

A Role for the G-20 in Addressing Climate Change?

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Abstract

Following the chaotic Copenhagen conference of the UN Framework Convention on Climate Change (UNFCCC), policymakers and pundits have discussed the G-20 as an alternative forum for advancing climate change diplomacy. This paper assesses the risks and rewards of tackling climate change in the G-20 and finds that despite its seeming attractiveness, the G-20, as structured, is not a suitable replacement for the UN-led process and has limited ability, at present, to advance climate change negotiations. There is much, however, that the G-20 can do to contribute to the goals of the climate negotiations outside of wading into the negotiations themselves. Building on its existing agenda the G-20 has the power to significantly reduce global greenhouse gas emissions, accelerate the deployment of clean energy technology, and help vulnerable countries adapt to a warmer world through the mobilization of public and private finance. Following through on the existing G-20 pledge to phase out and rationalize inefficient fossil fuel subsidies, establishing new green guidelines for multilateral development banks, coordinating green stimulus exit strategies, promoting open markets for environmental goods and services, and rebalancing global economic growth all fall well within the G-20's mandate and help meet the climate challenge.

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INTRODUCTION

The chaos of the December 2009 climate change negotiations in Copenhagen have left many in the international environmental community searching for a new strategy, and new forum, to advance climate change cooperation. The current United Nations (UN) process, charged with implementing the 1994 UN Framework Convention on Climate Change (UNFCCC), has made little formal progress since launching the current round of negotiations in 2007. The UNFCCC's requirement for consensus between all 194 parties to make even routine procedural decisions and sharp differences in the core positions of member countries resulted in a negotiating stalemate for the two years leading up to the 15th UNFCCC Conference of the Parties (COP) in Copenhagen.

The modest Copenhagen Accord, cobbled together by a group of key leaders in the final hours of the conference, could not garner unanimous support and thus exists as a voluntary agreement with no legal standing under the UNFCCC. Many parties and observers left the conference wondering whether the UNFCCC process can ever deliver a meaningful international solution to climate change if any one state, no matter how small, has the ability to block. Wouldn't it make more sense to hammer out an agreement among a select group of large countries, such as the Group of Twenty (G-20)?

The question comes at a critical time in the G-20's evolution. Though in existence since 1999, the G-20 became the premier international economic forum only in 2008 in response to the global financial crisis. As global growth gets back on track, the G-20's challenge is transitioning from a crisis responder to a systemic manager. This will inevitably broaden the G-20 agenda, and leaders will need to identify issues where the forum can be of particular use and avoid issues the group is poorly suited to address.

This working paper assesses the potential risks and rewards of tackling climate change in the G-20 and finds that despite its seeming attractiveness as an alternative venue for climate change diplomacy, the G-20, as structured, is not a suitable replacement for the UN-led process and has limited ability, at present, to advance climate change negotiations. At the same time, significant progress in reducing emissions can be achieved directly through existing elements of the G-20 agenda, and the group has the potential to play a pivotal role in advancing international climate change cooperation down the road.

WHAT'S HOLDING UP INTERNATIONAL CLIMATE TALKS?

The outcome of the Copenhagen COP surprised many observers given the positive domestic policy movement in key countries in the run-up to the summit. A change of government in Australia, Japan, and the United States brought about more ambitious emissions reduction targets in all three countries. Large emerging economies, including People's Rep. of China (China), India, Brazil, South Africa, and Indonesia, all announced nationwide emissions reduction goals for the first time ever and began implementing domestic policy to achieve these targets. And bilateral meetings between large emitters, as well

as the Major Economies Forum leaders' meeting in July 2009, produced communiqués highlighting the importance of international cooperation on climate change (Houser 2010).

The problem came in translating unilateral domestic action and bilateral and plurilateral pronouncements into a tangible multilateral agreement. The 1994 UNFCCC categorizes countries into “developed” (those listed in Annex I of the treaty) and “developing” (those not listed in Annex I) based on their economic status when the treaty was negotiated. The 1997 Kyoto Protocol solidified this distinction, mandating emissions cuts for Annex I countries only. This asymmetry precluded ratification of the Kyoto Protocol by the United States. The US Congress made clear in the run-up to the Kyoto summit that they would only accept a climate treaty in which large emerging economies committed to reducing emissions alongside developed countries, though the nature and ambition of those reductions could be differentiated based on capability.¹ As the Kyoto Protocol failed this test, it was never ratified in Washington.

Without the United States on board, participation in the Kyoto Protocol has become increasingly politically unacceptable for other developed countries. And given the rapid growth in emissions from emerging economies since 1997, the Protocol is inadequate to limit global temperature increases to 2 degrees Celsius above preindustrial levels, which the scientific community believes is critical to avoid the worst effects of climate change. Finally, the Kyoto Protocol provides only limited financing for adaptation, an important issue for the poorest and most vulnerable developing countries. As a result, when the parties to the UNFCCC met in Bali in 2007 they endeavored to negotiate more than a simple extension of the Kyoto Protocol beyond its initial 2007–12 commitment period. The Bali Action Plan launched a “comprehensive process to enable the full, effective and sustained implementation of the Convention through long-term cooperative action, now, up to and beyond 2012” (UNFCCC 2007). The Bali Action Plan envisioned an “agreed outcome” in Copenhagen that would include mitigation commitments or actions by both developed and developing countries, provisions for the measurement, reporting, and verification (MRV) of these commitments or actions, efforts to reduce deforestation, cooperation on technology, and financial support for both adaptation and mitigation.

The parties left Bali with strong differences of opinion on how each of these issues should be addressed. And the term “agreed outcome” glossed over sharp disagreement on what legal form such an “outcome” should take. While some progress was made on technology and deforestation between Bali and Copenhagen, there was little, or even backward, movement on other issues. The sharpest disagreement centered around the following:

Legal Form: While recognizing that countries' mitigation commitments will vary given their level of economic development, the United States' position is that those commitments should be legally

1. Byrd-Hagel Resolution (S. Res. 98), United States Senate, July 1997.

symmetric for all major emitters—i.e., if developed countries make their domestic commitments legally binding under a future climate treaty, emerging economies must too. Emerging economies argue that the UNFCCC assigns greater responsibility in addressing climate change to developed countries and that this should translate into the legal form, as well as substantive content, of emissions reduction actions.

Most developing countries envisioned a Copenhagen outcome made up of two agreements: an extension of the Kyoto Protocol commitments for developed countries other than the United States and a new agreement in which the United States takes on legally binding commitments but developing-country mitigation actions are strictly voluntary. This position is highly problematic for the European Union and other Annex I parties to the Kyoto Protocol, who would like to replace the Kyoto Protocol with a single agreement that includes the United States.

Transparency: Parties also disagree about whose mitigation actions can be measured, reported, and verified by the international community. Developed countries read the Bali Action Plan as requiring MRV for all mitigation actions listed in an agreement. Developing countries, by and large, hold the view that MRV applies only to developed-country commitments and those actions by developing countries supported by finance or technology from developed countries.

Finance: Countries particularly vulnerable to the impact of climate change, such as island states, are an important constituency in the climate negotiations. As such, financial support for both mitigation and adaptation is a key component of any agreement. Parties have wide-ranging views on the appropriate levels, sources, and governance of climate-related finance.

Disagreement on these three issues, coupled with a UN process that requires consensus between all 194 parties, prevented any meaningful progress in negotiations leading up to Copenhagen or during the first week of the summit. The UN and the Danish chair attempted to broker a compromise by convening heads of state from a small and representative group of developed countries (Japan, Canada, Australia, the United States, Russia, and several European states), large developing countries (China, India, Brazil, Mexico, and South Africa), representatives of vulnerable country groups (Grenada and the Maldives on behalf of island states, Lesotho and Bangladesh on behalf of least developed countries [LDCs], and Algeria and Ethiopia on behalf of Africa), and several others. This collection of roughly 30 leaders (or deputies in the case of a few countries) negotiated the five-page Copenhagen Accord, which was able to reach a compromise on issues of transparency and finance by sidestepping the question of legal form. The Copenhagen Accord was drafted as a nonbinding agreement not intended to serve as the “agreed outcome” called for in the Bali Action Plan. The Accord endorses a continuation of the negotiations launched in Bali and remains silent on whether the terms agreed to in the Accord should be carried over into a future legally binding agreement.

Despite its nonbinding nature, and the fact that countries that participated in the drafting of the Accord account for the majority of global emissions and population, six states—Sudan, Venezuela, Cuba, Bolivia, Nicaragua, and Tuvalu—opposed the Accord when it was presented to the full 194-member COP, leaving it with no formal standing within the UNFCCC.

Within two months of the Copenhagen conference, 106 countries accounting for 81 percent of global emissions and 76 percent of global population “signed up” to the Accord, with 72 countries voluntarily listing emissions reduction pledges in the agreement’s appendices. These numbers have continued to grow.² Yet the UN negotiations remain bogged down over the same issues of legal form, transparency, and finance that stalled talks before Copenhagen.

THE LURE OF THE G-20 AS AN ALTERNATIVE FORUM

In the nine months since the Copenhagen conference, the G-20 has been repeatedly floated, both by policymakers and pundits, as a possible alternative to the existing UN-led process for advancing climate change cooperation.³ A number of attributes make the G-20 a seemingly attractive venue for climate change diplomacy.

Membership

In contrast to the UNFCCC, where all 194 parties have equal voice regardless of size and consensus among the full group is required to take action, the G-20’s exclusive membership allows for more efficient decision-making. Any action by G-20 countries, which alone account for over 75 percent of global greenhouse gas emissions, could keep global temperature increases to less than 2 degrees Celsius, at least for the next several decades (Table 1). All G-20 members, except Turkey and Saudi Arabia, have “signed up” to the Copenhagen Accord and voluntarily inscribed national emissions reduction (mitigation) targets in the Accord’s appendices. And G-20 country inscriptions account for the vast majority of the Accord’s mitigation potential.

Format

The UN negotiations are aimed at producing a legally binding climate change treaty. Sharp disagreement over what legal obligations are appropriate for which countries under such a treaty is a large part of why the negotiations have floundered. The Copenhagen Accord demonstrated that it’s possible to reach agreement on substance in a nonbinding deal. The less formal nature of the G-20 could help advance

2. For a list of countries currently associated with the Copenhagen Accord, see “Who’s On Board with the Copenhagen Accord?” available at www.usclimatenetwork.org.

3. See, for example, the European Council’s March 2010 conclusions, available at www.consilium.europa.eu, and Joshua W. Busby, “After Copenhagen: Climate Governance and the Road Ahead” (New York: Council on Foreign Relations, 2010).

international climate cooperation on a voluntary basis, building on the Copenhagen Accord, until a new legally binding agreement is politically possible. This would help prevent UNFCCC acrimony from hindering efforts to turn fairly positive developments in the domestic policy of most G-20 countries into international cooperation and trust.

Expertise

Built on top of a finance ministers' process, the G-20 has considerable capacity and expertise when it comes to questions of climate finance, a key pillar of the negotiations. G-20 countries also provide the vast majority of both financial aid and foreign direct investment to developing countries at present and will likely continue to do so under any future climate finance regime. Whether identifying potential sources of public financial support for mitigation and adaptation, establishing new international funds, or developing mechanisms to incentivize private investment in developing countries, the G-20 could play an important substantive role.

Level and Scope

The Copenhagen COP was unique in the number of leaders in attendance. Future COPs are unlikely to have heads of state participation. And while the Major Economies Forum held a leaders' meeting in 2009, it's unlikely to do so again. As a result, the G-20, self-identified as the "premier forum" for international economic cooperation, will likely be the only ongoing plurilateral leaders' process with both developed and developing countries at the table and a mandate that could extend to climate change. The core issues at play in the climate negotiations will ultimately need leaders' attention to unlock (as was the case with the Copenhagen Accord) and the G-20 could be instrumental in that process. In addition, addressing climate change alongside other G-20 agenda items potentially opens up new pathways to a deal not possible in the more narrowly focused UNFCCC setting.

THE CHALLENGES AND RISKS OF PUTTING CLIMATE ON THE G-20 AGENDA

While attractive on many levels, the G-20 also has some significant shortcomings as a forum for addressing climate change. Though the group accounts for the majority of global emissions, it excludes countries most vulnerable to the impact of climate change. None of the 49 countries the UN categorizes as LDCs or the 39 countries that negotiate collectively in the UN as the Alliance of Small Island States (AOSIS) has a seat at the table and only one African country (South Africa) is represented. LDCs, AOSIS, and the African Group are critical constituencies in climate negotiations, and any deal struck in their absence may lack credibility and be criticized by those outside the G-20 umbrella. This is particularly true on issues of climate finance as these groups will likely receive the lion's share of future financial flows.

To tackle the negotiations directly, the G-20 would first need to establish a G-20+ process for climate change that included representatives from vulnerable country groupings. The G-20 would also need to approach the negotiating agenda in a balanced manner. The Copenhagen Accord addressed all four of the negotiations: mitigation (including transparency and forestry), finance, adaptation, and technology. In particular, it was the balanced treatment of transparency (important to developed countries) and finance (important to developing countries) that made the Accord possible. Advancing one of these issues through the G-20 but not the other risks weakening the prospects of a comprehensive deal.

But the right group of countries and right approach to the negotiating agenda won't, in and of itself, deliver a climate change agreement. The fact that six countries—Sudan, Venezuela, Cuba, Bolivia, Nicaragua, and Tuvalu—were able to prevent the 194-member COP from adopting the Copenhagen Accord left many with the impression that the principal impediments to progress in UNFCCC negotiations are the number of actors and the need for consensus. In fact it's the fundamental differences in the negotiating positions of G-20 countries themselves that lie at the core of the current UNFCCC stalemate. While G-20 countries were instrumental in drafting the Copenhagen Accord, opinions within the group vary as to the agreement's importance. Some countries see it both as an operational agreement in and of itself and as a template for a future binding agreement. For example, in its first submission to the UNFCCC following the Copenhagen summit, the United States stated, "the Copenhagen Accord is expressly operational and calls for work to be carried out in a number of areas that should be launched without delay. At the same time, we would welcome a further formalization of the Accord in Mexico" (UNFCCC 2010).

Others see it more as a political declaration, pieces of which can be incorporated into the existing UNFCCC negotiations on an ad hoc basis. China, for example, submitted to the UNFCCC that "the political agreement in the Copenhagen Accord may be considered and where appropriate, be translated into texts that can be incorporated in the negotiating text" (UNFCCC 2010).

And some G-20 countries not included in the drafting of the Copenhagen Accord reject its validity as a document. Saudi Arabia, for example, has stated that "since the 'Copenhagen Accord has not been formally adopted, it has no legal status within the UNFCCC, and thus can't be used as basis or reference for further negotiations" (UNFCCC 2010).

As a result, there is significant risk that marrying climate change and the G-20 will end up introducing the acrimony of the UN negotiations into G-20 discussions rather than bringing the civility of the G-20 to climate change diplomacy. This is a risk worth taking to unlock the climate talks, as only a leaders' process can do, when conditions are ripe for a deal. But a premature foray into the negotiations could weaken the G-20's status and hamper progress on other critical issues on the group's agenda.

THE RIGHT TIME FOR THE G-20 TO WADE INTO THE CLIMATE DEBATE

In the months since Copenhagen, countries' negotiating positions have progressed little and in some cases even hardened. While the Copenhagen Accord salvaged what would have otherwise been a complete failure of a conference, the way it was negotiated—by a select group of countries convened by a chair (Denmark) seen by many parties as biased—has created an environment of distrust in the UNFCCC setting. Many developing countries involved in drafting the Accord have sought to downplay its importance and maintained a hard-line position in the UNFCCC talks. And domestic policy momentum in many developed countries has stalled or reversed, raising doubts about whether they will be able to fulfill their Copenhagen Accord commitments.⁴ Finally, core questions sidestepped in the Copenhagen Accord—whether the Kyoto Protocol continues or is replaced with a new treaty and who would be legally bound under such a new agreement—remain entirely unresolved.

At present the best case scenario for the upcoming 16th COP in Cancún is a set of very modest decisions laying the groundwork for a future agreement. This could include a set of guidelines for the new climate fund called for in the Copenhagen Accord, guidelines for developing countries for reporting their emissions and mitigation actions, and progress on forestry and technology cooperation. There is little value in asking leaders to push these low-level issues. Doing so would diminish the G-20's stature and ultimately prove fruitless if the broader disputes over the fate of the Kyoto Protocol and form of a new agreement end up preventing any tangible progress in Cancún, which is entirely possible. And given the current negotiating positions of the G-20's developing-country members and the state of domestic policy in developed-country members, the chances of a G-20-facilitated breakthrough on the broader issues are vanishingly small.

That said G-20 countries will be expected to at least touch on climate change during their November meeting in Seoul, which is about three weeks before the 16th COP in Cancún. The leaders should include time on the agenda for a frank discussion of the state of the negotiations and room in the communiqué for a paragraph calibrating public expectations for Cancún's outcome. There is also plenty of scope for leaders to use the existing G-20 agenda to make tangible progress in reducing global emissions, accelerating the deployment of clean energy technology, and mobilizing public and private finance for mitigation and adaptation, all in a way that sidesteps the politics of the negotiations. Five areas deserve particular attention and support.

4. Most notable is the United States, where in the run-up to Copenhagen the House of Representatives had passed economy-wide climate change legislation and the Senate was poised to do the same. As of September 2010, the Senate had abandoned work on an economy-wide bill due to unified Republican opposition, as well as a number of moderate Democrats as a result of persistent US economic weakness, increased public skepticism in climate change science and the November 2010 Congressional elections.

FOSSIL FUEL SUBSIDIES

In Pittsburgh, G-20 countries agreed to “phase out and rationalize over the medium term inefficient fossil fuel subsidies” (G-20 2009b). In Toronto, G-20 energy and finance ministers presented their plans for fulfilling this pledge. While encouraging, the reports highlighted how much work remains for the G-20 in this area (G-20 2010a).

A joint report prepared by the International Energy Agency, Oil and Petroleum Exporting Countries, Organization for Economic Cooperation and Development, and World Bank (IEA, OPEC, OECD, and World Bank 2010) for the G-20 ahead of the Toronto meeting estimates that nearly \$557 billion worth of fossil fuel consumption subsidies exist globally and that eliminating them would reduce carbon dioxide emissions by 6.9 percent in 2020 compared with business as usual. By comparison, the Copenhagen Accord mitigation commitments would reduce global emissions by 7 to 13 percent below business as usual (Houser 2010). And the OECD estimates the benefits of subsidy elimination would grow to a 10 percent reduction in global emissions below business as usual by 2050 (OECD 2009, 2010). In addition, the Global Subsidies Initiative estimates that an additional \$100 billion in fossil fuel subsidies exist on the producer side, the phase out of which would deliver additional emissions reduction gains (GSI 2009).

G-20 countries account for just under half of the IEA’s estimate of fossil fuel consumption subsidies globally (IEA 2010a). In Toronto, twelve G-20 countries offered strategies and timetables for rationalizing and phasing out fossil fuel subsidies, but only three countries included plans for consumption subsidies specifically: Argentina, Indonesia, and Mexico (Table 2). These three, while important sources of consumption subsidies based on the IEA’s price-gap analysis, account for only 24 percent of total G-20 consumption subsidies. In addition, their implementation strategies were limited to a subset of the total subsidies identified by the IEA. For example, Argentina pledged to phase out liquefied petroleum gas (LPG) subsidies as natural gas becomes more readily available, but the IEA estimates that natural gas accounts for more than half of Argentina’s consumption subsidies.

India, which accounts for 17 percent of the IEA’s estimated G-20 consumption subsidies, has established an Eminent Group of Ministers to recommend a strategy for rationalizing and phasing out inefficient petroleum consumption subsidies. India will presumably report to the G-20 once the strategy is developed, though Delhi has indicated that kerosene and LPG subsidies may not be covered.

Russia, which accounts for 20 percent of the IEA’s estimated G-20 consumption subsidies, has said that inefficient fossil fuel subsidies will be rationalized and phased out as part of its Energy Strategy 2030 and Concept of Long-Term Social and Economic Development till 2020 but hasn’t provided any specifics.

China, which accounts for 17 percent of the IEA’s estimated G-20 consumption subsidies, has neither identified any domestic consumption subsidies nor offered a plan for phasing them out. Saudi

Arabia and South Africa, which account for the remaining 22 percent of the IEA's estimate, have stated that they do not have any consumption subsidies.

For developed countries, fossil fuel subsidies generally exist on the production rather than consumption side. Estimates of the scale of production subsidies are much thinner than consumption subsidies. The Global Subsidies Initiative's estimate of \$100 billion is based on disparate country studies with varying methodologies (GSI 2009). The majority of production subsidies likely exist in developed countries. EarthWatch estimated that in 2003, US producer subsidies totaled \$37 billion to \$64 billion. Greenpeace estimated that in the late 1990s, EU production subsidies were greater than \$10 billion per year.

Among developed G-20 countries, Australia, France, Japan, and the United Kingdom denied the existence of inefficient fossil fuel subsidies in their countries, either on the consumption or production side. Canada, Germany, Italy, Korea, Russia, Turkey, and the United States all offered rationalization and phaseout plans for production subsidies of varying scope, ambition, and specificity. China also pledged to phase out one fossil fuel subsidy on the production side.

Recommendation

The disconnect between the IEA's estimate of the scale of global fossil fuel subsidies and the extent of current G-20 country plans for their rationalization and phaseout highlights just how much work the G-20 must still do to turn the Pittsburgh pledge into meaningful action. First, G-20 countries must close the gap in their respective definitions of what constitutes an "inefficient fossil fuel subsidy." On the consumption side, several G-20 countries disagree with the IEA's price-gap analysis, which compares domestic prices (controlled to transportation costs) to "international prices" and ascribes the difference to subsidization even if no direct fiscal transfer to the consumers or companies in question can be identified. This disagreement was highlighted in the IEA, OPEC, OECD, and World Bank (2010) joint report and explains why Saudi Arabia denies the existence of domestic fossil fuel subsidies, while the IEA estimates \$49 billion worth of Saudi subsidies in 2008.

The IEA estimates cover all subsidies, not just "inefficient" subsidies, which is the focus of the G-20 goal. Considerable work must also be done to develop a common definition and robust assessment of fossil fuel production subsidies, as these are more important for the G-20's developed-country members.

The mandate of the G-20 Energy Experts Group should be extended and expanded to attempt to address these definitional issues so that G-20 members can put forward a qualitative inventory of domestic subsidy policies that's consistent with quantitative assessments of the extent of subsidies in those countries. Only with commonly agreed definitions will the G-20 be able to monitor progress of

individual members in implementing their domestic strategies and assess the progress of the group in meeting its collective target.

In addition to tracking countries' domestic subsidy strategies, the G-20 should identify sectors where coordinated international action will allow for greater domestic ambition. For example, attempts to phase out subsidies to oil and gas producers in country X will likely face domestic resistance out of concerns that doing so unilaterally will only push production to other countries, making country X more dependent on imported oil. Coordinated action between G-20 countries would help address these concerns.

REFORM OF INTERNATIONAL FINANCIAL INSTITUTIONS

At the moment, most multilateral climate finance flows through the multilateral development banks (MDBs). Increasing MDB resources and reforming MDB governance have been mainstays of the G-20 agenda, in part because of the increased prominence of issues like climate change. In London, leaders pledged to “make the transition towards clean, innovative, resource efficient, low carbon technologies and infrastructure” and called upon the MDBs to “contribute fully to the achievement of this objective” (G-20 2009a).

Many MDBs have established specific funds to address climate change, but these account for a relatively small share of the overall MDB energy-related lending. For example, donor countries have committed a total of \$6.1 billion to capitalize the World Bank's Climate Investment Funds. Yet in 2009 alone, World Bank lending in climate-related sectors such as energy, water, agriculture, mining, and transportation totaled \$20 billion (World Bank 2010). When it comes to the rest of the MDB's energy portfolio, the views of board members differ considerably on what type of climate-related criteria to apply. This often results in highly contentious public disputes over whether the MDBs should fund specific projects given their environmental profile, rather than MDB staff receiving clear blanket guidance from their boards on which types of projects are acceptable and which aren't.

Recommendations

As part of the G-20's broader effort to modernize MDB governance, the group could play a useful role in establishing a more consistent framework for energy and environmental lending to avoid contentious and public debate on each project. The World Bank is currently developing a new Energy Strategy and Environment Strategy, both of which are intended to be completed in time for the Bank's spring 2011 board meeting. The G-20 could help advance this process during the Seoul summit and ensure that the group's call for a greater MDB role in combating climate change is translated into action.

EXITING STIMULUS

Coordinated fiscal expansion in the face of the worst economic crisis in a generation is perhaps the G-20's most important achievement thus far. And with energy and environmental issues gaining prominence on the domestic policy agendas in most G-20 countries, leaders pledged at the London summit to "make the best possible use of investment funded by fiscal stimulus programmes towards the goal of building a resilient, sustainable, and green recovery" (G-20 2009a). The bank HSBC estimates that 16 percent of G-20 countries' 2009 and 2010 stimulus spending went to climate-friendly projects (Table 3). This funding has been the dominant driver of domestic energy and climate policy in G-20 countries over the past two years and has pushed global clean energy research and development budgets to historic highs in 2009 after three decades of steady decline (Figure 1). As the G-20 turns its attention to fiscal consolidation, the global energy and environmental policy landscape will change considerably.

Recommendation

As the G-20 discusses when and how to end the current fiscal expansion, special attention should be paid to energy and environmental spending. The G-20 has highlighted the importance of policy coordination as countries roll back stimulus programs. This is doubly true for climate-related stimulus programs. Clean energy is a global market, and firms will be able to achieve greater cost reductions if the largest markets (G-20 countries) can help provide economies of scale through policy coordination. And clean energy research dollars can go farther when programmed relative to what other large countries are doing. As a result, a coordinated transition from stimulus-driven energy and climate investment to long-term energy and climate policy will provide greater energy security, emissions reduction, and energy cost savings benefits than disparate action.

The G-20 has asked the International Monetary Fund (IMF) and Financial Stability Board (FSB) to review member countries' exit strategies and provide recommendations for coordination. A complementary process should be set up for energy and environmental stimulus spending. Countries should provide reports in Seoul on the outlook for domestic climate-related public investment, particularly in research and development, given their respective plans for fiscal consolidation. The G-20 should then task the newly formed Clean Energy Ministerial (which includes all G-20 countries save Turkey and Saudi Arabia), working in consultation with the IMF and the IEA, with developing recommendations for policy coordination in time for the 2011 summit. This effort could be coordinated through the G-20's Energy Experts Group.

OPEN MARKETS

One of the principal G-20 objectives following the global financial crisis was to guard against protectionism and support international trade and open markets. In Washington in 2008, leaders underscored

the “critical importance of rejecting protectionism and not turning inward in times of financial uncertainty” and pledged to “refrain from raising new barriers to investment or to trade in goods and services, imposing new export restrictions, or implementing World Trade Organization (WTO) inconsistent measures to stimulate exports” during the following 12 months (G-20 2008).

Fiscal expansion in G-20 countries following the Washington summit, however, was accompanied by a suite of trade policies that violated this pledge, not least in the energy and environmental space. The financial crisis coupled with growing public skepticism in several countries about the science of climate change has made industrial policy and job creation more important political drivers of clean energy deployment in most parts of the world than energy security or environmental concerns. As a result, there is strong political pressure in many countries to ensure that taxpayer funding for clean energy deployment goes exclusively to domestic clean technology companies. And while discriminatory trade policies tied to stimulus dollars will fade as countries transition to fiscal consolidation, this emerging “space race” framing of the energy and climate challenge will ensure that protectionism will remain an issue in energy and climate policymaking for years to come.

Poorly managed, this trend could raise the cost of clean energy technology for all countries and hamper efforts to address climate change. Globalization of clean energy supply chains has the potential to significantly reduce technology costs, which in turn will mitigate the economic impact of a transition to a low-carbon economy. But concern over jobs losses in the clean energy products and services where individual countries are not competitive and uncertainty about foreign markets for the products and services in which they are many governments opting for a strategy of home-market protection, which results in either higher energy prices or lower levels of clean energy deployment. Making open markets consistent with countries’ domestic clean energy-related economic and employment goals requires a new framework for international trade and investment in the energy and environmental space.

Recommendation

In Seoul, the G-20 should set out to develop a Green Trade and Investment Framework (GTIF). Such a framework would cover a full and balanced set of energy- and environment-related trade and investment issues in G-20 countries to create a level playing field in the development and deployment of affordable climate-friendly technology, including

- tariff barriers,
- clean energy technology production subsidies,
- local content requirements,
- intellectual property rights enforcement,
- codes and standards, and
- foreign investment approvals.

Many of these issues are currently being addressed in other forums, including the Doha Round. The GTIF would not replace these processes but rather be a nonbinding framework guiding the domestic policy of G-20 countries, which account for the majority of clean energy producers and consumers.

BALANCED GROWTH

In Washington, the G-20 identified global economic imbalances as contributing to the financial crisis, and emerging from the crisis with more balanced global growth has become a top G-20 agenda item. Success in implementing the Framework for Strong, Sustainable and Balanced Growth will have a significant impact on the world's energy and environmental future. The same economic imbalances that helped give rise to the crisis accelerated unsustainable patterns of global demand. Deficit countries built large homes and bought large cars fueled by cheap credit, increasing household energy consumption. Surplus countries overinvested in energy-intensive heavy industry and pursued an excessively resource-dependent pattern of urbanization and growth. Whereas the energy intensity of global economic growth decreased by 1.1 percent per year, on average, between 1971 and 2001, between 2001 and 2008, it decreased by less than half that amount due in large part to global imbalances (IEA 2010d).

Recommendations

The G-20 has asked the IMF for assistance in reviewing the policies of member countries in terms of their relationship to each other and consistency in achieving the G-20's balanced growth objectives. In Seoul, the G-20 should expand this effort to analysis of the energy and environmental impact of G-20 countries' macroeconomic policies, both individually and when combined with G-20 country policies as a whole. The IMF could enlist the IEA's analytical support in this exercise and provide a joint report to the G-20 at the 2011 summit. This would not only help build political support for the rebalancing agenda but it also highlight the most effective rebalancing policies from an energy and environmental perspective.

CONCLUSION

While the G-20 may appear to be an attractive alternative to the unwieldy UNFCCC process for advancing international cooperation on climate change, it is certainly no silver bullet for unlocking climate talks. Vulnerable countries would need to be represented in some capacity at the G-20 for any agreement to have any credibility outside the group, and the climate agenda would need to be approached in a balanced manner (e.g., giving equal attention to transparency and climate finance) to avoid inadvertently hampering progress in official climate talks. Even if the G-20 were able to meet these two tests, the group is unlikely to be able to achieve a breakthrough on the most important issues in the negotiations at present because of stark differences in the positions of G-20 countries and the state of domestic policy in some key

countries. While there may well be a time when a leaders' process like the G-20 is exactly what's needed to unlock climate talks, given the significance and scope of the issues at hand, that time is not now.

There is much, however, that the G-20 can do to contribute to the goals of the climate change negotiations outside of wading into the negotiations themselves. Building on its existing agenda the G-20 has the power to significantly reduce global greenhouse gas emissions, accelerate the deployment of clean energy technology, and help vulnerable countries adapt to a warmer world through the mobilization of public and private finance. Following through on the existing G-20 pledge to phase out and rationalize inefficient fossil fuel subsidies, establishing new green guidelines for multilateral development banks, coordinating green stimulus exit strategies, promoting open markets for environmental goods and services, and rebalancing global economic growth all fall well within the G-20's mandate and help meet the climate challenge.

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Table 1 The G-20's carbon footprint, 2005

Country/region	Annex I	Annual emissions (million tons of CO ₂ e)	Population (millions)	Per capita emissions (tons of CO ₂ e per person)
Argentina	No	349.5	38.7	9.0
Australia	Yes	559.0	20.4	27.4
Brazil	No	2,841.9	186.8	15.2
Canada	Yes	803.8	32.3	24.9
China	No	7,187.0	1,304.5	5.5
European Union	Yes	5,049.2	490.0	10.3
France	Yes	548.6	61.4	8.9
Germany	Yes	975.2	82.4	11.8
Italy	Yes	562.4	58.9	9.5
United Kingdom	Yes	645.3	60.6	10.6
India	No	1,866.1	1,094.6	1.7
Indonesia	No	2,041.9	220.6	9.3
Japan	Yes	1,356.2	127.8	10.6
Korea	No	568.7	48.3	11.8
Mexico	No	683.4	103.1	6.6
Russia	Yes	2,005.4	143.2	14.0
Saudi Arabia	No	376.6	23.1	16.3
South Africa	No	422.8	46.9	9.0
Turkey	No	424.6	72.1	5.9
United States	Yes	6,814.3	296.5	23.0
G-20 total		36,081.9	4,512.1	8.0
Global total		43,189.8	6,538.2	6.6

Note: Emissions include land-use change.

Source: World Resources Institute, Climate Analysis Indicators Tool (CAIT) database, <http://cait.wri.org>.

Table 2 Fossil fuel consumption and production subsidies in the G-20 countries

Country/region	Billions of dollars in 2008 (International Energy Agency price-gap analysis)	Consumption subsidies		Production subsidies	
		G-20 implementation strategy	Total global production subsidies	G-20 implementation strategy	Total global production subsidies
Argentina	18	Reduce household subsidy for propane gas consumption as natural gas access is expanded.	The Global Subsidies Initiative (GSI) estimates global producer subsidies total \$100 billion per year. EarthTrack estimated US producer subsidies in 2003 were between \$37 billion and \$64 billion. Greenpeace estimated EU producer subsidies in the late 1990s were over \$10 billion per year.	No inefficient fossil fuel subsidies	No inefficient fossil fuel subsidies
Australia		No inefficient fossil fuel subsidies		No inefficient fossil fuel subsidies	Proposes to implement recently released draft legislation to phase out the accelerated capital cost allowance for oil sands assets over the 2011–15 period.
Brazil		No inefficient fossil fuel subsidies		No inefficient fossil fuel subsidies	Proposes to gradually reduce the urban land use tax relief for fossil fuel producers.
Canada					
China	43				
European Union					
France		No inefficient fossil fuel subsidies		No inefficient fossil fuel subsidies	Proposes to discontinue subsidized coal mining in a socially acceptable manner by the end of 2018.
Germany					
Italy					Proposes to continue with planned expiration of subsidy for certain cogeneration plants, and negotiate on a voluntary basis with private operators of these plants on the timing of their access from the subsidy scheme.
United Kingdom		No inefficient fossil fuel subsidies		No inefficient fossil fuel subsidies	No inefficient fossil fuel subsidies
India	43	Proposes to work out implementation strategies and timetables for rationalizing and phasing out inefficient fossil fuel subsidies based on the recommendation of the Empowered Group of Ministers.			
Indonesia	21	Proposes to phase out inefficient fossil fuel subsidies in a gradual manner in parallel with managing the demand side.			
Japan		No inefficient fossil fuel subsidies		No inefficient fossil fuel subsidies	Proposes to phase out subsidies to anthracite coal and briquette producers.
Korea	0.5				
Mexico	23	By continuing current policies and based on current market conditions, subsidies to gasoline, diesel, and liquefied petroleum gas are expected to disappear in the medium term.			
Russia	52	Proposes to implement the commitment to rationalize and phase out inefficient fossil fuel subsidies through national economic and energy policy.			
Saudi Arabia	49	No inefficient fossil fuel subsidies		No inefficient fossil fuel subsidies	No inefficient fossil fuel subsidies
South Africa	7	No inefficient fossil fuel subsidies		No inefficient fossil fuel subsidies	Proposes to work on a restructuring plan to rationalize the inefficient producer subsidies transferred to a state-owned hard coal producing enterprise.
Turkey					
United States					Proposes to pass legislation to eliminate 12 preferential tax provisions related to the production of coal, oil, and natural gas.
Global total	557				

100

557

Sources: G-20 (2010b); IEA, OPEC, OECD, and World Bank (2010); IEA (2010a); GSI (2009).

Table 3 Green investment in global economic stimulus plans

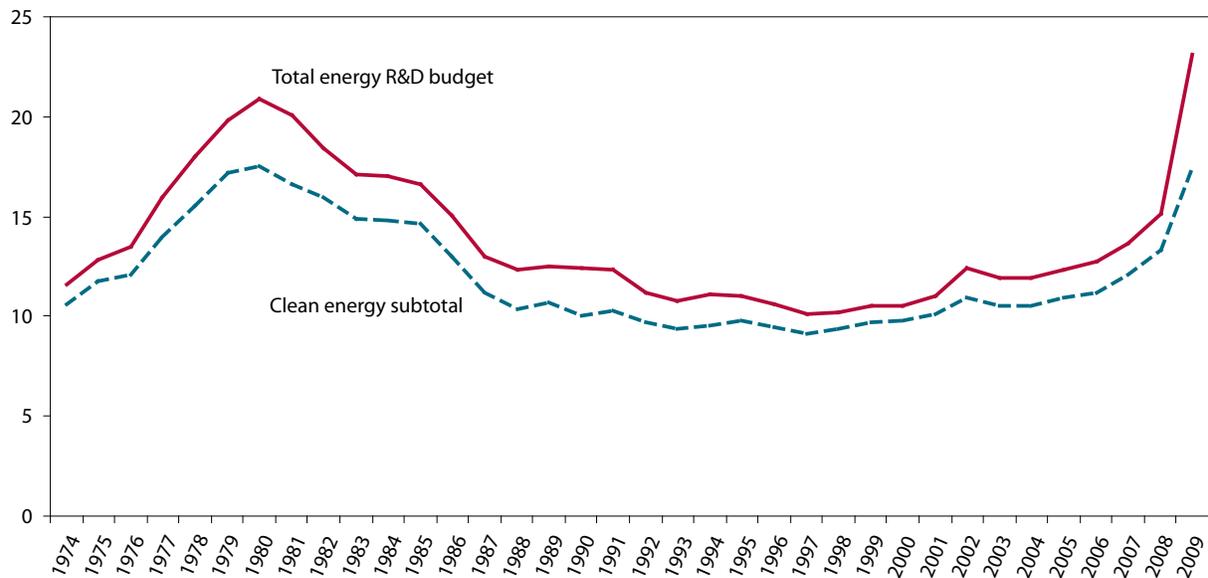
Country	Package	Announcement date	Total spending (billions of US dollars)	Period (years)	Green spending (billions of US dollars)	Percent green
Argentina	n.a.					
Australia	National Building and Jobs Plan Budget 2009–20	February 3, 2009 May 12, 2009	26.7 17.1	2009–12 2009–13	2.5 6.8	9.3 39.8
Brazil	n.a.					
Canada	Economic Action Plan	January 27, 2009	31.8	2009–13	2.8	8.7
China	National Development and Reform Commission (NDRC) Stimulus Budget 2009	November 9, 2008 March 6, 2009	586.1 63.0	2009–10 2009	200.8 17.2	34.3 27.3
European Union	Economic Recovery Plan	November 26, 2008	38.8	2009–10	24.7	63.7
France	Revival Plan	December 10, 2008	33.7	2009–10	6.1	18.3
Germany	Stimulus Plan	November 5, 2008	104.8	2009–10	13.8	13.2
Italy	Emergency Package	November 28, 2008	103.5	2009 onwards	1.3	1.3
Spain	Stimulus Package	November 27, 2008	14.2	2009	0.8	5.8
United Kingdom	Budget 2009	April 22, 2009	34.9	2009–11	5.2	15.0
Other EU states	Stimulus Package	January 9, 2009	207.1	2009–10	3.2	1.5
Indonesia	Stimulus Plan	January 28, 2009	5.9	2009	0.1	1.6
Japan	Stimulus 2008 Stimulus 2009	December 19, 2008 April 10, 2009	485.9 154.0	2009 onwards 2009 onwards	12.4 23.6	2.6 15.3
Korea	Second Budget Green New Deal	December 8, 2009 January 6, 2009	72.0 76.1	2010 2009–12	7.2 59.9	10.0 78.8
Mexico	Aggr for Home Economic Emp	January 7, 2009	7.7	2009	0.8	9.7
Russia	n.a.					
Saudia Arabia	Budget 2009	December 23, 2009	126.8	2009	9.5	7.5
South Africa	Budget 2009–10	February 11, 2009	7.5	2009–11	0.8	9.4
Turkey	n.a.					
United States	Emergency Economic Stabilization Act (EESA) American Recovery and Reinvestment Act of 2009 (ARRA) Budget 2010 ^a	October 3, 2008 January 15, 2009 March 1, 2009	185.0 787.0 4.9	10 years 10 years 2010	18.7 94.1 4.9	10.1 12.0 —
Total			3,202.0		521.0	16.3

a. Includes only additional spending.

Sources: HSBC (2010); IEA (2010b).

Figure 1 International Energy Agency member energy R&D budgets, 1974–2009

billions of 2009 US dollars



Source: IEA (2010c).