ALONGSIDE THE UNFCCC: COMPLEMENTARY VENUES FOR CLIMATE ACTION

CENTER FOR CLIMATE AND ENERGY SOLUTIONS

Harro van Asselt, Stockholm Environment Institute

Climate change is a multi-faceted challenge that is intrinsically connected to a broad range of other issue areas, and it must be addressed on multiple fronts. In considering the global response to climate change post-2020, it is important to consider not only the central role of the United Nations Framework Convention on Climate Change (UNFCCC), but also the potential roles of other international regimes and initiatives, and links among them. This paper provides a brief overview of relevant non-UNFCCC venues and suggests some broad issues for policymakers.

OVERVIEW

The UNFCCC acknowledges the potential contributions of other international venues to the global climate effort, with references, for instance, to "greenhouse gases not controlled by the Montreal Protocol." The Kyoto Protocol also envisages a division of labor, specifically delegating the regulation of emissions from international aviation and shipping to, respectively, the International Civil Aviation Organization (ICAO) and the International Maritime Organization (IMO). Over time, a growing number of other international forums have devoted attention to climate change, and new forums focused on specific dimensions of the climate issue have emerged.[1]

The growing role of non-UNFCCC venues and initiatives has not gone unnoticed within the UNFCCC. Most notably, within the Ad Hoc Working Group on the Durban Platform for Enhanced Action (ADP), parties have focused on the potential contributions of "international cooperative initiatives" (ICIs) in strengthening pre-2020 ambition.[2]

Non-UNFCCC forums relevant to the post-2020 international effort take a variety of forms.[3] Among the nine venues reviewed here:

- ICAO, IMO, the Montreal Protocol, the World Trade Organization (WTO), and the Convention on Long-Range Transboundary Air Pollution (LRTAP) are well-established multilateral regimes that are based on legal instruments and exercise regulatory authority;
- The Group of 8 (G8), the Group of 20 (G20) and the Major Economies Forum (MEF) serve largely as forums for high-level political dialogue and statements; and
- The Climate and Clean Air Coalition (CCAC) is a cooperative public-private initiative that promotes national and international action but establishes no legal obligations or authorities.

Many other initiatives—such as the International Renewable Energy Agency, the UN's Sustainable Energy for All initiative, and the REDD+ Partnership—can play a critical role in the post-2020 climate effort. The nine forums highlighted here are a representative sampling illustrating the range of possibilities and issues.

The following sections examine each forum in turn, reviewing past activities and considering their potential contributions. A concluding section suggests issues for further consideration.

MONTREAL PROTOCOL

Climate change is closely related to stratospheric ozone depletion. More specifically, certain ozone-depleting substances (ODS) as well as some ODS substitutes are also greenhouse gases. The international legal context for protecting the ozone layer is provided by the 1985 Vienna Convention and its 1987 Montreal Protocol, both of which enjoy universal participation. The Montreal Protocol regulates the phase-out of the production and consumption of several ODS. Its initial focus was on chlorofluorocarbons (CFCs) and halons, but it has added new chemicals through amendments over time. The Protocol differentiates between developed and developing country Parties by allowing for a 10–15 year grace period for the latter. Furthermore, the Protocol put in place a Multilateral Fund to help developing countries comply with their commitments to control ODS.

CFCs are not only the cause of ozone depletion, but also a major greenhouse gas. Hence, even though climate mitigation was not a specific objective of the Montreal Protocol, the treaty has delivered significant climate benefits by phasing out ODS, and is said to have contributed more to climate protection than the first commitment period of the Kyoto Protocol.[4] In 1988-2010, ODS-related greenhouse gas emissions fell by 8.0 Gt CO_2-eq. per year.[5]

The treaty also provides for the phasing down of hydrochlorofluorocarbons (HCFCs). HCFCs were used as transitional chemicals to help phasing out CFCs but contribute to both ozone depletion and climate change. Acknowledging the adverse impact of HCFCs, Parties agreed in 2007 to significantly accelerate their phase-out, moving the date forward from 2030 to 2020 for developed countries and from 2040 to 2030 for developing countries, promising further climate benefits (up to 18 Gt CO_2-eq. by 2050[6]).

The potential role of the Montreal Protocol in reducing hydrofluorocarbons (HFCs) has received much attention in recent years. The use of HFCs has grown rapidly following their adoption as a substitute for CFCs and HCFCs. Depending on the growth projections used, HFCs could contribute to annual greenhouse gas emissions between 3.5-8.8 Gt CO_2-eq.[7]

Although the mitigation benefits of reducing HFCs are clear, a key issue of contention is whether the Montreal Protocol has a role to play in phasing down HFCs. While HFCs are powerful greenhouse gases—and unlike CFCs and HCFCs are mentioned in Annex A of the Kyoto Protocol—they do not contribute to ozone depletion, so they are not regulated by the Montreal Protocol. This has led to different interpretations of which agreement is actually applicable. Moreover, the North-South context makes this issue particularly salient: it is primarily developing countries and economies in transition that have been persuaded to use HFCs as a substitute and that would need to take action to phase down its use.

Since 2009, Micronesia, Canada, Mexico and the United States (US) have proposed amendments to the Montreal Protocol to address this gap. These proposals have gained significant traction through the 2011 Bali Declaration (signed by 112 countries), a reference in the Rio+20 outcome document, a statement of intent at the 2013 G20 meeting, and bilateral talks between the US and China and India in the same year. However, Parties to the Montreal Protocol could not agree on initiating formal discussions on an amendment in October 2013. For some Parties, there is still too much uncertainty about the availability and the costs of alternatives for HFCs in different sectors. Nevertheless, HFCs remain on the agenda of the Montreal Protocol. A separate decision in Bangkok mandates the Protocol's Technical and Economic Assessment Panel to examine the economic and technical feasibility of alternatives to ODS, and a workshop on HFCs will be organized in July 2014.

CONVENTION ON LONG-RANGE TRANSBOUNDARY AIR POLLUTION

The 1979 Convention on Long-Range Transboundary Air Pollution (LRTAP) is a regional agreement adopted under the auspices of the UN Economic Commission for Europe (UNECE). Initially established to tackle the acid rain problem by controlling sulphur dioxide (SO_2) and nitrogen oxide (NO_x) emissions, it has grown to cover a variety of local and regional air pollutants through its eight protocols, most of which target single pollutants. The Convention and its protocols provide for national emission ceilings, and have put in place an extensive monitoring system. The Convention has 51 Parties hailing from the European Union (EU), Eurasia (including Russia) and North America (the US and Canada).

Air pollution and climate change are linked in that many of the "traditional" air pollutants—such as NO_x and SO_2—and greenhouse gases stem from the same sources, such as transport, agriculture, power production and industry. This means that actions to reduce these local and regional air pollutants may have indirect benefits for climate change mitigation. Additionally, some of the air pollutants controlled by the protocols are of immediate relevance for climate change mitigation. The 1988 Sofia Protocol on NOx and the 1991 Geneva Protocol on volatile organic compounds, for example, aim at reducing emissions of substances that are precursors of tropospheric ozone, a greenhouse gas.

A key development in the context of the LRTAP Convention concerns black carbon emissions. Although black carbon is not a greenhouse gas, it is an important driver of global warming: it absorbs sunlight and generates heat; it reduces the ability of snow and ice to reflect sunlight; and it affects cloud formations. In 2009, an Ad Hoc Expert Group on Black Carbon was created under the 1999 Gothenburg Protocol to Abate Acidification, Eutrophication and Ground-level Ozone to examine the options for addressing black carbon. The report of the Expert Group in 2010, stressing the health and climate benefits of tackling black carbon, indicated that additional measures in a variety of sectors in the UNECE region up to 2020 could reduce black carbon emissions by 40%,[8] and suggested amending the Gothenburg Protocol to include black carbon.

In May 2012, the 25 Parties to the Protocol (which include the EU and its Member States, the US and Canada) agreed on a set of amendments. As a first step, a guidance document to assist Parties in identifying control techniques for black carbon emissions was developed in 2012.[9] This was followed by guidelines for reporting on emissions under the Gothenburg Protocol that also apply to black carbon emissions. This will facilitate the development of black carbon emission inventories.[10]

Black carbon, as well as other short-lived climate forcers, will likely remain on the agenda of the LRTAP Convention. However, the geographical scope of the agreement is limited to the UNECE region, and does not include developing countries. Nevertheless, there may be potential for transferring lessons to other regions, for instance, with respect to identifying options to measure and control black carbon.[11]

CLIMATE AND CLEAN AIR COALITION

Short-lived climate pollutants (SLCPs), such as black carbon, tropospheric ozone, methane and HFCs, have short life spans but also display high global warming potential. Reducing their emissions could deliver significant climate, health and food security benefits.[12] The emerging realization that rapid action on SLCPs could form an important complement to CO_2-focused measures led several countries (Bangladesh, Canada, Ghana, Mexico, Sweden and the US) to launch the Climate and Clean Air Coalition (CCAC) in February 2012. The Coalition's aims are to raise awareness on SLCPs, enhance and develop actions at the national and regional level, promote best practices, improve scientific understanding on SLCPs, and mobilize resources for actions.

The CCAC is a government-led public-private partnership. Its nature is non-legally binding, with each partner determining the extent of its participation.[13] To date, 33 countries (as well as the European Commission) have joined the partnership, including both developed and developing countries (although major economies such as Brazil, China, India, Russia and South Africa are not partners at this stage[14]). The Coalition is administered by UN Environment Programme (UNEP), and provides for the active participation of non-governmental organizations, including international organizations (e.g., UNDP, and the World Bank), initiatives (e.g., the C40 initiative), environmental and scientific organizations, and the private sector.

The CCAC encourages actions by the partners through initiatives focused on: (1) heavy-duty diesel vehicles; (2) brick production; (3) the municipal solid waste sector; (4) promoting HFC alternatives; (5) methane and black carbon emissions from oil and natural gas production; (6) agriculture; and (7) household cooking and domestic heating. In addition, three crosscutting initiatives have been established, centering on: financing; national planning; and regional assessments. The initiatives generally focus on specific SLCPs in targeted sectors. While it does not act as a funding platform, a Trust Fund has been established through which specific programs decided by the Coalition can be funded. By the end of 2013, about US$46 million was pledged for 2012–2015, of which about US$12 million was allocated to the initiatives.[15]

Given that the CCAC has been active only since early 2012, it is still too early to assess its contribution to climate change mitigation. The short-term mitigation potential for SLCPs is becoming clearer, however, with the UNEP Emissions Gap Report indicating a potential of 0.6-1.1 Gt CO_2-equivalent by 2020.[16] Furthermore, proponents of action on SLCPs stress a range of health and agriculture co-benefits,[17] as well as the fact that some measures to tackle SLCPs can even lead to cost savings in the long run. Yet given that the various CCAC activities are still in their infant stages, it is difficult to assess their likely effects in practice. Moreover, the mitigation benefits crucially depend on simultaneous reductions of CO_2 and other long-lived climate forcers,[18] a fact generally acknowledged by Coalition participants.

The CCAC is noteworthy for at least two reasons. First, it targets climate forcers that have so far received relatively little attention in other international initiatives (although this is slowly changing, as suggested by the discussions of the Montreal Protocol and LRTAP Convention above) and that are, by and large, outside of national pledges. Second, for many parties, the links to the UN system, and in particular the active participation of UNEP in the Coalition, lends greater political credence to the Coalition's activities.

INTERNATIONAL CIVIL AVIATION ORGANIZATION

Greenhouse gas emissions from the aviation sector are growing rapidly. Even though new technologies have led to considerable improvements in fuel efficiency, and biofuels hold further potential to reduce emissions, their benefits are outstripped by an ever-growing demand for air travel. While emissions from domestic aviation are covered by the UN climate regime, the Kyoto Protocol mandates Annex I Parties to discuss measures to mitigate international aviation emissions through the International Civil Aviation Organization (ICAO).[19]

ICAO was established in 1944 by the Chicago Convention on International Civil Aviation.[20] Its membership is almost universal. Its ultimate decision-making body is the ICAO Assembly, which meets every three years; in between it is governed by the ICAO Council, which consist of 36 elected member states. While environmental protection was not part of its original mandate, the organization is in a unique position, as it possesses relevant technical expertise in the area of aircraft emissions, as well as related issues such as aviation safety, efficient navigation and aircraft noise, and has significant experience in setting (non-legally binding) international standards in the sector, including on aviation emissions.[21]

In 1998, the ICAO Assembly requested the Committee on Aviation Environmental Protection (CAEP) of the ICAO Council to study possible mitigation measures.[22] Reporting by the CAEP led the Assembly to endorse the development of an "open emissions trading system for international aviation" in 2001, while at the same time stressing the need to keep on working on "technical solutions," including operational measures.[23] By 2004, however, discussions had moved away from a global market-based instrument to voluntary emissions trading systems by individual members.[24]

In 2007, the Assembly created a new Group on International Aviation and Climate Change tasked with drafting a Program of Action for ICAO, and decided to hold a high-level meeting in the run-up to the Copenhagen climate summit.[25] Drawing on the Program of Action and the high-level meeting, the ICAO Assembly in 2010 adopted a global goal of improving annual average fuel efficiency by 2%, and an aspirational goal of keeping global carbon emissions from 2020 onwards at the same level (i.e., ensuring carbon-neutral growth). The Assembly also noted—but did not adopt—the aviation industry's goal to halve emissions by 2050 compared to 2005 levels.[26] A range of measures was suggested to achieve these goals, including technical and operational measures and the development of a global market-based mechanism.[27] In addition, member states were encouraged to (voluntarily) draft and submit action plans outlining policies and measures on international aviation emissions.

The stakes for the 2013 ICAO Assembly were raised by the entry into force of the EU's inclusion of aviation emissions in its emissions trading system, which was heavily criticized by other ICAO members. To allow ICAO to make progress, the EU decided to "pause" the application of its trading system to foreign airlines. While there were several climate-relevant developments at the 2013 Assembly (e.g., the Council was requested to develop a global CO_2 efficiency standard for aircraft by the end of 2015), the key outcome was an agreement to develop a market-based mechanism by the next Assembly in 2016.[28]

The importance of this development was underlined by recent research indicating that, even under optimistic scenarios of new technology uptake in the sector, the aspirational goals agreed by ICAO members could not be met in the absence of a global market-based mechanism.[29] However, a key challenge in the development of a market-based mechanism will likely be reaching agreement on whether and how such a mechanism reflects differentiation between developed and developing countries,[30] while at the same time respecting the Chicago Convention's principles on equal treatment and non-discrimination.

INTERNATIONAL MARITIME ORGANIZATION

As with aviation emissions, the Kyoto Protocol suggests that the regulation of emissions from international shipping should be dealt with in another venue, in this case the International Maritime Organization (IMO). The IMO was established in 1948, initially with a focus on maritime safety, but has covered related areas such as marine pollution from an early stage onwards. The organization has 170 members, including all major economies. Similar to ICAO, the IMO is governed by an Assembly (meeting every 2 years) and a Council, composed of 40 member states. The IMO's Marine Environment Protection Committee (MEPC) is the primary body responsible for matters relating to environmental pollution from ships.

A wide range of treaties has been adopted under the auspices of the IMO, including the 1973/1978 International Convention for the Prevention of Pollution from Ships (MARPOL Convention). Although the Convention initially did not cover air pollution, a new Annex VI was agreed in 1997 to cover a range of air pollutants.[31] Although these pollutants did not include greenhouse gases, a resolution was adopted in the same year to study shipping emissions and consider mitigation strategies.[32] Following a first study on greenhouse gas emissions from shipping, the IMO Assembly adopted a resolution in 2003 "to identify and develop the mechanism or mechanisms needed to achieve the limitation or reduction of GHG emissions from international shipping," with these mechanisms including technical, operational and market-based measures.[33]

After a second study on shipping emissions pointed out that without putting in place new policies shipping emissions could continue to grow by 200-300% by 2050 (compared to 2007),[34] the MEPC added a new Chapter 4 to Annex VI of the MARPOL Convention in 2011. The amendment introduced a mandatory Energy Efficiency Design Index (EEDI) for new ships—which will be tightened every 5 years—and required a Ship Energy Efficiency Management Plan (SEEMP) for all ships.[35] It is significant in that it constitutes the first mandatory international sectoral agreement on greenhouse gas emissions applying to both developed and developing countries.[36]

The amendment was adopted by a majority vote, despite the objection of some developing countries, which expressed their concern that the measures did not fully reflect the UNFCCC's principle of common but differentiated responsibilities.[37] The EEDI and SEEMP measures are expected to have a significant effect on greenhouse gas emissions, with an IMO study estimating an annual reduction of CO_2 emissions of 13–23% compared to business-as-usual between 2020 and 2030. The study also suggests the fuel cost savings could be substantial (on average US$50 billion by 2020, and US$200 billion by 2030).[38]

Chapter 4 also included a new section on the promotion of technical co-operation and transfer of technology relating to the improvement of energy efficiency of ships,[39] which became the subject of subsequent negotiations. At the MEPC meeting in 2013, an Ad Hoc Expert Working Group on Facilitation of Transfer of Technology for Ships was established and tasked with (1) assessing the implications of the implementation of Chapter 4 on developing countries, and (2) developing an inventory of energy efficiency technologies and identifying barriers to technology transfer.[40]

As is the case for aviation, technical and operational measures alone are unlikely to halt the growth in emissions from the sector. Furthermore, measures such as the EEDI still apply only to new ships, although discussions on energy efficiency improvements for existing fleets have started within the MEPC. While market-based measures continue to be discussed, and a range of specific proposals have been offered (some of which include funding or rebate mechanisms for developing countries), there is no consensus on their use within the IMO, with several developing countries questioning the competence of the IMO in this area.[41]

WORLD TRADE ORGANIZATION

The World Trade Organization (WTO), created in 1995, is the only global organization that deals with the rules of trade between nations. The WTO agreements, signed by the large majority of trading nations, are at the heart of the organization. Several principles guide the multilateral trading system, including the principles of predictability and stability, transparency, the promotion of fair competition and, above all, non-discrimination.

Although the WTO has at times been viewed as constraining mitigation ambition, attention has increasingly shifted to ways that the WTO might contribute to climate objectives. One way in which the WTO could play a positive role is through the liberalization of environmental goods and services, which was included in the mandate of the Doha Round of negotiations.[42] In this context, several WTO members drafted proposals to liberalize trade in specific climate-friendly goods and services. This included a joint proposal offered in 2007 by the EU and the US, which suggested introducing zero-tariffs for 43 climate-friendly products.[43] While this proposal was criticized by developing countries—who objected that the list was biased against their exports[44]—progress was nevertheless made at the World Economic Forum in January 2014 when 14 WTO members (including Australia, China, the EU, Japan and the US) stated their intention to develop an agreement to reduce tariffs in green goods.[45]

This development came hot on the heels of a revival of the Doha Round in Bali in December 2013, after the trade negotiations had almost come to a complete halt in 2008. As of yet it is still unclear when the negotiations on green goods will be launched or when they are expected to be concluded. While discussions will likely start off on a plurilateral basis, the 14 countries have stated their interest in other major trading nations joining. The mitigation benefits of any agreement remain uncertain, as they very much depend on which goods are considered to be "green" or "climate-friendly" as well as on the countries that will eventually sign up.

Another way for the WTO to play a positive role is by offering an institutional home for pursuing the reduction of fossil fuel subsidies (see also the G20 discussion below). Estimates for fossil fuel subsidies vary depending on their definition, and in particular on whether they cover consumption or production subsidies, or both.[46] While the International Energy Agency (IEA), focusing on consumption subsidies, estimated them to be US$630 billion in 2012, the International Monetary Fund, employing a broader definition that also included production subsidies, arrived at an estimate of US$1.9 trillion.[47] In terms of mitigation benefits, the IEA estimates that a partial (25%) reduction of fossil fuel subsidies in net exporting countries could reduce CO_2 emissions by 360 Mt by 2020.[48] In addition to these climate mitigation benefits, eliminating fossil fuel subsidies could also bring about economic, social and fiscal benefits, since public funds could be used for other purposes.

Although a challenge of certain fossil fuel subsidies under the WTO's Agreement on Subsidies and Countervailing Measures (SCM) is not inconceivable, the Agreement employs a stricter definition of "subsidy" than the estimates provided above, and any challenge would likely face several legal hurdles.[49] However, negotiations towards a political solution under the Doha Round could build on progress made on the issue in the G20 and other international venues. Putting fossil fuel subsidies reform on the WTO agenda could follow the "fisheries model," where a group of WTO members, NGOs and international organizations successfully put fisheries subsidies reform on the WTO agenda, explicitly taking into account non-trade interests. The existing SCM Agreement could help make fossil fuel subsidies more transparent, and the WTO's strong dispute settlement system could strengthen the enforcement of any rules agreed under the WTO.[50]

GROUP OF 8

Established in 1975, the Group of 8 (G8) is a political forum comprised of some of the world's largest developed country economies (Canada, France, Germany, Italy, Japan, Russia, the UK and the US). Heads of state and government of the G8 countries meet every year to discuss various priority items on the international political agenda. Each meeting produces a high-level declaration (communiqué), containing a range of non-binding commitments.

The G8 was not established with a view to addressing climate change, yet it has taken up the issue from the early stages onwards, already noting the increase of CO_2 in the atmosphere in 1979.[51] Particularly following the 2005 G8 summit in Gleneagles, Scotland, climate change became a recurring priority issue on

the G8 agenda. The Gleneagles summit produced the Gleneagles Plan of Action on Climate Change, Clean Energy and Sustainable Development, which spurred the G8's activities on energy, and kick-started its involvement in climate change issues. It also launched the two-year Gleneagles Dialogue on Climate Change, Clean Energy and Sustainable Development. The Gleneagles summit further witnessed the start of an informal dialogue with 5 other countries (Brazil, China, India, Mexico and South Africa), known as the G8+5. This dialogue became more permanent at the Heiligendamm G8 summit in 2007, focusing in particular on energy efficiency.

While G8 commitments have generally been formulated in broad, non-binding and hortatory language, the increasing focus on energy and climate change in the G8 resulted in a few more concrete voluntary pledges and actions.[52] Notable pledges were the goal to reduce global emissions by at least half by 2050 (at the G8 summit in Hokkaido, Japan in 2008); the specification to achieve 80% or more of these reductions in developed countries compared to 1990 or more recent base years; and an acknowledgment of the goal to keep the global temperature increase below 2°C above pre-industrial levels, which helped pave the way for a similar statement in the Copenhagen Accord (both at the G8 summit in L'Aquila, Italy in 2009).

In addition to these pledges, the G8 has also established several practical initiatives, such as the Global Bioenergy Partnership at the Gleneagles summit and the International Partnership for Energy Efficiency Cooperation at the Hokkaido summit.[53] At the Camp David summit in 2012, all G8 members further pledged to address SLCPs and to join the CCAC (see above).

Momentum on climate change within the G8 has somewhat waned after the UNFCCC Copenhagen conference in 2009.[54] This can in part be attributed to the emerging high profile of the G20 (see below), which also started to cover climate change issues.[55] Another reason is that climate change has had to compete with a range of other priority issues, notably the economic crisis.[56] More generally, political priorities for the G8 shift depending on who holds the presidency. For instance, climate change was not on the agenda of the 2013 summit at Lough Erne, UK, although the communiqué included a reiteration of previous pledges.[57]

GROUP OF 20

The Group of 20 (G20) is a coalition of large economies that is primarily focused on international finance and economic development. It was created in 1999 in the wake of the financial crisis in Asia in 1997.[58] Its membership includes the G8+5 countries, as well as Argentina, Australia, Indonesia, Saudi Arabia, South Korea, Turkey and the EU. Following the financial crisis in the late 2000s, the G20 is increasingly taking over the role of the G8 in coordinating international economic policy.

From a climate perspective, the most notable development was the pledge at the 2009 summit in Pittsburgh to "rationalize and phase out over the medium term inefficient fossil fuel subsidies that encourage wasteful consumption."[59] As noted in the WTO discussion above, phasing out fossil fuel subsidies (even partially) could deliver significant climate benefits. Following up on this commitment, most G20 members drafted implementation strategies and submitted reports tracking progress.[60] However, given that the G20 process is based on self-reporting and that there is no common definition of "inefficient fossil fuel subsidy," several members (Brazil, China, France, Italy, Japan, Russia, Saudi Arabia, South Africa and the UK) reported no subsidies.[61] To improve transparency, the G20 agreed in St. Petersburg in September 2013 on a methodology for voluntary peer review.[62]

The G20 process on fossil fuel subsidies is linked to several other international processes and organizations. Two months after the Pittsburgh summit, Asia-Pacific Economic Cooperation (APEC) leaders echoed the call to rationalize and phase out subsidies, and put in place an institutional process to work towards subsidy reform. Furthermore, at the initiative of New Zealand, several non-G20 countries came together as the Friends of Fossil Fuel Subsidy Reform group in 2010. Finally, the IEA, the Organization for Economic Co-operation (OECD), the Organization of Petroleum-Exporting Countries (OPEC) and the World Bank (the "IGO-4") were requested by the G20 to play a role in analysing the scope of subsidies, which resulted in several joint reports.[63] While providing an initial overview of the extent of subsidies, these reports also highlighted issues of transparency. Other analyses were more critical, suggesting that the G20 commitment did not result in new initiatives, and that reporting has been inadequate.[64]

Another development concerns the provision of climate finance. An important strength of the G20 is that it brings together the finance ministers of the world's major economies. With a view to considering ways of effectively mobilizing resources, finance ministers in 2011 tasked the World Bank, together with the IMF, OECD and regional development banks to draft a report on mobilizing climate finance.[65] This was followed by the establishment of a climate finance study group in 2012, which continues to meet, but has not resulted in specific agreement or commitments.

In addition, the G20 declaration of September 2013 also explicitly acknowledged a role for the Montreal Protocol in phasing down the production and consumption of HFCs, although—as noted above—this did not lead to an agreement of Parties to the Protocol one month later.[66]

Given its country coverage, the G20 is a potentially powerful political forum for decision making on climate change issues, but at the same time the diversity of countries may make it difficult to agree on common positions. Moreover, like the G8/G8+5, the G20's broad scope means that the priority of climate change on the agenda fluctuates. For example, climate change and fossil fuel subsidies do not appear explicitly on Australia's agenda for the G20 in 2014. Combined with the lack of an institutional structure, this means that it may be difficult to follow up on previously made commitments.

MAJOR ECONOMIES FORUM

The first Major Economies Meeting on Energy Security and Climate Change was held in September 2007 at the initiative of US President George W. Bush. The meeting—as well as subsequent meetings—emphasized agreement among major economies on an aspirational global climate goal, which was to be achieved through voluntary national and sectoral actions, with a strong emphasis on technology development. While the meetings were seen by some as an unwelcome distraction to the UNFCCC process,[67] President Obama re-launched the process as the Major Economies Forum on Energy and Climate (MEF) two years later in a way that was more unambiguously supportive of the climate change negotiations.

The MEF brings together 17 major economies (including those of the G8+5, as well as Australia, Indonesia, South Korea and the EU), accounting for over 80 percent of global emissions.[68] In addition to these countries, representatives from other governments and international organizations are invited on an ad hoc basis. The MEF's stated mission is to facilitate "candid dialogue among major developed and developing economies, help generate the political leadership necessary to achieve a successful outcome at the annual UN climate negotiations and advance the exploration of concrete initiatives and joint ventures that increase the supply of clean energy while cutting greenhouse gas emissions."[69] It is notable in that it provides a high-level political forum outside of the UNFCCC established solely to discuss climate change.

The MEF has convened 17 times to date. Six meetings took place in the run-up to the Copenhagen summit in 2009, helping to build consensus among the major economies on several key issues (e.g., measurement, reporting and verification) before the UN climate conference. The first leaders' meeting in L'Aquila in 2009 embraced the 2°C goal, and launched a Global Partnership on transformational low-carbon, climate-friendly technologies.[70] As part of the Global Partnership, countries drafted action plans to identify and share best practices for several clean energy technologies, which in turn formed the basis for the first Clean Energy Ministerial in 2010.[71] The Clean Energy Ministerial has continued with this focus on technology initiatives, and now hosts 13 activities in the broad area of clean energy. With 23 governments, it enjoys wider participation than the MEF.

The MEF has continued to meet after Copenhagen, although its influence has become less visible, and the meetings have not produced common positions on issues of relevance for the UNFCCC negotiations. Brief chair's summaries published after each meeting suggest that participants continue to discuss issues of immediate relevance for the UNFCCC meetings, such as the nature and type of mitigation contributions, differentiation, legal form, etc. The MEF thus offers a platform for informally exchanging views on aspects of the climate negotiations, and identify areas of convergence and divergence, but it still faces the same political hurdles as the UNFCCC.[72]

In addition to the political discussions, MEF participants agreed at meetings in 2013 that the forum should include an "action agenda," and subsequently launched a task force on energy efficiency in buildings. How it will pursue its action agenda in the absence of a permanent institutional structure remains to be seen, however.

ISSUES FOR CONSIDERATION

The preceding sections illustrate that non-UNFCCC regimes and venues have made, and continue to make, significant contributions to the global climate effort, although often in an ad hoc fashion with unclear results. In considering the respective roles of the UNFCCC and non-UNFCCC initiatives in the post-2020 climate effort, and possible linkages between them, potential issues include:

- Is there a natural "division of labor" between the UNFCCC and complementary international initiatives?
- Should the UNFCCC serve, for instance, as the central focal point for international climate action, tracking all related efforts and assessing their aggregate contribution to the Convention's ultimate objective?
- If so:
  - Should the actions flowing from non-UNFCCC regimes and initiatives be formally reflected in the 2015 agreement, for instance, by establishing a schedule where their contributions may be entered?
  - Should the UNFCCC provide guidance to promote transparency and consistency in the reporting of these contributions?
- Are sector-based efforts beyond those already delegated to regimes such as ICAO and IMO more readily mobilized outside the UNFCCC? If so, which sectors should be priorities, and in what forums?
- Do non-UNFCCC venues offer more promising avenues for directly engaging the private sector in climate mitigation?
- Do non-UNFCCC venues have special expertise or institutional capacities that make them the appropriate forum for addressing particular issues?
- Can the UNFCCC play a stronger role in encouraging or incentivizing efforts in non-UNFCCC forums?
- Are there ways to better reconcile UNFCCC principles with those of other regimes or venues to help facilitate action and avoid "forum-shopping"?

ENDNOTES

1 Biermann et al. (2009); Keohane & Victor (2011); Moncel & Van Asselt (2012).

2 UNFCCC (2013). See also http://unfccc.int/focus/mitigation/items/7907.php.

3 Weischer et al. (2011).

4 Velders et al. (2007).

5 UNEP (2011), 18.

6 Technology and Economic Assessment Panel (2007), 8.

7 UNEP (2011), 22.

8 UNECE (2010).

9 UNECE (2012).

10 UNECE (2013).

11 UNEP & WMO (2011), 37.

12 UNEP & WMO (2011).

13 CCAC (2012).

14 Russia, however, pledged to join, as it has signed the Camp David Declaration. See G8 (2012), paragraph 14.

15 CCAC (2013).

16 UNEP (2013), 30.

17 UNEP & WMO 2011.

18 Bowerman et al. 2013.

19 1997 Kyoto Protocol to the United Nations Framework Convention on Climate Change, Article 2(2).

20 1944 Chicago Convention on International Civil Aviation, Article 44.

21 Liu (2011).

22 ICAO (1998), Appendix F.

23 ICAO (2001), Appendix I, paragraph 2(c)(2).

24 ICAO (2004), Appendix I, paragraph 2(c)(2).

25 ICAO (2007), Appendix K, paragraph 2.

26 ICAO (2010), paragraphs 4, 6 and preamble.

27 ICAO's attitude towards another policy measure, emission levies, has been less positive, with several resolutions discouraging their unilateral use.

28 ICAO (2013).

29 Lee et al. 2013.

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2101 WILSON BLVD. SUITE 550 ARLINGTON, VA 22201 703-516-4146 C2ES.ORG