



CIGI PAPERS
NO. 26 — MARCH 2014

INSTITUTIONAL ARRANGEMENTS FOR CLIMATE FINANCE

JESSICA BOYLE, DAVID RUNNALLS AND DAVE SAWYER



**INSTITUTIONAL ARRANGEMENTS
FOR CLIMATE FINANCE**

Jessica Boyle, David Runnalls and Dave Sawyer

The opinions expressed in this publication are those of the authors and do not necessarily reflect the views of The Centre for International Governance Innovation or its Operating Board of Directors or International Board of Governors.



This work is licensed under a Creative Commons Attribution — Non-commercial — No Derivatives License. To view this license, visit (www.creativecommons.org/licenses/by-nc-nd/3.0/). For re-use or distribution, please include this copyright notice.



TABLE OF CONTENTS

4	About the Authors
4	Acronyms
5	Executive Summary
5	Introduction
7	The Scale of the Challenge
8	Existing Climate Finance Flows
8	How Much, and from Where?
10	Where Is It Going?
10	How Is It Governed?
10	Embedding Climate Finance in Development Objectives
12	Making the Best of What We Have in the Near Term
14	Country-driven, Bottom-up Is the New Top-down
16	Long-term Outlook — How to Get There from Here?
16	The Big Bang Approach
17	Conclusion
18	Works Cited
19	About CIGI
19	CIGI Masthead

ABOUT THE AUTHORS

Jessica Boyle currently serves as policy lead in support of a range of the Delphi Group's climate change and sustainability services. She helps clients navigate the complex policy and regulatory landscape, providing advisory and analytical support across various sectors and markets. Prior to Delphi, Jessica worked as a project manager and project officer with the Climate Change and Energy team at the International Institute for Sustainable Development (IISD). She also spent time as a Balsillie Fellow with CIGI and has worked for the Parliament of Canada. This paper was authored during Jessica's time at the IISD.

David Runnalls is a distinguished fellow and was formerly acting director of the Environment and Energy Program at CIGI. He also provided strategic advice and support for CIGI Chair Jim Balsillie's role at the United Nations High-level Panel on Global Sustainability. He remains a distinguished fellow at the IISD and a senior fellow at Sustainable Prosperity. David is chair of the International Centre for Trade and Sustainable Development.

Dave Sawyer is a leading environmental economist with a 22-year track record in solving policy challenges for sustainable development. He is an accomplished adviser, author and communicator with experience working with government and industry in Canada and around the world. Dave uses quantitative models and qualitative tools to help governments and industry to address strategic questions and weigh the trade-offs of policy options and scenarios designed to leverage investments for sustainability. He has held positions with Environment Canada, Canada's Commissioner of Environment and Sustainable Development, and leading Canadian consultancies. Most recently, he was the International Institute for Sustainable Development's vice president for climate, energy and partnerships, leading a team of 20 adaptation and mitigation specialists working on low carbon, climate resilient development globally.

ACRONYMS

AGF	High-level Advisory Group on Climate Change Financing (UN)
BRICS	Brazil, Russia, India, China and South Africa
CBDR	common but differentiated responsibility
CCAC	Climate and Clean Air Coalition
COP	Conference of the Parties
CPI	Climate Policy Initiative
G8	Group of Eight
G20	Group of Twenty
GCF	Green Climate Fund
GHG	greenhouse gas
ICIs	international cooperative initiatives
IEA	International Energy Agency
IFI	international financial institution
IMF	International Monetary Fund
IPCC	Intergovernmental Panel on Climate Change
LDCs	least developed countries
MDB	multilateral development bank
MDGs	millennium development goals
MEF	Major Economies Forum on Energy and Climate
OECD	Organisation for Economic Co-operation and Development
ppm	parts per million
REDD	Reducing Emissions from Deforestation and forest Degradation
SIDS	small island developing states
UNEP	United Nations Environment Programme
UNFCCC	UN Framework Convention on Climate Change

EXECUTIVE SUMMARY

The most recent report of the Intergovernmental Panel on Climate Change¹ (IPCC) is unequivocal about the magnitude of the challenge posed by man-made climate change. If the world is to avoid exceeding the 2°C average increase in temperature agreed by governments in Copenhagen as the maximum safe level, it needs to move quickly to facilitate the transition to a lower-carbon economy.

International negotiations through the UN Framework Convention on Climate Change (UNFCCC) have made little progress since the 2009 Copenhagen Conference of the Parties (COP). Hopes have been raised for the 2015 meeting planned for Paris, which is supposed to plan for the period after 2020. Meanwhile, there is lots of scurrying around over the composition of the new Green Climate Fund (GCF).

The realization is starting to dawn that climate change is not exclusively an environmental issue. In 2013, the head of the International Monetary Fund (IMF), the president of the World Bank and the Secretary-General of the Organisation for Economic Co-operation and Development (OECD) all pointed out that solving the climate problem ranks as the world's principal economic challenge. Estimates of the costs of dealing with climate change are all over the map, but there is a consensus that it will likely be between one and two percent of global GDP.

Although investments in alternative energy sources, energy efficiency and low-carbon transport have grown dramatically, they seem to have plateaued over the last two years at levels that are insufficient.

While a plethora of institutions have emerged to complement (or compete with) the UNFCCC and the idea of a "bottom-up" approach is all the rage, this paper argues that heads of state and government have to become seriously engaged before Paris. The UN Secretary-General has called a summit for later this year. The Group of Twenty (G20) has a role in mobilizing the necessary finance. The paper calls for a summit of private sector leaders, as well as governments, to identify the principal roadblocks that stand in the way of what must be the greatest investment opportunity of the twenty-first century.

¹ The IPCC was established in 1988 by the United Nations Environment Programme (UNEP) and the World Meteorological Organization.

INTRODUCTION

In May 2013, the world crossed a symbolic threshold when observed concentrations of the main atmosphere-warming greenhouse gas, CO₂, exceeded 400 parts per million for the first time. Understanding where the world stands in relation to its low-carbon and climate-resilient investment goals is a more urgent task than ever.

— Buchner et al. (2013, i)

The most recent report of the IPCC confirms not only that the scientific consensus on climate change is hardening, but there is little time left for dithering. This has been stated repeatedly by the International Energy Agency (IEA), whose rather formal language masks a state of alarm in a secretariat long known for its friendly relationships with the energy industry. Some IEA forecasts predict temperature increases far beyond even the most pessimistic previous scenarios.

The picture looks grim. It seems clear that the world must begin to slow the rate of growth of CO₂ emissions quickly, with action necessary well before 2020. This urgency has not been reflected in formal negotiations. The Paris COP in 2015 is charged with creating a framework for dealing with climate change after 2020, but all of the analyses point to the need for states to take action now. Attendees of numerous climate conferences have observed the stark difference between the vast majority of the world's climate scientists, who are increasingly alarmed by their findings, and the official climate negotiators, who work in a bubble under which the removal of square brackets and the addition of noncommittal paragraphs constitutes progress. It will surprise no one that the Warsaw Climate Change Conference in November 2013 proceeded down the same rat hole.

One of the main problems impeding climate negotiations is that responsibility for negotiations has largely been placed in the environment departments of governments, ministries with, in most countries, little political and economic power. While climate change is an environment issue, it is all about energy policy, which goes to the heart of all industrialized economies — and it must be highly relevant to those who make major economic decisions.

This paper argues that real progress will not be achieved until heads of state, governments and ministers of finance are prepared to see climate change as a major economic challenge. Because of the need to make progress soon, the COP to be held in Paris in 2015 is a critical turning point. The success of this meeting will require the involvement of finance ministries and heads of government at an early stage. The September 2014 Climate Summit, called by the

UN Secretary-General and to be held in New York, is the first step, if it is organized with care and is not just a show.

One of the suggestions made in this paper is that there is a role for the G20 and Group of Eight (G8) finance ministers. They should take the discussions over the US\$100 billion committed at the 2009 UN Climate Change Conference in Copenhagen to a more concrete stage. This issue will not move without their support.

The final suggestion is that a high-level meeting among those concerned with private finance for combatting climate change should take place. It could be co-hosted by the heads of the IMF and the World Bank, along with the executive director of the World Economic Forum, and would seek to identify the barriers to increasing private investment and the opportunities presented by the transition to a low-carbon economy.

A year ago, such recommendations would have seemed unrealistic. But there is reason to believe that 2013 might have been a turning point. The heads of the three major international economic institutions addressed the problem early in the year.

In her main statement to the World Economic Forum in Davos, Switzerland in January 2013, IMF Managing Director Christine Lagarde stated that “the real wild card in the pack” of economic pivot points is “increasing vulnerability from resource scarcity and climate change, with the potential for major social and economic disruption.” She called climate change “the greatest economic challenge of the 21st century.” Lagarde went on to say that without firm action, future generations will be “roasted, toasted, fried and grilled” (quoted in Romm 2013).

Following Lagarde to the podium was the Jim Yong Kim, president of the World Bank, who said, “If there is no action on climate change, the future will be bleak” (quoted in Romm 2013). He went on to say the following at this year’s Davos meeting: “This is the year to take action on climate change. There are no more excuses. If we fail, our children and grandchildren will ask us why we didn’t act when it was still possible to do so. We need leaders who are not thinking about short-term returns or election cycles. We need leaders who are thinking foremost about taking care of the most vulnerable in this generation and the generations ahead” (Kim 2014).

In an address to the London School of Economics, the Secretary-General of the OECD Angel Gurría said the world would pay a steep price if OECD member countries did not move to zero emissions of CO₂ by the middle of this century (Reed 2013).

While the Copenhagen Climate Conference may well have been a failure in most aspects, it did force heads of governments to finally come to grips with the need to

provide financing to developing countries to help them both mitigate their emissions and adapt to the changes resulting from climate change. In a fairly short time period, they committed themselves to the target of holding emissions to 450 parts per million (ppm), or an average temperature increase of 2°C). They agreed to set targets for their own emissions, and they agreed to a significant financial commitment to developing countries known as fast-start financing. The US\$30 billion fast-start financing was accompanied by the famous “fuzzy” pledge to make US\$100 billion available annually from 2020. When the heads of government are presented with the problem, they are capable of making decisions.

Many members of national security establishments share the feeling that addressing climate change is of great importance. In March 2013, Admiral Samuel J. Locklear III, the commander of the US Pacific Command, told security and foreign policy specialists that global climate change was the greatest threat the United States faced — more dangerous than terrorism, Chinese hackers and North Korean nuclear missiles, with upheaval from increased temperatures, rising seas and radical destabilization “probably the most likely thing that is going to happen” (Scranton 2013).

Locklear is not alone. In March 2013, for the first time, Director of US National Intelligence James R. Clapper listed “competition and scarcity involving natural resources” as a national security threat on a par with global terrorism, cyberwar and nuclear proliferation (United Press International 2013).

Building on 35 years of thinking about sustainable development, there is now a good sense of what needs to be done (and how it *could* be paid for). Yet, the response up until now has been largely dominated by inertia, and insufficient and uncoordinated approaches. Countless questions are being asked about how to get where we need to go from here; however, a plethora of weak, uncoordinated, underfunded institutions are vying with each other, like needy children, for centre stage in the climate financing theatre.

Since Copenhagen, a cottage industry has grown up around the concept of “climate finance.” How should it be defined and measured? How can donors be held accountable? What portion of the funding will come from the private sector? How much of it will be “additional” and what is an appropriate definition of “incremental”? Again, much of the negotiation over the governance and operation of the UNFCCC’s GCF and much of the discussion in the side events at Warsaw was devoted to these questions, which were explored in minute detail. This is not to say that institutional reform is not needed or that the new GCF should not be properly funded and operational in the near future. This paper makes some recommendations for the future operation of the fund as

well as some recommendations for better coordination at the international financial institution (IFI) level, as well as the need for national initiatives to guide investment decisions.

All of these efforts at institutional engineering will fall woefully short of what is required without the kind of high-level involvement mentioned earlier. Focussing exclusively on reforming existing institutions draws attention away from the sheer scale of the challenges the world faces if it genuinely wants to keep emissions below 450 ppm — a task many experts feel is impossible.

THE SCALE OF THE CHALLENGE

The IPCC has released the Summary for Policymakers of the science chapter of its fifth assessment report. It makes for sobering reading. The panel, which shared the Nobel Prize with former US Vice President Al Gore, is composed of several thousand scientists. Their job is to review the scientific literature on issues surrounding climate change and to give their best judgment on likely outcomes. The first report was issued in 1991. The scientists conclude:

- “Warming of the climate system is unequivocal, and since the 1950s, many of the observed changes are unprecedented over decades to millennia. The atmosphere and ocean have warmed, the amounts of snow and ice have diminished, sea level has risen, and the concentrations of greenhouse gases have increased” (IPCC 2013, 2).
- “Each of the last three decades has been successively warmer at the Earth’s surface than any preceding decade since 1850....In the Northern Hemisphere, 1983–2012 was *likely* the warmest 30-year period of the last 1400 years” (ibid., 3).
- “Over the last two decades, the Greenland and Antarctic ice sheets have been losing mass, glaciers have continued to shrink almost worldwide, and Arctic sea ice and Northern Hemisphere spring snow cover have continued to decrease in extent” (ibid., 7).
- “The atmospheric concentrations of carbon dioxide, methane, and nitrous oxide have increased to levels unprecedented in at least the last 800,000 years. Carbon dioxide concentrations have increased by 40% since pre-industrial times, primarily from fossil fuel emissions and secondarily from net land use change emissions. The ocean has absorbed about 30% of the emitted anthropogenic carbon dioxide, causing ocean acidification” (ibid., 9).
- “Human influence on the climate system is clear. This is evident from the increasing greenhouse gas concentrations in the atmosphere, positive radiative

forcing, observed warming, and understanding of the climate system” (ibid., 13).

- “Continued emissions of greenhouse gases will cause further warming and changes in all components of the climate system. Limiting climate change will require substantial and sustained reductions of greenhouse gas emissions” (ibid., 17).
- “Global surface temperature change for the end of the 21st century is *likely* to exceed 1.5°C relative to 1850 to 1900 for all” of the IPCC scenarios but one. “It is *likely* to exceed 2°C” for two of the IPCC scenarios, “and *more likely than not* to exceed 2°C” for another. “Warming will continue to exhibit interannual-to-decadal variability and will not be regionally uniform” (ibid., 18).
- “Cumulative emissions of CO₂ largely determine global mean surface warming by the late 21st century and beyond....Most aspects of climate change will persist for many centuries even if emissions of CO₂ are stopped. This represents a substantial multi-century climate change commitment created by past, present and future emissions of CO₂” (ibid., 25).

Note that even the IPCC is skeptical that the Copenhagen goal of limiting temperature increases to 2°C is achievable. Action will be needed now to meet that target, and the costs of taking that action will be substantial:

- The IEA has projected that in order to limit global average temperature rise to below 2°C, the incremental investment in the energy sector alone would need to reach US\$36 trillion over the period 2012–2050 (IEA 2012).
- A World Bank study, *Economics of Adaptation to Climate Change*, concluded that the cost to developing countries of adapting to climate change could reach US\$70–100 billion a year between 2010 and 2050 (World Bank 2010).
- In 2010, the UN Secretary-General’s High-level Advisory Group on Climate Change Financing (AGF) concurred with the Copenhagen Accord that likely needs will equate to about US\$100 billion per year, equally divided between mitigation and adaptation (AGF 2010, 3).
- The international consulting group McKinsey has estimated the incremental investment by 2030 could reach US\$695 billion (Olbrisch et al. 2013, 36).
- Project Catalyst estimated that incremental financing of about US\$60 billion per year by 2020 would be required to support policies and catalyze green growth that delivers a 2°C pathway (Project Catalyst 2010).

- The UNFCCC estimates that US\$177 billion annually in incremental investment is required by 2030 (Olbrisch et al. 2013, 36).

With current financing levels so far off what is needed, the question becomes: how and through what means do we achieve “scaled-up” climate finance to the point where the shift begins toward low-carbon, climate-resilient development?

This paper argues that climate finance needs to be approached from a “top-down” involvement of high-level decision makers and a simultaneous “bottom-up” approach to the reform some of the existing institutions.

Relying upon the UNFCCC process exclusively will not lead to a successful conclusion. In fact, there is already a substantial mix of national and international institutions involved in the search for solutions. As Keohane and Victor point out as early as 2010, there is a “Regime Complex for Climate Change.” They point out that the diversity of these institutions is a strength, rather than a weakness.

The paper also argues that an excessive focus on climate finance per se would distract attention from the other critical needs of developing countries, particularly in dealing with the food, water and energy nexus. While the concept of green growth as promoted by the OECD and the UNEP, as well as many prominent economists, carries its own baggage in some developing countries, there is an urgent need to shift the development conversation in that direction in order to accommodate climate policies within development strategies.

EXISTING CLIMATE FINANCE FLOWS

A plethora of policies, mechanisms, tools and governance frameworks directly (or indirectly) related to climate finance has emerged since Copenhagen. Much has been written about the Copenhagen fast-start finance commitments. The focus is now on the emerging GCF, and unlocking the loosely defined US\$100 billion in climate financing committed to in Copenhagen. But this focus on the UNFCCC “COP agenda” ignores the state-of-play in climate finance, where numerous channels of financing are being leveraged from overseas development assistance, developing countries themselves, private sector actors, the IFIs and civil society.

Despite significant time and resources aligned to track and measure global climate finance flows, the picture remains complex and opaque. This is, in part, because there is still no agreed upon definition as to what actually constitutes climate finance. Various donors, project implementers and academics all adopt their own definitions and

methodologies, in some cases making it doubly difficult to trace flows, let alone trends and impacts over time.²

While overemphasis on definitions and exact amounts can detract from more critical issues, it is still useful (and necessary) to understand the current landscape of finance. These trends are indicative of the current baseline and, importantly, how scale up and leveraging can happen on a scope and scale that aligns with longer-term climate change and development aspirations.

The trends in the current levels of flows, key sources, governance arrangements, uses and recipients are briefly considered before turning to the latter questions of scale up.

HOW MUCH, AND FROM WHERE?

The most comprehensive estimates find that global investment in climate change plateaued at US\$359 billion in 2012, roughly the same as the previous year (Buchner et al. 2013).³

Leveraged, in part, by the 2009 fast-start finance commitments, these amounts likely represent a substantial increase in global flows of climate finance in recent years; however, since efforts to track climate finance flows only began in earnest around 2009, it is extremely difficult to get a clear picture of flows prior to that, and the magnitude by which flows have increased is unknown.

A number of key dynamics characterize the current landscape and are worth noting here. First, it is clear that the 2013 findings of the Buchner et al. CPI report infer stagnation in overall amounts between 2011 and 2012. While it is impossible to draw definitive conclusions based on the short time frame, it does lead one to infer that, at best, climate finance scale up is not on a trajectory aligned with needs.

This leads to a second important dynamic to consider, namely the role of the private sector. Figure 1 shows that to date, significant flows have come from the private sector, which accounts for 62 percent of the overall climate finance flows, or US\$224 billion (2011-2012) (Buchner et al. 2013, 6). Of course, the close relationship between the public and private sector and, in particular, the role of the

2 See, for example, Nakhooda et al. (2013).

3 Note that the definition of climate finance used by the Climate Policy Initiative (CPI) is as follows: “finance flows [are limited] to ‘climate-specific finance,’ referring specifically to capital flows targeting low-carbon and climate-resilient development. It can have direct or indirect greenhouse gas mitigation or adaptation objectives/outcomes.” Note that “climate-specific finance excludes a broader set of capital from developed to developing countries that may influence, directly or indirectly, emissions and/or vulnerability to climate change in developing countries, and which is typically referred to as ‘climate-relevant’ finance” (Buchner et al. 2013, 2).

public sector in catalyzing the scale up of private sector investment cannot be ignored here.

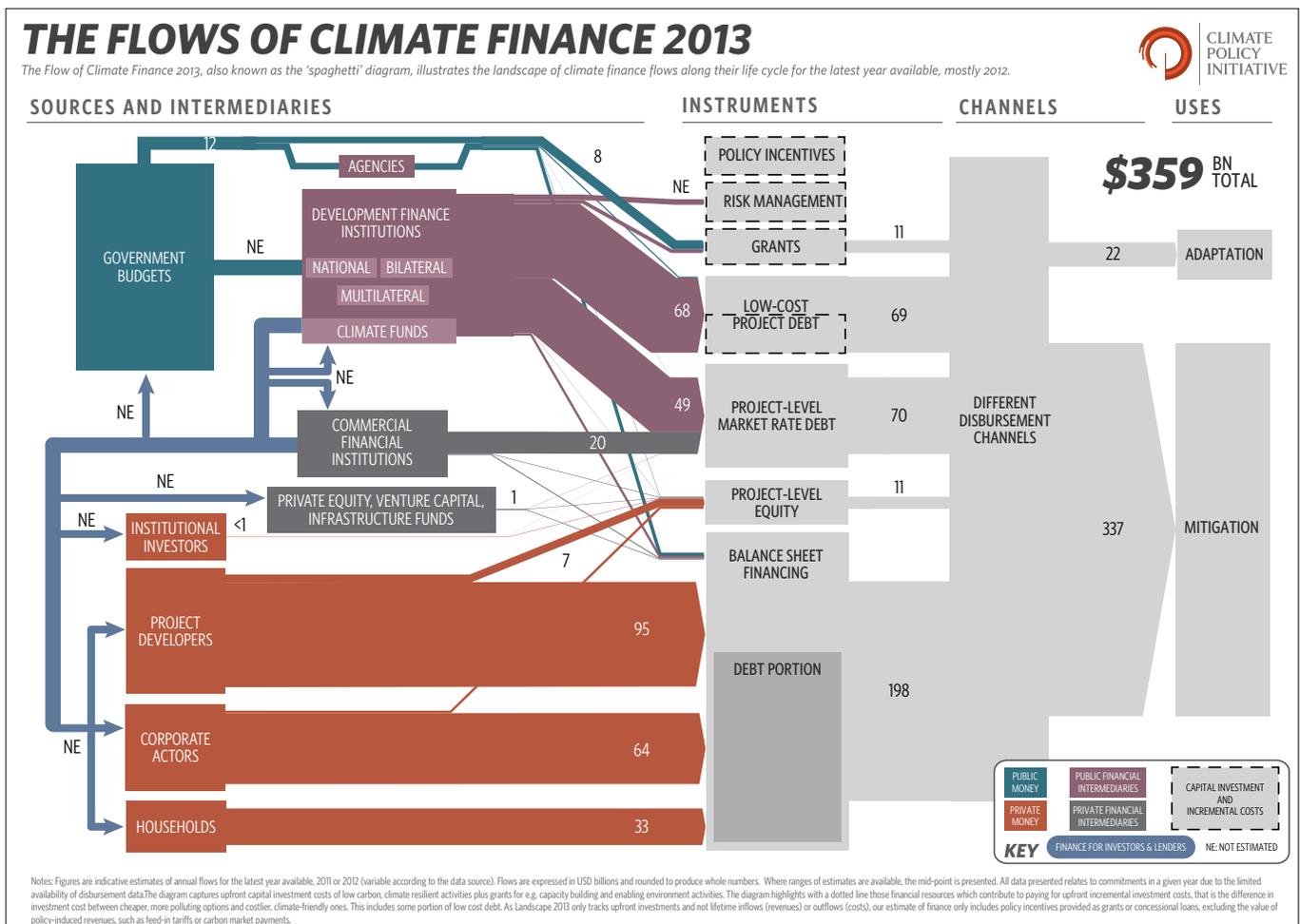
Finally, given the proportion of private sector finance, it is perhaps not surprising that the lion's share of finance is currently flowing to mitigation activities, particularly in (or by) OECD countries,⁴ but the extent of the imbalance may come as a surprise to some. According to the CPI, 94 percent of overall flows are currently directed toward mitigation activities, with only six percent going toward adaptation (ibid., 13). CPI data also finds that public sources account for 100 percent of adaptation finance, clearly showing the

limited role for the private sector in this area. Even within the dedicated climate funds provided mainly by donor countries, the share of funding going toward adaptation is estimated at less than 20 percent (Climate Funds Update 2013). This comes despite the political commitment by developed countries at the Copenhagen conference to a balanced allocation between mitigation and adaptation.

This is grim news for the least developed countries (LDCs), as well as the small island developing states (SIDS), that will be most severely impacted by climate change. Since they are small emitters of CO₂, they will receive a very small proportion of the mitigation funds, yet their needs for financing to help them to adapt to changes will be substantial.

4 See Figure 5 on page 14 of Buchner et al. (2013) for further details.

Figure 1: The Flows of Climate Finance 2013



Source: Buchner et al. (2013, 7).

WHERE IS IT GOING?

The most recent CPI report finds that 76 percent of all climate finance is spent entirely within countries' own borders. Of the US\$218 billion estimated to be sourced in OECD countries, 40 percent is spent within those countries, and just 15 percent flows from OECD countries to non-OECD countries (Buchner et al. 2013).

For non-OECD countries, although the scale is smaller, the picture is not dissimilar, with 36 percent of an estimated US\$141 billion sourced in non-OECD countries spent by those countries entirely within their own borders. The majority is concentrated in a small number of key emerging economies (such as China, India, South Africa and Brazil). Taken together, these findings are indicative of several important trends, two of which warrant particular attention here. One is that private flows will follow the "path of least resistance" and that perceptions of risk and the presence of supportive investment environments play a significant role in determining where large-scale climate investments will flow. And transnational corporations will tend to invest in countries where they already have a strong and stable presence. Second, the role of non-OECD countries as both recipients and sources of finance signifies the growing importance of national planning processes and domestic fiscal tools, which are needed not only to provide a "hook" for international flows, but also to help further catalyze and direct flows to align with domestic priorities.

These same trends are of concern for many developing countries, which risk being left even further behind as the private flows grow in importance. Current imbalances and inequities are challenging for a number of reasons, not least of which is the fact that many national governments (including many in developing countries) are facing fiscal crunches, and public funds will fall short of the likely scale required.

LDCs and SIDS face a particularly acute challenge, as mitigation opportunities are limited: private sector investment is hindered by scale as well as by a number of long-standing risk factors and lack of overall enabling environments. The argument is often made that those most vulnerable to the impacts of climate change have the least number of tools at their disposal (and least amount of financing) to address it.

One of the most intractable dilemmas of the whole climate change discussion is that the countries that are members of the G20 emit well over 85 percent of the world's emissions. While it is critical to focus resources in these countries, where a shift to low-carbon, climate-resilient trajectories is likely to have the biggest bang for one's buck, the rest of the world runs the risk of benefitting little or not at all from the climate capital boom. In fact, many LDCs and SIDS argue that their own situations will worsen, not

only because of the effects of climate change, but also from the fact that existing aid flows may well be diverted to the middle-income countries' mitigation plans. This is another argument for redefining development and not just focussing on climate.

HOW IS IT GOVERNED?

As Figure 1 highlights, at present, climate finance flows are a complex web of sources, decision-making frameworks, intermediaries, implementing bodies, market mechanisms and tools. This becomes even more complex when disbursement modalities are considered. Figure 2 provides another picture of the various actors involved.

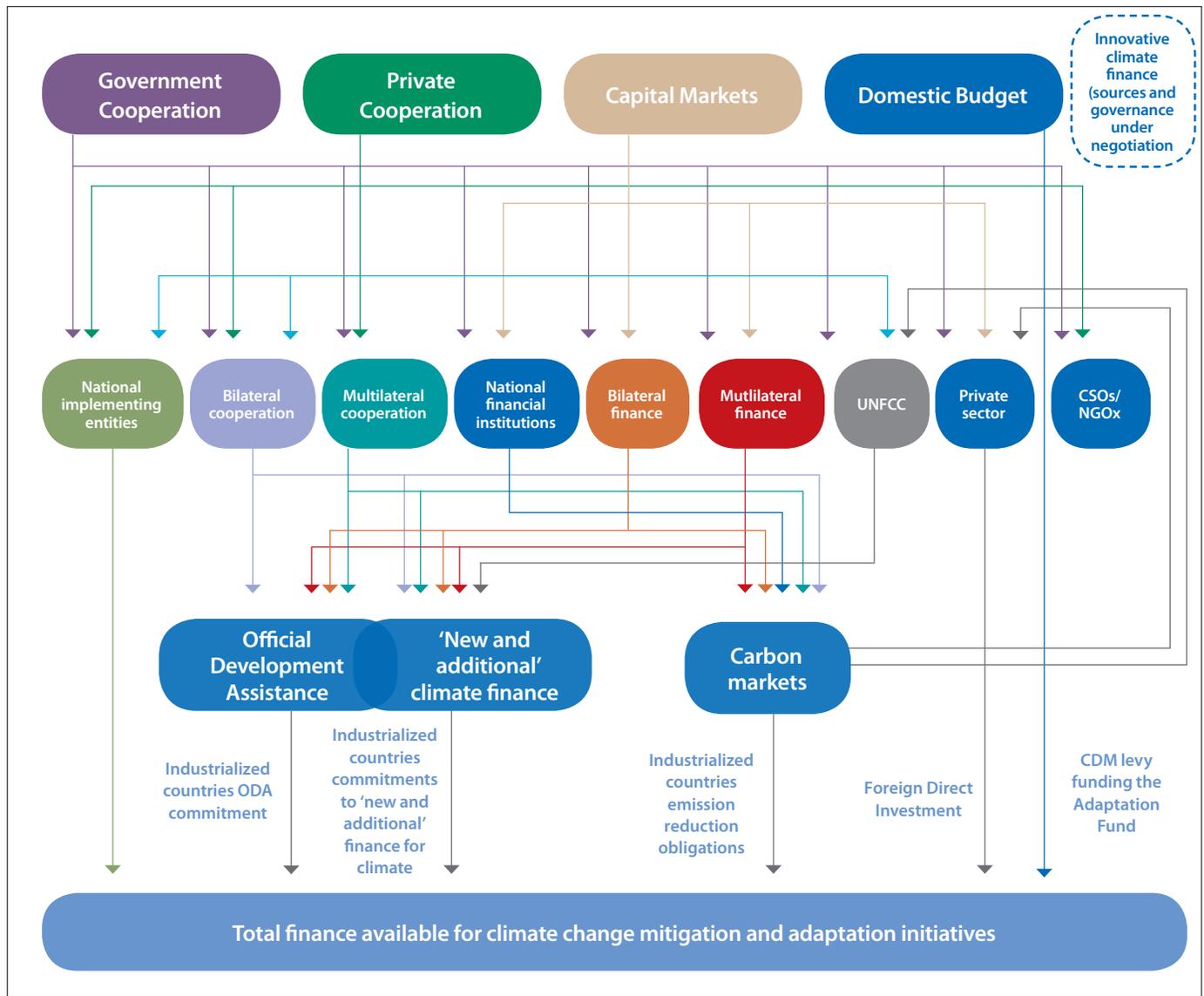
Given this landscape, it is not realistic to expect strong, spontaneous coherence or coordination between or among the key actors. In most cases, approaches, capacity, supply-demand dynamics and the like vary so greatly that efforts to achieve strong consistency or coherence across the map have been sporadic at best. At their core, climate finance activities (as with broader efforts to achieve low-carbon, climate-resilient development) are context-specific and likely to be nationally driven moving forward. Also, many of the existing agencies find that climate finance provides them with a new *raison d'être* at a time when many of their traditional functions are winding down. They are reluctant to relinquish this new role to a coordinating body.

Within this reality, there are various ways in which more effective governance at all levels can help guide the transition internationally, incentivize scaled-up action and better leverage tools across sectors, regions and approaches. The principal donors can exert pressure on the agencies to be more collaborative. Recipient governments can develop comprehensive development plans that include both mitigation and adaptation actions preparatory to dealing with the donor institutions. Capacity building is often recommended as a substitute for real action, but here is a case where it is badly needed. Developing countries are required to develop nationally appropriate mitigation actions, as well as adaptation strategies as a precondition for assistance. Many countries are struggling to produce such plans and need help to develop them, along with their own strategies for green growth.

EMBEDDING CLIMATE FINANCE IN DEVELOPMENT OBJECTIVES

A significant amount of finance has been mobilized to address climate change in both developed and developing countries, and a myriad of institutions, actors and tools has been developed or applied to help meet the challenge. However, the elephant in the room is the fact that, based on best estimates from various international institutions, current levels of finance remain woefully inadequate to

Figure 2: Existing Climate Change Finance Flows



Source: Vandeweerd, Glemarec and Billett (2012, 3).

meet both current and projected future mitigation and adaptation

In the short term, answering this question requires the politically difficult though ecologically necessary task of overcoming perennial debates around historical responsibility, and common but differentiated responsibility (CBDR) to help ensure that a future international climate change agreement is not only reached, but stimulates significant bottom-up action. It also requires taking a pragmatic yet innovative look at how the existing international institutions (such as multilateral development banks [MDBs]) can improve in both efficiency and effectiveness, and what role the GCF could play in the governance of future international finance flows.

Creative thought about how to bring private capital into the mix in much greater quantities is also needed. In the medium term, there should be efforts to integrate the important work of international financial reform with the need to make low-carbon investments far more attractive to pools of private capital. In essence, this means a fundamental rethink of the governance structures that perpetuate unsustainable economies.

The private sector thinks differently about the transition to a low-carbon economy than do most public authorities. Many companies see an opportunities agenda. The market for clean energy is already growing rapidly in both developed and developing countries. Removing many of the remaining obstacles to private investment in the energy industry, for example, would mobilize far more private capital. The need to refocus away from climate

management as “least cost mitigation and adaptation” toward economic opportunity is becoming increasingly relevant. But in order to effect change a number of the necessary finance mechanisms require revenue sources and national-level leadership, capacity and planning processes — all of which exist only to a limited degree at present.

None of the above is going to be particularly easy, but in between lie a number of real policy tools, fiscal instruments and governance approaches that could significantly increase the chances of achieving low-carbon, climate-resilient development.

MAKING THE BEST OF WHAT WE HAVE IN THE NEAR TERM

The question is whether or not we can afford this muddled course of action. There isn’t much time and significant progress is clearly needed by 2020. There is not enough time to do the usual tinkering around the edges common to the endless debate about international environmental governance. How do we make “climate finance” just “good finance”?

CONSTRAINED BY THE UNFCCC NEGOTIATIONS

While the “one country, one vote” model of the UNFCCC makes for an interesting study in governance, and provides a necessary outlet for the least developed, smallest and most vulnerable states, it is clear that the effectiveness of the UNFCCC (like so many other UN advents) is hindered by the “lowest common denominator” factor and usual inertia that comes with seeking agreement from 195 different parties. As in the past, finance mechanisms moving forward under the UNFCCC will likely never reach the scale or agility necessary to succeed. This is true for the climate finance discussions, which are mired in the broader politics of the formal process: OECD countries continue to drag their feet on long-term finance until there is clarity around commensurate actions or commitments from the other major emitters in the South (read China and India), while developing countries seem equally unwilling to give up on the concepts of additionality and CBDR. Not to mention, as CIGI Senior Fellow Barry Carin points out in his paper,⁵ if some countries pushed for the use of the UN scale (there is an agreement on the shares which each country assumes when making UN contributions) in attributing longer-term finance commitments, it would require the US Congress to produce at least US\$10 billion, and probably more, not to mention Italy’s US\$2 billion, and so on.

It is unlikely that any country will be willing or able to enter into a formal negotiating process around the provisions of funds at that scale under the UNFCCC.

So then, what elements of a 2015 agreement (assuming it is reached) could provide a useful “umbrella” for climate finance governance, either getting us over the above issues, or rendering them irrelevant? Here are some thoughts in this respect:

- **The form of an agreement.** The level of stringency and ambition of an agreement will be critical. If a reasonable framework is established, and sees participation from all major emitters, it could certainly serve to spur meaningful action from these countries, and resurrect and strengthen compliance markets at both national and international levels. The discussions are also at a point where various other elements (including the GCF, adaptation finance and the like) hang in the balance of an overarching framework, and further progress on any one part is directly related to agreement on the sum.
- **Sources of finance.** It seems long overdue for bodies like the GCF (and others) to have self-sustaining sources of finance outside of allocations from donor countries. Beginning in the 1970s, with Maurice Strong’s charge to the Brookings Institute,⁶ a good deal of study has been given to this. Most recently, the AGF made several practical suggestions, ranging from the airline levies now used in the European Union, to a tax on bunker fuels, to a possible financial transfer tax. None of these are very popular, but such action needs to be taken if the GCF is to get off the ground and other funds under the UNFCCC are to become relevant by 2020.
- **Supporting equal treatment of adaptation.** There should be the creation of special (and scaled-up) funding for the LDCs and SIDS and a specific provision for adaptation, long the “weak sister” in this debate.
- **Leveraging private flows and carbon markets.** If well designed, a future agreement could include (and/or lead to) the creation of mechanisms that provide serious incentives for private sector investors, perhaps in connection with some public funding. At the very least, the system should aim to “do no harm.” Critical to this will be ensuring a future agreement supports the emergence of an international carbon market, but one that is bottom-up so as to build on the plethora of emerging national and regional markets (that is, cap-and-trade schemes) around the world.

5 See Carin (2013).

6 See Steinberg, Yager and Brannon (1978).

THE GREEN CLIMATE FUND, NOT *THE CLIMATE FUND*...

The GCF has become synonymous with discussions of climate finance, and there are many misconceptions both within and outside of the formal process about what the GCF will (and will not) be able to accomplish — particularly in the short term. Conceptually, it mirrors the current state of debate and tensions between continuing with the status quo versus re-envisioning development and finance for low-carbon, climate-resilient development. Many developing countries are pushing for the GCF to be a “mega fund” that would funnel (in its entirety) the notional US\$100 billion in climate finance to be mobilized annually, assuming this can even be accomplished. At the same time, many of these countries argue the vast majority of GCF funding (or *all*, according to some) should come from public sources. This suggests that the GCF would likely then become yet another underfunded, heavily bureaucratized and very slow moving beast.

On the other hand, many developed countries would like to see the GCF as a much more innovative, flexible and adaptable tool, utilizing a number of funding models, including traditional multilateral assistance, but possibly also financial tools such as de-risking instruments, leveraging mechanisms and so forth. Of course, this is an oversimplification of the debate, but with the governance of the GCF currently in the hands of a board that is split 50/50 between developed and developing country members (many of whom are also climate change negotiators), it is easy to see how the inertia of the UNFCCC has been translated into the GCF.

The window of opportunity for the GCF to make something of itself is quickly closing, and as a result a number of underlying challenges need to be dealt with in the near term. In addition to the dynamics noted above, these include agreement on its full structure and modalities (including funding mechanisms and financial instruments), its relationship to (or relative independence from) the formal UNFCCC process and the role of the private sector (including the establishment of a Private Sector Facility).

Perhaps most interesting, from a governance perspective, is the open question of how the GCF will shift the climate finance landscape, including which (if any) other existing funds it should subsume, and what niche role the GCF will play. Arguably, the most valuable contribution the GCF could make would be to break the mould of traditional aid and multilateral funding institutions and seek more innovative and ultimately transformative change. In order to be successful, the GCF will need to be imaginatively designed with a finite, value-added set of tools at its disposal, so that it does not become just another fund directing dwindling public flows. This, of course, likely requires the use of politically contested mechanisms (like

some of those suggested by the AGF), at a time when the GCF has yet to realize *any* funding flows, let alone those from innovative sources. The operationalization of the GCF will be critical, and it could, in time, become a rather powerful agency. But getting the discussion from where it is now to where it needs to be will require taking it out of the hands of the climate change negotiators and ministries of environment, and putting it into those of the heads of government — both North and South.

THE “USUAL SUSPECTS,” MULTILATERAL DEVELOPMENT BANKS AND THE LIKE

As illustrated by Keohane and Victor (2010), the GCF is far from the only institution with “skin in the game” on climate finance. Although they may not strike many observers as particularly transformative, many key multilateral institutions (including the World Bank; various regional development banks including the African Development Bank and Asian Development Bank; the United Nations Development Programme and the UNEP) have been instrumental in establishing climate funds, as well as pioneering work on mainstreaming climate considerations into traditional aid approaches. But at the same time, many of the large multilaterals are plagued with challenges that come with the administration of large pots of money across diverse countries, projects and programs. For example, in cases where donor countries have funnelled large amounts of fast-start financing to MDBs or other international agencies (such as the International Finance Corporation in the case of Canada), large amounts of fast-start funding remain unallocated or are in the approval process despite the expectation on the part of many developing countries that fast-start money would be flowing by the end of the official fast-start period. Considering adaptation funds are most often coming from these large multilateral sources, the time lags, burdensome procedures and inconsistency of support have particularly acute effects in many LDCs and SIDS.

Other important challenges in the MDB context are a lack of coordination and duplicated efforts. A great deal of thinking has gone into how many of the international sources could be made more effective — not only in the climate context. While simplification, transparency and better coordination have long been aspirational goals, with the coming online of the GCF and the establishment of a BRICS (Brazil, Russia, India, China and South Africa) bank, the time is ripe to consider, pragmatically, what that could mean. As stated at the outset of this paper, given the patchwork of climate finance governance that has emerged at various levels, it is not surprising that efficiency remains elusive. But given the sheer scope, scale and political clout of the largest donor institutions, they have the responsibility to work toward a more streamlined system.

However, any assumptions that this could be achieved under a single body such as the GCF are likely misplaced. These institutions need to be more accountable, and their member governments need to push them to work more closely together. But much of this coordination will have to be done by recipient governments through the development of coherent national strategies for sustainable development, leading to lower carbon development that also promotes poverty alleviation and more sustainable economic activities (more to this point in “Where Is It Going?”).

THE ROLE OF CLUBS AND COALITIONS OF THE WILLING

Given the shortcomings of the UNFCCC process and challenges around traditional financial institutions, it is becoming increasingly clear that “all of the tools in the tool box” are needed if any level of scaled-up finance or transformative change is to be achieved. In many ways, these “coalitions of the willing” and similar initiatives at the international, regional, national and subnational levels are driving action and financing approaches. In recent years, many of these activities have been shaping the landscape of climate governance:

- coordinated actions by major companies and private sector actors, such as under the World Business Council for Sustainable Development and the Business Partnership for Market Readiness;
- international coordination among subnational governments, such as the C40 Cities Climate Leadership Group, the Climate Group and the Network of Regional Governments for Sustainable Development;
- regional policy and regulatory initiatives, including those led by subnational governments such as the Western Climate Initiative;
- major donor initiatives including Germany’s International Climate Initiative and the Climate and Development Knowledge Network, which is supported by the United Kingdom and the Netherlands;
- sectoral approaches to mitigation actions (such as aviation, maritime transport, cement, agriculture or forestry) or policy initiatives to address specific issues such as fossil fuel subsidies;
- actions on energy efficiency and renewable energy solutions such as through the World Bank’s Scaling-Up Renewable Energy Program in low income countries; and
- political commitments to climate change made within international forums such as the G8, G20 or World

Economic Forum and the establishment of high-level climate initiatives such as the Climate and Clean Air Coalition (CCAC) or the Major Economies Forum on Energy and Climate (MEF).

From a governance perspective, it is worth emphasizing the importance of groupings like the G20, MEF and even the OECD. While not particularly democratic (given they are limited to a small number of powerful countries), from a pragmatic perspective these clubs are important in helping shift the entire onus away from developed countries and bridging traditional North-South disputes. As is becoming increasingly clear, climate finance is not just about traditional aid flows and donor countries meeting commitments. The political clout of these clubs is becoming ever more important as emerging economies continue to join their ranks. And the limitations of fora that operate under consensus rules and involve more than 150 countries are becoming more apparent. The recent WTO Ministerial in Bali was almost blocked by a small group of countries on an issue that was tangential to the negotiations.

A final point to note on so-called international cooperative initiatives (ICIs) — many of the “wedges” explored in Barry Carin’s 2013 background paper have explicit ICIs tied to them. For example, the CCAC for Short-lived Climate Pollutants, or REDD+ (a climate change mitigation solution that many initiatives, including the UN Reducing Emissions from Deforestation and forest Degradation [REDD] program, are currently developing and supporting) for deforestation. Various other subnational coordination (such as through C40 Cities Climate Leadership Group or WBCSD) can also be linked to sectoral or issue-specific actions (such as on energy efficiency measures). Many of the dynamics around the proliferation of ICIs are positive and there are opportunities for coordination, integration and the scaling up of actions. However, the challenges associated with ensuring consistent and comparable efforts remain significant. These challenges have real consequences, including limited private sector engagement given a lack of policy certainty at the international level and economic/competitiveness impacts between jurisdictions, as seen in the contentious debate over the applicability of the European Union Emissions Trading System’s aviation levies. Nonetheless, if the “wedges” approach is a promising pathway, further utilizing various ICIs as financing vehicles is an approach worth pursuing further.

COUNTRY-DRIVEN, BOTTOM-UP IS THE NEW TOP-DOWN

The patchwork of international governance options discussed above, the failure of the Kyoto Protocol and current state of UNFCCC talks, among other dynamics, leads one to believe that a bottom-up approach may well define the nationally driven and context specific path

forward. This means that efforts to internationally drive climate finance agendas and ensure effective mobilization will only be as good as the national policies and processes that support them, and how these context-specific approaches complement (or work against) the needed shift away from money exclusively described as “climate finance” to finance that complements development objectives.

It is no wonder that there is a growing consensus that investment in low-carbon, climate-resilient development will need to be complemented with more than just international financing flows. It will require the leveraging of domestic budgets and associated programs as climate change needs are mainstreamed into domestic decision-making and investment choices, and the mobilizing of domestic private sector financing.

A consensus that international climate finance can act as a catalyst to unlocking and leveraging domestic public and private financing is emerging. Achieving this potential, though, requires tackling persistent capacity and institutional barriers that have an impact on investment choices and development outcomes in developing countries.

Most understandings of climate finance now encompass a more holistic suite of activities and mechanisms, from traditional bilateral aid and development assistance, to private sector investment in low-carbon technologies, to new and innovative approaches aimed at leveraging private sector investment through targeted public sector policy interventions and capturing mitigation-adaptation synergies. Similarly, the approaches to climate finance are shifting away from project-based interventions to broader programmatic approaches, including capacity building, policy planning and project-level implementation.

Emerging economies have the ability to do many of these things themselves, and need to create conditions that enable private sector investment, especially in low-carbon energy sectors. It is encouraging to see that much of the funding and innovation for the low-carbon economy is now coming from China, India and Brazil, for example. It will be interesting to see if more South-South funding and technologies emerge as the momentum for more sustainable forms of development picks up. If developing country leaders can see this as an opportunities agenda, the situation could change even more rapidly.

DOMESTIC POLICY LEVERS AS A KEY STARTING POINT

The majority of climate finance is actually domestic (see Buchner et al. 2013), and rich country governments are feeling very poor and pressed. As Maurice Strong has said,

“Never have the rich felt so poor.”⁷ Although much of the world is still in the midst of economic uncertainty, action cannot wait. Governments need to start identifying a range of policies that can help de-risk and leverage climate finance. A merit order of options includes:

- address regulatory barriers, which can impede low-carbon technology uptake and behavioural change;
- remove perverse incentives, like fossil fuel subsidies and other technology subsidies that work against low-carbon, climate-resilient development aspirations;
- price carbon, to send a signal that carbon has value and should be managed as an input;
- develop complementary regulations that help with catalyzing private investment; and
- align domestic government procurement to further low-carbon, climate-resilient aspirations.

Carbon pricing and procurement are explored in more detail below.

Pricing carbon is an inescapable first-order need. As long as carbon continues to be mispriced, there are huge market failures that prevent the transition to lower-carbon economies. Those who have committed to pricing carbon need to get on with it; others need to follow. A carbon tax of US\$25 a tonne (lower than that in British Columbia) could make several more billions of dollars available and leave lots left over for national governments to fund their own low-carbon development. The report prepared for the G20 finance ministers by the World Bank and others estimated that a revenue base of US\$250 billion per year could come from carbon pricing, US\$22 billion from taxes on international transport and US\$40–\$60 billion from the removal of fossil fuel subsidies (World Bank et al. 2011). This combination would not only fund the international obligations, but would provide OECD governments with huge revenue streams to fund their own transition to low-carbon development, and reduce their deficits. Getting rid of fossil fuel subsidies would not only reduce government expenditures, but it would also reduce greenhouse gas (GHG) emissions by 13 percent (ibid.).

Governments spend very large sums of money on public procurement. They have large and diverse spending strategies on procurement, ranging from routine items such as stationary, computers or furniture, to complex spending areas such as utility networks, schools, hospitals or homes. All this equates to substantial investment that can rise to as much as 45 percent of government budgets, which is around 13 to 20 percent of gross domestic product in industrialized countries, and more elsewhere — 35 percent in South Africa, 43 percent in India, 47 percent

⁷ Personal conversation.

in Brazil, 52 percent in Ghana, 49 percent in Mauritius and 46 percent in Costa Rica (Perera, Chowdhury and Goswami 2007). There is a good deal of experience, especially in Scandinavia, on how to fashion procurement strategies so that they promote a shift to more fuel-efficient cars, increased use of recycled materials and the construction and procurement of lower-carbon energy sources. Yet very little attention is paid to these sources in much of the rest of the world. Reprogramming an increasing proportion of these expenditures can make markets work for sustainable development. It can even create markets for breakthrough technologies.

LONG-TERM OUTLOOK — HOW TO GET THERE FROM HERE?

It is tempting to be “realistic” and adopt a very incremental approach. In some ways, this approach has worked before. The IPCC was created after climate scientists expressed concern at the Villach Conference in Austria in 1985 and the Changing Atmosphere Conference in Toronto in 1988. The panel produces reports on a regular basis and, gradually, public opinion began to accept that climate change is both man-made and increasingly dangerous. When it proved impossible to get a convention with targets in time for signature at the Rio Earth Summit in 1992, the UNFCCC was created and gradually tightened as the science became clearer. Given the need to move to a system with national, enforceable targets, the Kyoto Protocol was adopted in 1997, with the idea that it can be expanded over time, although it eventually leaves the most prolific emitters out. This culminated in Copenhagen with a major failure that is now retroactively showing at least a few signs of success.

A business as usual scenario for Paris in 2015 would, presumably, have a series of national targets or contributions determined by countries themselves. They might have monitoring, reporting and verification regimes to make the system more transparent. Carbon markets would be encouraged. G20 governments would once again pledge themselves to do something about fossil fuel subsidies. The GCF would be created and yet another tiny fund would take its place alongside the Adaptation Fund, the Least Developed Countries Fund and the like. And the debate at the conference would be about how to govern these small pools of money. The developed countries would have their feet held to the fire over US\$100 billion fund agreed to in Copenhagen and they would put most of the onus on the private sector to come up with the majority of the money. Side events would be held to discuss more imaginative ways of utilizing public money to leverage large sums from private investors. And some post-2020 process would creak into action to prepare for the next incremental advance. Meanwhile, the scientific community, those IFI leaders who, along with Christine Lagarde, feel that they are dealing with the greatest economic challenge of the twenty-first century, and the World Economic Forum and

a number of enlightened CEOs, would watch in dismay as another generation of negotiators from environment and foreign ministries fiddle while the planet burns.

THE BIG BANG APPROACH

The IPCC, the IEA, the international consulting group McKinsey and a wide range of other authorities have made it clear that major steps to curb CO₂ emissions must be taken soon. If the world is to keep costs to a manageable level, rapid progress needs to be made between now and 2030. Beyond that, emissions and the costs of dealing with them seem likely to spin out of control. Are there things that could be done between now and Paris (or at least now and 2020) that could make a decisive difference?

The first thing that could be done is to raise the level of the debate. As mentioned earlier, climate discussions have been dominated by environment and foreign affairs officials. Climate is still seen as primarily an environmental debate, which poses a seemingly intractable political dilemma, “How can I impose pain now in exchange for preventing something from happening in three or four elections’ time?” Yet when leaders finally got together in Copenhagen and faced an embarrassing breakdown of talks, they quickly put a lot of money on the table (albeit with lots of caveats). As Christine Lagarde, Jim Yong Kim and Angel Gurría have said, this is now a top-drawer economic issue and, thus, should be near the top of leaders’ agendas.

There are three levers that could be pulled between now and Paris in 2015, the next significant climate event. The first is the summit called by the UN Secretary-General in 2014. If this summit proceeds in a similar fashion to previous events organized by this Secretary-General, little will happen. If, however, real resources were put into this meeting and the right format were chosen (not endless five minute speeches by everyone), it could begin to energize the political leadership needed for a breakthrough. The purpose of this meeting would not be to preclude the Paris COP, but rather to bring the latest scientific and economic thinking to top leaders and get them engaged in the process well before the Paris meeting, rather than the rather startling shock they received when arriving in Copenhagen.

The second is the G20 meeting in Australia in 2014. The G20 finance ministers took up the issue of the US\$100 billion fund before, requesting the World Bank, the IMF and others to put together some numbers for them. There is also the report of the AGF and its results, and whatever emerges from the Global Commission on Economy and Climate headed by former Mexican President Felipe Calderon. These reports could form a major discussion item for the G20 and would encompass an approach to clarifying the US\$100 billion. G20 leaders also need to breathe some life into their previous commitment to

eliminate fossil fuel subsidies, discussing in more detail the IMF report that suggested that subsidies to the energy industry amount to US\$1.9 trillion. While plenty of good background research has followed the original Pittsburgh commitment, there has been relatively little action to eliminate the subsidies. The leaders could also discuss some sort of automatic funding for the GCF, perhaps along the lines of aviation and bunker levies. There is some experience with the French, and later the EU, aviation levy and the International Maritime Organization has done a good deal of work on potential bunker charges. The leaders should also discuss the IMF staff proposal for the use of special drawing rights, to mobilize large amounts of financing for climate change,⁸ which Barry Carin mentions in his paper. They should also move to develop a major push on government procurement policies that promote sustainable development. These are all suitable G20 issues that are appropriate subjects for the economic part of the agenda and the meeting of finance ministers that accompanies the G20 summit. One could also imagine similar subjects appearing on the appropriate G8 agenda.

Following on the economic discussions in the G20, it could be possible to convene a high-level meeting on mobilizing private finance for low-carbon economies. Much has been said and written about this subject, but it is time for it to be discussed at the highest levels of government, financial institutions and civil society. This meeting could be convened by the heads of the Bretton Woods institutions, the World Economic Forum and the OECD. This forum would be designed to create an opportunities agenda, where low-carbon futures become an attractive alternative, both for financiers and for companies investing in the low-carbon energy business. Building on the earlier statements of the heads of these institutions, this forum could review the experience so far with combined public and private finance arrangements and look at changes that could be made to increase incentives for private investors to spend their money in developing countries.

Finally, there are the negotiations going on over the renewal of the millennium development goals (MDGs). Once again, these discussions are being held at a relatively low level, and the likelihood is that some technocratic set of goals will emerge. This presents a once-in-a-decade opportunity to develop some goals and metrics for measuring progress toward a low-carbon economy. This may be the best way to ensure that the poorer developing countries are not left behind in the focus on climate change finance. While there is a good deal to criticize about the first set of MDGs, they were simple, comprehensible and relatively easy to measure. They did a poor job with the environment goal and said almost nothing about energy. Various advisory bodies to the UN Secretary-General have suggested ways to revise the goals, including adding

greener goals. This will need top-level support in order to supplant the apathy that is likely to take over the process. The prize is worth fighting for. If definitions and metrics for a greener, lower-carbon economy can be agreed on, much of the debate about additionality and incrementality could fall away.

Much of this will seem like a pipe dream. Copenhagen and the following COPs have barely kept the process going. While the meetings are fascinating to watch (not the government ones, but the side events, which bring together a host of scientists, bankers, business people, carbon marketeers, civil society organizations and the like), there is little tangible progress. Observing all of this energy and innovation for the first time, an observer might well conclude that this is a lot of energy for little apparent result.

CONCLUSION

There are some reasons for hope. A great deal is happening in the bottom-up process. Local governments are taking action at both the subnational and municipal levels and there is a good deal of private sector investment in the low-carbon economy. This is highly concentrated in the OECD countries and the BRICS and similar developing economies. A good deal of effort is going into designing and launching the GCF and preparing for the COP to be held in Paris in 2015. But this is not sufficient to make the changes in GHG emissions that the world needs to see over the next 50 years or so.

The obvious conclusion is that the issue needs to be placed in the lap of major economic and political decision makers. The UNFCCC process, with its 190-plus countries is simply too cumbersome and slow to reach suitable GHG targets on its own. A varied regime of the UNFCCC, clubs such as the G20 and the Major Emitters Forum, have emerged to play crucial complementary roles. And national and bilateral initiatives are emerging in critical sectors such as REDD.

If progress is to be made soon, as the IEA, the IPCC and the heads of the World Bank and IMF say is necessary, strong champions must emerge at the political level. UN Secretary-General Ban Ki Moon's summit later this year could be critical. The G20 and the G8 must take the financial initiative, at least on the US\$100 billion they promised in Copenhagen. And the private sector and governments have to step up and design mechanisms that increase the amount of finance available for the global transition to a low-carbon economy.

8 See Bredenkamp and Pattillo (2010).

WORKS CITED

- AGF. 2010. *Report of the Secretary-General's High-level Advisory Group on Climate Change Financing*. New York: United Nations. November.
- Brendenkamp, Hugh and Catherine Pattillo. 2010. "Financing the Response to Climate Change." IMF Staff Position Note. March 25.
- Buchner, Barbara, Morgan Herve-Mignucci, Chiara Trabacchi, Jane Wilkinson, Martin Stadelmann, Rodney Boyd, Federico Mazza, Angela Falconer and Valerio Micale. 2013. *The Global Landscape of Climate Finance 2013*. October. CPI. <http://climatepolicyinitiative.org/publication/global-landscape-of-climate-finance-2013/>.
- Carin, Barry. 2013. "Financing Global Environmental Public Goods Workshop." Background Paper.
- Climate Funds Update. 2013. March. www.climatefundsupdate.org/.
- IEA. 2012. *World Energy Outlook 2012*. Paris: IEA.
- IPCC. 2013. *Climate Change 2013: The Physical Science Basis. Summary for Policymakers*. IPCC.
- Keohane, Robert O. and David G. Victor. 2010. "The Regime Complex for Climate Change." The Harvard Project on International Climate Agreements. January.
- Kim, Jim Yong. 2014. "Jim Yong Kim: Make 2014 the Turning Point on Climate." World Economic Forum Blog. January 25.
- Nakhooda, Smita, Taryn Fransen, Takeshi Kuramochi, Alice Caravani, Annalisa Prizzon, Noriko Shimizu, Helen Tilley, Aidy Halimanjaya and Bryn Welham. 2014. "Mobilising International Climate Finance: Lessons from the Fast-start Finance Period." November. Overseas Development Institute.
- Olbrisch, Susanne, Erik Haites, Matthew Savage, Pradeep Dadhich and Manish Kumar Shrivastava. 2013. "Estimates of Incremental Investment for and Incremental Cost of Mitigation Measures in Developing Countries." In *International Climate Finance*, edited by Erik Haites. London and New York: Routledge.
- Perera, Oshani, Nupur Chowdhury and Anandajit Goswami. 2007. "State of Play in Sustainable Public Procurement." International Institute for Sustainable Development and The Energy and Resources Institute. November.
- Project Catalyst. 2010. "From Climate Finance to Financing Green Growth." Briefing Paper. November 23.
- Reed, Stanley. 2013. "O.E.C.D. Head Calls for Global Effort Against Climate Change." *The New York Times*. October 9. www.nytimes.com/2013/10/10/business/energy-environment/oece-head-calls-for-global-effort-against-climate-change.html?_r=0.
- Romm, Joe. 2013. "IMF Chief: 'Unless We Take Action on Climate Change, Future Generations Will Be Roasted, Toasted, Fried and Grilled.'" Climate Progress. <http://thinkprogress.org/climate/2013/02/05/1546471/imf-chief-unless-we-take-action-on-climate-change-future-generations-will-be-roasted-toasted-fried-and-grilled/>.
- Scranton, Roy. 2013. "Learning How to Die in the Anthropocene." *The New York Times*, November 10. <http://opinionator.blogs.nytimes.com/2013/11/10/learning-how-to-die-in-the-anthropocene/>.
- Steinberg, Eleanor, Joseph Yager and Gerard Marion Brannon. 1978. *New Means of Financing International Needs*. Washington, DC: The Brookings Institution.
- United Press International. 2013. "Official: U.S. Faces Diverse Threats." March 13. www.upi.com/Top_News/US/2013/03/13/Official-US-faces-diverse-threats/UPI-15151363156505/.
- Vandeweerd, Veerle, Yannick Glemarec and Simon Billett. 2012. *Readiness for Climate Finance*. UNDP. www.undp.org/content/undp/en/home/librarypage/environment-energy/low_emission_climateresilientdevelopment/-readiness-for-climate-finance/.
- World Bank. 2010. *The Cost to Developing Countries of Adapting to Climate Change: New Methods and Estimates*. Washington: World Bank Group.
- World Bank et al. 2011. "Mobilizing Climate Finance." Paper prepared at the request of G20 Finance Ministers. October 6.

ABOUT CIGI

The Centre for International Governance Innovation is an independent, non-partisan think tank on international governance. Led by experienced practitioners and distinguished academics, CIGI supports research, forms networks, advances policy debate and generates ideas for multilateral governance improvements. Conducting an active agenda of research, events and publications, CIGI's interdisciplinary work includes collaboration with policy, business and academic communities around the world.

CIGI's current research programs focus on three themes: the global economy; global security & politics; and international law.

CIGI was founded in 2001 by Jim Balsillie, then co-CEO of Research In Motion (BlackBerry), and collaborates with and gratefully acknowledges support from a number of strategic partners, in particular the Government of Canada and the Government of Ontario.

Le CIGI a été fondé en 2001 par Jim Balsillie, qui était alors co-chef de la direction de Research In Motion (BlackBerry). Il collabore avec de nombreux partenaires stratégiques et exprime sa reconnaissance du soutien reçu de ceux-ci, notamment de l'appui reçu du gouvernement du Canada et de celui du gouvernement de l'Ontario.

For more information, please visit www.cigionline.org.

CIGI MASTHEAD

Managing Editor, Publications	Carol Bonnett
Publications Editor	Jennifer Goyder
Publications Editor	Sonya Zikic
Assistant Publications Editor	Vivian Moser
Media Designer	Steve Cross

EXECUTIVE

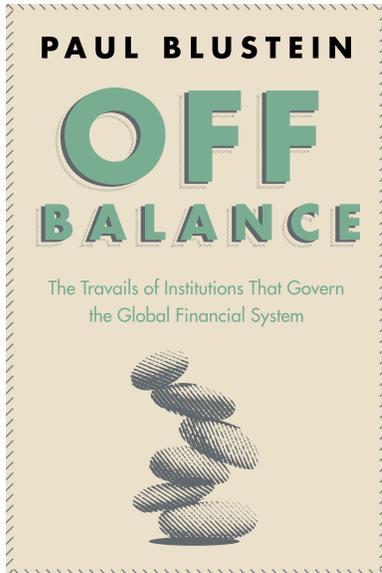
President	Rohinton Medhora
Vice President of Programs	David Dewitt
Vice President of Public Affairs	Fred Kuntz
Vice President of Finance	Mark Menard

COMMUNICATIONS

Communications Specialist	Declan Kelly	dkelly@cigionline.org (1 519 885 2444 x 7356)
Public Affairs Coordinator	Erin Baxter	ebaxter@cigionline.org (1 519 885 2444 x 7265)

CIGI PUBLICATIONS

ADVANCING POLICY IDEAS AND DEBATE



Off Balance: The Travails of Institutions That Govern the Global Financial System

Paul Blustein

Paperback: \$28.00; eBook: \$14.00

The latest book from award-winning journalist and author, Paul Blustein, is a detailed account of the failings of international institutions in the global financial crisis. Based on interviews with scores of policy makers and on thousands of pages of confidential documents that have never been previously disclosed, the book focusses mainly on the International Monetary Fund and the Financial Stability Forum in the run-up to and early months of the crisis. Blustein exposes serious weaknesses in these and other institutions, which lead to sobering conclusions about the governability of the global economy.



The Equator Principles: Ten Teenage Years of Implementation and a Search for Outcome

CIGI Paper No. 24

Olaf Weber and Emmanuel Acheta

The Equator Principles (EPs) are codes of conduct for project finance on the sustainability impacts of a project and on the risk assessment procedures of financial institutions that have adopted the principles — Equator Principles Financial Institutions (EPFIs). The EPs were launched 10 years ago and have undergone three revisions, while the EPFIs have increased from 10 to 78 members in 2013. The authors point out gaps that need further research and analysis to better understand the role of the EPs in sustainable development.



Climate Change, a Dead Horse and Realpolitik

CIGI Policy Brief No. 31

Barry Carin

The UNFCCC divides countries into “Annex 1,” which includes rich industrialized countries as well as economies in transition, and “Non-Annex 1,” the poorer and developing countries (and China and India). This brief, addressed to the negotiators, argues that care should be taken in any bid for compensation. Annual emissions from Non-Annex 1 countries have been larger than those of developed countries since 2003, and Non-Annex 1 countries may end up owing money to the wealthy countries.



Hot Air, Guilt and Arbitration

CIGI Policy Brief No. 32

Barry Carin and Nicole Bates-Eamer

The UNFCCC negotiation process on climate finance has become the dead horse that climate negotiators will not stop flogging. Twenty years of effort has brought very limited action. Developing countries stubbornly insist on being compensated by those responsible for causing the problem. Progress on climate finance has been slow to non-existent. The negotiation process appears to be broken and is in need of a radical re-think.



57 Erb Street West
Waterloo, Ontario N2L 6C2, Canada
tel +1 519 885 2444 fax +1 519 885 5450
www.cigionline.org

