable Development* GA Res 70/1, A/RES/70/1 (2015) at Goal 12.C.

With regard to the Paris Agreement, there was much momentum around the issue of fossil fuel subsidy reform on the sidelines of the negotiating process at COP21.[75] Whilst there is no mention of fossil fuel subsidies directly in the Agreement, Wooders and Merrill argue that there are "hooks and processes" included in the Agreement to encourage countries towards the removal of fossil fuel subsidies.[76] They state art 2 is a clear statement for parties to stem and turn around the flow of fossil fuel subsidies in order to "make financial flows consistent with a low emissions pathway and climate resilient development".[77] The most promising action comes from the inclusion by countries of the issue of fossil fuel subsidy reform in their NDCs. GSI research identified that 13 NDCs included reference to fossil fuel subsidies or energy sector reform within their NDCs, whilst 40 included broader references to wider fiscal instruments such as government fiscal support to renewables or a carbon or energy tax.[78]

Despite widespread recognition of the need to phase out fossil fuel subsidies, progress to implement these commitments has been slow. The international trade regime has an important role to play. At the 11th WTO Ministerial Conference 2017, the Friends of Fossil Fuel Subsidy Reform (FFFSR)[79] hosted a presentation of a Fossil Fuel Subsidies Reform Ministerial Statement (MC11 Statement), in which it urged the WTO to advance the discussion on fossil fuel subsidies, asking for transparency and reform of inefficient fossil fuel subsidies that encourage wasteful consumption.[80] It built the case for action under the WTO, suggesting that "trade and investment distortions caused by fossil fuel subsidies reinforce the need for global action including at the World Trade Organization", and arguing that the WTO "can play a central role in achieving effective disciplines on inefficient fossil fuel subsidies".[81] Whilst not legally binding, it is an important expression of support by the 12 signatories. A communiqué by the FFFSR (released outside the trade context in 2015) was

75 For a description of these side events see Peter Wooders and Laura Merrill "Fossil Fuel Subsidy Reform: Big at the Climate Talks and in the Agreement?" (21 December 2015) International Institute for Sustainable Development <https://www.iisd.org/gsi/subsidy-watch-blog/fossil-fuel-subsidy-reform-big-climate-talks-and-agreement>.

76 See Wooders and Merrill, above n 75.

77 Paris Agreement, art 2; Wooders and Merrill, above n 75.

78 Anika Terton and others *Fiscal Instruments in INDCs: How countries are looking to fiscal policies to support INDC implementation* (IISD, GSI, Discussion Paper, December 2015); Wooders and Merrill, above n 75.

79 A coalition of non-G20 countries aiming to build political consensus on the importance of fossil fuel subsidy reform. Current members are Costa Rica, Denmark, Ethiopia, Finland, New Zealand, Norway, Sweden, Switzerland and Uruguay. See <fffsr.org>.

80 *Fossil Fuel Subsidies Reform Ministerial Statement* WT/MIN(17)/54, 12 December 2017 [Ministerial Statement]. Signatories: Chile, Cost Rica, Iceland, Liechtenstein, Mexico, the Republic of Moldova, New Zealand, Norway, Samoa, Switzerland, Chinese Taipei and Uruguay.

81 At 1.

endorsed by other countries outside the group (including G7 members Canada, France, Italy, the United Kingdom and the United States) which demonstrates that there are more countries supportive of the issue.[82]

3.4 How are Fossil Fuel Subsidies Currently Regulated by the International Trade Regime?

3.4.1 WTO agreements

Fossil fuel subsidies are primarily covered by WTO agreements — GATT and ASCM. The application of these agreements to fossil fuel subsidies has proven difficult in practice to date, particularly due to the lack of information about the scope and nature of such subsidies, and a lack of clarity as to whether they fit the definitional criteria of (prohibited) subsidies.[83]

(i) GATT
Articles VI and XVI provide the basic principles on subsidies and countervailing duties (CVDs) in the GATT/WTO system. Article VI provides for the imposition of CVDs to offset subsidies on imports, if it is determined that the effect of subsidisation of these imports "is such as to cause or threaten material injury to an established domestic industry or … retard materially the establishment of a domestic industry".[84] Article XVI "contains general provisions against subsidies that expand the exports of primary products or lower the export prices of other products below those prevailing in the domestic market".[85] The ASCM expands upon both arts VI and XVI.

(ii) ASCM
The ASCM is an implementation agreement which seeks to limit the use of subsidies by WTO members (Members) and regulates countervailing measures with an aim to minimise market distortions caused by subsidies. Whilst it is arguably a possible mechanism for challenging fossil fuel subsidies, the scope to do so is narrow as it is necessary to satisfy a number of cumulative conditions set out in the ASCM. Firstly, it needs to be determined whether the measure being challenged meets the Agreement's subsidy definition and falls within its scope. To determine this, a three-part test must be met:

82 Friends of Fossil Fuel Subsidy Reform "Fossil-Fuel Subsidy Reform Communiqué" (2015) <http://fffsr.org/communique/>.
83 Bodansky, Brunnee and Rajamani, above n 19, at 346–347.
84 GATT, above n 18, art VI 6(a).
85 Arvind Panagariya "Core WTO Agreements: Trade in Goods and Services and Intellectual Property" (Columbia University, 2002) <http://www.columbia.edu/~ap2231/Courses/wto-overview.pdf > at 13.

(1) The policy must be a "financial contribution" or "any form of income or price support in the sense of Article XVI of GATT 1994" provided by a government or public body.[86] A financial contribution may take many forms, including the direct transfer of funds, the provision of goods and services, and the forgoing of revenue that is otherwise due;[87] and
(2) The financial contribution or income price support must confer a benefit;[88] and
(3) The subsidy must be "specific to an enterprise or industry, or group of enterprises or industries, within the jurisdiction of the granting authority" (Specificity Requirement).[89]

If a measure successfully meets the above criteria, it is a "subsidy" to which the ASCM applies. In order to take action against the subsidy, it must be proven that it is either "prohibited" (never permitted) or "actionable" (permitted, unless certain types of trade effects, or the threat thereof, are demonstrated).

Prohibited subsidies are contingent upon export performance (export subsidies)[90] or upon the use of domestic over imported goods (local content subsidies).[91] Prohibited subsidies must be withdrawn if found to exist — there is no requirement to demonstrate harm or specificity.[92] However, fossil fuel subsidies do not tend to be contingent upon domestic content requirements or on export performance, therefore in most cases will not be classified as "prohibited".[93]

A subsidy is "actionable" when it is proven to cause "adverse effects to the interests of other Members" namely when it causes actual (or threat of an) "injury" to the domestic industry of another Member or causes actual (or threat of) "serious prejudice" to the interests of another Member.[94] The injury or serious prejudice must be to a domestic industry of a Member producing a "like product".[95] The ASCM describes two distinct actions for challenging actionable subsidies — namely, imposing CVDs on the subsidised imports,[96] or seeking countermeasures by bringing a dispute at the WTO.[97] In the context of fossil fuel subsidies, a difficult challenge comes in the form of meeting the

86 ASCM, above n 46, art 1.1(a).
87 Article 1.1(a)(1)(i)–(iv).
88 Article 1.1(b).
89 Article 2.1.
90 Article 3.1(a).
91 Article 3.1(b).
92 Article 4.7.
93 Asmelash, above n 61, at 281.
94 ASCM, above n 46, art 5.
95 Article 6.3.
96 Articles 10–23.
97 Article 7.

Specificity Requirement — given that the benefits of such subsidies generally accrue to a broad group of producers or consumers (or both), and hence are unlikely to be found specific.[98] Whilst it may be possible to prove specificity depending on the circumstances, in many cases finding sufficient evidence to support a successful argument (ie proving specificity, as well as adverse effects (on its "like" industry)) would be challenging. A recent report by Verkuijl and others demonstrates that most consumer support measures are likely to fall outside the scope of the ASCM due to the difficulty in meeting these high threshold tests, and therefore are hard to litigate under WTO law.[99] It further suggests that producer subsidies are also hard to be captured by the ASCM — in large part because of an absence of readily available information.[100] Overall, whilst it would need to be assessed on a case-by-case basis, it is foreseeable that a fossil fuel subsidy could potentially be challenged under the ASCM — however, the scope for doing so is very narrow. Some argue the GATT/ASCM regime is simply not sufficient (as it currently stands) to discipline fossil fuel subsidies effectively.[101]

3.4.2 Why have fossil fuel subsidies not been challenged through the WTO system?

The narrow scope of the ASCM is one of the reasons there have been no challenges to fossil fuel subsidies under the WTO system to date. Countries are less likely to initiate a formal WTO case unless they have a good chance of winning, particularly considering the costs involved and the risk of adversely affecting diplomatic relations with a trading partner.[102] Another major obstacle is a lack of transparency. The ASCM specifies Members should notify their subsidies, providing sufficient details to allow other Members to assess the impacts on trade.[103] However, notification rates of subsidies have generally been low due to a lack of commitment, a lack of clarity about which subsidies need to be reported, and the inherent difficulties of estimating them.[104] The mechanisms included in the ASCM to counter lack of (notification) compliance have also been hard to implement in reality.[105] To bring a successful challenge, a country would need to obtain and analyse large amounts of data — which

98 Asmelash, above n 61, at 281.
99 Verkuijl and others, above n 48.
100 At 54.
101 Trachtman, above n 6, at 7.
102 Asmelash, above n 61, at 279.
103 ASCM, above n 46, art 25.
104 Droege and others, above n 25, at 244; Verkuijl and others, above n 48, at 55.
105 ASCM, above n 46, arts 26, 25.8, 25.10.

is difficult given the limited data available — and many countries lack the resources required to effectively undertake this process.

There are also a number of political reasons suggested for a lack of action. Industry pressure groups, which play an important role in compelling governments to take action against another Member, have been relatively passive for various reasons (including that many of these groups financially benefit from fossil fuel subsidies).[106] In the absence of any request from affected industries, governments are unlikely to take action against foreign subsidies.[107] Further, fears of retaliatory litigation or counter-claims may override one Member's incentives to initiate disputes at the WTO.[108] Given fossil fuels are subsidised in almost all countries to some extent, countries may be reluctant to expose their own subsidy programmes to scrutiny.[109]

In contrast, there have been a number of disputes at the WTO concerning renewable energy subsidies in recent years. To date, these disputes have primarily focused on domestic content requirements present in renewable energy schemes. Such subsidies can be challenged as "prohibited" under the ASCM, or as discriminatory measures contrary to the national treatment obligation of GATT[110] and the Agreement on Trade Related Investment Measures (TRIMS).[111] These cases highlighted the difficulty of meeting the high threshold tests under the ASCM. For example, in the Canada-Renewable Energy case,[112] adjudicating bodies were unable to establish if the measures violated the ASCM and the success of the complainants hinged instead on findings that violations of the TRIMS Agreement and GATT had occurred.[113] This outcome suggests that in some cases (ie cases that deal with local content subsidies for example) it may be more feasible to demonstrate that a subsidy represents a violation of the TRIMS Agreement or GATT than of the ASCM.[114] For other support measures (notably those without local content requirements), a challenge under the ASCM may be the only avenue available under WTO

106 Asmelash, above n 61, at 282–284.

107 At 282–284.

108 Wold, Wilson and Foroshani, above n 60, at 635.

109 Asmelash, above n 61, at 284.

110 GATT, above n 18, art III (requires members to treat imported goods no worse than "like" domestic goods).

111 Agreement on Trade Related Investment Measures (15 April 1994) 1868 UNTS 186 [TRIMS].

112 *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 (Report of the Appellate Body).

113 Verkuijl and others, above n 48, at 25.

114 Dominic Coppens *WTO Disciplines on Subsidies and Countervailing Measures: Balancing Policy Space and Legal Constraints* (Cambridge University Press, Cambridge, 2014) at 142, as discussed in Verkuijl and others, above n 48, at 25.

law. Since fossil fuel subsidies tend to be more consumer targeted and non-discriminatory, it is unlikely that they will be able to be challenged through the TRIMS Agreement. The only viable avenue is via the ASCM which, as we have seen, is challenging to prove they meet the specificity and adverse effect thresholds.[115]

3.4.3 Trade agreements

To date, there have been few examples of fossil fuel subsidy reform being successfully included in RTAs. One example is the recent EU-Singapore Free Trade Agreement, art 12.11.3 of which states:[116]

> The Parties recognise the need to ensure that, when developing public support systems for fossils fuels, proper account is taken of the need to reduce greenhouse gas emissions and to limit distortions of trade as much as possible. While subparagraph (2)(b) of Article 11.7 (Prohibited Subsidies) does not apply to subsidies to the coal industry, the Parties share the goal of progressively reducing subsidies for fossil fuels. Such a reduction may be accompanied by measures to alleviate the social consequences associated with the transition to low carbon fuels. In addition, both Parties will actively promote the development of a sustainable and safe low-carbon economy, such as investment in renewable energies and energy efficient solutions.

This agreement is not yet in force, but it is a promising example of how the issue can be specifically included in RTAs.

Another example, although not specific to fossil fuel subsidies, is Chapter 20 of the CPTPP which contains a recognition of "the importance of mutually supportive trade and environmental policies and practices to improve environmental protection in the furtherance of sustainable development",[117] an acknowledgement "that transition to a low emissions economy requires collective action" and the possibility of cooperation on "clean and renewable energy sources".[118] It also contains commitments to ban subsidies that encourage overfishing — as part of these provisions, parties are required to provide information about fossil fuel subsidies as a form of fisheries subsidy.[119] In earlier negotiations a proposal was made to link the agreement to voluntary commitments made under APEC to take action with a view to rationalising and

115 Asmelash, above n 61, at 284.
116 EU-Singapore Free Trade Agreement (signed 19 October 2018, not yet in force), art 12.11.3.
117 CPTPP, above n 27, art 20.3.
118 Article 20.15.
119 Article 20.16.

phasing out fossil fuel subsidies, but it was not included in the final text due to opposition from some countries.[120] This highlights the political challenges that exist to create binding obligations on parties through the channel of RTAs. However, it is an avenue that has potential to advance reform as discussed in part 4 of this article.

There are a number of obstacles to challenging fossil fuel subsidies with a view to phasing them out under existing legal frameworks. However, the international trade regime, with the WTO at the centre, is an obvious candidate for advancing fossil fuel subsidy reform for a number of reasons, and part 4 will look at why and how.

4. HOW CAN THE INTERNATIONAL TRADE REGIME HELP TO PHASE OUT FOSSIL FUEL SUBSIDIES?

Fossil fuels are traded extensively internationally, therefore national subsidy practices can affect international prices and have a distorting impact on trade and investment. This puts fossil fuel subsidies squarely within the WTO's mandate and makes them directly relevant for the achievement of the WTO trade liberalisation goals.[121] The WTO is the main international organisation to discipline trade-distorting subsidies and has a significant amount of experience in developing, interpreting and applying rules about subsidies. It has in place institutional infrastructure to promote compliance including analytical, reporting, surveillance (including the Trade Policy Review Mechanism) and dispute settlement capabilities that fit well with the institutional needs of a fossil fuel subsidy reduction mechanism.[122] Although parallels should not be overstated, the WTO also has prior experience in engaging on reducing special sectoral subsidies and environmentally harmful subsidies such as fisheries.[123]

As previously discussed, the WTO also has a clear mandate to ensure economic progress is achieved in accordance with the objective of sustainable development, and SDG 12 strengthens the rationale for addressing fossil fuel subsidies within the WTO.[124] The WTO has a wide membership from both developed and developing countries, suggesting its efforts to govern fossil fuel subsidies could be considered more legitimate than those of a smaller group of countries.[125] Membership includes the major trading states which is particularly relevant in the context of progressing climate action at a time when the USA has

120 Steenblik, Sauvage and Timiliotis, above n 71, at 134.
121 Verkuijl and others, above n 48, at 65; Trachtman, above n 6, at 3.
122 Trachtman, above n 6, at 18.
123 At 18; Verkuijl and others, above n 48, at 10.
124 Verkuijl and others, above n 48, at 10.
125 At 65.

indicated its withdrawal from the Paris Agreement. Different states will have different interests in connection with fossil fuel subsidies, and the WTO offers opportunities to induce states to change their policies in exchange for policy concessions in other fields by other states.[126] Ultimately the WTO is a forum for exchange of diverse commitments, making negotiation through cross-sectoral bargaining more likely to reach agreement.[127] There is also an important role for RTAs to make a significant contribution to complement progress in the WTO and even in instances go further than the WTO, depending on the parties.

Potential ways the trade regime could progress reform, as suggested by different commentators, are discussed here. These options are not necessarily mutually exclusive, and many would be more effective if adopted together. Ultimately some will be more feasible than others, particularly in the current global political climate. However, the gravity of climate change ultimately requires the international community to overcome these issues in order to achieve the massive global energy shift required.

It is important to note that any successful effort to address fossil fuel subsidies would need to adequately address the special circumstances of developing countries, potentially via special and differential treatment provisions, including potential exemptions and carve-outs for development needs.[128]

4.1 Enhance Transparency

Improved transparency would help shed light on what subsidies are being provided, especially by countries that are not reporting or undergoing reviews in other forums,[129] which is a vital first step in the pathway to reform. Transparency can help avoid the emergence of disputes, instead generating dialogue and promoting clarity, as well as options for reform.[130]

4.1.1 Self-notification

It has been suggested that in order to improve notifications, Members could (unilaterally or plurilaterally) voluntarily notify fossil fuel subsidies under the ASCM according to a common template.[131] Self-reporting could help governments and other stakeholders better understand what subsidies are being

126 Trachtman, above n 6, at 18.
127 At 18.
128 Verkuijl and others, above n 48, at 64.
129 For example, the voluntary peer reviews under the G20 and APEC.
130 Das and others, above n 8, at 40–41.
131 Verkuijl and others, above n 48, at 62.

granted and track efforts to reform them over time.[132] By using an improved notification template, it is suggested that barriers of ambiguous requirements and other technical difficulties from the use of the current template could be overcome.[133] Although self-reporting may mean that only a limited number of subsidies are notified, arguably it is a first step towards more transparency and the path to a mandatory system.[134] It would require some Members to take the lead and be confident that their notifications would not necessarily lead to a challenge before the WTO dispute settlement system.[135]

4.1.2 Counter-notification

Another option already possible within existing rules is counter-notification. The ASCM provides that where a Member fails to notify a measure that it should have notified, any other Member may bring this matter to the attention of the Member failing to notify.[136] The latter should promptly notify, but if it fails to do so, the former may bring the matter to the notice of the WTO Committee on Subsidies and Countervailing Measures.[137] It is suggested by Asmelash that counter-notifications could be used more effectively — for example, Members that notify a particular type of fossil fuel subsidy under the ASCM may cross-notify similar types of subsidies provided by other Members.[138] Counter-notifications are relatively rare to date, in large part because they are likely to trigger detailed scrutiny of the counter-notifying Member's own notifications which would likely be an ongoing limitation of this as an option.[139]

4.1.3 Trade Policy Review Mechanism

The WTO Secretariat could seek to consistently include fossil fuel subsidies within its Trade Policy Reviews (TPRs) under the Trade Policy Review Mechanism (TPRM).[140] As part of these reports to the Trade Policy Review

132 At 62.
133 At 62.
134 At 62; Das and others, above n 8, at 40–41.
135 Das and others, above n 8, at 41–42.
136 ASCM, above n 46, art 25.10.
137 Article 25.10.
138 Henok Birhanu Asmelash *Phasing Out Fossil Fuel Subsidies in the G20: Progress, Challenges and Ways Forward* (International Centre for Trade and Sustainable Development, Think Piece, September 2017) at 14.
139 At 13–14.
140 The Trade Policy Review Mechanism is intended to add transparency and improve understanding about trade policies and other practices of individual WTO Members. The Secretariat prepares and publishes periodic TPRs of each Member, as well as an annual review of the state of the trading system, and the monitoring reports on measures taken

Body, the Secretariat can warn or express concern on the basis of its analysis.[141] Currently there is a lack of consistency among TPRs as to the reporting of fossil fuel subsidies in that some do not mention them at all, whilst others contain widely varying degrees of detail, in part depending on what information is available.[142] Members could on their own initiative (unilaterally or plurilaterally) decide to include information on fossil fuel subsidies in their reports in response to the TPR.[143] Countries belonging to the FFFSR already seek to consistently raise the issue in their questions and statements under the TPRM, with a view of encouraging progress by other Members.[144]

In its development of TPRs, the Secretariat has the discretion to make use of, and refer to, analyses prepared by third parties, but there appears to be a lack of consistency as to how much of these analyses are included in reports.[145] The WTO Secretariat could seek to collect data more systematically on fossil fuel subsidies without formal approval of Members, although it is acknowledged that this would require resources.[146] Casier and others highlight the opportunity for non-governmental organisations (NGOs) to strengthen the process by providing third-party notification to the Secretariat of missing data (that NGOs can access from publicly available sources) using a common template.[147] It has been suggested also to grant civil society organisations, and other stakeholders with expertise, observer status at TPRM meetings with a view to facilitating the interaction with external experts holding valuable information on fossil fuel subsidies.[148] It is suggested by Das and others that options related to using the TPRM to enhance transparency seem feasible in the short term, particularly as it uses existing frameworks.[149]

4.1.4 Strengthen ASCM notification requirements

Another potential avenue is to strengthen the enforceability of existing notification requirements under the ASCM. This would likely require an amendment of the ASCM as art 25 does not specify which types of subsidies

in response to the financial crisis. The Secretariat has the mandate to consider fossil fuel subsidies and fossil fuel subsidy reform in TPRs. See Liesbeth Casier and others "Shining a Light on Fossil Fuel Subsidies at the WTO: How NGOs can Contribute to WTO Notification and Surveillance" (2014) 13(4) World Trade Review 603 at 617–618.

141 At 617. Discussion in the TPRB does not imply whether a measure is "actionable" or not.

142 For further detail see Verkuijl and others, above n 48, at 56–58.

143 At 62.

144 Das and others, above n 8, at 41.

145 Verkuijl and others, above n 48, at 58.

146 Das and others, above n 8, at 41.

147 For further discussion including a suggested template see Casier and others, above n 140.

148 Verkuijl and others, above n 48, at 62.

149 Das and others, above n 8, at 41.

should be notified (beyond those meeting the definition of arts 1 to 2) and does not specify any consequences for incomplete notifications.[150] Bacchus suggests that in order to achieve this, it is possible to "mandate full disclosure of fossil fuel subsidies under the WTO rules, affirm that fossil fuel subsidies are actionable subsidies under those rules and agree on the gradual phase out and ultimate prohibition of such subsidies".[151] It is likely that any mandatory obligation to disclose would likely run into significant opposition, at least in the short to medium term.[152] Das and others suggest that, generally, new notification requirements would likely only be accepted if accompanied by new rules focused specifically on fossil fuel subsidies, as has been seen in previous subsidy reform processes (such as agriculture and fisheries).[153] They suggest that strengthening transparency under the WTO could receive a boost if progress is made as part of the SDG process.[154] Under Goal 12.C.1, UNEP is leading efforts to develop a methodology for measuring fossil fuel subsidies. If this methodology is adopted, UNEP would be responsible for collecting data on UN members for the period 2020 to 2030 and this could reinforce efforts under the WTO, including on notifications.[155]

4.2 Adopt a Political Declaration

Another option is for WTO Members to adopt a political declaration. Such an initiative could take the form of statements of intent regarding fossil fuel subsidies in the context of the WTO.[156] The value of a declaration lies in providing clarity on how WTO rules apply to fossil fuel subsidies and/or offering a signal that the WTO seeks to advance reform.[157]

One option in this regard would be to negotiate an interpretation of the scope of the ASCM — ie a political understanding on how fossil fuel subsidies — or specific types thereof — would fall under the definition of art 1.[158] Verkuijl and others suggest such a declaration could be considered either a "subsequent agreement between the parties regarding the interpretation of the treaty or the application of its provisions" or "subsequent practice in the application of the treaty which establishes the agreement of the parties regarding

150 At 40–41; Verkuijl and others, above n 48, at 62.
151 Bacchus, above n 38, at 17.
152 Das and others, above n 8, at 42.
153 At 42.
154 At 42.
155 At 42.
156 At 44.
157 Verkuijl and others, above n 48, at 63.
158 At 63.

its interpretation" under the Vienna Convention on the Law of Treaties.[159] As such, it would be relevant for interpreting the ASCM.[160]

Another option would be to clarify the mandate of the CTE to discuss the reform of fossil fuel subsidies or, more generally, state their support for addressing the issue under the WTO.[161] As Verkuijl and others describe, this could be done broadly by affirming support of commitments related to climate change action made elsewhere (such as through the Paris Agreement).[162] More specifically, it could affirm or refer to commitments to address fossil fuel subsidies (eg by the G20 or APEC).[163]

Overall, the feasibility of this option is relatively high in the short term. Whilst such declarations are helpful, their effectiveness in real terms will be determined by the ability to attract sufficient support and use the declaration to take concrete steps towards the adoption of legal commitments or disciplines at the WTO.[164] For example, the challenge for the FFFSR will be mobilising other countries and moving the issue forward beyond the MC11 Statement.[165]

4.3 Pledge and Review

WTO Members, unilaterally or plurilaterally, could make a non-binding pledge to eliminate or progressively reduce their fossil fuel subsidies as well as to report progress and review each other's advances.[166] Through this mechanism, commitments to action could be anchored to the WTO, with Members peer-reviewing each other's reports to share lessons and increase ambition. This approach could build on the ASCM, and could seek to link to other voluntary commitment and review processes (eg under the G20 and APEC), but extend to Members that do not participate in such forums.[167]

It is suggested that the adoption of (voluntary) commitments by states to reform or remove fossil fuel subsidies can increase the reputational costs of reneging on that commitment.[168] The process itself could even be seen as a

159 Vienna Convention on the Law of Treaties (signed 23 May 1969, entered into force 27 January 1980) 1155 UNTS 331, art 31.3(a) and (b). See Verkuijl and others, above n 48, at 63.
160 At 63.
161 At 8.
162 At 63.
163 At 63.
164 Das and others, above n 8, at 44.
165 At 44.
166 Verkuijl and others, above n 48, at 62.
167 At 62–63.
168 Joel E Smith and Johannes Urpelainen "Removing Fuel Subsidies: How Can International Organizations Support National Policy Reforms?" (2017) 17(3) International Environmental Agreements: Politics, Law and Economics 327.

confidence-building exercise that could pave the way for binding disciplines on fossil fuel subsidies.[169] Trachtman suggests that a regular pledge of subsidy reform could make it part of a bargaining process, allowing Members to trade off commitments to reform fossil fuel subsidies with other trade-related commitments.[170]

This option would likely need the support of at least G20 and APEC members to avoid a duplication of efforts — whilst G20 and APEC groups have made commitments to phase out and rationalise inefficient fossil fuel subsidies, getting their members to follow up under the umbrella of the WTO likely presents a significant political hurdle.[171] Members may also fear being challenged before WTO dispute settlement if they fail to fulfil their pledges.[172] Das and others state that the short-term feasibility of pursuing this option within the WTO seems low, but a small group of Members acting outside the formal process on a voluntary basis would increase its chances.[173]

4.4 Promote Technical Assistance and Capacity-Building

Some countries lack the necessary resources, capacity and technical expertise to identify existing subsidies as a first step to reform. Capacity-building and technical assistance provided by the WTO on how to identify, measure and evaluate fossil fuel subsidies may help overcome this challenge. It could help Members to improve understanding of subsidies, their impacts on trade and the environment and anticipated effects of reform, and strengthen transparency by identifying what subsidies should be notified.[174] Such assistance could also be in the form of sharing experiences with previous reform of fossil fuels or wider energy subsidies, which would help Members better understand the circumstances under which subsidy reform is appropriate, and how it can be made to work and support a country's wider development goals and plans.[175] As part of a technical assistance process, special consideration and support should be given to how the poor and vulnerable in society can be supported after reform and could include a focus on vulnerable sectors of the economy (eg energy-intensive, trade-exposed sectors).[176]

This is a conceivable option given that the WTO Secretariat has long-standing experience of building capacity and providing technical assistance

169 Das and others, above n 8, at 43.
170 Trachtman, above n 6, at 18.
171 Das and others, above n 8, at 43.
172 At 43.
173 At 43.
174 At 39; Verkuijl and others, above n 48, at 62.
175 Verkuijl and others, above n 48, at 61.
176 At 61.

to developing countries on trade-related matters.[177] Verkuijl and others suggest Members could make use of the Enhanced Integrated Framework (EIF) for Trade-Related Assistance for the Least Developed Countries (LDCs).[178] However, the International Centre for Trade and Sustainable Development (ICTSD) argues that while this option may support LDCs in better understanding their fossil fuel subsidies, it falls short of spurring action on fossil fuel subsidy reform in developing countries that are not LDCs, as well as in developed countries.[179]

Das and others outline that without a clear mandate from Members, it would be difficult for the Secretariat to focus technical assistance specifically on fossil fuel subsidies as opposed to subsidies in general and would require specific expertise and resources that other international and non-governmental organisations possess.[180] Technical assistance and capacity-building for fossil fuel subsidies may be more feasible if carried out as part of a broader effort to improve general compliance with the ASCM obligations.[181] If any new agreement on disciplines specifically focused on fossil fuel subsidies were to be adopted (discussed below in part 4.6), it may be possible to link technical assistance and capacity-building to those disciplines. As a result this may be a mid- to long-term option.[182] It is noted that there are a number of international and non-governmental organisations which are already active in this field (such as the World Bank (and its Energy Sector Management Assistance Program), the IMF and the GSI), and therefore there would need to be effective coordination

177 The WTO aims to help developing countries participate more effectively in global trade through trade-related technical assistance. Such assistance is aimed at government officials implementing or negotiating trade agreements, as well as broader audiences, and covers a variety of areas, including trade policy formulation and implementation, compliance with WTO obligations and WTO negotiations. Activities include training courses, workshops and outreach. Technical assistance is provided through the WTO Secretariat, and overseen by the WTO's Committee on Trade and Development. In addition to technical assistance, the WTO Secretariat partners with other organisations to implement capacity-building initiatives <https://www.wto.org/english/tratop_e/devel_e/teccop_e/tct_e.htm>.

178 The Enhanced Integrated Framework is a multilateral partnership dedicated exclusively to assisting LDCs in their use of trade as an engine for growth, sustainable development and poverty reduction. The EIF partnership of 51 countries, 24 donors and eight partner agencies works closely with governments, development organisations, civil society and academia; see WTO website <http://www.wto.org/english/tratop_e/devel_e/teccop_e/if_e.htm>. It is suggested to be well placed to support the development of knowledge and capacity-building for fossil fuel subsidy reform in LDCs; see Verkuijl and others, above n 48, at 61.

179 International Centre for Trade and Sustainable Development *Reforming Fossil Fuel Subsidies through the Trade System* (WTO: Paths Forward, ICTSD, Geneva, Policy Brief, 2018) [ICTSD] at 4.

180 Das and others, above n 8, at 39–40.

181 At 40.

182 At 39–40.

and cooperation with these organisations to ensure value is added to the process and avoid duplication of efforts.[183]

4.5 Amend the ASCM

Legal reform of the ASCM could provide far more opportunities to account for and discipline fossil fuel subsidies compared to using the existing agreement as it is.[184] It has been suggested that the ASCM should be amended to include fossil fuel support as a category of "prohibited" subsidies under art 3 (in addition to export subsidies and local content subsidies).[185] Such a prohibition could be applied to a specific subset only — for example, based on particular trade-related or environmental effects.[186] Whilst it would likely be challenging to achieve consensus as to what specific subset should be the focus, multilateral and regional negotiations on fisheries subsidies could be used as an example of how to distinguish between different types of measures in this regard.[187]

Prohibitions could be tailored to meet specific needs and provide for special and differential treatment (eg exempting LDCs or linking to provisions on technical assistance and capacity-building).[188] The prohibition could also apply to subsidies above a quantified limit, whilst exemptions could be made for countries that can prove subsidies are used to achieve certain socio-economic benefits (eg targeting low-income communities).[189] Moreover, the prohibition could be phased in gradually for some or all countries.[190] Even if limited in scope, a prohibition could provide a strong signal, backed by the WTO's dispute settlement system, pushing countries to phase out this specific support.[191] Alternatively, "adverse effects" in ASCM, art 5 could be redefined to include harm to the human and natural environment, without regard to whether there is harm to competitors,[192] thus making fossil fuel subsidies more able to be challenged as "actionable".

183 At 39; Verkuijl and others, above n 48, at 61.

184 Gary Horlick "The WTO subsidies agreement can be changed to discipline fossil fuel subsidies" (22 August 2018) International Centre for Trade and Sustainable Development <https://www.ictsd.org/opinion/the-wto-subsidies-agreement-can-be-changed-to-discipline-fossil-fuel-subsidies>.

185 Horlick, above n 184.

186 Das and others, above n 8, at 45.

187 For instance, the CPTPP, above n 27, targets fisheries subsidies that contribute to overfishing and overcapacity, and illegal, unreported and unregulated fishing (art 20.16.2). It seeks to link subsidy prohibitions to "negative effects" (based on "the best scientific evidence available") on overfishing (art 20.16.2 and 20.16.3).

188 Verkuijl and others, above n 48, at 64.

189 At 64.

190 Bacchus, above n 38.

191 Das and others, above n 8, at 45.

192 Horlick, above n 184.

Legal reform would raise considerable challenges to achieving a negotiating mandate and achieving sufficient consensus among Members to give it effect, and would likely be a lengthy process. Das and others suggest that the prospects for an amendment are therefore low in the short to medium term, although they may improve in the long term.[193] As Gary Horlick argues:[194]

> While reform will require considerable care, the most important prerequisite for curbing fossil fuel subsidies using the WTO framework is the recognition that climate change is too important to be held back by the political and technical intricacies of engaging in a reform of the Agreement on Subsidies and Countervailing Measures.

4.6 A New WTO Agreement

Commentators have suggested a new WTO Agreement on fossil fuel subsidies, or energy subsidies more generally.[195] Such a new approach could foreseeably be disciplined based on effects on climate as opposed to trade, in contrast to the focus of the ACSM.[196] A separate agreement (as opposed to amending the ASCM) could be beneficial in that it would be more far-reaching, enable more effective disciplines, and limit the risk of opening up other issues and subsidies within the same discussion.[197] It would not necessarily need universality of obligation, instead a plurilateral agreement would likely be most efficient and effective if the major subsidising states were to agree to adhere to it.[198] The prospects however depend on these states getting on board.

At the most ambitious end of the spectrum, WTO Members could consider negotiating a full sectoral trade agreement on energy subsidy reform. Such an agreement could cover clean and fossil fuel subsidies, which could serve to facilitate trade in, and scale-up of, clean energy and include provisions to explicitly restrict the use of fossil fuel subsidies.[199] "The advantage of this approach is that it would address a broad range of trade issues related to energy simultaneously, and would thereby offer attractive benefits to parties in terms of enhanced market access for clean energy technologies, increased policy space, and a clarification of rights and obligations."[200]

193 Das and others, above n 8, at 45–46.
194 Horlick, above n 184.
195 Trachtman, above n 6; Steenblik, Sauvage and Timiliotis, above n 71, at 131.
196 Trachtman, above n 6; ICTSD, above n 179, at 6.
197 Das and others, above n 8, at 46.
198 ICTSD, above n 179, at 6–7.
199 At 7.
200 At 7.

Any new discipline is likely to be a drawn-out process and there would be multiple challenges. Even if plurilateral negotiations are launched, it may be hard to reach an agreement, as ongoing negotiations among seemingly like-minded countries on the Environmental Goods Agreement and the Trade in Services Agreement show.[201] Any new agreement on fossil fuel subsidies seems likely in the medium to long term at best.[202]

4.7 Trade Agreements

It is suggested that RTAs could play a crucial role in the interim and/or alongside progress within the WTO.[203] RTAs can be more detailed and more elaborate in setting common rules for trade-related climate measures in general, in particular by aligning standards and regulations between parties.[204] This could foreseeably include promoting collaboration on fossil fuel subsidy reform in that governments could include specific reference to reform, or to technical assistance and capacity-building measures targeted at reform, as has been done in the EU-Singapore Free Trade Agreement.[205] In doing so, countries could drive progress in reducing fossil fuel subsidies at bilateral and plurilateral levels.[206] As Verkuijl and others set out, pursuing options through the WTO or through regional or plurilateral agreements can be done in parallel — rules, policies and practices at the regional level could influence multilateral discussions and vice versa, "allowing for a dynamic of multi-level reinforcement".[207] The potential for impact is greatest with regard to mega-regional agreements due to the number of parties involved (although harder to achieve consensus for the same reason).

Overall, the political feasibility of including climate-related provisions in new or existing RTAs will vary between countries. Including binding climate-related provisions in new agreements is likely to be challenging but Das and others suggest that the prospects would increase if the provisions are voluntary in nature.[208] Meanwhile, the review and renegotiation of existing RTAs for climate purposes is likely to be more difficult to accomplish politically, at least in the short term.[209]

201 Das and others, above n 8, at 46.
202 At 46.
203 Steenblik, Sauvage and Timiliotis, above n 71, at 132.
204 Verkuijl and others, above n 48, at 65.
205 ICTSD, above n 179, at 5.
206 At 5.
207 Verkuijl and others, above n 48, at 65.
208 Das and others, above n 8, at 48.
209 At 48.

5. DRIVERS OF SUCCESSFUL SUBSIDIES REFORM

Looking to previous subsidy reform processes, Markus Gehring has extracted key drivers he argues are necessary to build momentum and make a breakthrough (at the WTO or other setting) to phase out fossil fuel subsidies. These are briefly outlined below:[210]

(1) It is vital that there is leadership by key countries (ie major traders, emitters, subsidy providers) willing to negotiate for the issue and provide high-level political endorsement in the WTO itself, as well as continued engagement by international organisations, civil society and leading research institutions which all together may provide the basis for coalitions — eg the FFFSR. Such recognition needs to be followed up by concrete actions to build support and momentum.
(2) Academic, scientific and policy background analysis is necessary to show the scale of subsidies, scope and damaging contribution to climate change, and thus a vital foundation for any negotiations. Analysis has begun (eg by the IPCC, IMF, OECD and World Bank) but more data and analysis is necessary especially at the national and subnational levels.
(3) Engagement by civil society and the private sector is fundamental for research, awareness-raising, education and action.
(4) There must be viable and accessible alternatives to fossil fuels in order to enable the energy shift we require. There have been positive changes in recent years with increasing investment in, and development of, sustainable energy sources with a view to transitioning to a low-carbon economy globally. If energy from sustainable sources is to overtake that reliant on fossil fuels then it will need to be competitive in price to fossil fuels. Removing the subsidies will free up more funds to be diverted to the development of new clean energy sources.
(5) Finally, there is a lot to be learnt from subsidy reform processes in other regimes. In each case, the principles and processes to identify subsidies that are harmful to social, environmental and economic objectives can be transferred from one regime to the other. Gehring argues that the concept of sustainable development provides the theoretical framework necessary to translate experiences from one regime to another.

210 Markus Gehring *From Fisheries Subsidies to Energy Reform under International Trade Law* (Centre for International Governance Innovation, CIGI Papers No 188, September 2018).

6. CONCLUSION

International trade can make a significant contribution to the phase-out of fossil fuel subsidies. The WTO is important as a central force with a wide membership and capacity to provide economic incentives that major subsidising states will require in order to take action. It is therefore a promising entity to promote cooperation between Members required to address this truly global problem. In the first instance the WTO has an important role to play to help improve understanding and transparency of existing fossil fuel subsidies and build political momentum for reform. However, as the current ASCM appears ill-equipped to effectively discipline fossil fuel subsidies, it is likely it will take legal reform in the longer term in order to effect meaningful change. Whilst such ambitious steps would likely be politically challenging, the gravity and urgency of climate change as a global crisis necessitates the international community to overcome these challenges and cooperate in order to take rapid action. It is likely that it will require a coordinated approach by the WTO and international trade agreements, and work by other international (non-trade) organisations (ie UNFCCC, G20). These organisations will necessarily be informed by data and analysis by intergovernmental and non-governmental organisations, and engagement by civil society and the private sector to drive action.

Previous reform processes could offer a useful precedent, although the stakes are higher in the case of fossil fuels given the size of subsidies that almost every country provides to some extent.[211] Ultimately it starts with leadership by key countries and we are seeing promising steps in this regard with calls for change. Concrete action must follow rapidly if we are to have a chance to mitigate and adapt to the potentially catastrophic effects of climate change.

211 Droege and others, above n 25, at 256.