

COORDINATION CHALLENGES IN CLIMATE FINANCE

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ABSTRACT

Climate finance from developed countries is critical for helping developing countries to pursue climate-resilient and low-carbon development. As climate finance amounts have increased, so too have the channels through which finance is delivered, and there are now a multitude of climate funds. This diversity contributes to a fragmented climate finance landscape, presenting potential challenges for the efficient and effective use of funds. This paper provides a foundation for analysing coordination challenges in climate finance by outlining key climate finance trends and debates. It draws on insights from development cooperation to discuss the relevance of coordination in examining climate finance effectiveness. The paper identifies settings in which coordination challenges can emerge, emphasising global and national level arenas. It also provides an overview of the different forms that coordination can take, laying the groundwork for the examination of the political, economic and organizational determinants of climate finance coordination at different levels of governance.

Keywords: Climate Finance, Development Effectiveness, Coordination, Climate Change.

ABBREVIATIONS

AFD	Agence Française de Développement
CBDR	Common but Differentiated Responsibilities
CIF	Climate Investment Funds
FLEGT	Forest Law Enforcement, Governance and Trade
GCF	Green Climate Fund
GEF	Global Environment Facility
GFATM	Global Fund to Combat AIDS, Tuberculosis and Malaria
IE	Implementing Entities
JICA	Japan International Cooperation Agency
LDCs	Least Developed Countries
MDB	Multilateral Development Bank
NAMA	Nationally Appropriate Mitigation Action
NAPA	National Adaptation Programme of Action
NICFI	Norwegian International Climate and Forest Initiative
ODA	Official Development Assistance
OECD	Organisation for Economic Co-operation and Development
PPCR	Pilot Program for Climate Resilience
SCF	Standing Committee on Finance
SEforALL	Sustainable Energy for All
SIDS	Small-Island Developing States
SISCLIMA	National Climate Change Decree (Colombia)
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
UN-REDD	United Nations Collaborative Programme on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries
USD	United States Dollars
WFP	World Food Programme

INTRODUCTION

The Agenda 2030 for Sustainable Development and the Paris Agreement signal wide international commitment to the importance of addressing climate challenges as part of a holistic approach to sustainable development and poverty reduction (Government of Sweden 2016). Climate finance is critical for helping low-income countries to pursue climate-resilient and low carbon development. It has been an integral part of international climate change negotiations since the start of the United Nations Framework Convention on Climate Change (UNFCCC) in 1992. Since 2009 developed countries have reiterated a commitment to mobilize USD 100 billion a year in publicly – and privately – sourced finance to assist poor countries with their societal transformations in response to climate challenges. This agenda covers a wide range of possible actions including support for agricultural extension or infrastructure development to manage the consequences of rising global temperatures, and investment in renewable energies and sustainable transport to limit greenhouse gas emissions. In spite of shared global commitments to scaling up climate action, the plethora of sources of finance and funding priorities indicates that the implementation of the agenda will require resolving collaboration challenges on multiple fronts.

Article 9 of the Paris Agreement indicates that developed countries should take the lead in mobilizing resources to support developing countries to manage climate change effects. Though still far short of the USD 100 billion target, public climate finance from developed to developing countries has already expanded significantly, with UNFCCC estimates indicating that such funding increased from USD 29 billion in 2011 to USD 49 billion in 2014 (UNFCCC 2016). As climate-specific funding streams have increased, so too has attention to how to ensure the effective use of these resources.

A global political agenda promoting climate finance effectiveness reflects an extension of effectiveness principles associated with the development cooperation policy field. The effectiveness agenda highlights that funding produces greater benefits when donors respect nationally-determined priorities, use country systems for implementation and coordinate their activities with other funders (Abdel-Malek 2015). Climate finance effectiveness can relate not only to the levels of mitigation and adaptation achieved, but also to objectives such as mobilizing adequate financial resources, ensuring their timely delivery and monitoring that the use of resources at the level of implementation addresses context-specific needs (Ellis et al. 2013). Coordination may influence these other dimensions of effectiveness, for example by increasing the transparency of resource commitments and delivery.

This paper serves to frame a research project that examines coordination challenges in the provision of public climate finance to developing countries and analyses enablers for and barriers to coordination. The project aims to improve knowledge about the political, economic and organizational determinants of climate finance

coordination at different levels of governance with a view towards enhancing effectiveness. For the purposes of this paper, coordination can be understood as a practice or a process a given actor engages in to facilitate the achievement of goals shared with one or more other actors. Actors can coordinate their activities through various means, for example through information-sharing and joint implementation.

Reflecting the different arenas for resource mobilization, planning and implementation, coordination challenges can appear in multiple contexts, and are relevant for both funders and funding recipients. For example, the proliferation of bilateral and multilateral climate funds in recent years has created overlaps in work areas and inconsistencies in procedures for accessing and managing funding, leading to inefficiencies at global and national level (Amerasinghe et al. 2017). Within developing countries, a lack of coordination among domestic actors can present a barrier to identifying financing needs or improving the framework conditions for attracting increased finance (Halonen et al. 2017). As an example, the transformation of energy sectors can require changes in a range of government agencies that have regulatory, planning and financial roles (Lundsgaarde & Keijzer 2018). Improved coordination among these entities can not only reduce duplication and promote consistency across government, but also provide external stakeholders with greater clarity on national investment priorities.

To provide a starting point for the analysis of the determinants of climate finance coordination, this paper situates the topic within broader debates on global climate finance and the effectiveness of development cooperation. For readers without a background in climate finance, the text offers an introduction to this field. For readers with knowledge of climate finance debates, the text highlights linkages to development cooperation thinking. The paper begins with a brief overview of climate finance trends and key issues in international discussions on the mobilization and implementation of climate funding. It then provides entry points for the study of coordination in the climate finance arena by outlining the place of coordination in the analysis of development effectiveness. The paper summarizes the different settings in which climate finance coordination challenges can appear and the varied forms that coordination can take before concluding with a discussion of the future direction of research on this topic.

CONTEXTUALIZING CLIMATE FINANCE COORDINATION

General Trends in Climate Finance Flows

Efforts to improve the information base on the volume and character of climate finance flows have followed from international commitments to mobilize additional resources to address climate goals. One basic challenge in accurately depicting the scale and quality of climate finance has been defining what falls under the climate finance label. Key institutions tracking global climate finance flows increasingly converge around a definition of climate finance that emphasizes the objectives that financing pursues, focusing on the mitigation aims of reducing greenhouse gas emissions and enhancing greenhouse gas sinks, as well as on the adaptation aims of reducing vulnerabilities and promoting resilience of human and ecological systems to the negative impacts of climate change (UNFCCC 2016). However, even with general agreement on the broad categories of action, the development of common standards for climate finance reporting remains a work in progress. Determining how to account for resources mobilized through the private sector as well as public instruments to stimulate private investment are two examples of climate finance accounting questions that have been difficult to resolve (Caruso & Ellis 2013).

Public finance from OECD to developing countries represents a small share of global climate finance alongside domestic public financing and private investment (Buchner et al. 2017). The Climate Policy Initiative estimates that, in 2016, public climate finance amounted to USD 141 billion of the USD 383 billion (37 per cent) mobilized at a global level to address mitigation and adaptation goals, with private finance accounting for the majority of investment. As a large share of the public climate figures reflects investments by high-income governments to manage their own climate transitions, the Climate Policy Initiative indicates that financial flows from OECD to developing countries represent only 10 per cent of public climate finance (Buchner et al. 2017).

The commitment to mobilize USD 100 billion yearly by 2020 emphasizes the responsibility of national governments in OECD countries to transfer resources to developing countries to address climate challenges. Although there are ongoing debates about what types of finance can be registered as contributing to the goal, the measurement of efforts to meet it focuses on bilateral and multilateral climate finance originating from developed countries as well as financing mobilized from private sources that is directly attributable to public interventions (OECD 2016). Developing countries have emphasized that public flows in grant form should be the focus of efforts to hold developed countries accountable for the USD 100 billion commitment. However, estimates of trends in climate finance provision indicate that the goal is unlikely to be met by 2020 unless a significant share of the total stems from concessional lending and mobilized private financing (Westphal et al. 2015; see also OECD 2016).

Table 1: Overview of multilateral and bilateral climate funds

Climate Fund	Scale	Actors Involved	Priority Areas	Key Instruments
Multilateral				
Climate Investment Funds¹ (2008)	\$8.2 bn (\$1.97 bn)	14 contributors; 72 partner countries	Investment to support transformations in energy, climate resilience, transport, and forestry	Concessional Finance and grants via MDBs
Clean Technology Fund (2008)	\$5.4 bn (\$1.70 bn)	9 contributors; 15 partner countries	Scaling up low-carbon technologies in middle-income countries	Risk capital to support large-scale private sector projects
Pilot Program for Climate Resilience (PPCR) (2008)	\$1.2 bn (\$185.5 m)	10 contributors; 28 partner countries	Mainstreaming climate resilience in development planning; islands and vulnerable countries	Capacity building support and concessional finance
Scaling Up Renewable Energy in Low Income Countries (2009)	\$720 m (\$33.5 m)	12 contributors; 27 partner countries	Expanding access to renewable energy	Risk capital; project support to promote enabling environment for investment
Forest Investment Program (2009)	\$723 m (\$51.2 m)	9 contributors; 23 partner countries	Addressing drivers of deforestation and forest degradation	Grants and low-interest loans
Adaptation Fund² (2007)	\$546.8 m (\$200.4 m)	17 named contributors; 77 partner countries	Food security, water management, agriculture, coastal management	Project funding emphasizing direct access through national implementing entities
Least Developed Countries Fund (2001)³	\$1 bn	18 GEF agencies and 51 partner countries	Funding to support development of NAPAs; climate adaptation	Project funding primarily implemented through UN agencies
Green Climate Fund⁴ (2010)	\$12.6 bn (\$3.73 bn)	47 contributors ⁵	Supporting a paradigm shift to low-emission and climate-resilient development pathways	Project grants, loans, equity and guarantees
UN-REDD (2008)⁶	\$319.6 m (\$304.9 m)	7 contributors; 26 partner countries	Limiting deforestation and promoting sustainable forest management	Technical assistance, through partnership with FAO, UNDP, and UNEP
Sustainable Energy for All⁷	\$12.7 m (\$12.6 m)	5 government contributors and NGO support	Expanding energy access, promoting renewable energy, improving energy efficiency	Global level convening and analytical activities; country-level technical assistance
EU Global	€795 m	EU DEVCO and	Supporting	Policy dialogue,

Climate Change Alliance (2007) ⁸		other services; ACP; 5 EU member states	vulnerable communities to mainstream climate planning and increase climate resilience	project-focused technical and financial support to assist countries in implementation of NAMAs/NAPAs, budget support
Bilateral				
International Climate Initiative (DE) (2008) ⁹	€ 2.3 bn	German Ministry of the Environment, Nature Conservation, and Nuclear Safety; GIZ.	Mitigation, adaptation, carbon sinks, biodiversity	Project-focused technical and financial assistance, contributions to multilateral funds
Norway International Climate and Forest Initiative (NICFI) (2008) ¹⁰	5.9 bn NOK (approx. \$1 bn)	Norwegian Ministry of Climate and the Environment	Reducing deforestation	Country and regional partnerships; contributions to multilateral funds
UK International Climate Fund (2011) ¹¹	£ 3.87 bn	Dept. for International Development; Dept. for Energy and Climate Change; Dept. for the Environment, Food and Rural Affairs	Poverty reduction via adaptation support, promotion of low-carbon growth, and limitation of deforestation	Multilateral trust funds (CIFs), capacity-building and programme support at country level

Across different sources of climate finance, mitigation finance has outpaced adaptation finance. In 2014 mitigation finance accounted for an estimated two thirds of climate-specific financing from Annex II states to developing countries, while adaptation finance amounted to only 14 per cent of flows in the same year (UNFCCC 2016).¹² Explanations for the stronger focus on mitigation finance include the greater opportunities it offers to mobilize support from private sector actors and the prospect that larger investments in mitigation in the near future can avert more serious climate consequences in the longer run. Beyond the mitigation emphasis, the climate finance landscape is characterized by the predominance of bilateral finance. The UNFCCC estimates that some 38 per cent of climate finance reported in Annex II countries' 2014 biennial reports flowed through multilateral channels (UNFCCC 2016). Dedicated multilateral climate funds such as the Climate Investment Funds and the Green Climate Fund are increasing in importance within this landscape. Table 1 below presents an overview of key multilateral and bilateral climate funds.

Sources of Fragmentation in Climate Finance

Several factors contribute to diversity in the climate finance landscape and generate challenges in developing common reporting frameworks: the array of funding sources, the multiplicity of implementation channels, and the many priorities pursued are three examples. In the field of global environmental governance,

fragmentation relates to the diversity of sources and sites of governance authority (Gupta et al. 2016). Identifying the main origins and purposes of finance therefore provides a starting point for examining potential governance challenges in the climate finance realm.

Finance origins

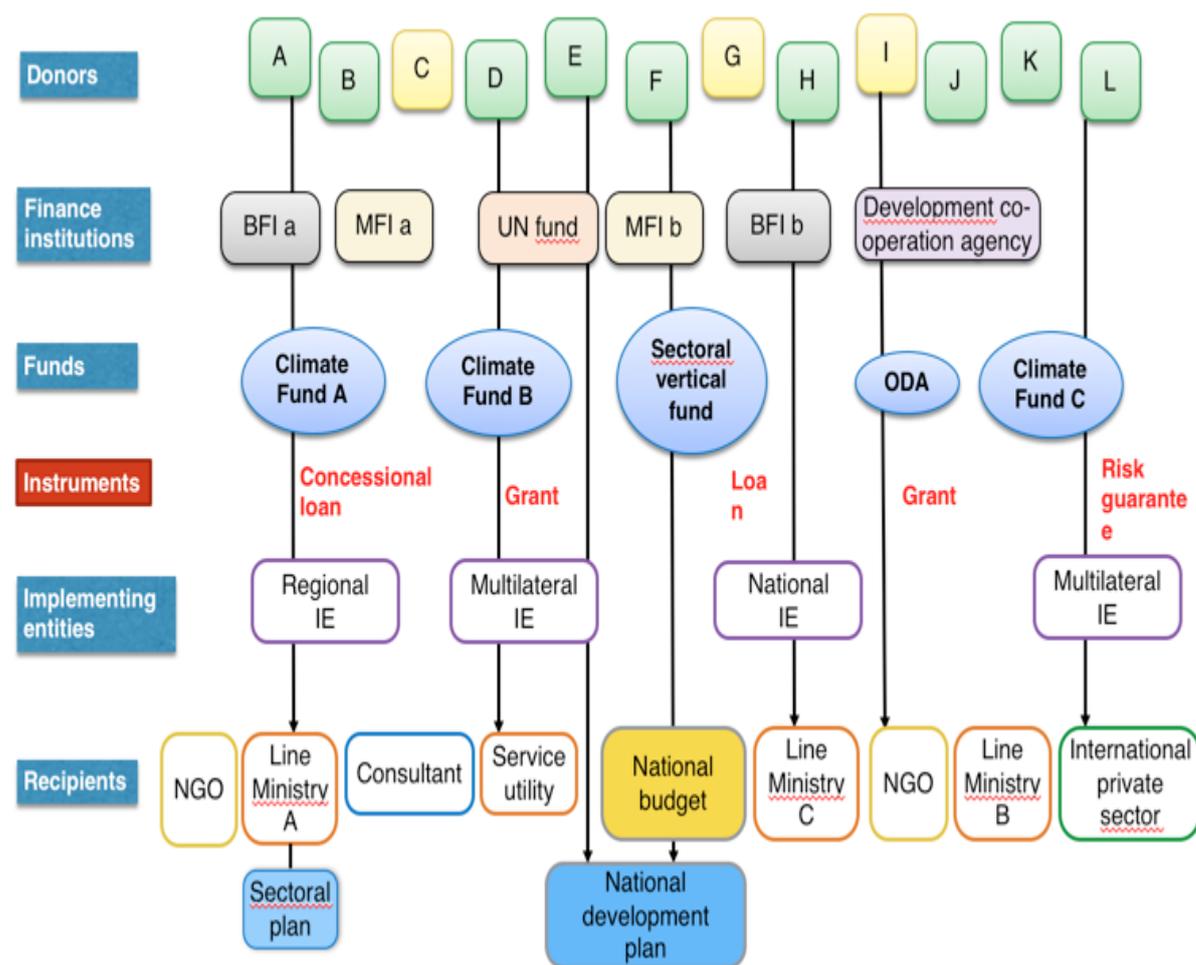
Climate finance originates from a variety of public and private sources. Decision-making and management of climate flows take place at multiple governance levels, involving multilateral organizations at the global level and national and subnational governments. Figure 1 provides an indication of the complexity of the climate finance landscape, even when the focus is limited to public actors.

Funding from donor governments provides a starting point for charting climate finance. Within the UNFCCC framework, Annex II countries submit information on climate finance to developing countries through biennial reports. Their climate funding flows through bilateral or multilateral channels. Important bilateral actors in the climate finance space include the Agence Française de Développement (AFD), Germany's KfW Development Bank, and the Japan International Cooperation Agency (JICA) (Atteridge et al. 2009). These examples indicate that climate finance and official development assistance (ODA) are disbursed through similar channels. Beyond bilateral development finance institutions and other development agencies, donors contribute to multilateral organizations such as those listed in Table 1. These institutions in turn support a variety of intermediaries and rely on a spectrum of instruments such as grants, loans and technical assistance.

As Table 1 highlights, multilateral climate funds have typically been funded by a select number of contributors, though the GCF has a broader base of support. Leading contributors to climate action (Germany, Norway and the United Kingdom) have established dedicated bilateral initiatives, which support both bilateral and multilateral programmes. There is thus some overlap between different climate funds in terms of their core stakeholders and priorities.

Although bilateral and multilateral actors may implement their own climate programmes, an additional range of actors enter the picture at the implementation level. For specialized climate funds including, for example, the Adaptation Fund and the GCF, potential public and private sector implementing entities (IEs) must undergo a process of accreditation that involves screening based on compliance with financial and environmental standards, enabling them to acquire funding through a direct access modality intended to strengthen country-level leadership and project management capabilities. These projects can, in turn, involve another layer of recipient entities and beneficiaries from across the public and private sectors, and civil society. The multiple and overlapping layers of funding provision and delivery outlined here highlight the potential for fragmentation and coordination challenges.

Figure 1. Overview of sources and channels for disbursement of climate finance



Source: Stockholm Environment Institute (2015).

Finance objectives and forms

Another dimension of the fragmentation of climate finance is that it can address a multitude of objectives. As examples, mitigation-oriented financing can support efforts to promote energy efficiency, renewable energy development, forest preservation or sustainable urban infrastructure. Adaptation-oriented financing can include infrastructure investments to reduce disaster risks or financial support for agricultural development or water management activities, among other priorities. Climate finance can either focus primarily on addressing climate goals or seek to promote climate concerns in the context of activities in a variety of sectors focusing on other aims. For this reason OECD efforts to track climate finance distinguish between financing that considers climate action to be a ‘principal’ objective from funding that includes ‘significant’ climate-related goals (OECD 2017). The multitude of thematic objectives falling under the climate finance umbrella underlines that different authorities and communities of practice are active in this field, suggesting a need for collaboration across areas of sectoral specialization.

The variety of objectives related to climate action may also explain the creation of

specialized initiatives with different mandates. Examples listed in Table 1 include the UN REDD programme focusing on forest protection and the Sustainable Energy for All (SEforALL) initiative, which promotes energy efficiency, access to energy and renewable energy goals. These narrow thematic emphases may still overlap with other funds. For instance, the Forest Investment Programme and Scaling Up Renewable Energy in Low Income Countries programme have similar objectives to UN REDD and SEforALL. These examples indicate that the distinctiveness of individual funds may not only relate to their mandates but also to the implementation modalities they use. As Table 1 suggests, project financing is a common modality across climate funds. The European Global Climate Change Alliance represents a partial exception in this respect, as it promotes the use of general and sectoral budget support in addition to the project financing that accounts for the majority of its assistance.¹³

Fragmentation: pros and cons

The diversity of climate finance sources and forms has potential advantages as well as drawbacks. On the one hand the multiplicity of actors and approaches available can provide benefits such as mobilizing additional resources, enabling funding to reach particular niches, increasing the speed of funding disbursement, and creating opportunities for innovation. On the other hand, fragmentation may decrease transparency and accountability of funding, contribute to the inequitable allocation of funding or complicate developing countries' efforts to access funding in light of the administrative burden of dealing with different funding sources (Pickering et al. 2017). Given that the origins of climate challenges are complex and that their management cuts across actor groupings and jurisdictions, research on polycentric governance systems points to advantages of coexisting arenas for action that may foster flexibility, open avenues to make connections between governance levels and actor networks and strengthen resilience in challenging contexts (Nagendra & Ostrom 2012). By taking a neutral view of fragmentation in environmental governance as a starting point, empirical research can serve to clarify the extent of positive or negative consequences of the complexity of governance arrangements in specific settings (Zelli & van Asselt 2013).

Key Debates in Climate Finance

This section briefly outlines core debates concerning the mobilization and implementation of climate finance. These debates are relevant for contextualizing the coordination challenge by highlighting the relationship between the climate finance arena and development cooperation. This discussion relates to decision-making with respect to the volume of climate finance, where it should be distributed, and what delivery channels should be selected.

Additionality of climate finance

The 2009 Copenhagen Accord provided a basis for future climate finance discussions by indicating that ‘scaled up, new and additional, predictable, and adequate funding’ should be provided to developing countries to address climate challenges (UNFCCC 2009). The term ‘new and additional’ references an interest in mobilizing resources beyond existing development cooperation budgets. However funders have not agreed on what level of effort additionality should be measured against (Stadelmann, Roberts & Michaelowa 2011). The term reflects concern that increased attention to climate action in developing countries might lead to a redirection of funding away from other relevant development priorities. The creation of dedicated climate funds such as the Adaptation Fund or the Least Developed Countries Fund, managed under the umbrella of the Global Environment Facility (GEF), represents one means of demonstrating the novelty and additionality of climate financing. However, the unresolved debate on the definition of additional finance is indicative of a persistent overlap between climate and official development assistance (ODA) streams. It also points to one driver of the proliferation of climate initiatives. Importantly, the Paris Agreement makes no reference to the phrase ‘new and additional’, suggesting that the ambiguity has been accepted.

Responsibility for mobilizing funds

The question of the novelty and additionality of climate resources is linked to debates on how the responsibility for mobilizing financing should be distributed among states and how the resources mobilized should be distributed across countries. As noted above, the countries that were members of the OECD in 1992 bear primary responsibility for supporting increases in climate finance. However, a wider spectrum of countries contributes to climate action in developing countries. For example, the Green Climate Fund currently counts 47 governmental contributors, mainly from within the ranks of an enlarged OECD. The expectation of OECD-led financing efforts stems from these countries’ historical responsibility for greenhouse gas emissions and land use changes that have contributed to global warming. The concept of common but differentiated responsibilities and respective capabilities (CBDR) justifies placing a higher climate finance burden on OECD countries due to their role in generating climate impacts and their ability to pay (Dellink et al. 2009). At the same time, the concept points to the growing responsibility of other large emitters such as emerging economies to not only control their own emissions but also to provide resources to support mitigation and adaptation beyond their borders (Persson et al. 2009). This rise in funders mirrors the diversifying actor landscape in development cooperation.

A key challenge with respect to the mobilization of climate finance is that national funding commitments remain voluntary in character. Thus, climate finance pledges generally reflect the priority attached at a domestic level to addressing climate challenges, rather than being assessments based on the scale of given contributors’ climate impact. As an example, the climate finance effort of the United States is

lower than that of the EU Annex II countries, in spite of the larger US contribution to climate problems. The absence of common standards for apportioning financing responsibility presents a challenge for burden-sharing as potential contributors to climate funds increase in number (Pickering et al. 2015).

Allocation of resources

The recognition that the overall level of climate finance remains limited in relation to the scale of the climate challenge has drawn attention to the question of how climate funding should be distributed across and within countries to address mitigation and adaptation needs. Concerns such as promoting an equitable distribution of climate finance to offer special assistance to vulnerable or disadvantaged countries and populations, directing investments to areas where cost effectiveness can be demonstrated, and adjusting finance flows to account for the resource mobilization capacities of developing countries reflect key issues in the allocation of climate finance (Fankhauser & Burton 2011; Persson & Remling 2014). In recent years the debate surrounding the concept of ‘loss and damage’ has raised the prospect of providing compensation to countries where climate change has produced irreversible effects, though how such funding will be mobilized and distributed in practice remains subject to further deliberation (Vanhala & Hestbaek 2016).

Allocation debates are familiar from development cooperation experience, where allocation decisions are understood to be based on a mixture of factors. These relate to the objectives that donors pursue with funding and to the characteristics of the countries to which they direct funding, characteristics such as the scale of poverty or the quality of governance. A key difference between these fields is that climate finance discussions are embedded in international negotiations that express political commitment to support states most vulnerable to climate change effects, namely the Least Developed Countries (LDCs), Small-Island Developing States (SIDS), and African countries. In the development cooperation setting, the distribution of aid reflects a sum of many independent donor decisions, even if general priorities such as supporting poverty reduction are shared. Alongside donor autonomy, a lack of consideration for existing activities from other funders as a basis for allocation decisions represents one driver of fragmentation in aid delivery that contributes to the overrepresentation of actors in some countries and sectors and their underrepresentation in others (Bürky 2011). This highlights the absence of global-level allocation criteria and the multiplicity of factors that lead to funding flowing to certain countries, purposes, and populations rather than others.

Suitable channels for delivery

A final core area for debate in the climate finance arena concerns how resources should be administered and implemented. A key concern is how well specialized climate funds at the global level respond to financing needs in developing countries.

Because addressing climate change is a goal linked to global agreements that focus

on a specific thematic area, the rising prioritization of the climate agenda has led to the creation of several specialized funds, as Table 1 indicates. These funds differ in their scope, governance arrangements and primary modalities. As resource mobilization vehicles, the specialized funds rely on other implementing entities to disburse funds. In the area of adaptation finance, specialized funds have relied heavily on the delivery structures of multilateral organizations such as the United Nations Development Programme (UNDP), the World Bank, the United Nations Environment Programme (UNEP), the World Food Programme (WFP) and the International Fund for Agricultural Development (IFAD), among other organizations (Scoville-Simonds 2016). As another example, climate finance provided through the Climate Investment Funds makes use of the implementing structures of multilateral development banks.

While the pooling of resources at the global level is a reflection of collaboration intended to serve the interests of developing countries, the reliance on multilateral intermediaries may limit the speed with which countries can obtain support from global funds as well as the level of control of funds and projects. To respond to this challenge, multilateral funds have adopted 'direct access' modalities, which are intended to facilitate country-level actors' applications for funding. Because direct access procedures require that implementing entities obtain accreditation, the process remains dependent on adherence to standards such as demonstrated capacities in areas of financial and project management, as well as monitoring and evaluation, that may pose a challenge for many developing countries (Frankfurt School-UNEP Collaborating Centre for Climate and Sustainable Energy Finance 2013).

The reliance on global funds as vehicles for mobilizing and disbursing resources to address climate goals has a parallel with a rise in the use of global programme funds in development cooperation as means of directing resources to sector-specific goals. Prominent examples of such funds include the Global Fund to Combat AIDS, Tuberculosis and Malaria (GFATM) and the GAVI Alliance. Although these funds have been viewed positively with respect to their ability to increase the scale of action on narrowly defined priorities, they have also been criticized due to their limited integration with other development cooperation programmes funded by many of the same stakeholders, as well as for their shortcomings in terms of their linkage with country-level cooperation structures (Isenman & Shakow 2010).

RELEVANCE OF COORDINATION IN ANALYSIS OF EFFECTIVENESS

As the previous section underlines, the climate finance field displays several overlaps with the development assistance field because it involves similar stakeholders as funders and implementers. Nevertheless, because it involves a variety of goals, stakeholders and approaches, and has evolved from international political processes that have been separate from the development assistance regime, these fields are not integrated.

Climate financing has risen in prominence in an era where aid providers have translated lessons learned from decades of experience into development effectiveness principles, and these principles have also informed the evolution of practices in global climate funds (Ellis et al. 2013). Ellis et al. (ibid.) note that effectiveness concerns had a stronger donor-centric quality in Global Environment Facility (GEF) initiatives developed prior to the rise of the aid effectiveness agenda associated with the Paris Declaration on Aid Effectiveness in 2005, whereas climate funds including the Green Climate Fund, that were established later, have incorporated effectiveness principles such as respect for country ownership to a larger degree. This section summarizes key understandings of the place of coordination as a component of development effectiveness to inform analysis of the coordination of climate finance.

The foundation of the development effectiveness agenda is the understanding that funding produces greater benefits when donors respect nationally-determined priorities, use country systems for implementation, and coordinate their activities with other funders (Abdel-Malek 2015). In the Paris Declaration on Aid Effectiveness, coordination features in the central objective of the ownership principle, which emphasizes the leading role of national governments in coordinating development resources (OECD 2008). The harmonization principle enlarges the scope for improved coordination beyond country-centred measures by encouraging donors to share information and enhance the compatibility of their planning and management systems to improve the division of labour both within and across countries (OECD 2008). Policy discussions on implementing the effectiveness agenda have focused especially on improving the within-country sectoral division of labour and increasing donors' reliance on joint planning and financing instruments under the heading of alignment (EU 2007).

Coordination in the development aid arena is often promoted using an economic rationale that considers coordination to be a means of reducing the transaction costs present at different stages of the aid management process to limit the administrative burden on recipient governments and to strengthen donor responsiveness to recipient priorities (Barry & Boidin 2012; Bourguignon & Platteau 2015). The economic justification suggests that costs of coordination should be considered alongside such perceived benefits. Beyond its potential to minimize a burden on recipient governments, for example by consolidating funding streams and reducing

the number of reporting obligations, coordination can be an avenue for reducing duplication and inefficiencies in aid delivery, for strengthening country-level control over planning and implementation, and for increasing the transparency and accountability of aid flows. However, participation in coordination processes also requires investments of time and organizational resources and may involve trade-offs on both sides of the aid relationship with respect to the bargaining power of involved actors.

Measures to facilitate aid coordination include country-level dialogue structures to increase donor information exchange and facilitate interactions with recipient governments, and the adoption of pooled funding approaches (Delputte & Orbie 2014). Other policy choices that donors can make to advance coordination include concentrating aid in fewer recipient countries, increasing their reliance on multilateral channels for aid delivery, or shifting to programmatic approaches for aid disbursement at the country level (Bigsten & Tengstam 2015).

In spite of the potential advantages of coordination, research on development effectiveness has drawn mixed conclusions about the extent of global progress in improving donor coordination (Lundsgaarde & Keijzer 2018). In some cases the progression of donor coordination has had the unintended consequence of adding to the administrative burden of recipient governments due to the demands of participation in dialogue structures (Barakat 2009; Gulrajani 2014). This finding underlines that increasing coordination can involve trade-offs with respect to effectiveness and that it is therefore useful to consider what scope of coordination is appropriate in facilitating the achievement of development goals.

The development effectiveness agenda provides a clear reference point in UNFCCC-focused discussions on how to make climate finance more effective. As in the development cooperation context, increasing national ownership represents a core consideration that other objectives such as facilitating access to finance, aligning externally-funded activities to national priorities, and improving monitoring of the impact of activities can reinforce. Coordination between diverse stakeholders can similarly be understood as a means of fostering coherence in funded activities and enables better oversight of disbursed resources (UNFCCC 2014). The coordination of funding streams is understood as a means of strengthening national governments' capacities to manage climate funds.

IDENTIFYING SETTINGS IN WHICH COORDINATION CAN EMERGE

As noted in earlier sections of this paper, the variety of funding sources, implementation channels and thematic priorities contribute to a complex landscape of climate finance. This section further explores how this diversity can create coordination challenges. It presents an overview of key settings in which coordination challenges can emerge in relation to climate finance, focusing on the governance contexts in which action is taken and the thematic priorities climate action can include. The subsequent section then outlines potential approaches to addressing these challenges by identifying different forms that coordination can take (the *how* of coordination).

The Context for Coordination at Different Governance Levels

The previous sections have emphasized the multilevel character of the climate finance landscape and the multitude of actors involved. This section briefly outlines the context for coordination at different governance levels and indicates how they may differ with respect to the nature of decisions taken and the actors involved. Coordination decisions at one governance level may influence the coordination context in others. As an example, decisions made by donors on where to allocate resources can determine which actors are present in particular national settings. A failure to coordinate at higher level can, for example, translate into a more crowded field of actors at country level.

Global level coordination

Coordination challenges on a global level are linked to the emergence of numerous multilateral funds for climate finance delivery. Amerasinghe et al. (2017) note that these funds have paid insufficient attention to a logic emphasizing a division of labour (related to their comparative strengths) when making funding decisions. The variety of rules used by multilateral funds to shape access to finance has also created a burden for recipients, particularly for the national governments on the receiving end of international climate finance, who face capacity constraints to begin with. These authors suggest that the funds should pursue greater geographic and thematic specialization and that when their mandates are covered by other funds, they should phase out their activities to address the division of labour problem. They should seek to harmonize rules and standards to resolve the other key coordination challenges (Amerasinghe et al. 2017).

There are at least two explanations for the level of fragmentation in the climate finance landscape at the global level described above. First, there has been political disagreement over who should control climate finance: donor-dominated funds outside of the UNFCCC (e.g. World Bank Climate Investment Funds, regional development banks, bilateral funds) or funds under the remit of the UNFCCC which have more equal representation of developed and developing country parties

on their boards (e.g. Green Climate Fund, Adaptation Fund)? Second, there has been a strong imperative for existing development financing institutions (bilateral and multilateral) to align their existing funding programmes more closely with climate mitigation and adaptation objectives. Coordination challenges emerge across various stages: mobilization and accounting, the architecture of funds, allocation, and channels of delivery. Regarding mobilization and accounting, there have been calls for more coordinated reporting and standardized definitions of climate finance as a way to track resource mobilization and achievement of the 100 billion USD goal (Roberts & Weikmans 2017). As described above, proposals to reduce fragmentation and increase coordination in the overall architecture of funds range from merging or sunseting funds and introducing a clearer division of labour in terms of thematic and geographic emphases, to harmonizing rules and policies. As for allocation, there is no overall coordination but a self-regulating system at best, where individual funders may review other funds' allocations when making their choices.

The UNFCCC Standing Committee on Finance (SCF) was established by COP16 to address the problems mentioned above by overseeing a range of finance-related functions, including 'improving coherence and coordination in the delivery of climate change financing'. The SCF produces biennial assessments of climate finance flows based on national reporting and third-party sources. The committee also hosts an annual SCF Forum, with collaboration and coordination as the focus of the 2018 Forum.

Box 1. Coordination in Norwegian Climate Funding

The coordination challenges that can arise due to the multiplicity of climate funding channels are apparent, even when the focus is restricted to climate finance stemming from individual donor countries. For example, while a recent evaluation of Norway's International Climate and Forest Initiative (NICFI) gave Norway high marks for coordination with other donors at the international level, coordination was considered to be less successful at the national level in recipient contexts, both with partner countries' own institutions and with other initiatives active in those countries, for example the European Union's Forest Law Enforcement, Governance and Trade (FLEGT) initiative (Olding 2017). The fact that NICFI funds are funnelled to many different climate funds at the national level adds to this challenge, making it difficult for partner countries to coordinate the many funds and institutions involved. As a result, partner countries experienced delays in implementing REDD+ Readiness activities. And while NICFI has been successful in pushing for agreement on a REDD+ framework, NICFI's distribution of funds through a variety of multilateral and bilateral channels makes it harder for REDD+ countries to develop an approach to reducing deforestation that is tailored to the country context, including country needs and capacity. Half (three out of six) of the core recommendations of the evaluation revolved around the need for NICFI to identify and make use of a coordination mechanism with partner countries so as to better integrate REDD+ into country-level policy frameworks, strategies, and plans (Olding 2017).

National level coordination

As noted above, development effectiveness implies a partner-centred approach to coordinating the activities of various international actors. Several studies have analysed emerging climate finance management structures at the country level and highlighted coordination challenges in this setting.

The exact contours of the landscape of national-level coordination are context-specific and vary from country to country, but generally involve the coordination of different ministries (at the national level) and government agencies – a form of horizontal coordination. This is because climate action involves not only managing funding but also changing policy frameworks in key sectors to enable green transformation. Often, the ministry or department responsible for the environment, natural resources, and/or climate change will need to work together with the ministry of finance. A key issue in ensuring national-level climate finance coordination is identifying who the lead entity is and what type of approach to coordination this entity pursues vis-à-vis other relevant stakeholders (Nakhoda & Jha 2014).¹⁴

A number of countries have developed, or are developing, national institutional arrangements to manage and coordinate climate finance, in part to mitigate the coordination challenges reviewed below. These emerging structures are often

designed to foster greater coherence in national responses to climate challenges and provide platforms for the inclusion of varied stakeholders. As an example, Colombia has developed the SISCLIMA, a national institution intended to coordinate international and national climate change actions that will eventually have a finance committee to coordinate financing activities. A similar example is the country's inter-sectoral commission on climate change, designed to bring together national-level agencies as well as SISCLIMA (Jaramillo 2014). Indonesia has established the Indonesian Climate Change Trust Fund as a vehicle for pooling international and national funding to climate objectives intended to strengthen national capacities for climate finance management (Grüning et al. 2012).

Several studies highlight emerging coordination challenges at the national level. For example, Van Rooij (2014) indicates that the separate management of development and environmental agendas at the national level in Zambia has complicated the process of facilitating institutional development to improve climate coordination, due to the lack of a clear mandate for one institution to take the lead on climate change issues, including on finance. In a similar manner, Jha (2014) views the fragmentation of responsibilities for environmental management across governmental actors in India as an obstacle to coherent action to use climate resources more effectively. Moreover, there is currently no formal climate finance coordination mechanism in India, despite the existence of the Climate Finance Unit within the Ministry of Finance, resulting in a multiplicity of institutions, actors, and channels of climate finance. And while Indonesia has been on the receiving end of high volumes of international climate finance, its Climate Change Fund is still too small to have sufficient leverage to coordinate other actors and it has, furthermore, struggled to meet international fiduciary standards (Halimanjaya & Maulidia 2014).

The general picture that emerges from these studies is that the coordination of climate funds with other agencies has been limited in their early years of operation. In Colombia, SISCLIMA has anticipated challenges in coordinating climate finance, identifying weak public institutions and the lack of mainstreaming of climate change into government decision-making as two particular concerns (Jaramillo 2014). The existence of multifarious international funding sources to address climate priorities can add an additional layer of complexity to an already fragmented domestic landscape of financial management. Both high-level financial and environmental expertise are needed to design effective policies to tackle climate change as well as to finance those policies, but these actors need incentives in order to convince them to coordinate with other domestic actors in accessing and managing international climate funds (Nakhoda & Jha 2014). If the fragmentation of governmental responsibilities related to climate funding reflects a reality that is likely to persist, addressing coordination challenges in this field requires further attention to the factors that motivate diverse stakeholders to collaborate to pursue shared objectives.

A study of climate finance coordination in five countries concluded that

institutionalized coordination mechanisms had been developed after the adoption of national strategies, policy frameworks, and legislation on climate change (Nakhooda & Jha 2014). In three of the countries (Zambia, Colombia, and Indonesia) this resulted in ‘positive coordination’ wherein new institutions were created to bring together various stakeholders, to share information and engage with international climate financing.

National-level coordination is not only the function of domestic policy and legal processes and frameworks. The push for national-level coordination also comes from the international level, in two ways. First, NAMAs and NAPAs can help to drive a push for coordination and reflect country-driven coordination logics, although coordination forums for climate funding may still be at an early stage of development in many contexts (albeit informal coordination structures and networks may be in place). And second, some type of national institutional coordination is required to access international climate funds, for instance in the form of steering committees (Nakhooda & Jha 2014).

Some countries have elected to create special financial institutions to coordinate climate funds. Specialized funds at country level to manage climate finance and mainstream climate concerns into development activities have emerged in countries including Brazil, Bangladesh, China, Ecuador, Guyana, the Maldives and Indonesia, for example (see Smith et al. 2011). As discussed earlier in this paper, these funds vary in terms of their power to enforce coordination of stakeholders involved in climate finance (as the example of Indonesia illustrates).

Subnational coordination

Coordination of climate finance may also occur at the sub-national level and can occur horizontally (between sub-national units), and vertically (between international, national, and sub-national entities) (Nakhooda & Jha 2014). Coordination practice at this governance level is not a well-researched area of inquiry, however, and is, most likely, dependent on a country’s progress on decentralization and the capacity constraints of subnational government actors. While some international climate finance targets local governments, there is not much in the way of formal engagement of local governments in climate finance (Nakhooda & Jha 2014). Similar to national-level coordination, sub-national entities have adopted particular policy frameworks and legislation on climate finance that enable (and necessitate) coordination and have also established special institutions to coordinate climate finance. In this respect, a parallel can be drawn to how developed countries manage climate action. Within Germany’s national-level climate policy, for example, the National Climate Initiative aims to engage the grassroots level in climate action. It includes a ‘Municipal Directive for Climate Protection in Social, Cultural and Public Institutions’, a funding scheme that targets local governments and institutions in their jurisdiction. The national-level government coordinates with municipal governments to implement climate action plans (see GIZ 2017).

In summary, coordination challenges can emerge at different levels of governance. These arenas are not entirely independent, as decisions taken at one level can shape which actors engage and what procedures are used at other levels. Across the levels, differences in priorities may exist even within single organizations (for example, the headquarters and country office of a multilateral or bilateral agency), indicating the relevance of exploring how the interaction within and between these different arenas for climate finance management create both opportunities and challenges for finance coordination.

Coordination Challenges Due to Funding Priorities

As alluded to earlier in this paper, the ‘additionality’ of climate finance as well as its different sources and forms raise coordination challenges.

Climate funding versus development funding

Climate finance has the potential to overlap with development cooperation funding because it is distributed in similar contexts and can be directed to addressing the needs of many of the same beneficiaries. Indeed, there is a longstanding debate on whether climate adaptation and mitigation should be treated separately from development, with unifying concepts like ‘low-carbon development’, ‘climate-resilient development’ and ‘climate-compatible development’ now emerging to bridge this divide (e.g. Moore 2010; Ayers & Dodman 2010; Gupta, Persson & Olsson 2010; CDKN 2016). In relation to adaptation, studies of how donors classify their development aid have also suggested that there is not yet a clear principle for distinguishing activities that pursue development and adaptation objectives (Junghans & Harmeling 2012).

In spite of their commonalities climate and development funding have been subject to separate administration, in part due to pressure to demonstrate that climate funding constitutes a new and additional commitment beyond resources provided through development cooperation. Coordination of climate finance and development finance is, in this way, more of a political than a practical problem (Persson & Atteridge forthcoming). The concern from developing countries that climate finance commitments might divert ODA rather than supplement it has led to efforts to build separate climate finance institutions and funds (such as the Adaptation Fund and GCF), with greater control by developing countries.

Focusing on the example of climate adaptation funding, Smith et al. (2011) point to the potential for duplication of effort without coordination of development and climate activities. Improving coordination, for these authors, involves obtaining better knowledge of adaptation funding needs, effectiveness, and how funding is distributed. Coordination may require improved mechanisms to coordinate national adaptation plans with development plans, mechanisms to coordinate adaptation and development funding on the national level, plus an institutional arrangement for coordinating adaptation and development funding.

Challenges related to identifying and defining the commonality of purpose of development or climate interventions may themselves emerge from broader political debates. Deeply rooted conflicts over historical responsibility for climate change, the imperative for developed countries to support developing countries, and the mistrust of developed by developing countries for having delivered neither on ODA nor on the global climate finance targets are elements of the wider political backdrop creating coordination challenges.

Managing trade-offs between adaptation and mitigation finance

Coordination challenges can also emerge due to the different emphases climate financing can adopt. Mitigation and adaptation finance are the two main categories of climate finance. Mitigation finance seeks to contribute to the goal of reducing global emissions, while adaptation finance focuses on the localized management of the effects of climate change. The two finance areas do not only differ with respect to their overall objectives. As examples, mitigation finance commonly involves the use of loans and presents greater potential for private sector participation, while adaptation finance is generally disbursed as grants and has faced difficulty in attracting private sector involvement (Locatelli et al. 2016).

The limited integration of mitigation and adaptation finance within climate funds reflects the separate tracks along which commitments to increase action on both fronts have been developed in the context of international climate negotiations. This has contributed to the rise of distinct funding sources to address the respective goals and a separation of planning functions related to mitigation and adaptation within donor bureaucracies. A general concern expressed by developing countries, and in particular LDCs, is that insufficient resources will be allocated to adaptation, since mitigation-related projects can be perceived by donors and investors to generate higher returns. For this reason, provisions have been included in the Paris Agreement and other key decisions that there should be a 'balanced allocation' between mitigation and adaptation. There is also a certain conflict of interest within the developing country negotiating bloc on this point, since LDCs are typically the most vulnerable but emit little, whereas the emerging economies have higher emissions and lower relative vulnerability. The coordination challenge related to the distinction between mitigation and adaptation finance thus plays out at different levels and can influence the nature of cooperation among climate funds, between organizational units, or among governmental actors at country level (Locatelli et al. 2016). It can be added, however, that newer climate funds, like the GCF, invite and approve more projects in a 'cross-cutting' category which include both adaptation and mitigation objectives.

Harvey et al. (2013) similarly suggest that the siloed approach to mitigation and adaptation finance emanating from international climate negotiations has shaped the prospects for integration of mitigation and adaptation concerns in development planning at the national level. Focusing on the example of tropical agriculture, these authors indicate that improving the integration of mitigation and adaptation

concerns involves changes at multiple levels. A high-level commitment to promoting climate-smart agriculture at the funding source, the incorporation of a range of constituencies in planning, and improvements in the technical capacities of local actors are among the solutions they propose for advancing a more integrated approach.

In a similar manner, although climate mitigation and adaptation are typically categorized as 'environmental' objectives, there can be significant coordination challenges with other environmentally-motivated development funding. For example, climate mitigation projects can have a range of potentially negative impacts on other environmental objectives, e.g. reduced biodiversity from biofuels and reforestation projects, and land use and wildlife impacts from wind and solar energy generation (Van Asselt, Rayner & Persson 2015). For this reason, several climate funds apply environmental safeguards policies (in addition to social safeguards). Climate adaptation, on the other hand, is much more ambiguous as an environmental objective. Indeed, when it is about adapting livelihoods and economic production it is, rather, a socio-economic objective. As such, there can be coordination problems with environmental objectives, for example if adaptation of a vulnerable coastal community involves relocation to land of high environmental value. Adaptation of natural systems, or concepts such as ecosystem-based adaptation, however, can be seen as efforts to coordinate already, when conceiving the fundamental objectives of a project.

FORMS OF COORDINATION

Across the different settings where coordination challenges can emerge, similar types of practices may be used to encourage collaboration. This section outlines various forms of coordination to illustrate the range of actions that can be taken to promote the efficient implementation of climate finance. Coordination can consist of activities including information-sharing, joint analysis and planning, the harmonization of standards, and the use of common implementation channels, as Table 2 highlights.

Table 2. Sources of Coordination Challenges and Key Forms of Coordination

<i>Origins of coordination challenges</i>	<i>Coordination forms</i>
<ul style="list-style-type: none"> • Diversity of funding sources • Multiple objectives for finance • Multiple finance forms • Diversity of disbursement channels 	<ul style="list-style-type: none"> • Information-sharing • Joint analysis and planning • Harmonized procedures and standards • Collective implementation

These different practices can be placed along a continuum, with information-sharing understood as a less intensive form of coordination and joint implementation involving a higher degree of institutionalized interaction (Lundsgaarde & Keijzer 2018). The strongest form of coordination entails actors conceding some decision-making power and authority in order to achieve a collectively defined and coordinated common objective. Orbie et al. (2017) usefully provide numerous entry points for conceptualizing coordination in a study of development cooperation in contexts of state fragility. Their analysis highlights that different types of action can be coordinated, such as aid allocation, policy guidelines, or harmonized procedures or standards, and that donors can be simultaneously involved in different types of coordination across levels. These authors emphasize that coordination can take place across different stages of policy formulation, programming, and implementation (Orbie et al. 2017).

In a similar vein, different forms of coordination situations emerge along the chain of climate finance project development and implementation. Within each stage, different forms of coordination are possible, meaning that moving along an implementation chain does not necessarily imply that the degree of coordination among actors increases.

Several forms of funder coordination relate to the programming stage. For example, when bilateral donors and multilateral funds – independently or together with partner countries – make decisions on allocation of funds, they could coordinate by avoiding strongly overlapping projects and maximizing potential synergies between projects. This could range from ad hoc discussions to a more permanent division of labour, where certain donors and funds focus on particular sectors,

climate objectives, technologies, regions, target groups, etc. These forms of coordination practice involve *information-sharing* and *joint analysis and planning*. Similarly, project proposal development – whether led by partner country governments, national stakeholders, IGOs, NGOs, international consultants and/or donors – could be coordinated so that competing proposals are avoided and submitted proposals are in line with partner country priorities. Information-sharing and joint analysis and planning are relevant across different governance levels. At a global level, for example, efforts to improve the quality of data reported on climate finance flows can inform decision-making that takes activities of other actors into consideration. At the country level, post-hoc information exchange on activities that have already been carried out may provide a basis for improved decision-making in the future (Orbie et al. 2017).

Coordination can extend beyond activities that preserve actors' flexibility to pursue autonomous action to include practices that require greater consistency among actors in terms of how they work. The *harmonization of policies and guidelines* provides one example of this. In the context of climate financing through multilateral funds, common standards with respect to stakeholder consultation, fiduciary guidelines, and social and environmental safeguards, can reduce the costs of partners in learning and adapting to new rules. The *merger or consolidation of funds* represents a further degree of coordination, reflecting an aim of reducing transaction costs by preventing the proliferation and fragmentation of climate initiatives through collective implementation. Pooled climate funding initiatives including the GCF are an expression of a will to consolidate funder efforts but may fall short of this objective in light of funders' continued support for other initiatives.

CONCLUSION AND DIRECTION OF RESEARCH

This paper has provided an overview of core characteristics of the climate finance arena and outlined elements of the climate finance landscape that potentially give rise to coordination challenges. While coordination has received extensive attention in the development cooperation context, the analysis of climate finance coordination deficits and modes of overcoming them has only been examined to a limited degree, given the relatively recent emergence of many climate initiatives. The language of ‘coordination challenges’ or ‘coordination deficits’ indicates that a starting assumption for further research on the topic is that a lack of coordination constrains effectiveness. However, this assumption needs to be tested against the realities of climate action in specific settings. The description of the qualities of the climate finance landscape in this paper may provide a framework for understanding where greater coordination may be useful, but there is a need for further analysis of the extent to which the diversity of actors, funds and priorities in climate finance impairs more effective action. Furthermore, there is a need to distinguish between coordination as a technical issue (information-sharing among actors with no obligation to change behaviour, for example) and as a political issue (e.g. impacting control over resources).

To advance this research agenda an analytical framework is required that clearly defines coordination, sets out a typology of coordination forms and identifies key determinants of coordinated action. Empirical analysis is needed to establish when and how coordination is practiced and to enable sharper policy recommendations on what kind of coordination could enhance climate finance effectiveness, and under what conditions. ‘More coordination’ is perhaps the most common recommendation in both scholarly and policy literature on climate finance, but the underlying analysis needs to become more refined in order to propose solutions that are adapted to the realities of climate finance management within global climate funds and at the national level.

Future research should thus move beyond the identification of areas where coordination might be needed and examine how it actually takes place. This requires attention to identifying which actors engage in climate finance coordination in a given setting, how they interact with other funders and funding recipients, and what factors influence the manner of interaction. To explain the scope and character of coordination, further analysis of possible barriers to and potential enablers of coordination is needed.

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END NOTES

¹ The first figure reported under scale for the climate investment funds reflects cumulative pledges through the end of 2016 as summarized in the 2016 Annual Report (CIF 2017). Figures in parentheses indicate cumulative disbursements up through the end of June 2016, as reported in the CIF Disbursement Report (CIF 2016). The figures on contributors and partner countries are consolidated numbers covering the four CIFs. The four CIFs are the Clean Technology Fund, the Pilot Program for Climate Resilience, Scaling Up Renewable Energy in Low Income Countries, and the Forest Investment Program. The resources associated with the individual funds are outlined in Table 1.

² Information on the finances and contributors of the Adaptation Fund comes from World Bank Group (2016). The first number indicates receipts and the number in parentheses refers to disbursements as of mid-2016. Among the named contributors to the fund are three Belgian subnational entities. Otherwise, contributions are from national governments, with the German government contributing by far the largest single share (\$172 million). The Adaptation Fund is also financed through the sale of Certified Emissions Reductions. Information on priority areas and partners stems from the Adaptation Fund's website: <https://www.adaptation-fund.org/> (accessed 24 May 2018).

³ The figure for the LDCF refers to the grant component of projects funded through October 2015 and neglects project co-financing. Source: GEF Independent Evaluation Office (2016).

⁴ The first figure reflects the overall size of the GCF portfolio as of 6 April 2018. The number in parentheses refers to the cumulative funding approved for disbursement by the GCF board as of 1 March 2018. Source: <https://www.greenclimate.fund/what-we-do/portfolio-dashboard> (accessed 11 April 2018).

⁵ Pledges as of May 2018 have come from 43 state governments, three Belgian regions, and the city of Paris: <https://www.greenclimate.fund/how-we-work/resource-mobilization> (accessed 24 May 2018).

⁶ The first amount refers to total contributions and the number in parentheses reflects the total approved budget. The Government of Norway has been by far the largest contributor to UN-REDD, accounting for 85 per cent of the contributions.

⁷ Figures reflect contributions and expenditures through the Multi-Donor Trust Fund through 2016. The trust fund is primarily financed by contributions from the governments of the United Kingdom, Denmark, Sweden, Germany and Iceland. Source: UNDP Multi-Partner Trust Fund Office (2018). <http://mptf.undp.org/factsheet/fund/SEA00>.

⁸ The funding estimate for the EU Global Climate Change Alliance reflects funding commitments over the period 2007–2020. See: <http://www.gcca.eu/node/1054> (accessed 24 May 2018).

⁹ The amount listed for the International Climate Initiative is the 'total project volume since 2008' reported on the initiative's website: <https://www.international-climate-initiative.com/en/about-the-iki/transparenz/> (accessed 1 October 2018).

¹⁰ Source Olding (2017). The figure in the table is taken from the text of a synthesis evaluation and refers to disbursements from 2008 to 2016. However, the table accompanying that text indicates that NICFI disbursements have been larger than the figure cited; over 20 billion NOK for the same period.

¹¹ Funding is for the period 2011–2016 (ICAI 2014).

¹² The Annex II designation refers to the parties considered to bear special responsibility in providing support to other countries to address climate challenges. It applies to the European Community and all countries that were members of the OECD in 1992, with the exception of Turkey. Although the Annex II designation has declined in importance in the

context of climate negotiations, it remains relevant in identifying national obligations for reporting on climate finance flows.

¹³ See <http://www.gcca.eu/about-the-gcca/innovative-and-effective-approaches/piloting-budget-support-for-climate-change> (accessed 24 May 2018).

¹⁴¹⁴ Kenya provides an example of a government that has identified a lead institution for coordination:

http://www.kccap.info/index.php?option=com_content&view=article&id=4&Itemid=14