

# Tackling Perverse Subsidies in Agriculture, Fisheries and Energy

## Introduction

Subsidies have always been part of the policy toolbox that governments use to achieve a variety of policy goals. Over the last decades, they have been particularly pervasive in the energy, agriculture and fisheries sectors. A recent report by the McKinsey Global Institute<sup>1</sup> estimates that current global government supports on energy, water, agriculture and fisheries total more than a trillion US dollars annually. The way in which these subsidies are allocated plays a major role in shaping global production and trade patterns, income distribution and the use of natural resources.

Critics often point to the inefficiencies and economic distortions they create, their perverse distributive consequences and the negative impact they tend to have on the environment by lowering prices and exacerbating the absence of prices on externalities. In the area of agriculture, subsidies have affected land-use and production patterns, often curbing trade opportunities and distorting competitiveness. They have arguably also discouraged investments in agriculture, particularly in developing countries. In fisheries, they have contributed to enhanced capacities, aggravating the problem of over-exploitation of fish stocks. In the energy sector, they have enabled the colossal use of fossil fuels and engendered unsustainable energy production and consumption patterns. Yet, subsidies also play a role in addressing market failure or advancing public policy objectives such as providing access to electricity for the poor, supporting the livelihood of small farmers or delivering essential public goods.

While carefully targeted subsidy reforms tend to result in improved overall economic efficiency and increase social welfare, they also create winners and losers, at least in the short run. This makes subsidy reform difficult and often calls for adjustment mechanisms to cushion the socio-economic consequences on particular groups or communities. This information note focuses on three sectors of particular relevance from a sustainable development perspective, namely agriculture, fisheries and energy. It reviews the scale and composition of subsidies provided in these sectors, their relative impact, and the current state of policy reforms. It supports the notion that a rules-based multilateral approach may be the first best option to leverage reform of a global scale and impact, whilst offsetting the prisoner's dilemma stalemate that otherwise would result from uncoordinated undertaking of reforms by national governments in a globalised economy.



International Centre for Trade  
and Sustainable Development

<sup>1</sup> See McKinsey Global Institute, Resource revolution: Meeting the world's energy, materials, food, and water needs, Nov 2011.

## 1. Fisheries Subsidies

Fisheries provide livelihoods to vast numbers of people and are a cornerstone of food security in developing countries. According to the FAO, in 2008, 44.9 million people were directly engaged in capture fisheries or in aquaculture with more than 90 percent of them located in developing countries.<sup>2</sup> Fish and fishery products are highly traded. Exports have increased significantly from US\$2.9 billion in 1978 to US\$27.2 billion in 2008, with the EU being by far the largest market.<sup>3</sup> For developing countries as a whole, fish exports largely exceed those of several other agricultural commodities such as rice, meat, sugar, coffee and tobacco. At the same time, 80 percent of the world's fisheries are being fished up to or beyond their biological limits, a situation that carries significant social, environmental and economic risks. Many developing countries face depleted fish stocks, causing severe disruption of coastal economies and loss of livelihoods. In spite of that, the size of the global fishing fleet continues to grow, while catches per vessel and per unit of capacity are continually going down.

### 1.1 Scale and Composition

Subsidies in the fisheries sector have been applied in a number of ways and for a number of objectives. Direct support for vessel building has played an important role in developing the global fishing industry. There is clear evidence that these subsidies can cause market distortions and encourage overcapacity, ultimately contributing to the depletion of fish stocks. On the other hand, subsidies to resource management might have positive effects on trade and natural resources, as do support measures for monitoring, control and surveillance of illegal fishing activities. Still other

subsidies are designed to assist small-scale and artisanal fishing communities that rely on fishing activities for their livelihood and food security.

Overall, reliable data on fisheries subsidy schemes remains scarce. Developed country subsidy programmes are complex and often linked to general subsidy programmes. Several support measures are 'hidden' - for example in the form of fuel subsidies - or under the guise of other measures not traditionally considered subsidies. For developing countries, very little quantitative data exists. Keeping these shortcomings in mind, Sumaila et al<sup>4</sup> estimate that global fisheries subsidies in 2003 were between US\$ 25 and 29 billion.

Subsidies fall into three main categories:

- Beneficial subsidies, which enhance fish stocks through conservation, and fisheries management;
- Capacity-enhancing subsidies, such as price and marketing support, fuel subsidies, boat and fishing port construction programmes, or certain aspects of foreign access agreements; and
- Ambiguous subsidies, whose impact on fish stocks are undetermined (for example rural fishers' development programmes, or vessel buyback).

Overall, fuel subsidies compose 15-30 percent of total support, while capacity-enhancing subsidies represent 60 percent of global fisheries subsidies.<sup>5</sup> While Japan and the EU have traditionally provided the bulk of these subsidies, rapidly emerging economies such as China and Brazil are providing their fleets with significant support - in part to catch up with, and sometimes surpass, the traditional fishing nations (see figure one).

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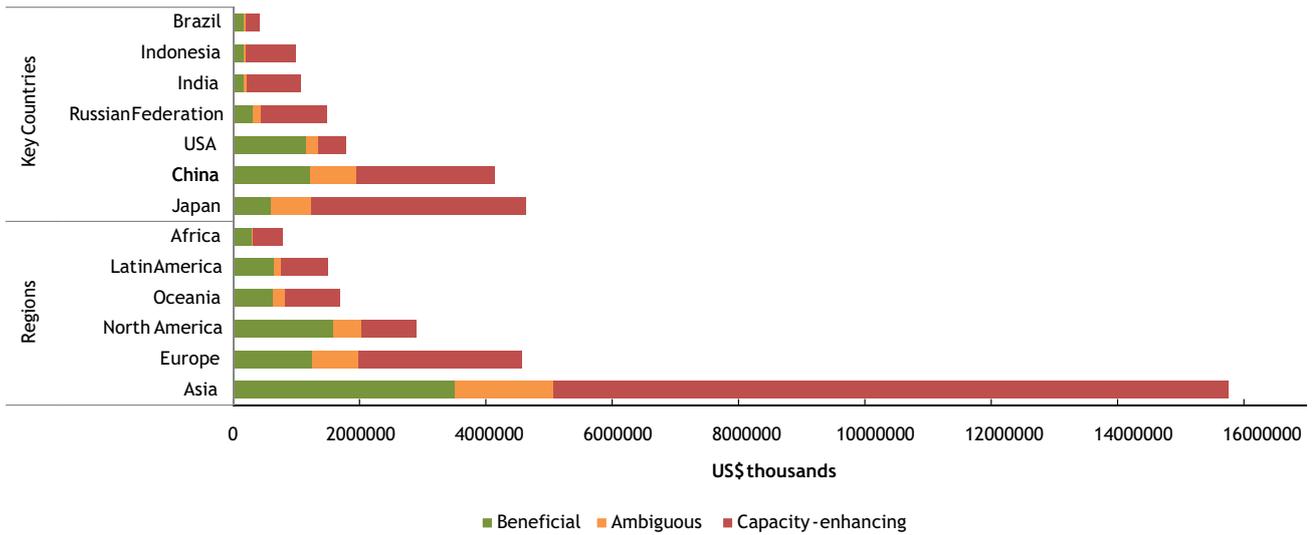
2 FAO, State of the World Fisheries and Aquaculture, 2010

3 Ibid

4 Sumaila, U.R., A.S. Khan, A.J. Dyck, R. Watson, G. Munro, P. Tyedmers and D. Pauly. A Bottom-up Re-estimation of Global Fisheries Subsidies. *Journal of Bioeconomics* (2010) 12: 201-225

5 Ibid.

**Figure 1: Fisheries Subsidies by Regions and Key Countries (2003 US\$ thousands)**

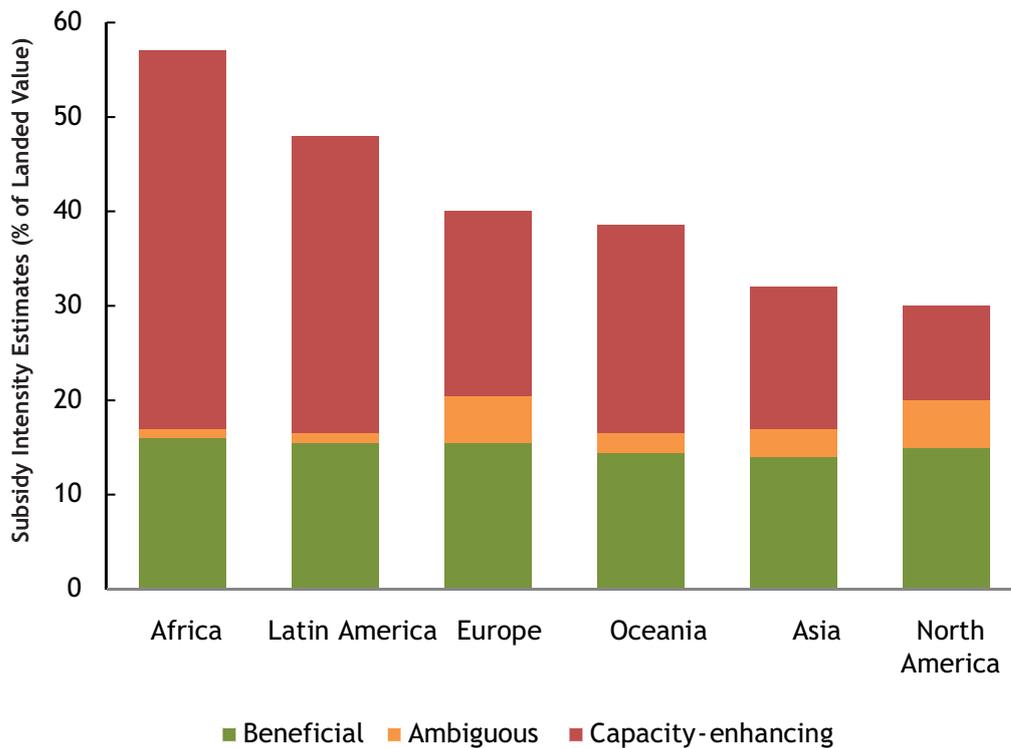


Source: Sumaila et al (2010)

The different amounts of subsidies by regions also reflect significant differences in annual catch and fleet size. Taking this into account, figure 2 shows subsidies as a share of total landed value in 2003 in different regions.

The calculation of subsidy intensity results in much more parity among the different regions with Africa and Latin America ranking first when subsidies are expressed as a share of the value of catches.

**Figure 2: Subsidy Intensity by Regions (2003 percent of Landed Value)**



Source: Sumaila et al (2010)

## 1.2 The Policy Reform Process

### WTO Negotiations

The critical importance of fisheries for employment, livelihoods, food security, and government revenues in both developed and developing countries makes reforming the sector very sensitive. Recognising the importance of the sector for developing countries, WTO members launched negotiations in 2001 with the aim of clarifying and improving disciplines on fisheries subsidies. Notably, the mandate highlighted the imperative to tackle the unsustainability of the natural resource under current practices. The 2005 Hong Kong ministerial declaration called on the Negotiating Group on Rules 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.” To address the concerns of developing countries and small and artisanal fisheries, several countries have put on the table proposals for exemptions from the disciplines for least developed countries (LDCs), as well as for Special and Differential Treatment for all developing countries.

Ambassador Guillermo Valles Galmés of Uruguay, Chair of the Negotiating Group on Rules, issued a first draft text in November 2007. The text, described as “ambitious” by many, proposed the prohibition of government support for construction, operating and fuel costs of vessels, and port infrastructure development exclusively or predominantly linked to wild capture fishing - including storage and processing facilities. The draft also proposed that some subsidies be permissible for all countries, provided that they maintain an international standard fisheries management system. The text would have also exempted LDCs from the disciplines altogether. Non-LDC countries, including large developing countries with potentially significant subsidy programmes, would only be entitled to exemptions under Special and Differential Treatment provisions. These exemptions are currently conditioned to the size of the fishing vessels and to fishing within their own Exclusive Economic Zone (EEZ) and are subject to the implementation of management regimes.

Both developed and developing countries have raised concerns about the potential impact of the new disciplines for employment, food security and livelihoods in their fisheries sectors. Japan has been sceptical about the potential benefits of cutting down subsidies, insisting that the problem with over-fishing is rather related to poor management regimes, which

need to be strengthened. While a proponent of the WTO agenda on fishery subsidy reform, and the EU has been concerned with the socio-economic impacts of a deep cut in its support programmes. South Korea has signalled an interest in carving out subsidies for small-scale fishers, especially in terms of aging traditional fishing communities.

Within developing countries that are not exempted from the disciplines in the current draft text, China, India and Brazil are examples of large countries that have expressed dissatisfaction with the proposed disciplines on the grounds of potential negative effects on their fisheries sectors in terms of employment, livelihood and food security. Some of them have even described not obtaining sufficient flexibilities in this area as a deal breaker. The exemptions provided in the draft Chair’s text would eliminate many subsidies currently allowed, and subject exemptions to stringent management requirements, which a number of developing countries have indicated would result in nullifying the benefit of the exemptions and be beyond their capacity to comply with.

Countries from the ACP group (Africa, Caribbean and Pacific) host many Fishery Partnership Agreements, granting access to their marine waters to distant nation fishing vessels in return for financial compensation. In the subsidy negotiations, these countries have sought and obtained an exclusion of access fees paid by distant fishing nations to host countries (so-called government-to-government payments). However, subsidies arising from the further transfer of access rights that a government has acquired from another WTO member state to fisheries within the jurisdiction of that state remain amongst those prohibited under the draft text. As such, ACP states may find themselves indirectly affected in their fisheries relations with foreign nations, including for sourcing of fish from foreign vessels for processing and export. They may also see a decline in employment and revenues arising from the operations of foreign fleets. On the other hand, reduced foreign presence may provide an opportunity for reducing the fishing effort, thereby contributing to more sustainable use and less competition for capture and export between foreign vessels and the local fishing industry.

On 19 December 2008, Chair Valles Galmés responded to these complaints by reeling in much of the hard language on specific subsidies featured in the 2007 draft text. Much of this language was replaced by a “roadmap” consisting of fundamental questions to be addressed before negotiations can move forward.

With the current impasse in the Doha Round, these negotiations have not progressed in any significant way since then, in spite of repeated calls for an “early harvest” on fisheries subsidies at the December 2011 WTO Ministerial Conference.

### The Common Fisheries Policy (CFP)

An estimated 75 percent of EU stocks are currently overfished, according to European Commission estimates, and one-third of Europe’s fleet will become unviable in the future if overfishing continues. In this context, the Common Fisheries Policy (CFP) reform proposal contains provisions to reduce harvests of the most over-exploited stocks, stop discarding bycatch, and fix quotas for fish stocks on multi-year basis. The proposals are the result of a long process initiated in an April 2009 Green Paper exposing existing loopholes and failures of the current CFP. To address the issue of sustainability, the plan proposes that EU fleet adopt the principle of maximum sustainable yield (MSY) for fishery harvest by 2015. The reforms also address sustainability issues by proposing to eliminate the practice of discarding bycatch, i.e. non-target species caught unintentionally. The proposal aims to force the fishing industry to better target their catch. If implemented, the bycatch proposal will be phased in over a realistic time period to allow the fishing industry to adjust to the new regulations. Support for small-scale artisanal fisheries, increased scientific information and development of a sustainable aquaculture sector would also be integral components of the reformed CFP. Compulsory labelling of fishery products would be incorporated into the CFP under the plan to give EU consumers a choice concerning the fishery products they purchase, including information on where the fish was harvested, whether it has been previously frozen, and the fishing method used to harvest it. In an effort to achieve an agreement by mid-2012, concessions to accommodate all member states have, however, resulted in a significant weakening of the Commission’s reform proposal from July 2011, prompting several NGOs to call for a boycott on the compromise.

## **2. Agricultural Subsidies**

Farm subsidies can have a profound impact on patterns of supply and demand, both domestically and internationally. They can shape decisions on production and consumption, alter land use patterns, and incentivise or dis-incentivise progress towards

environmental goals such as the conservation of biodiversity. They can also determine the viability of livelihoods in countries around the world. For these reasons, their impact on sustainable development has long been a controversial subject.

Historically, a number of OECD countries have provided high levels of trade-distorting support, in particular to certain agricultural commodities, provoking tension with trading partners who have argued that these measures unfairly undermine the competitiveness of farmers elsewhere in the world that do not benefit from comparable levels of support. At the same time, low rates of productivity growth in developing countries, and the continued persistence of hunger and malnutrition especially amongst rural communities, has renewed attention to the need for governments to increase support to farmers in poorer countries. Economic growth in China and India has allowed those countries to dramatically scale up spending on agriculture in recent years, albeit in somewhat different ways. Other governments continue to lack the necessary financial resources to increase support to farmers, or prioritise other areas.

In addition, the advent of climate change has cast a fresh spotlight on the role that farm subsidies play in influencing environmental outcomes. While some countries have sought to introduce policies to encourage biofuel production, or persuade farmers to take land out of production, others have drawn attention to the role of farm subsidies in influencing patterns of production and consumption and, ultimately, trends in greenhouse gas emissions.

### **2.1 Scale and Composition**

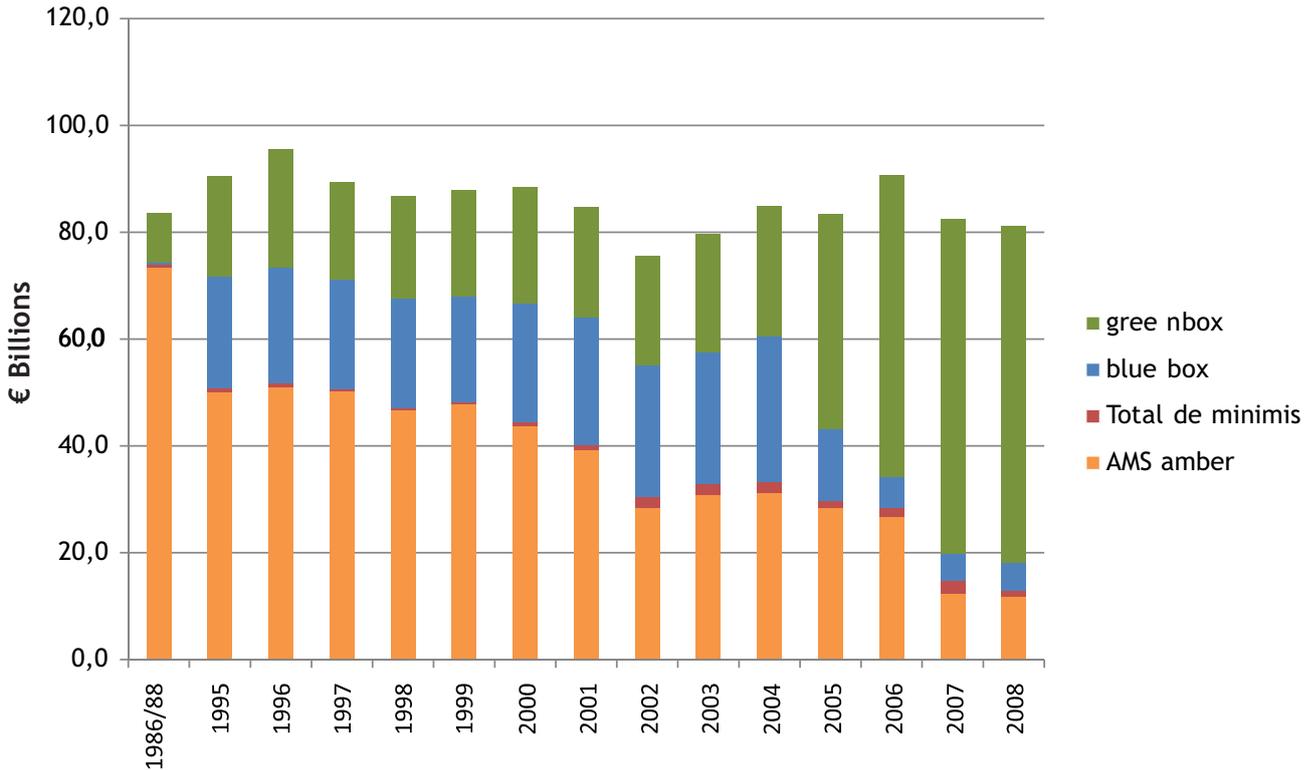
Data on farm subsidies takes into consideration the extent to which different types of support programmes may affect trade and production. WTO rules allow countries to provide unlimited amounts of ‘green box’ support, on the basis that this causes not more than minimal distortion to trade or production. Green box payments include, for example, spending on research or measures to combat pests and diseases. Such measures are seen as uncontroversial by WTO members<sup>6</sup>. In contrast, trade-distorting measures in the ‘amber box’ (such as market price support) are subject to a maximum permitted ceiling, while production-limiting ‘blue box’ payments that still distort trade may be constrained under new

6 Although controversy continues over whether all types of green box programmes genuinely cause not more than minimal trade distortion. See ICTSD (2009), “Agricultural Subsidies in the WTO Green Box: Ensuring Coherence with Sustainable Development Goals”. Information note no. 16. ICTSD, Geneva. <http://ictsd.org/i/publications/56284/>

disciplines that are currently under negotiation. Finally, each country is allowed to provide a minimal amount of trade-distorting amber box support, so long as it falls below a given share of the value of production<sup>7</sup>: these are known as ‘de minimis’ payments under WTO rules. Delays in governments reporting their farm subsidies to the WTO have tended to further complicate analysis in this area. However, the EU has consistently provided the largest amount of total farm support in absolute terms - as much as €81 billion in 2008 (US\$119 billion), the latest year in which such support was officially reported.<sup>8</sup> Of

this, however, as much as €63 billion (US\$ 93 billion) was ‘green box’ support - ostensibly causing not more than minimal trade distortion, while €18 billion (US\$ 27 billion) was trade-distorting (amber, blue or de minimis). The EU has, over a period of years, tried to move away from trade-distorting support towards green box payments, most notably since 2003, when a major reform of the bloc’s Common Agricultural Policy was introduced. The move introduced the ‘Single Farm Payment’, a direct payment to farmers that was originally intended to compensate for the loss of market price support.

Figure 3: EU Domestic Support



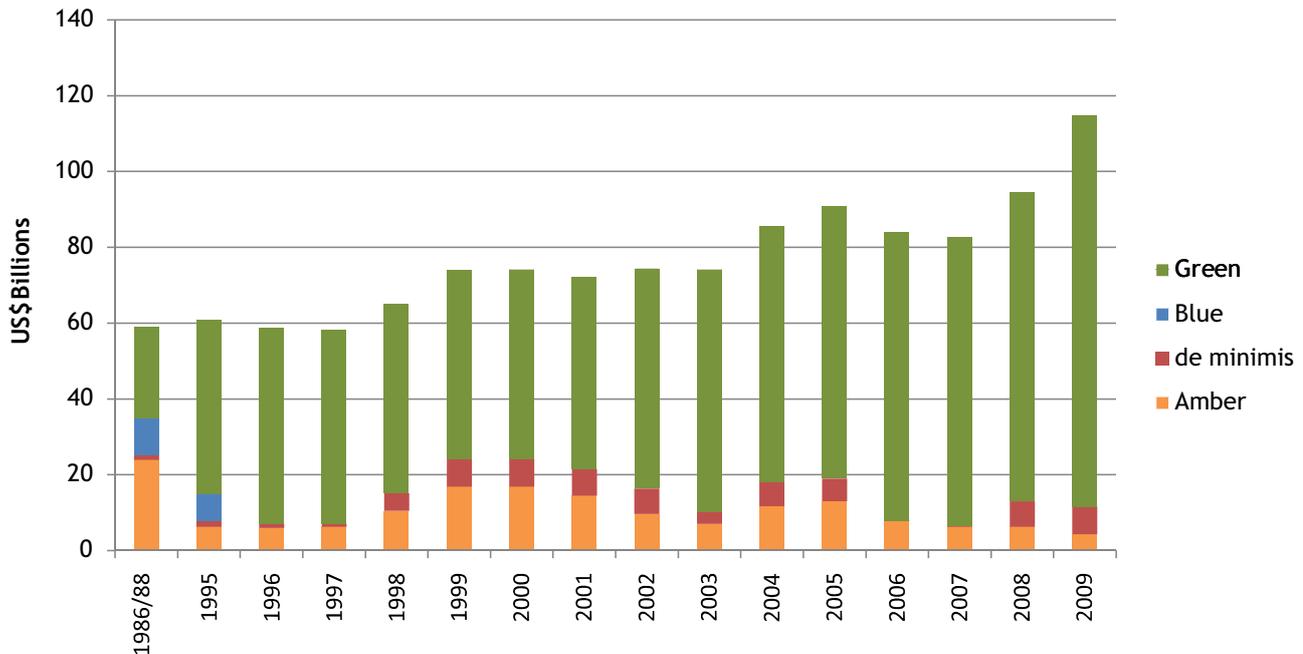
Source: WTO notifications

US spending in 2009 - the last year for which the government has reported spending levels - shows a similar pattern of falling trade-distorting support in the amber box, and rising green box payments. Total support in that year was US\$115 billion, of which US\$103

billion was classed by the government as ‘green box’<sup>9</sup>, and US\$11.5 billion was trade-distorting. As much as three-quarters of this was domestic food aid, including food stamps to help the poorest US citizens to be able to buy food.

7 Usually 5 percent for developed countries, 10 percent for developing countries. For China, it is 8.5 percent.  
 8 “EU: Trade-Distorting Farm Support Drops to Record Low”, Bridges Weekly Trade News Digest, Vol. 6, No. 16, 25 April 2012. <http://ictsd.org/i/news/bridgesweekly/131977/>. USD figures at 2008 exchange rates.  
 9 “Farm Subsidies: Ballooning US Food Aid Pushes Total Support to New High”, Bridges Weekly Trade News Digest, Vol. 15, No. 29, 7 Sept 2011. <http://ictsd.org/i/news/bridgesweekly/113559/>

Figure 4: US Domestic Support

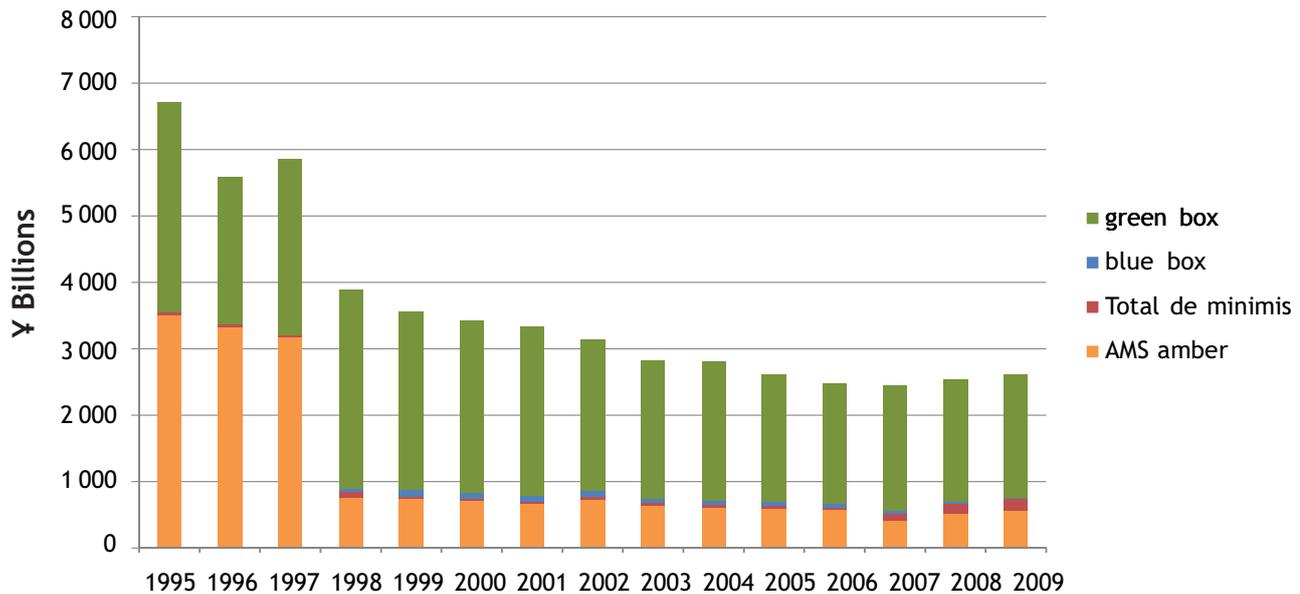


Source: WTO notifications

Japan’s trade-distorting farm support nudged slightly upward in 2009, again the last year for which WTO data is available. The country spent ¥2,608 billion

(US\$28 billion) in total farm support in 2009, of which ¥1848 billion was classed as ‘green box’.<sup>10</sup>

Figure 5: Japan’s Domestic Support



Source: WTO notifications

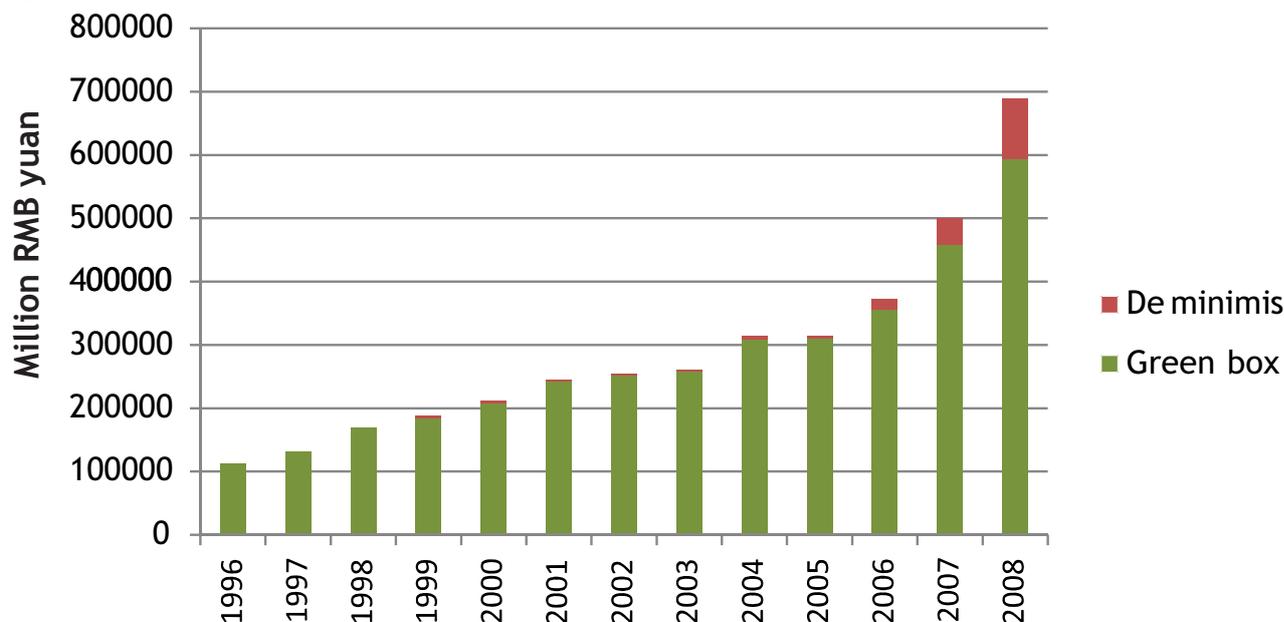
China’s domestic support has grown dramatically in recent years, although again almost all is classed as ‘green box’ at the WTO. Total support provided in 2008 reached RMB688 billion (US\$99 billion<sup>11</sup>), with RMB593 billion classed as ‘green box’, and the remainder counted as ‘de minimis’ support under China’s WTO commitments. Green

box payments have risen sharply in recent years as the country has boosted spending on agriculture. Support for infrastructure services, as well ‘general services’ payments for buildings and facilities, and the salaries, expenses and pensions of agricultural agency staff, accounted for a significant share of farm support.

10 “Farm Subsidies: Ballooning US Food Aid Pushes Total Support to New High”. Bridges Weekly Trade News Digest, Vol. 15, No. 29, 7 Sept 2011. <http://ictsd.org/i/news/bridgesweekly/113559/>. USD figures at 2009 exchange rates.

11 “Chinese Farm Support Doubles, New Data Shows”, Bridges Weekly Trade News Digest, Vol. 15, No. 35, 19 Oct 2011. <http://ictsd.org/i/news/bridgesweekly/116613/>. USD figures at 2008 exchange rates.

Figure 6: China's Domestic Support



Source: WTO notifications

India and Brazil have also expanded farm spending in recent years, although again most of the support is classed as non-trade-distorting under WTO rules. India has focused especially on input and investments subsidies under a clause in the WTO Agreement on Agriculture that allows developing countries to support low-income, resource-poor producers, reported mainly as support for fertilisers, irrigation, electricity and seeds.

Overall, trade-distorting farm subsidies for products such as cotton have had a clear impact on the livelihoods of producers in poor countries - a phenomenon that has been widely discussed and analysed<sup>12</sup>. Similarly, trade-distorting support for biofuels - especially when combined with policies such as blending mandates - can also create perverse incentives that introduce complex distortions into markets for biofuel feedstocks, animal feed and livestock, disadvantaging competitive producers in other countries and producing sub-optimal environmental outcomes<sup>13</sup>. Less well understood is the extent to which the various sorts of new farm subsidy programmes being introduced by China and India are effective in addressing domestic environmental challenges, and addressing other public policy goals such as improving food security, or reducing poverty and inequality<sup>14</sup>. Farm subsidies may

have a role to play in boosting productivity in these and other developing countries, as a recent report for the G-20 group of major economies underlined<sup>15</sup>, although there is no automatic connection between increasing farm support and achieving the types of increases in yields on developing country farms that will be needed in order to help rural communities move out of poverty and respond effectively to growing demand.

Climate change increases the urgency of finding ways to increase food production in developing countries without expanding further into tropical forests or other 'carbon sinks'. Farm support programmes in developing countries - for example, for extension and advisory services - could help farmers to boost yields while reducing greenhouse gas emissions and conserving land and water. At the same time, farm subsidies for many products or types of farming may inadvertently encourage production and consumption patterns that are unsustainable insofar as they involve high levels of greenhouse gas emissions for relatively low levels of calorific or nutritional value. While only a meaningful global framework for addressing climate change is likely to provide a long-term solution to this problem, farm subsidy reform at the national or even regional level could provide a stepping stone towards future progress.

12 See for example Jales, M (2010), "How Would A Trade Deal On Cotton Affect Exporting And Importing Countries?". ICTSD, Geneva. <http://ictsd.org/i/publications/77906/>

13 Babcock, B (2011), "The Impact of US Biofuel Policies on Agricultural Price Levels and Volatility". ICTSD, Geneva. <http://ictsd.org/i/publications/108947/>; Earley, J (2009), "US Trade Policies on Biofuels and Sustainable Development". ICTSD, Geneva. <http://ictsd.org/i/publications/50736/>.

14 "China to Boost Farm Subsidies for Science and Technology". Bridges Weekly Trade News Digest, Vol. 16, No. 5, 8 Feb 2012. <http://ictsd.org/i/news/bridgesweekly/124690/>

15 "G-20 Report Says Trade Reform Could Help Boost Farm Yields". Bridges Weekly Trade News Digest, Vol. 16, No. 18, 9 May 2012. <http://ictsd.org/i/news/bridgesweekly/132885/>

## 2.2 The Policy Reform Process

The WTO's Doha Round of trade talks was intended to achieve "substantial reductions" in trade-distorting agricultural support, as well as reducing, "with a view to phasing out", all forms of export subsidies. However, following several years of slow progress, WTO members recognised in December 2011 that the talks are in an impasse, and little progress is expected this year. The multilateral negotiations at the WTO are nonetheless the main forum where realistic progress can be expected on farm subsidy reform. The large and growing numbers of bilateral and regional trade agreements that have been concluded or initiated in recent years tend not to include farm support, due to the sensitivity of the sector and the often divergent interests of the negotiating parties in this area.

The draft negotiating accord currently on the table at the WTO would require the US to lower its ceiling on the maximum permitted overall trade-distorting farm support by 70 percent, to roughly US\$14.4 billion. The EU would have to undertake an 80 percent cut, reducing its overall trade-distorting support to around €22 billion. Japan would cut its ceiling by 75 percent, to ¥1.36 billion. As can be seen from the section above, the proposed amounts are substantially higher than the historically low levels of support notified in recent official reports to the WTO.

Although the Doha talks are currently in stalemate, domestic policy discussions are taking place at the moment in the US and EU over the future of agricultural policy, and the relationship between farm subsidies and broader public policy goals. In the EU, member states and parliamentarians are debating proposals from the European Commission over the post-2013 direction of the Common Agricultural Policy (CAP)<sup>16</sup>, while in the US Congress is trying to craft a new Farm Bill<sup>17</sup>. In the EU in particular, environmental groups have argued that public money must be spent on clearly-defined public goods, such as safeguarding biodiversity. Broader discussions - in the G-20, the UNFCCC process, and potentially also at the Rio+20 summit - also continue to underscore some of the connections between agricultural trade policy and broader sustainable development goals, some of which may in the longer

term also inform governments' thinking about farm policy reform at the domestic level.

## 3. Energy Subsidies

Fossil fuel subsidies undoubtedly represent one of the biggest obstacles to a shift to a lower carbon growth trajectory by artificially keeping prices low, distorting energy choices and contributing to carbon emissions. They are often justified on the grounds of providing populations with access to low-cost energy sources for basic needs such as cooking, transport, lighting etc. While there might be a case for providing the poor with access to energy, fossil fuel subsidies for consumers are often poorly targeted, with benefits going to richer sections of the population in many developing countries. In addition, subsidies for electricity and transport have arguably dis-incentivised energy efficiency and distorted the playing field against investment in cleaner sources such as bio-ethanol or wind and solar power. While it is true that some subsidies are used to support the transition to cleaner energy access, it is clear that such support accounts for only a fraction of the public funds devoted to fossil fuels.

### 3.1 Scale and Composition

According to the International Institute for Sustainable Development (IISD) fossil fuel subsidies, amount to US\$400 to 600 billion annually.<sup>18</sup> There is, however, no widely accepted methodology for quantifying energy subsidies. This makes it difficult to estimate the actual level of subsidies directed to the energy sector, and fossil fuel industries in particular. Precise information on global subsidies for renewable energy is not readily available either owing to a lack of a common definition, difficulties in estimation and the absence of common reporting guidelines and procedures, making it hard to compare data across countries. The World Energy Outlook 2011 estimates that subsidies for renewable energy reached US\$66 billion in 2010, or about six to ten times less than the levels enjoyed by fossil fuels. Of this, renewable electricity accounted for US\$44 billion, while subsidies for biofuels amounted to US\$22 billion. Support for renewable energy of various types is granted by both developed and developing countries. The REN 21 Renewable Global Status Report published

16 EU Farm Support: Rapporteur Calls for Simpler 'Greening' Measures". Bridges Weekly Trade News Digest. Vol. 16, No. 23, 13 June 2012. <http://ictsd.org/i/news/bridgesweekly/135358/>

17 "Farm Bill Debate Kicks Off in US Senate". Bridges Weekly Trade News Digest. Vol. 16, No. 23, 13 June 2012. <http://ictsd.org/i/news/bridgesweekly/135346/>

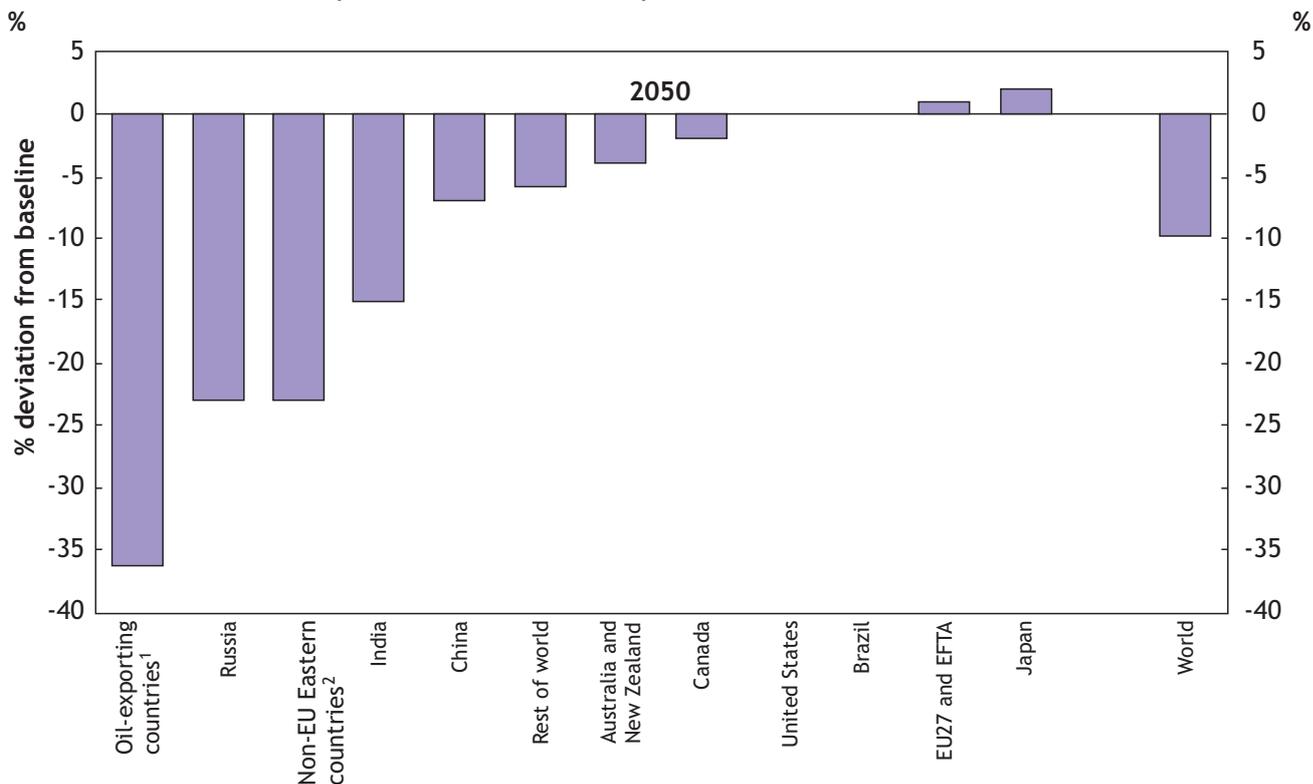
18 International Institute for Sustainable Development (2012) "Fossil Fuel Subsidy Reform: Building momentum at Rio and beyond," *Side Event Summary*, 26 March. Available at [http://www.iisd.org/gsi/sites/default/files/ffs\\_sideevent\\_rio\\_beyond\\_meetingreport.pdf](http://www.iisd.org/gsi/sites/default/files/ffs_sideevent_rio_beyond_meetingreport.pdf); accessed 23 May 2012.

annually lists various types of renewable energy support policies, as well as the countries providing them.<sup>19</sup> As with fossil fuels, most renewable energy support is provided by major G-20 countries, such as the US, China, Germany, Japan, Korea, Brazil and India.

According to the International Energy Agency, with the exception of wind power, other sources of renewable

energy are likely to need subsidies for at least the next two decades to remain competitive, particularly if fossil fuels continue to receive government support. While environmental pricing of externalities and taxation of fossil fuels are possible alternatives to subsidising clean energy, such a shift is politically difficult to implement. In terms of the environment, however, cutting fossil fuel subsidies would have clear benefits as illustrated by figure 7.

**Figure 7: The effects on greenhouse gas emissions of removing fossil fuel subsidies in emerging and developing countries combined with caps on emissions in developed countries.**



1. The region includes the Middle East, Algeria-Libya-Egypt, Indonesia and Venezuela.

2. These non-EU Eastern European Countries together form the 'Rest of Annex I' region of the OECD ENV-Linkages model.

Source: OECD ENV-Linkages model based on subsidies data from IEA for 37 emerging and developing countries in 2008.

Energy subsidies are often designed to meet demands of energy security, but also around ancillary agendas such as promotion of economic and industrial development, social welfare and employment generation, technological leadership, export promotion, or some other goods. This multiplicity of objectives may lead to inefficiencies and distortion in competitiveness and opportunities. In this context, WTO disciplines, whilst not purposefully designed for energy policy, get in the way in helpful and unhelpful manners. While certain types of subsidies such as those linked to exports performance or to the use of domestic over imported goods ("local-content") are automatically prohibited, in other cases, "injury" or "adverse" effects may need to be proved by an affected party.

An important issue as far as the governance of energy subsidies and international trade rules are concerned is the lack of a clear list of permissible forms of government support for clean energy. For future projects, such as those involving the transmission of electricity across countries, the lack of clarity implies that subsidies provided to the actual renewable electricity generated (as opposed to just subsidised equipment and services) could become a major trade issue. Whether government procurement measures at the federal or 'sub-federal' levels could constitute an energy subsidy that has trade effects may also require clarification.

On the other hand, subsidies - particularly those that support clean energy - may take several forms only

19 See for instance REN 21, Renewable 2011 Global Status Report

a few of which may actually be problematic from an international trade-rules perspective. Most consumer subsidies, such as tax incentives to consumers to purchase solar panels, are outside the ambit of WTO rules, while others that clearly affect international trade such as ethanol subsidies are not. Clean energy subsidies could take the form of feed-in tariffs that guarantee a premium

price for renewable energy providers, tax-incentives linked to installed capacity or total investment value (such as accelerated depreciation and investment tax-credits), or measures related to the generation of clean-energy (such as production tax-credits). Table 1 provides a typology of clean energy support measures and potential associated trade restrictions.

**Table 1: A typology of clean energy support measures and associated trade restrictions**

	Direct financial transfers	Preferential tax treatments	Regulations	Infrastructure support	Trade restrictions
Clean energy access/ consumption	Consumer subsidy	Tax credits for consumers	Grid connection	Grid access for consumers; Net metering	
Clean energy generation and capacity	Feed-in-tariffs (financial transfer component); Long-term PPAs; Preferential credit	Accelerated depreciation; Investment tax credits; Production tax credits	Mandatory grid connection for RE firms Feed-in tariffs (regulatory component-such as compulsory purchase/ off-take of electricity generated.) Demand guarantees (RPOs); Trading of RECs; Government procurement	Grid access for RE firms  Land (below market price); Access to water; Energy-related services from government	Investment restrictions on foreign power-firms
Domestic clean energy equipment & services	Equipment production subsidy	Excise duty rebate; Accelerated depreciation	Government procurement; Compulsory licensing of IP; Local content Requirements including those linked to regulations and incentives	Land (below market price); Access to water resources	Market access restrictions on imported equipment and services. (Eg: Tariffs, quotas; standards; local content requirements)
Clean energy goods & services exports	Export subsidy	Export tax rebate	Special Economic Zones	Land (below market price); Energy-related services from government	

Source: Gosh, A. *Governing Clean Energy Subsidies: What, Why, and How Legal?*, ICTSD (forthcoming 2012)

A number of fossil fuel-related policies such as differential pricing for fossil fuel energy inputs used in goods for domestic consumption vs. exports, as well as export taxes and restrictions on fuels could trigger trade complaints if they depress energy prices in the country adopting these policies thereby providing an unfair advantage to domestic providers. In the absence of clear rules on energy subsidies, WTO panels may have to decide disputes on a case-by-case basis. The current WTO dispute underway between Canada and Japan on feed-in tariffs and the related local content requirements for wind energy in Ontario, and punitive duties imposed by the US in response to unfair

subsidisation of Chinese solar panels could be pointers to more litigation in the future.

Rather than engaging in such trade disputes, it is preferable to have clear and predictable rules on subsidies that go beyond export interests or are related to the use of domestic content. Effective rules on subsidies that support a massive scaling up of renewable energy supply while constraining the use of fossil fuels would be a positive contribution that trade policy could make to mitigating climate change, as well as fostering access to clean energy for all.

### 3.2 Policy Reform Process

In September 2009, G-20 leaders recognised that “inefficient fossil fuel subsidies encourage wasteful consumption, distort markets, impede investment in clean energy sources and undermine efforts to deal with climate change.” They committed to rationalise and phase out such subsidies over the medium term. In November 2009, the Asia-Pacific Economic Cooperation (APEC) forum made a similar pledge, extending the commitment to an additional 11 countries.

The APEC forum is taking a different approach to implementation from the G-20, as it has a formal secretariat and working group through which it can advance research and develop best practices. The APEC Energy Working Group will undertake research on fossil fuel subsidies within its member countries to better inform medium-term reform efforts. To support these initiatives, New Zealand established a Friends of Fossil Fuel Subsidy Reform group comprising countries such as Denmark, Norway, Sweden and Switzerland.

In addition, organisations such as the International Energy Agency, the Organisation for Economic Co-operation and Development, and the World Bank have boosted research and policy programmes that support fossil fuel subsidy reform. The G-20 has taken the lead in initiatives to reform subsidies with the establishment of a working group of energy and finance officials responsible for developing national implementation strategies in 2009. However, the group did not adopt a comprehensive definition of a ‘subsidy’, leaving the initiative to be ‘country-owned and led’, thus enabling countries to focus on particular types of subsidies while leaving the door open to include others for reform in the future.<sup>20</sup>

The G-20 energy and finance officials’ working group is also supported by four intergovernmental organisations - the IEA, the OECD, OPEC and World Bank- which were asked to produce a report on the scope of energy subsidies and suggestions for implementation of subsidy reform. Their joint report submitted to G-20 leaders in June 2010, provided a comprehensive overview of global consumer subsidy estimates including gaps in data and the challenges

of estimating subsidies; the economic, trade and environmental impacts of subsidy reform; and general policy advice and lessons learned.<sup>21</sup> The IEA intends to update its consumption subsidy estimates on an annual basis and to create an online database allowing public access to data disaggregated by country, by fuel and by year. The OECD is also developing a database of subsidy policies and estimates for the production and consumption of fossil fuels in its member countries. The initial report was followed by an update in which the IEA provided new consumer subsidy estimates and analysis of the impacts of reforming energy subsidies, and the World Bank refined its roadmap for reform, along with examples of recent action taken to phase out subsidies in the G-20 and other countries (IEA, OECD and World Bank, 2010).<sup>22</sup>

At the Toronto summit in June 2010, G-20 members submitted their implementation strategies and timelines for phasing out inefficient fossil fuel subsidies. Thirteen countries tabled implementation strategies for at least one fossil fuel subsidy, while seven others (Australia, Brazil, France, Japan, Saudi Arabia, South Africa and the United Kingdom) stated they had no inefficient fossil fuel subsidies to be phased out.

Progress in fossil fuel subsidy reform is being monitored by the G-20 Research Group at the University of Toronto. The group’s key findings of 2010 indicate that, of the ten G-20 commitments assessed, the one on fossil fuel subsidy reform scored the second-lowest rate of compliance. The report concluded that eleven members are in full compliance (Australia, Brazil, France, Germany, Italy, Japan, Korea, Mexico, South Africa, Saudi Arabia and the United Kingdom); seven others have made some progress towards meeting their commitments (Argentina, Canada, China, Indonesia, Russia, Turkey and the United States); and two members (India and the EU) have failed to comply.

The methodology for assessing countries has been criticised for certain flaws, including the measures used to evaluate progress against the implementation strategies submitted in June 2010. An alternative assessment of G-20 countries has been provided by Oil Change International and Earth Track. According

20 Lang, Kerryn. *The First Year of the G-20 Commitment on Fossil Fuel Subsidies: A commentary on lessons learned and the path forward*, IISD and the Global Subsidies Initiative, January 2011

21 IEA, OPEC, OECD, World Bank. *Analysis of the scope of energy subsidies and suggestions for the G-20 initiative: IEA, OPEC, OECD, World Bank Joint Report*, 16 June 2010.

22 IEA, OECD and World Bank. *The scope of fossil fuel subsidies in 2009 and a roadmap for phasing out fossil fuel subsidies*, 11 November 2010.

to their report, half of G-20 members reported at least one policy supporting fossil fuels that they have targeted for reduction or elimination, but no country has initiated subsidy reform specifically in response to the G-20 commitment. According to the two NGOs, all subsidy reforms mentioned in the submissions appear to be programmes or changes that were already underway prior to the G-20 announcement and still rely on previously established timelines.<sup>23</sup> Despite commitments and political declarations, meaningful reform remains a challenge and the road ahead is long.

Finally, initiatives and practical ideas are increasingly coming up from stakeholders beyond governments. The B-20, a group of global companies contributing to

the G-20 deliberations, recently pushed for subsidies to “encourage sustainable use of resources”.<sup>24</sup> The B-20 is also calling on governments to implement the recommendation of its Task Force on Green Growth to put an end to inefficient fossil fuel subsidies. Tackling fossil fuel subsidies is also an integral part of ICTSD’s proposal for a ‘Sustainable Energy Trade Initiatives’ (SETIs) to scale up the deployment of renewable energy. An important component of the initiative consists of levelling the playing field between fossil fuels and clean energy sources by internalising environmental costs and shifting support to renewable energies. ICTSD aims to reach such an energy transition through a rules-based and internationally co-ordinated approach in order to leverage the widest possible impact.<sup>25</sup>

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23 Lang, Kerry. The First Year of the G-20 Commitment on Fossil Fuel Subsidies: A commentary on lessons learned and the path forward, IISD and the Global Subsidies Initiative, January 2011

24 B20. B20 Task Force Recommendations: Concrete Actions for Los Cabos, June 2012

25 More information on ICTSD’s proposal for a Sustainable Energy Trade Agreement is available at <http://ictsd.org/i/publications/117557/>

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Founded in 1996, the International Centre for Trade and Sustainable Development (ICTSD) is an independent think-and-do-tank based in Geneva, Switzerland, with operations throughout the world, out-posted staff in Brazil, Mexico, Costa Rica, Senegal, Canada, and Russia, and a first regional office in Beijing, China. By enabling stakeholders in trade policy through information, networking, dialogue, well-targeted research and capacity-building, ICTSD aims to influence the international trade system so that it advances the goal of sustainable development. ICTSD complements all its programmes through partners and a global network of hundreds of scholars, researchers, NGOs, policymakers and think-tanks around the world. ICTSD acknowledges the contribution of its donors in supporting this project.

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