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## GLOBAL ECONOMIC GOVERNANCE

# Climate Finance and Developing Countries: The Need for Regime Development



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### EXECUTIVE SUMMARY

The Paris Agreement in Article 2 calls for “making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development” in support of a global transition towards sustainability. Climate finance include all forms of financial support from public, private and alternative sources that target low-carbon and climate-resilient development in all countries of the world. As a critical equity and justice issue to help the most vulnerable that have contributed very little to the problem, Article 9 of the Paris Agreement stipulates that developed countries shall provide financial resources to assist developing countries to help them reduce GHG emissions and adapt to a changing climate.

The stated climate finance goal is for developed countries to mobilize jointly at least USD 100 billion a year from public and private sources by 2020, to be scaled up over time as part of the implementation of the Paris Agreement. The international climate finance regime set up to support developing countries towards this target involves a large number of actors, funds and mechanisms as financial support comes in many different forms. Existing estimates of current climate finance flows from multilateral, bilateral and private sources, however, are highly uncertain and subject to much controversy based on unavailability of data, methodological variations, and disagreements over what should be counted as climate finance.

As financial needs for climate change mitigation and adaption in developing countries grow, the climate finance regime that is designed to support them is marked by institutional fragmentation and disagreement. This raises important concerns about the ability to meet the USD 100 billion target and also raise ambitions over time. To institutionally develop and strengthen the climate finance regime that is a critical part of the implementation of the Paris Agreement, this paper proposes that the parties to the Paris Agreement in collaboration with other actors take three sets of steps as they work to realize the finance ambitions and target of the Paris Agreement and its associated decisions.

A first step is to promote greater system-wide coherence and cooperation among actors and funding sources to ensure that all parts of the climate finance regime work together as efficiently as possible.

The regime currently is expanding without a clear center or a well-defined strategy for how to avoid counterproductive competition and wasteful duplication and instead best leverage the many different parts towards a shared objective. While there is a need for multiple funding sources and approaches to deal with an issue as complex and resource demanding as climate change, the regime would benefit from a more collective approach to the mobilization and programming of climate finance in support for mitigation and adaptation projects across developing countries.

A second step is to establish a central and independent clearinghouse that is tasked to collect finance and project data into a single database that is open to all. Continuing biennial reporting on climate finance contributions by the UNFCCC Standing Committee on Finance is an important step in the right direction, but a more centralized and comprehensive approach to track multilateral, bilateral and private sector funding would make it easier to identify finance trends and changes over time. This could also strengthen mechanisms for monitoring, reporting and verification of climate finance. In addition, a clearinghouse should support enhanced transparency and accountability and promote civil society and private sector participation.

A third step is to develop more shared climate finance definitions and standards among all regime participants. As there is a positive increase in the amount of capital that is labeled as climate finance, there is no shared agreement how climate finance should be defined and calculated. Building on existing work by international bodies, the formulation of shared definitions and understandings of how to calculate climate finance would create a much better and more common basis for future estimates and reporting. This includes ongoing efforts by the Subsidiary Body for Scientific and Technical Advice as well as work by the main multilateral development banks on developing common reporting principles for climate finance.

Because countries, funding agencies and civil society actors disagree over what kinds of projects meet standards of climate finance, multilateral and bilateral reporting includes different approaches and initiatives. The development of shared standards of what is a legitimate climate finance project would make it easier to track public financial flows and ensure more comparable reporting of data. Also the calculation and inclusion of private sector participation and co-financing are highly controversial. Clarifying and harmonizing these types of definitional issues would help provide a clearer picture of the level of commitment from developed countries towards developing countries in the essential area of climate finance.

## Introduction

A quarter of a century of global climate change negotiations under the United Nations Framework Convention on Climate Change (UNFCCC) in December 2015 culminated in the conclusion of the Paris Agreement. This multilateral agreement, which was adopted with near universal support, sets the goal of holding global average temperature increases to well below 2°C above pre-industrial levels and to pursue efforts to limit it to 1.5°C (Article 2). To meet this goal, parties aim to reach a global peaking in greenhouse gas (GHG) emissions as soon as possible while recognizing that it will take longer for developing countries. Developed countries must continue taking the lead by undertaking economy-wide absolute GHG emission reduction targets. Developing countries are encouraged to do the same over time.

The Paris Agreement sets out a collective platform for formulating, reviewing, and strengthening national action for all parties over time (Falkner, 2016). Yet, countries are largely free to voluntarily formulate their own GHG commitments and other types of measures in the form of Nationally Determined Contributions (NDCs) under a ‘pledge and review’ system. The first set of NDCs submitted by countries around the time of the Paris conference, even if fully implemented, fall well short of what is required to meet the agreed upon temperature goal. Even if all countries fulfill their individual NDC pledges (which is uncertain), global average temperatures are expected to increase by between 2.6-3.1 degrees Celsius by 2100 (Rogelj et al. 2016).

Climate change mitigation and adaptation requires sustained political commitment and financial investments – much more than has been evident over the past 25 years. Many actions necessary over the coming decades to reduce GHG emissions from the use of fossil fuels and other sources and to build greater societal resilience to present and future climatic changes, even if many may bring a multitude of significant long-term benefits and savings to future generations, come with a range of up-front economic costs (IEA, 2012). To this end, the Paris Agreement calls for “making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development” in support of a global transition towards sustainability (Article 2).

Broadly, climate finance include all forms of financial support from public, private and alternative sources that target low-carbon and climate-resilient development in all countries of the world (Falconer and Stadelmann, 2014). Under the UNFCCC process, however, the term climate finance often refers to financial resources that are mobilized from a multitude of developed country sources and transferred through different channels to developing countries to help them reduce GHG emissions and adapt to a changing climate (Bodnar, Brown and Nakhoda, 2015; Nakhoda, Watson and Schalatek, 2015). This is an important equity and justice issue – many developing countries have contributed very little to the problem, yet they are most impacted by climatic changes and have the least domestic resources and capacity to act. Yet, financing remains one of

the more controversial issues in international climate change cooperation (Selin, 2015).

The Paris Agreement stipulates that developed countries shall provide financial resources to assist developing countries with respect to both mitigation and adaptation (Article 9). The current climate finance target is to mobilize jointly at least USD 100 billion a year from public and private sources by 2020 to be scaled up over time as part of the implementation of the Paris Agreement. However, developed countries have not committed to any individual financial targets. Rather, they voluntarily decide how much money they want to provide, over what time period, in what form, and through which sources and mechanisms. In addition, the Paris Agreement encourages developing countries to provide or continue to provide financial support on a voluntary basis (Article 9).

As the climate finance regime in support of mitigation and adaptation in developing countries is still being developed, this paper reviews that state of the climate finance regime and discusses how it can be institutionally strengthened. It starts by looking at different estimates of climate change related investment needs. Then it outlines the main forms and sources of climate finance and their past and near term financial resources and commitments in support of the USD 100 billion target. Finally, it proposes three sets of steps that the parties to the Paris Agreement in collaboration with other actors can take to institutionally build the climate finance regime in support of mitigation and adaptation measures in developing countries.

### **How Much Will It All Cost?**

Dealing with the complex issue of human-induced climate change will be expensive, but the exact mitigation and adaptation costs are, of course, uncertain. Future finance needs are impacted by a plethora of political, economic, technological, environmental, demographic and cultural factors and trends over the coming decades, many of which are currently unknown. Analysts have however produced several studies and estimates of how much climate change mitigation and adaptation may cost on a global scale based on different assumption and models. Even as the results of these estimates vary considerably, they all suggest that climate change finance is an absolutely essential issue for the 21st century and that the USD 100 billion target likely will cover only a fraction of investment needs in developing countries.

Many of the major mitigation related investment needs are in the energy sector to move away from the dependency on fossil fuels. The International Energy Agency (IEA) in 2012 estimated that to have an 80 percent chance to meet the 2°C target, and provided that non-energy CO<sub>2</sub> emissions as well as other GHGs are also reduced, a total investment of USD 140 trillion is needed across all developed and developing countries by 2050 (IEA, 2012). This requires an additional USD 36 trillion in worldwide investments in low-carbon energy sources than under a future where energy related carbon controls are not a political priority – this translates into an average of an additional

USD 1 trillion each year up to 2050. Most of these investment needs are in countries that are not members of the Organisation for Economic Co-Operation and Development (OECD).

As both global GHG emissions and temperature continue to rise, adaptation investment needs are also significant. The World Bank in 2010 calculated that the world's developing countries between 2010 and 2050 would need to spend between USD 70 to 100 billion each year on necessary adaptation projects under a 2°C scenario (World Bank, 2010). A recent report by the United Nations Environment Programme (UNEP) suggested that the needs may be much higher (UNEP, 2016). It estimated that adaptation costs for developing countries under different emission scenarios could range between USD 140 and 300 billion in 2030 and rise to between USD 280 and 500 billion a year by 2050, as finance needs for adaptation are impacted by the speed and effectiveness of world-wide mitigation efforts.

### **The International Climate Finance Regime**

The international climate finance regime designed to support developing countries involves a large number of actors, funds and mechanisms. Policy debates on climate finance have often focused on public support, but the importance of private sources to reach necessary funding levels receives growing attention. Many developing countries are explicit in their NDCs that increased flows of climate funds is a prerequisite for them to fulfill their Paris commitments, as countries must increase their efforts beyond their first NDCs to meet the 2°C target (and even more so the 1.5°C target). Simultaneously, climate change adaptation is a growing and increasingly resource-demanding problem. Of course, the need for adaptation finance will vary in part depending on the scale and success of mitigation efforts.

Climate finance for developing countries comes in many different forms, including loans, concessional loans, grants, structural insurance, and various forms of public-private co-financing. Developing countries have long stressed the importance of additionality in climate finance discussions; they believe that developed countries should not merely redirect resources previously earmarked for other environmental and development areas including official development assistance to climate change, but that developed countries should provide “new and additional” resources towards mitigation and adaptation in developing countries as part of a larger finance and sustainable development agenda (Selin, 2015).

The UNFCCC Standing Committee on Finance in 2014 presented its first biennial assessment of climate finance flows, as requested by the conference of the parties (UNFCCC, 2014). The report noted several challenges in collecting, aggregating and analyzing different data from a wide range of sources, but estimated that climate finance flows from developed to developing countries in the range from USD 40 to 175 billion per year. This estimate included USD 35 to 50 billion through



public institutions and USD 5 to 125 billion from private sources. The very broad ranges of these spectrums are an indication of the challenges to produce detailed and reliable numbers of current and future financial flows and needs.

A report by the OECD and the Climate Policy Initiative (CPI) released in the lead up to the Paris conference made a preliminary estimate of climate finance in the context of the USD 100 billion target. The report found that climate finance flowing to developing countries totaled USD 52.5 billion in 2013 and increased to USD 61.8 billion in 2014 (OECD, 2015). In 2014, USD 20.4 billion came from multilateral sources, USD 23.1 billion came from bilateral sources, USD 16.7 came from private co-financing, and USD 1.6 billion came in the form of export credits. 77 percent of these funds were spent on mitigation projects, 16 percent went toward adaptation efforts, and 7 percent were directed to projects that targeted both mitigation and adaptation.

The OECD-CPI report, however, has been criticized. A paper by the Indian Ministry of Finance questioned the accuracy, methodology and verifiability of reported figures (Government of India, 2015). It criticized the report on several accounts: for counting commitments and not actual flows; for including finance that is not “new and additional” to climate change mitigation and adaptation; for including projects supported by national aid agencies and multilateral development banks that are not directly climate related; and for counting not only grant-equivalent parts of claimed climate financing, but gross face-value of all loans, guarantees, export credits and other elements. Based on a much more narrow definition of climate finance, the Indian paper found that only USD 2.2 billion had been provided in actual cross-border flows from 17 special climate funds.

As debates around climate finance accounting and delivery mechanisms continue, it is clear that multilateral, bilateral and private sector sources all will be important for providing resources to developing countries towards the USD 100 billion target.

### *Multilateral Sources*

Countries have tasked several multilateral agencies to step up their efforts on public climate finance, accounting for 33 percent (USD 20.4 billion) of total climate finance to developing countries identified in the OECD-CPI (2015) report. These include the Green Climate Fund (GCF), the Global Environmental Facility (GEF), the World Bank Group (WBG) and regional development banks, and separate multilateral funds.

The GCF, originating out of decisions at the Copenhagen (2009), Cancun (2010) and Durban (2011) conferences of the parties to the UNFCCC, is intended to play a central role in climate finance in the coming decades, but it has only just begun operating. The GCF approved its first set of financing commitments in late 2015 totaling USD 168 million. In July 2016, the GCF approved

financing of USD 256.6 million. The goal is to commit up to USD 2.5 billion by the end of 2016.<sup>1</sup> So far, countries have pledged a little over USD 10 billion to the GCF.<sup>2</sup> Because the GCF did not provide any funds in 2014, it is not included in the OECD-CPI (2015) report on funds from multilateral sources.

Since its creation in 1991, the GEF has distributed over USD 20 billion across all its environmental areas of operations, including climate change. During the current, sixth replenishment period (2014-18), the GEF was given USD 4.43 billion. Of these, the GEF will spend close to USD 1.3 billion on climate change projects with an expected USD 25 billion being leveraged from other sources.<sup>3</sup> Many other intergovernmental organizations are involved in supporting and implementing GEF climate change projects, including UNEP, the United Nations Development Programme (UNDP), the United Nations Industrial Development Organization (UNIDO), the United Nations Food and Agricultural Organization (FAO), the WBG, and other multilateral development banks.

The GEF also oversees two funds created under the UNFCCC. The Least Developed Countries Fund was established in 2001 and supports the Least Developed Countries prepare and implement National Adaptation Programs of Actions. The Special Climate Change Fund, also created in 2001, supports adaptation and technology transfer in developing countries. By 2014, these two funds had received USD 1.23 billion in total donor contribution and committed USD 1.21 billion for approved projects (GEF, 2016).

The WBG and regional development banks are increasingly important sources for climate finance. The WBG calculates that in its collaboration with other development banks around the world during 2011-14 they collectively committed over USD 100 billion, an annual average of USD 26.5 billion, in support of climate change mitigation and adaptation in developing and emerging economies (Nakhooda, Watson and Schalatek, 2015). The OECD (2015) estimated that the WBG and five major regional development banks provided USD 18 billion out of the USD 20.4 billion that came from multilateral sources in 2014.<sup>4</sup>

In addition, the WBG serves as trustee on an interim basis for the small Adaptation Fund, which was established under the Kyoto Protocol to the UNFCCC in 2009. It receives funds through a 2 percent levy on the sale of credits from the Clean Development Mechanism and direct contributions from countries and private donors. The fund has allocated USD 354 million to adaptation projects in developing countries since 2010.<sup>5</sup>

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1 [http://www.greenclimate.fund/documents/20182/38417/release\\_GCF\\_2016\\_0630\\_B13.pdf/57a84921-5856-4348-90a8-35fcd7b5cecf](http://www.greenclimate.fund/documents/20182/38417/release_GCF_2016_0630_B13.pdf/57a84921-5856-4348-90a8-35fcd7b5cecf)

2 In addition, three Belgian regional governments and the city of Paris have pledged, smaller, largely symbolic amounts to the GCF.

3 [https://www.thegef.org/gef/climate\\_change](https://www.thegef.org/gef/climate_change)

4 The five regional development banks are: African Development Bank; Asian Development Bank; European Bank for Reconstruction and Development; European Investment Bank; and Inter-American Development Bank.

5 <https://www.adaptation-fund.org/about/governance/>



The Nordic Development Fund, which is run jointly by Denmark, Finland, Iceland, Norway and Sweden since 1989, received a revised mandate in 2009 to focus on climate change and development. By 2015, the fund had provided EURO 236 million (NDF, 2016). In 2015, it provided EURO 37.9 million. The European Union established the Global Climate Change Alliance in 2007, which for the time period 2014-20 has been given a little over EURO 330 million to help mainly least developed countries and small island states.<sup>6</sup> Germany, the United Kingdom (UK), Denmark and the European Commission collaborate through the NAMA Facility, having committed EURO 205 million since 2012.<sup>7</sup>

### *Bilateral Sources*

In addition to contributions to multilateral sources, developed countries also operate their own climate change funds and mechanisms, as the OECD-CPI (2015) found that bilateral climate finance was the largest source accounting for 37 percent of total climate finance in 2014 (USD 23.1 billion). This estimate was based on provisional figures provided by industrialized donor countries to the UNFCCC Secretariat. The Paris Agreement mandates that developed countries biennially report quantitative and qualitative information on financial resources provided to assist developing countries (Article 9). Developing countries are encouraged to provide such information voluntarily, as South-South transfers grow in importance.

Leading developed country providers of bilateral support include Germany, which through the International Climate Initiative and other funds increased its climate finance commitments from EURO 471 million in 2005 to EURO 2 billion in 2013 with a commitment of reaching EURO 4 billion in 2020.<sup>8</sup> The International Climate Fund operated by the UK committed GBP 3.87 billion fund for 2011-16.<sup>9</sup> In 2015, the UK announced that GBP 5.8 billion would be allocated for 2016-21. China will act through the South-South Cooperation Fund on Climate Change, having pledged USD 3.1 billion.<sup>10</sup> The United States offered over USD 400 million in grants in 2014 and committed in 2015 to increase that to USD 800 million in 2020.<sup>11</sup>

### *The Private Sector*

Many mitigation and adaptation investments in developing countries must come from the private sector, sometimes in collaboration and with co-funding by public entities such as the GCF, the World Bank, or regional development banks. The OECD-CPI (2015) report presented an aggregate estimate of private finance mobilized by multilateral and bilateral finance from developed countries

6 <https://www.adaptation-fund.org/>

7 <http://www.nama-facility.org/about-us.html>

8 <https://www.international-climate-initiative.com/en/>

9 <http://www.germanclimatefinance.de/overview-climate-finance/key-facts-german-climate-finance/#faq-3>

10 <http://icai.independent.gov.uk/wp-content/uploads/ICAI-Report-International-Climate-Fund.pdf>

11 <http://www.ipsnews.net/2015/11/opinion-chinas-new-south-south-funds-a-global-game-changer/>

12 <http://www.state.gov/r/prs/ps/2015/12/250495.htm>

for climate projects in developing countries. Such co-financing was estimated to constitute 27 percent of climate finance in 2014 (USD 16.7 billion), as the report cautioned that the best available data were both preliminary and partial. Similar concerns about the reliability of data were also voiced by the UNFCCC Standing Committee on Finance in its first biennial report, putting the amount of private finance going from developed to developing countries in the USD 5 to 125 billion range (UNFCCC, 2014).

### **The Future of the Climate Finance Regime**

There must be high levels of implementation of all NDCs and a major ratcheting up in ambitions and investments to meet the 2°C and 1.5°C temperature goals. The system of voluntary contributions by developed countries and co-levering of public and private funds toward the USD 100 billion target is set to continue, as developed countries reject calls for mandatory finance targets for individual donor countries. Developed countries are also expected to go beyond the current floor of USD 100 billion target after 2025, “taking into account the needs and priorities of developing countries” (UNFCCC, 2015: paragraph 53). To improve the design and operation of the very important climate finance regime, the parties to the Paris Agreement can take three institutional steps as they look to realize the promise of Paris: i) promote greater system-wide coherence; ii) establish a central clearinghouse; and iii) develop shared definitions and standards.

#### *Promote Greater System-Wide Coherence*

As global climate finance needs grow, the climate finance regime in support of developing countries is marked by fragmentation and disagreement. Resources to address such a complex and resource demanding issue as climate change must come from many different sources and be channeled through different mechanisms to a wide range of mitigation and adaptation projects, but the finance regime is expanding without a clear center or a well-defined strategy for how to avoid counterproductive competition and wasteful duplication and instead best leverage the many different parts towards a shared goal. It is also important that public and private investments do not undermine climate change efforts by going towards high-emissions and maladaptive projects. As noted by UNEP (2016: xi) in the context of adaptation; “(g)reater emphasis must be put on the question of effectiveness. Increasing the volume of finance only increases resilience if it is spent wisely.”

The climate finance regime involves a large number of actors and independent funds and initiatives. While there is a need for multiple sources and approaches, the regime lacks a collective approach to the mobilization and programming of climate finance for mitigation and adaptation projects across developing countries. The degrees and ways to which different funds and mechanisms complement or overlap each other and how this impacts regime effectiveness is unknown. There

is also evidence of continuing proliferation, as China set up the South-South Cooperation Fund on Climate Change rather than contribute to the GCF through the UNFCCC process. The promotion of greater system-wide coherence and cooperation among all major actors and funding sources would help different parts of the regime to work together as efficiently as possible (Dagnet et al., 2016).

### *Establish a Central Clearinghouse*

The OECD and CPI (2015) put together a (contested) report on individual years and some non-governmental organizations seek to present information online, but there is no central clearinghouse that collects all relevant finance and project data into a single database open to all.<sup>13</sup> Continuing biennial reporting on climate finance contributions by the UNFCCC Standing Committee on Finance is an important step in the right direction, but a more centralized and comprehensive approach to track all major multilateral, bilateral and private sector funding sources and projects would provide better and more detailed data. Critically, a central and independent clearinghouse could support efforts to enhance transparency and accountability, and promote civil society and private sector participation alongside developed and developing countries.

A central clearinghouse supported by all major regime participants could facilitate progress on efforts to strengthen mechanisms for monitoring, reporting and verification of climate finance. A clearinghouse would make it easier to identify trends and changes over time toward the USD 100 billion target. A clearinghouse would make it easier to track flows of resources from developed to developing countries through all public multilateral and bilateral sources. In addition, a clearinghouse should collect data on private sector contributions, which both the OECD-CPI (2015) report and the OECD Research Collaborative have noted are particularly difficult to calculate.<sup>14</sup> This is important, as private sector capital is essential to the transition to a low-carbon economy as well as for climate-resilient development.

### *Develop Shared Definitions and Standards*

As there is a positive increase in the amount of capital that is labeled as climate finance, regime participants disagree over how climate finance should be defined and calculated, resulting in a wide range of contested estimates (Bodnar, Brown and Nakhoda, 2015; Falconer and Stadelmann, 2014). These variations are in part due to variances in methodological approaches as well as differences in which public and private financial flows are included in these calculations. Building on existing work, the development of shared definitions and understandings of how to calculate climate finance would create a better and more common basis for future estimates and reports. This includes the process started by the UNFCCC parties requesting that the Subsidiary Body for

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<sup>13</sup> See <http://www.climatefinancelandscape.org> and <http://www.climatefundupdate.org>.

<sup>14</sup> <https://www.oecd.org/env/researchcollaborative/>

Scientific and Technical Advice develops “modalities for the accounting of financial resources provided and mobilized through public interventions” (UNFCCC, 2015; paragraph 57). Also the work by the main multilateral development banks on developing common reporting principles for climate finance could feed into these efforts.

Countries, funding agencies and civil society actors also disagree over what kinds of projects meet basic standards of climate finance. For example, Australia and Japan argue that their financing for high efficiency coal-fired power plants should be counted as climate finance, but this is opposed by many other countries and advocacy groups. The UNFCCC Standing Committee on Finance (2014) and the OECD-CPI (2015) found that multilateral and national climate finance reporting include a range of different approaches with no common standard. India in its critique of the OECD-CPI report expressed concerns about self-reporting, and exaggerations, by multilateral, national and private sources (Government of India, 2015). The development of shared standards of what is a legitimate climate finance project would make it easier to track public and private financial flows and ensure more comparable reporting and presenting of data.

In addition, as multilateral agencies, countries, the private sector and civil society pay more attention to climate finance, it is difficult to say exactly how much of what is now counted as climate finance meets the additionality criteria. It is unclear how much of current and already committed funds are money that would otherwise have been spent on development projects and how much of it are new resources going to developing countries alongside other forms of official development assistance. Also the calculation and inclusion of private sector co-financing as well as export credits toward the USD 100 billion target are highly controversial (OECD-CPI, 2015; Government of India, 2015). Clarifying these types of issues would help provide a clearer picture of the level of commitment from developed countries towards developing countries in the essential area of climate finance.

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