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The Governance of Climate Change Adaptation Finance—An Overview and Critique

Morgan Scoville-Simonds

1. Introduction

1 The estimated cost of adapting to the impacts of climate change in developing countries is significant, cited as being at least USD 100 billion per year by 2030 (Parry et al., 2009), USD 70-100 billion per year in the period 2010-50 (Narain et al., 2011, 1003), or between USD 140 and 500 billion annually (UNEP, 2014, 33).[1] Meanwhile, developed countries pledged in 2009 to provide, for 2010-12, USD 30 billion of 'new and additional' finance (so called fast-start financing) and committed to mobilising USD 100 billion per year by 2020 in funding for developing countries, balanced[2] between mitigation and adaptation. At the 21st Conference of the Parties (COP) to the United Nations Framework Convention on Climate Change (UNFCCC), the Parties decided that before 2025 a new finance goal would be established, with USD 100 billion as a minimum. In any case, both in terms of cost estimates and in terms of finance goals, it can be said that it is widely recognised that future support for adaptation could be of the same order of magnitude as that of development aid. Whether adaptation finance will ever reach these ambitious levels or not, over recent decades support for adaptation has been growing steadily in terms of numbers of projects, total commitments, and adaptation as a share of overall aid (Michaelowa and Michaelowa, 2012; see also Figure 1).

2 Under the UNFCCC, developed countries have a responsibility to provide support for adaptation (and mitigation) measures in developing countries (Articles 3.1 and 4.4). Developing countries have generally supported a framing of adaptation in terms of the responsibility of developed countries on moral and legal grounds (Diamond and Bruch, 2011, 305). An understanding of an obligation to provide assistance in terms of legal liability and from human rights perspectives has been advanced (Gupta, 2014, 173-190). Broadly speaking, the differential distribution of countries' contribution to the causes of climate change, on one hand, and vulnerability to its impacts, on the other, support the notion that developed countries should provide assistance to developing ones (Grasso, 2010; Füssel, 2010).

3 While much debate has taken place over what this responsibility means (see, e.g., Blaxekjær and Nielsen, 2015, for an overview of different positions in the UNFCCC debates) and how support should be delivered, less empirical research has been conducted on the way support for adaptation is already being carried out. As concrete adaptation policies and projects have increasingly been funded and implemented in recent years, there is an emerging body of empirical evidence on support for adaptation. Taking stock of the emerging adaptation finance picture, this article presents a review of the primary adaptation finance channels and an analysis of their governance.

4 The existing literature has focused on quantifying overall adaptation finance while focusing less of its attention on the governance characteristics of different channels, often for methodological reasons. One early review suggested that 'fast-start finance' pledges may have approached the USD 30 billion goal, but actual distribution of funds was difficult to track (Brown et al., 2011). Buchner et al. (2014, 15) estimate that USD 25 billion was invested in adaptation in 2013 (or the latest available year, depending on the source),

of which approximately USD 8 billion[3] was public adaptation finance flowing from developed to developing countries (CPI, 2014). On the other hand, data from Climate Funds Update[4] (CFU) was used to estimate pledged adaptation finance from developed countries at USD 3 billion (Caravani et al., 2014) (cumulative since the inception of the various funds. The authors do not estimate an annual flow.)

5 Neither of these more comprehensive sources (Buchner et al., 2014 and CFU) provide a way of comparing the relative quantitative importance of the primary channels of public adaptation finance flowing from developed to developing countries, taking into account both adaptation-specific multilateral funds and adaptation-marked official development assistance (ODA). Further, the question of adaptation finance governance has not been treated comprehensively. Buchner et al. (2014) aggregate all flows from all sources and channels together—a methodology that, while painting an important 'global' picture of climate finance, ignores important differences in the governance characteristics of different channels. Others have examined governance-related issues for some specific funds (e.g. Schalatek et al., 2014; Grasso, 2011; de Sépibus, 2014), but do not provide an overall comparison of how different funds are governed.

6 In contrast, international debates focus not only on the overall quantity of adaptation finance, but also on fund governance. Generally, adaptation can be viewed as an inherently political process (Adger et al. 2009, 1-2; Eriksen et al., 2015, 13-14; O'Brien and Selboe, 2015; Scoville-Simonds, 2015). In particular at the international level, support for adaptation raises the 'fundamental question of who should be deciding how available funds are allocated and for what purpose' (Diamond and Bruch 2011, 304). More generally, the underlying issue of control over adaptation decision-making—that is to say, adaptation finance governance—is at the centre of international debates. Specific issues raised include how to ensure that adaptation funding is additional to existing aid budgets (e.g. Ayers and Huq, 2009), the acceptability of loans within a logic of compensation for climate damages (Dervis and Milsom, 2010, 43; Gore, 2010, 5), as well as three specific issues directly related to control (e.g. Grasso, 2011, 364-367; Ayers and Huq, 2009, 678): the accessibility of funds, independence from traditional development actors such as the GEF, and representation in adaptation decision-making.

7 While analyses of the subnational distribution of adaptation finance (Barrett, 2013, 2014) and of the actual effects of adaptation-funded projects at the local level (see, e.g., the case studies reviewed in Arnall et al., 2014; Taylor, 2014; Inderberg, et al., 2015; also Jamali, 2015; Scoville-Simonds, 2015) do indeed raise significant issues, how adaptation is funded at the international level and how control over this is distributed at the 'upstream end' must be examined as part of an overall critical analysis of how adaptation is currently being conceived and implemented.

8 Given the importance of these issues, and finding no succinct overview of adaptation finance that takes them into account, this article presents:

- an overview of the primary channels used for the delivery of public adaptation finance from developed to developing countries,
- approximate annual flows through each channel as an indicator of donor support, and
- an overview of the governance characteristics[5] of each channel, with particular attention paid to the specific issues highlighted above (additionality, use of loans, accessibility, relationship to traditional development actors, and representation in adaptation decision-making).

9 This article analyses the primary channels used for the delivery of public adaptation finance from developed to developing countries (they are also identified in, e.g., Klein and Möhner, 2009, 467-468; Diamond and Bruch, 2011, 293-298; Gupta, 2014, 115-117): adaptation-marked ODA (Section 2.1), the Pilot Program for Climate Resilience (Section 2.2), the Least Developed Countries Fund and Special Climate Change Fund (treated together in Section 2.3), the Adaptation Fund (Section 2.4) and the Green Climate Fund (Section 2.5). A succinct comparison of the annual flows through each channel is proposed, alongside a comparison of the governance characteristics of each (Section 3). Finally, three trends in current adaptation finance are identified (Section 4). Throughout, the article seeks to answer the following questions: what are the primary channels for adaptation finance, which have received the most support, and how do they compare in terms of governance characteristics related to control over adaptation priorities?

10 Overall, the analysis demonstrates the way current adaptation finance largely reproduces the structures of development aid. While the history of adaptation finance has seen the creation of a series of innovative funding channels integrating greater developing-country control over adaptation finance decision-making and fund distribution, the vast majority of funding continues to flow through more traditional development aid channels. By focusing on both governance characteristics and donor support, this combined analysis is able to highlight that donor support tends to be concentrated in channels that offer the highest degree of control to donors.

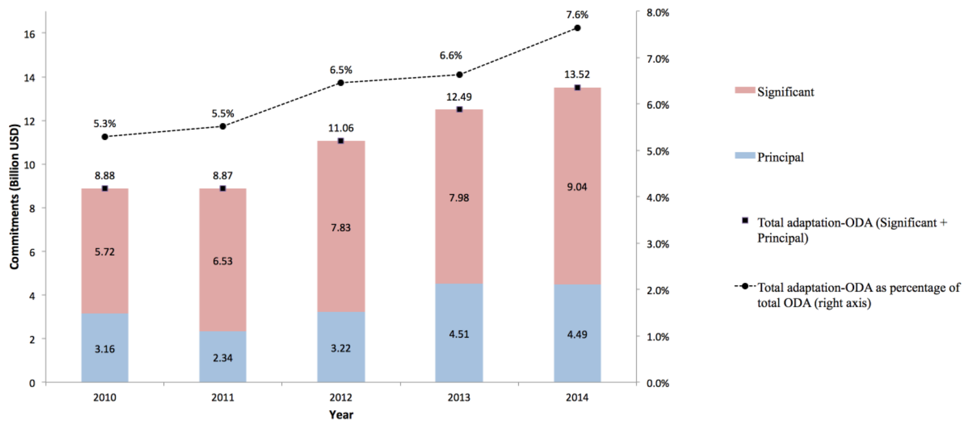
2. Primary channels used for public adaptation finance from developed to developing countries

2.1. Adaptation-Marked ODA

11 As will be demonstrated in Section 3 of this article (see Table 6; also UNEP 2014, 27-28), the majority of public adaptation finance flowing from developed to developing countries does so in the form of development aid (official development assistance, ODA)[6] that has been marked as 'adaptation-related', referred to here simply as 'adaptation-ODA.' How 'adaptation-ODA' is defined is discussed further on in this section after a general overview of adaptation-ODA flows.

12 To provide a convenient summarised reference[7] and a basis for the discussion that follows, Figure 1 presents annual commitments of adaptation-ODA ('significant' and 'principal' objective; see below for definitions) for 2010-14. Overall, adaptation-ODA commitments have risen from approximately USD 9 billion to over USD 13 billion, or from 5.3 to 7.6 per cent of total ODA commitments per year over the five-year period for which data exists. Others have found that adaptation-related commitments increased steadily over the period 1970-2008 but remained below 3 per cent of total aid budgets (Michaelowa and Michaelowa, 2012). In any case, adaptation-ODA clearly represents a non-negligible and increasing portion of total ODA.

Figure 1. Significant-marked and principal-marked adaptation-ODA (commitments of ODA grants and loans, constant 2014 prices using total DAC deflators) over the period 2010-14.



Source: Based on aggregation of project-level activities in the OECD CRS database (available at stats.oecd.org/DownloadFiles.aspx?DatasetCode=CRS1, updated 13 April 2016).

13 Ideally, to address the question of fund governance one could identify the specific institutions through which adaptation-ODA is channelled (as is done in the following sections regarding adaptation-specific funds). Unfortunately, the most specific information that the OECD collects on ODA, the Creditor Reporting System (CRS) database of individual aid activities, is insufficient in most cases to identify the entity to which funds are actually transferred.[8] That is to say, in many cases we literally cannot tell where the money went. An analysis of adaptation-ODA governance is thus faced with the same challenges as an analysis of ODA generally.

14 In the absence of such an actor-based analysis, three specific features of adaptation-ODA that reflect the issue of control can at least be examined based on available data: 1) the process through which ODA comes to be 'marked' as adaptation-ODA, 2) the grant/loan mix of adaptation-ODA, and 3) the delivery mechanisms employed. These three features are presented in turn.

15 Regular ODA becomes adaptation-ODA through a relatively simple and donor-driven process. Although the OECD describes the process as a 'comprehensive system [...] based on detailed project-level reporting against carefully defined policy markers' (OECD, 2013a, 1), in practical terms the system amounts to a new 'Climate change – adaptation' field on the form that is filled out by donors for each of the activities they report (the so-called CRS Form 1). The adaptation field, introduced in 2010, is similar to other progressively introduced policy markers related to mitigation, biodiversity, desertification (the other 'Rio markers'), as well as to the environment generally, trade development, gender equality, and participatory development/good governance (OECD, 2013b, 36-46).[9] As with the other policy markers, donors are requested to use the adaptation field to mark activities as 'not targeted', 'significant objective' or 'principal objective.' 'Principal'-marked activities ought to be adaptation-specific whereas 'significant'-marked activities may address adaptation without this being their primary objective.[10] Unless otherwise specified, in this article 'adaptation-ODA' refers to activities marked by the donor, in this way, as having adaptation as their significant or principal objective.

16 The ‘Rio marking’ process through which regular ODA becomes ‘adaptation-ODA’ relates directly to the concern for adaptation finance being ‘new and additional’ to existing development aid budgets. Although the OECD provides guidelines, donors are in fact free to interpret and apply these at their own discretion with no oversight or monitoring whatsoever. There is, in fact, no mechanism to prevent donors from systematically indicating ‘principal objective’ in every field for every ODA activity, thereby ‘creating’ billions of dollars’ worth of biodiversity–desertification–mitigation–adaptation–trade–participatory–gender-equality finance. On the other hand, the question of donors’ use of Rio markers and the over/under-labelling of adaptation-ODA has almost not been studied at all. While earlier work examines donor marking of mitigation-ODA (Michaelowa and Michaelowa, 2011), only one work deals with donor marking of adaptation-ODA (Junghans and Harmeling, 2012). This latter study found that in 2010 only 35 per cent of donor-marked adaptation-ODA was related to adaptation according to the authors’ criteria (Junghans and Harmeling, 2012, 10). Michaelowa and Michaelowa (2012), however, find a real shift in aid commitments (and not just an increase in labelling, as they find in the case of mitigation aid) towards what they consider adaptation-related activities.

17 Yet, more generally, comparing donors’ use of keywords to donors’ use of markers has its limits; the more pertinent question here is who defines what ‘counts’ as adaptation, which is ultimately a question of values, and whose values count (Adger et al., 2009, 5-10). The Rio marker system effectively allows donors to define what adaptation means and mark any aid activity as ‘counting’ towards their obligations to provide adaptation assistance. This may do little to assuage concerns that adaptation finance should imply resources ‘new and additional’ to existing aid budgets, and leaves the issue of control over adaptation funding, and more generally, over defining what ‘adaptation’ means in practice, in the hands of donors.

18 A second feature of adaptation-ODA is the grant/loan mix.[11] Recently published statistics for 2010-13 examine many characteristics of adaptation-ODA, but surprisingly do not examine the grant/loan mix (OECD, 2015), despite the importance of this issue in international debates as mentioned above. Whereas previously published work has shown that in the period 2010-12 loans made up 31 per cent of adaptation-ODA, a loan portion ‘similar to general ODA trends’ (OECD, 2014, 2), that work did not disaggregate between ‘significant’- and ‘principal’-marked activities.

19 A simple comparison of the grant/loan mix of overall ODA vs. adaptation-ODA is presented in Table 1. As compared to previous work, the table covers the full 2010-14 period for which data is available and disaggregates ‘significant’- and ‘principal’-marked activities.

Table 1. ODA and adaptation-ODA in terms of grant/loan mix in 2010-14 in millions of USD (constant 2014).

		Adaptation-ODA		
Flow type	**Total ODA**	**Significant and principal**	**Significant**	**Principal**
ODA Grants	604,402	39,028	27,309	11,719

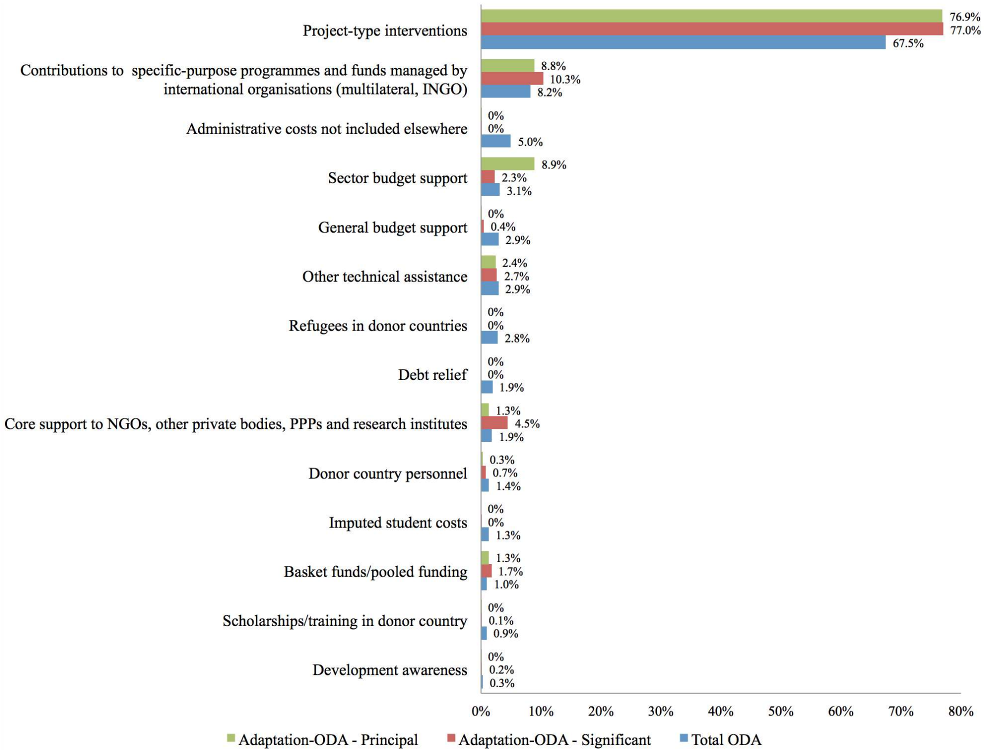
ODA Loans	260'350	15,795	9,786	6,009
Total grants and loans	864,752	54,822	37,095	17,727
Loans as a percentage of total	**30.11%**	**28.81%**	**26.38%**	**33.90%**

Source: Aggregation of project-level activities in the OECD CRS database, updated 13 April 2016.

20 Table 1 shows that total adaptation-ODA (significant and principal objective) over the five-year period has nearly the same grant/loan mix as ODA (both around 30 per cent being in the form of loans), similar to the figure cited above by the OECD (2014) for the years 2010-12. However, disaggregating significant- and principal-marked activities shows that the more adaptation-specific the activities, the more likely they are to rely on loans than on grants. In fact, adaptation-specific (principal-marked) activities in 2010-14 are on average more loan-based (34 per cent loans) than overall ODA in the same period (30 per cent). Although no clear annual trend could be identified, the loan portion of principal-marked adaptation-ODA reached its highest level in 2014, at 45.89 per cent. The more significant reliance on loans in the case of adaptation-ODA than in that of ODA generally suggests a high degree of donor control, given that developing countries have insisted that adaptation should be funded in the form of grants, consistent with a logic of compensation.

21 A similar comparison can be performed in terms of aid delivery types, also referred to as ‘aid modalities’. Each aid modality offers a different balance of donor/recipient control. For example, general budgetary support typically provides the greatest level of control to the recipient country while project-based interventions typically mean that donors retain the greatest level of control. The heavy reliance on project-type interventions is already a well-known characteristic of ODA generally. Figure 2 confirms this reliance over the period 2010-14,[12] with 67 per cent of total ODA going to project-based interventions. However, total ODA also employs a wide variety of other aid modalities, as can be appreciated in Figure 2.

Figure 2. Aid delivery types for total ODA compared to significant-marked and principal-marked adaptation-ODA, expressed as percentage of total ODA flows (commitments of ODA grants and loans) over the period 2010-14.



Source: Based on aggregation of the 'Type of aid' field ('aid_t') in the OECD CRS database (available at stats.oecd.org/DownloadFiles.aspx?DatasetCode=CRS1, updated 13 April 2016).

22 Figure 2 demonstrates that, as compared to overall ODA, adaptation-ODA is in fact more heavily concentrated on project-based interventions (77 per cent of significant- and principal- marked; cf. 67 per cent of total ODA) and also employs a much narrower set of modalities. That is, one difference between adaptation-ODA and 'regular' ODA is that the former is (even more) concentrated on project-based activities. Part of this trend is by design—according to OECD reporting directives, the Rio markers are not to be attributed to certain particular types of aid.[13] This explains many of the zero-length bars in Figure 2 for adaptation-ODA. In fact, the design of the Rio marker system constrains donors to think of adaptation in terms of specific projects. Under an alternative logic and reporting system, there is no reason that, for example, sector budget support targeting particularly impacted sectors in vulnerable countries could not be counted as adaptation aid, if additional to previous aid budgets.

23 Summarising the features discussed here, adaptation-ODA is essentially ODA that has been marked using a simple system guided by OECD criteria but implemented by donor countries with little oversight. The donor-driven nature of the process makes it difficult to ascertain to what extent resources may be 'new and additional' to pre-existing ODA, a key concern of developing-country Parties. The significant use of loans and the focus on project-based interventions, even to a greater degree than in the case of ODA generally, likewise indicates that overall patterns of donor control are maintained

24 At the same time, it should be born in mind that the sums involved in adaptation-ODA are large (annually, almost USD 11 billion in total, or around USD 3.5 billion for principal-

marked ODA alone; Table 6) compared to the dedicated adaptation funds discussed below. It represents by far the majority of what is considered public ‘adaptation finance’ flowing from developed to developing countries. Critically, it is probably also the least studied and least referenced in the literature on adaptation finance, with authors tending to focus on the more innovative ‘purpose-built’ adaptation funds discussed in the following subsections of this article. While an undetermined portion of finance flowing through the adaptation-specific funds discussed below may indeed also be counted as ODA, the adaptation channels discussed below have distinct governance characteristics that may make them more or less attractive from donor or recipient country perspectives.

2.2. Pilot Program for Climate Resilience (PPCR)

25 By far the largest of the currently operating adaptation-dedicated multilateral funds, with a total of USD 1.2 billion in pledges[14] as of December 31, 2014 (World Bank, 2015a, 9), the Pilot Program for Climate Resilience (PPCR) is a programme under the Strategic Climate Fund (SCF), one of the World Bank’s Climate Investment Funds (CIFs). The purpose of the PPCR is ‘to provide incentives for scaled-up action and transformational change in integrating consideration of climate resilience in national development planning consistent with poverty reduction and sustainable development goals’ (World Bank, 2011, 5). The PPCR does not finance stand-alone adaptation projects, but rather provides funding for integrating adaptation concerns into development plans and covering the ‘additional cost’ of making a development project ‘climate resilient.’ Financing for the underlying development project or investment must be secured from other sources (World Bank, 2010, 2).

26 Unlike the other funds treated below, the PPCR was created by the World Bank entirely independently of the UNFCCC process. There is no official relationship or accountability to the COP, although the World Bank, faced with criticism on this point, has stated its intention to be ‘compatible’ rather than ‘competitive’ with the UNFCCC process and the funding mechanisms it implements (World Bank, 2008a, 8). One early point of controversy was that the PPCR provides part of its financing as (albeit highly concessional) loans. In fact, 38 per cent of PPCR financing is in the form of loans (Canales et al., 2014, 9-10), slightly higher than the loan portion of adaptation-ODA (Table 1). Donor contributions to the PPCR that also meet the criteria for ODA (e.g. the ‘concessionality’ of loans) can also be counted as ODA, raising similar concerns regarding additionality as for adaptation-ODA.

27 The PPCR has a particularly complex governance structure. First, the PPCR governing bodies are created by and presumably subordinate to the SCF governance structure. In this structure, there exist three main bodies, the SCF Trust Fund Committee, the Administrative Unit, and the Multilateral Development Bank Committee (hereafter, MDB committee). The SCF Trust Fund Committee is composed of equal numbers of donor and recipient country members, one of each group serving as co-chairs. The committee is responsible for setting up the different programmes, such as the PPCR, and for creating the PPCR subcommittee (World Bank, 2011). The PPCR subcommittee likewise initially had equal membership from donor and from recipient countries, one of each serving as co-chairs. More recently, the subcommittee has included the participation of a developing-country representative from the Adaptation Fund Board. The subcommittee is responsible for approving funding criteria, priorities, and programmes under the PPCR

(World Bank, 2008b). Decisions in both committees are taken by consensus; a decision can be made without unanimity (the dissenting member noting his or her objection), or any member can veto a decision, meaning it would be postponed (World Bank, 2011, 8). There is no provision for voting in the case of a failure to reach consensus.

28 Although committee membership and decision-making are fairly well balanced between donor and recipient countries, the Administrative Unit, composed of World Bank employees, and the MDB committee, composed of representatives from the various Multilateral Development Banks (MDBs) that receive funding, play important roles. The two bodies together are responsible for providing all information necessary for the decisions made by the committees. Specifically, they propose the programme scope, objectives, criteria, and priorities for approval by the committees. Likewise, the MDBs are responsible for designing and proposing all projects for approval by the committees. (World Bank, 2011, 12-14).

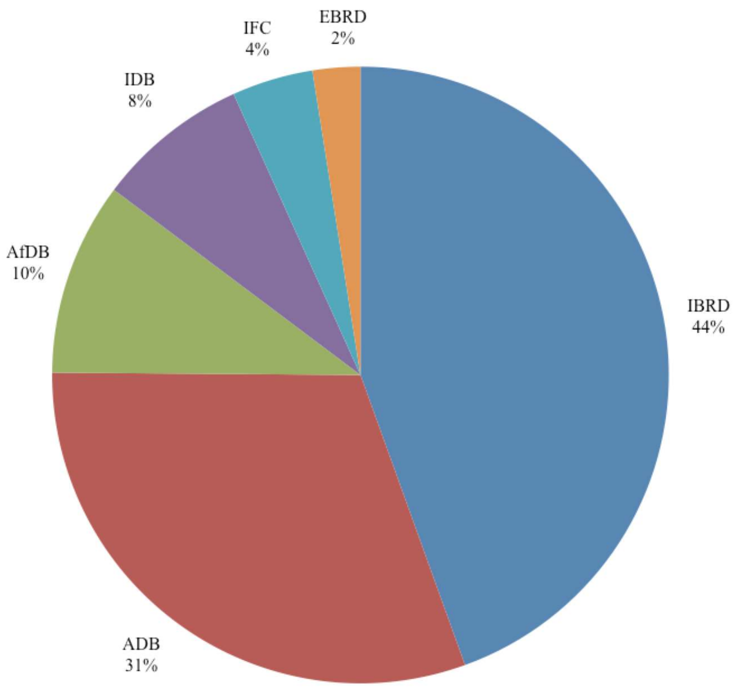
29 According to the PPCR's structure, funding is to be channelled exclusively through the MDBs (Table 2). A review of actual fund distribution (Figure 3) shows that nearly half of funding to the PPCR returns to the World Bank in its role as implementing agency.

Table 2. Institutions eligible to receive financing from the PPCR.

African Development Bank (AfDB)
Asian Development Bank (ADB)
European Bank for Reconstruction and Development (EBRD)
Inter-American Development Bank (IADB)
International Finance Corporation (IFC)
World Bank (IBRD)

Source: World Bank (2015b, 1).

Figure 3. Distribution of funds from the PPCR.



Source: Aggregation of all PPCR projects from www.cif.climateinvestmentfunds.org/projects (accessed on 6 May 2016).

30 Whereas the MDBs are likewise implementing agencies of the other adaptation-specific funds to be discussed below, the PPCR most directly reproduces the roles of these traditional development actors in decision-making, project design and fund distribution, reflecting a continuing pattern of donor-led control over funding priorities.

31 In contrast, the following sections examine funds that have emerged from the UNFCCC process and that maintain a direct relationship with the UNFCCC COPs. It has been suggested that it is within the COP that developing countries are most able to express and exercise control over adaptation funding priorities (Möhner and Klein, 2007). The following sections examine the degree to which UNFCCC funds integrate more completely these concerns.

2.3. Least Developed Countries Fund and Special Climate Change Fund

32 The Least Developed Countries Fund (LDCF) and Special Climate Change Fund (SCCF) are the longest-lived funds treated here, as they were established through the UNFCCC Marrakech Accords in 2001 (Decision 7/CP.7) and became operational in 2002 and 2004, respectively. The LDCF focuses exclusively on adaptation and vulnerability reduction, through funding for National Adaptation Plans of Action in least developed countries. The SCCF is open to 'all vulnerable developing countries.' While formally the SCCF has four funding windows (adaptation, technology transfer, mitigation, and economic diversification), to date all SCCF projects have focused on adaptation,[15] using both the

'adaptation' and 'technology transfer' windows.[16] As of May 6, 2016, the LDCF and the SCCF had received USD 992 and 346 million, respectively, in paid contributions from donors (GEF, 2016, 1). All financing from the LDCF and the SCCF takes the form of grants. As the two funds are governed under the same set of norms they are treated together here.

33 Both funds are administered by the Global Environment Facility (GEF), with the World Bank as trustee. The main governing body responsible for administering the funds, including the approval of specific projects, is the LDCF/SCCF Council, which has the same composition as the GEF Council, with 14 seats for contributing countries and 18 for recipients. The LDCF/SCCF Council's rules of procedure are identical to those of the GEF Council (GEF, 2006a; GEF 2007). Specifically, GEF rules regarding the weighting of votes are retained:

34 LDCF/SCCF Council membership and vote-weighting procedures are pertinent points to consider given the importance of the issue of control over adaptation fund decision-making in international debates. The vote-weighting procedure, coupled with the slight majority membership by recipient countries (18 of 32) on the council, appears at first to offer more balanced donor/recipient control than, say, the World Bank's contribution-weighted voting system. However, the LDCF/SCCF vote double weighting has been criticised, in that the largest contributors ultimately control decision-making even if decisions never come to a vote (Müller, 2007; Grasso, 2011, 368).

35 The LDCF/SCCF's relationship to the COP is likewise an important issue. According to the LDCF/SCCF governance structure, all GEF policies and rules of procedure are to be followed except when responding to specific COP guidance (GEF, 2010, 3). In principle the GEF is to be accountable to the COP regarding its decisions on the LDCF and the SCCF. Yet reviews of this governance structure have shown that the GEF has not fully adhered to COP guidance, even when this guidance was explicit and cited specific adaptation priorities to be addressed (Möhner and Klein, 2007; Grasso, 2011, 367-368).

36 Regarding a second aspect of control, the distribution of adaptation funds can also be examined. To recall, all GEF funding goes through one of ten 'GEF Agencies' who develop, implement and manage all projects. As part of a pilot programme on 'direct access', the GEF recently accredited eight new 'GEF Project Agencies' eligible to receive funding from the GEF, and may accredit a total of up to ten such agencies under the pilot programme. As GEF-administered funds, this arrangement also applies to the distribution of LDCF/SCCF funds (Table 3).

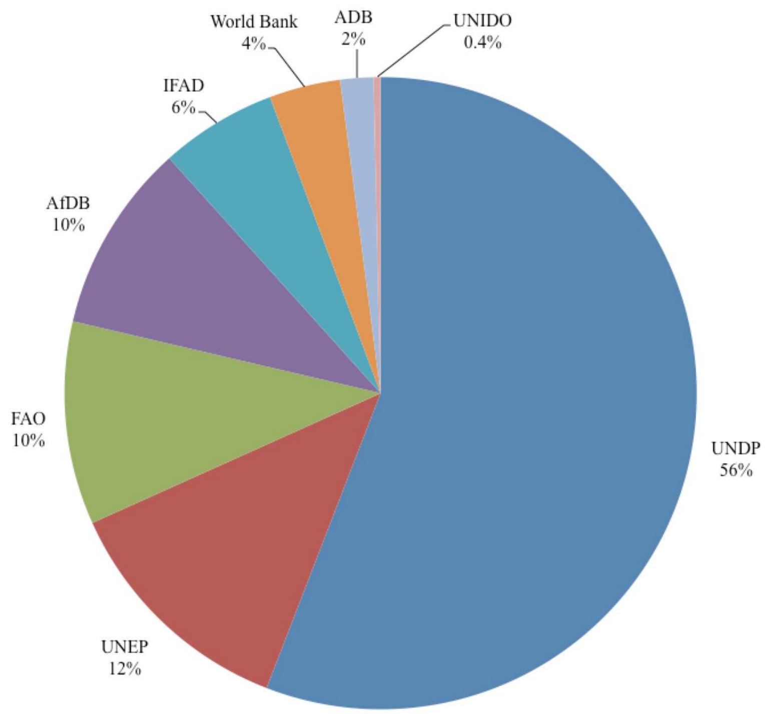
Table 3. Agencies eligible to receive funding from LDCF or SCCF.

GEF Agencies
African Development Bank (AfDB)
Asian Development Bank (ADB)
European Bank for Reconstruction and Development (EBRD)
Food and Agriculture Organizaton of the United Nations (FAO)

Inter-American Development Bank (IADB)
International Fund for Agricultural Development (IFAD)
United Nations Development Programme (UNDP)
United Nations Environment Programme (UNEP)
United Nations Industrial Development Organization (UNIDO)
World Bank (IBRD)
GEF Project Agencies (pilot programme on 'direct access')
Conservation International (CI)
Corporación Andina de Fomento (CAF)
Development Bank of South Africa (DBSA)
Foreign Economic Cooperation Office, Ministry of Environmental Protection of China (FECO)
Fundo Brasileiro para a Biodiversidade (FUNBIO)
International Union for the Conservation of Nature (IUCN)
West African Development Bank (BOAD)
World Wildlife Fund (WWF-US)

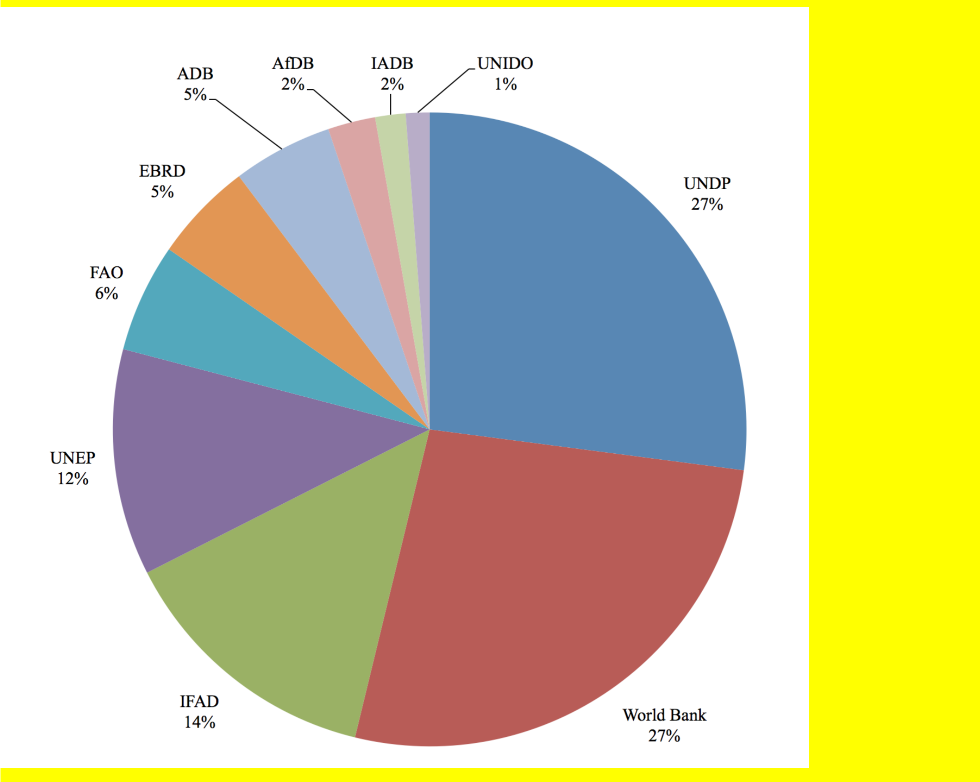
Source: GEF (no date).

Figure 4. Distribution of funds from the LDCF.



Source: Aggregation of all approved country, regional, and global LDCF projects from www.thegef.org/gef/project_list (accessed on 6 May 2016).

Figure 5. Distribution of funds from the SCCF.



Source: Aggregation of all approved country, regional, and global SCCF projects from www.thegef.org/gef/project_list (accessed on 6 May 2016).

37 A review of project entries in the GEF database for the LDCF/SCCF shows that in practice the majority of adaptation funding is currently being distributed to a more limited set of agencies (Figures 4 and 5). The original implementing agencies of the GEF—UNDP, UNEP and World Bank—together control about two-thirds of both LDCF and SCCF fund distributions. In particular, to date, the eight GEF Project Agencies forming the GEF's pilot programme on 'direct access' have together received 27 GEF-approved projects,[17] but none through the LDCF or the SCCF.

2.4. The Adaptation Fund

38 The Adaptation Fund (AF), also established at Marrakech in 2001 (Decision 10/CP.7) but only operational since 2010, had received USD 343 million in donations and USD 196 million from the sale of CER credits as of December 31, 2015 (World Bank, 2016, 4). All financing from the AF takes the form of grants.

39 The AF seems at first to provide a number of innovations as compared to the other funds discussed above in terms of its governance structure and distribution of funds. Indeed, the AF's governance structure has been a major point of contention between developed and developing parties (Müller, 2006; Müller, 2007; Grasso, 2011). Initially, the GEF proposed to the COP an arrangement by which the AF would be governed identically to the LDCF and the SCCF, described above—that is, as a GEF-administered fund (GEF, 2006b; UNFCCC, 2006; World Bank, 2006). This led to criticism from the developing country Parties (UNFCCC, 2006), particularly concerning the high level of control exercised by

donors in the GEF (Müller, 2006). The AF was the focus of a developing country push for a 'new deal', involving independence from the World Bank and the GEF, accountability to the COP, and direct access to funds.

40 The source of funding for the AF reflects one aspect of these concerns. About 40 per cent of the fund's resources have been acquired through the sale of CER credits from CDM projects. For this portion of funding there is no 'donor,' and as such the importance of the issue of donor control over funding priorities is reduced. Also, the primary decision-making body is the AF Board, which is designed to be independent from other multilateral institutions and only accountable to the COP. The board's composition is balanced in favour of developing country Parties, who currently hold 11 out of 16 seats.[18] Unique among the funds treated here, the AF board employs one-member-one-vote voting rules (Decision 1/CMP.3). This contrasts with, for example, the LDCF/SCCF structure, whose council is housed at the GEF and employs partially contribution-weighted voting, as described above. As in the case of the PPCR and the LDCF/SCCF, the GEF provides secretariat services, responsible for reviewing projects and for accreditation processes, and the World Bank acts as trustee (both of these elements on an interim basis to be reviewed, Decision 1/CMP.3).

41 Initially, the AF was intended to provide significant 'direct access' to its funds for developing country projects (Decision 1/CMP.3). Country governments may nominate a National Implementing Entity, which must then pass an accreditation review process by the AF's accreditation panel, based on criteria including social and environmental safeguards. In the literature, this innovative modality of the AF has attracted particular interest (e.g. Brown et al., 2010; Stadelmann et al., 2014, 102; Grasso, 2010; Grasso, 2011). Alongside the 'direct access' modality there remains the 'traditional access' modality—that is, access through 'Multilateral Implementing Entities' (MIEs), which must likewise pass through the accreditation process.

42 At the time of writing, 12 MIEs and 23 NIEs have been accredited (Table 4). The MIEs are, with a few exceptions, the same as the 'GEF Agencies' (Table 3). The novelty is the list of 'newcomers', the NIEs. In terms of accreditation at least, the 'direct access' modality and the concept of national-level implementing agencies operating alongside traditional multilateral agencies appear to have had some success.

Table 4. Agencies eligible to receive funding from the Adaptation Fund ('implementing entities'). Four 'Regional Implementing Entities' are not discussed here.

Multilateral Implementing Entities (MIEs)
African Development Bank (AfDB)
Asian Development Bank (ADB)
European Bank for Reconstruction and Development (EBRD)
Inter-American Development Bank (IADB)
International Fund for Agricultural Development (IFAD)
United Nations Human Settlements Programme (UN-Habitat)

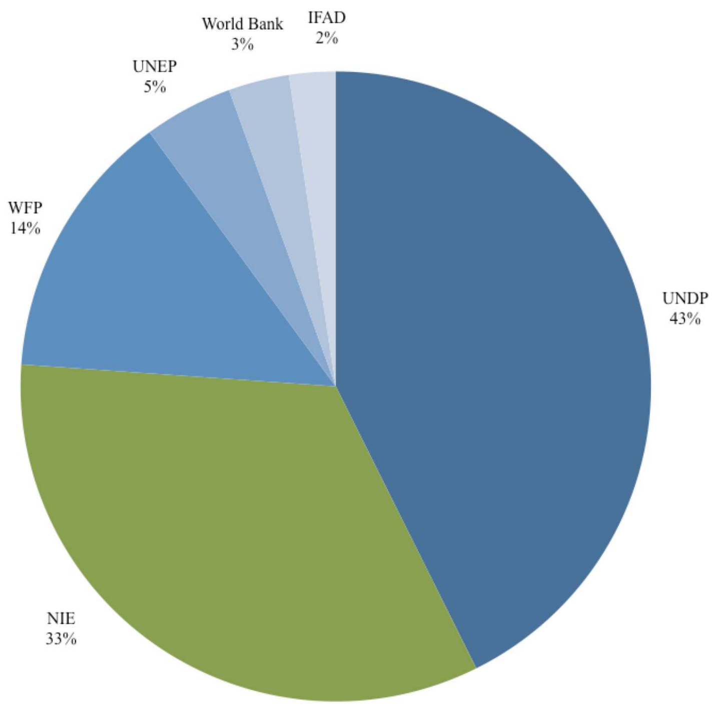
United Nations Development Programme (UNDP)
United Nations Educational, Scientific, and Cultural Organization (UNESCO)
United Nations Environment Programme (UNEP)
United Nations World Food Programme (WFP)
World Bank (IBRD)
World Meteorological Organization (WMO)
National Implementing Entities (NIEs)
Agence pour le Développement Agricole (Morocco)
Agencia de Cooperación Internacional de Chile (Chile)
Agencia Nacional de Investigación e Innovación (Uruguay)
Centre de Suivi Ecologique (Senegal)
Desert Research Foundation of Namibia (Namibia)
Environment Division (Antigua and Barbuda)
Dominican Institute of Integral Development (Dominican Republic)
Fundación Natura (Panama)
Fundecooperación Para el Desarrollo Sostenible (Costa Rica)
Mexican Institute of Water Technology (Mexico)
Micronesia Conservation Trust (Micronesia)
Ministry of Finance and Economic Development (Ethiopia)
Ministry of Natural Resources (Rwanda)
Ministry of Planning and International Cooperation (Jordan)
National Bank for Agriculture and Rural Development (India)
National Environment Fund (Benin)
National Environment Management Authority (Kenya)
Partnership for Governance Reform (Indonesia)
Peruvian Trust Fund for National Parks and Protected Areas (Peru)

Planning Institute of Jamaica (Jamaica)
Protected Areas Conservation Trust (Belize)
South African National Biodiversity Institute (South Africa)
Unidad para el Cambio Rural (Argentina)

Sources: Adaptation Fund (no date a.; no date b.).

43 An empirical examination of actual fund distribution tells a somewhat more nuanced story (Figure 6). Despite the high level of interest in the 'direct access' modality, currently only 33 per cent of funding from the AF goes through this modality, the other 67 per cent going to traditional multilateral development agencies.

Figure 6. Distribution of funds from the AF through MIEs (shades of blue) and all NIEs combined (green).



Source: Aggregation of projects from www.adaptation-fund.org/projects-programmes (accessed on 7 May 2016).

44 In terms of the success of the 'direct access' idea in relation to adaptation funding more broadly, it should be kept in mind that this 33 per cent going to NIEs at the AF is 33 per cent of one of the least-well-financed adaptation funding channels (see Table 6).

2.5. The Green Climate Fund

45 Although only limited project funding had been disbursed through this channel at the time of writing, the governance structure of the Green Climate Fund (GCF) is described

here as a point of comparison, especially important given the current focus in climate change debates on the GCF and the widely held expectation that it will become the primary channel for climate (mitigation and adaptation) finance. The GCF was, according to UNFCCC language, ‘established’ at Cancun in 2010 and ‘operationalized’ at Durban in 2011. As of December 7, 2016, the GCF had received USD 10.3 billion in pledges, of which USD 9.9 billion had been converted into signed commitments (GCF Secretariat, 2016a). The GCF intends to provide a variety of financial instruments including grants and concessional loans. The GCF board received and approved its first project funding proposals in November 2015, just ahead of COP21 in Paris, an important political goal for demonstrating that the long-awaited GCF is fully operational.

46 In terms of fund governance, like the LDCF/SCCF and the AF, the GCF was conceived to operate under COP guidance. As with all of the other adaptation-specific funds discussed above, the World Bank is trustee. However, while an interim secretariat was initially composed of personnel from the UNFCCC and GEF secretariats, since 2013 the GCF operates with its own independent secretariat, marking a break with the pattern (as with the LDCF/SCCF and the AF) of assigning the role of secretariat to the GEF.

47 Also similar to the AF, GCF decisions are made by an independent board. This board is composed of 24 seats equally divided between representatives of developed and developing countries. Likewise, the board has two co-chairs, one each from developed and developing countries. Decisions are currently taken by consensus, while a provision for voting is still being debated and includes options ranging from one-member-one-vote (like the AF) to contribution-weighted voting (like World Bank funds).[19] As such, the governance structure of the GCF is not fully defined even if it is considered to be fully operational.

48 Like the AF, the GCF has a provision for ‘direct access’ and a process for accrediting international-, regional-, and national-level bodies as implementing entities, yet the process is somewhat more complex than in the case of the AF. Through what is called a ‘fit-for-purpose’ approach, applicant entities are required to meet specific criteria to obtain accreditation levels with respect to the size of project funding they may receive, the specific financial functions they may perform and the environmental and social risk level of the projects they may implement. Implementing entities that are already accredited by the GEF, the AF or the European Commission’s Directorate-General for International Cooperation and Development are eligible for accreditation via a ‘fast track.’ This means that they must pass a more limited set of tests and are typically accredited more quickly than ‘newcomers’, who use the ‘normal’ track. Accreditation may be conditional; that is, project funding may be delayed until particular criteria are met (typically, reforms of specific agency procedures are required). Although accreditation is ongoing, to date the GCF has accredited 33 entities, as reviewed in Table 5.

Table 5. Accredited entities of the Green Climate Fund, eligible to receive funding (once any remaining conditions are met).

		Accreditation				
Entity	Access modality	Track	Project size	Additional functions*	Environmental and social risk category	Remaining conditions to be met

Acumen Fund, Inc.	Regional	Normal	Micro	Yes	Minimal/none	Yes
Africa Finance Corporation	International	Normal	Large	Yes	High	Yes
African Development Bank	International	Fast	Large	Yes	High	Yes
Agence Française de Développement	International	Fast	Large	Yes	High	None
Agency for Agricultural Development, Morocco	National	Fast	Small	No	Medium	Yes
Asian Development Bank	International	Fast	Large	Yes	High	None
Caribbean Community Climate Change Centre	Regional	Normal	Small	Yes	Medium	Yes
Centre de Suivi Ecologique, Senegal	National	Fast	Micro	No	Minimal/none	Yes
Conservation International Foundation	International	Fast	Medium	Yes	Minimal/none	None
Corporación Andina de Fomento	Regional	Fast	Large	Yes	High	Yes
Crédit Agricole Corporate and Investment Bank	International	Normal	Large	Yes	High	Yes
Deutsche Bank AG	International	Normal	Large	Yes	High	Yes
Development Bank of South Africa	Regional	Fast	Large	Yes	High	Yes

Environmental Investment Fund of Namibia	National	Normal	Micro	Yes	Minimal/none	Yes
European Bank for Reconstruction and Development	International	Fast	Large	Yes	High	None
European Investment Bank	International	Fast	Large	Yes	High	None
HSBC Holdings plc and subsidiaries	International	Normal	Large	Yes	High	Yes
Inter-American Development Bank	International	Fast	Large	Yes	High	None
International Finance Corporation	International	Normal	Large	Yes	High	None
International Union for the Conservation of Nature	International	Fast	Medium	Yes	Medium	Yes
Kreditanstalt für Wiederaufbau (KfW)	International	Fast	Large	Yes	High	None
Ministry of Finance and Economic Cooperation, Ethiopia	National	Normal	Small	No	Medium	Yes
Ministry of Natural Resources of Rwanda	National	Fast	Small	No	Medium	Yes
National Bank for Agriculture and Rural Development, India	National	Fast	Large	Yes	Medium	Yes

National Environment Management Authority, Kenya	National	Fast	Micro	No	Medium	Yes
Peruvian Trust Fund for National Parks and Protected Areas	National	Fast	Micro	No	Minimal/none	Yes
Secretariat of the Pacific Regional Environment Programme	Regional	Fast	Small	No	Minimal/none	None
The World Bank (IBRD+IDA)	International	Fast	Large	Yes	High	None
Unidad para el Cambio Rural, Argentina	National	Fast	Small	Yes	Medium	Yes
United Nations Development Programme	International	Fast	Medium	No	Medium	None
United Nations Environment Programme	International	Fast	Small	No	Medium	Yes
World Food Programme	International	Fast	Micro	No	Minimal/none	None
World Meteorological Organization	International	Fast	Small	No	Minimal/none	Yes

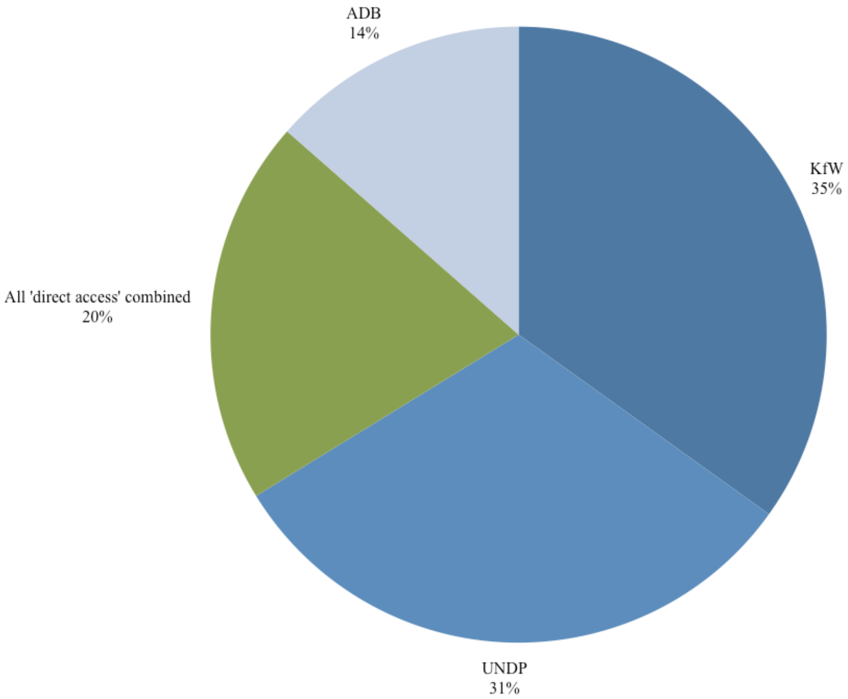
Sources: Adapted from GCF Secretariat (2015a, 2015b, 2016b, 2016c).

* According to the GCF's 'fit for purpose' approach, entities are accredited to a particular fiduciary standard that allows the entity to perform specific functions. All of the entities listed here have been approved for two 'basic' functions—'Basic fiduciary standards' and 'Project management.' Additional functions, relating to a higher fiduciary standard, include 'On-lending and/or blending (loans, equity and guarantees)' and 'Grant award and/or funding allocation mechanisms.' Entities marked with 'yes' in the *Additional functions* column have been approved for one or (often) both of these additional functions, and thus have met the criteria of a more complete fiduciary standard.

49 The results of the accreditation process to date (Table 5) suggests an emerging trend: as compared to the new 'direct access' regional and national entities, traditional international development agencies have been approved more quickly, with fewer conditions, for higher-risk/impact projects, for a wider range of activities, and are eligible to receive more substantial funding. The only entities to have obtained the most

favourable accreditation (fast track, large project size, high risk category, with additional accredited functions and no conditions) to date are the multilateral banks (ADB, IADB, EBRD and the World Bank), along with three 'newcomers', the German and French bilateral development agencies (KfW and AFD) and the European Investment Bank. The accreditation process seeks to respond to donors' concerns regarding institutional capacity. However, the process also demonstrates the slow progress of the 'direct access' modality in increasing recipient countries' direct accessibility to adaptation funding.

Figure 7. Distribution of funds from the GCF to 'international' (shades of blue) and 'direct access' (green) entities. Includes all of adaptation and half of 'crosscutting' adaptation/mitigation finance.



Source: Aggregation of projects from www.greenclimate.fund/documents/20182/77885/GCF+-+Project+Fact+Sheets+-+web-ready.pdf(accessed on 7 May 2016).

50 The GCF board approved, in November 2015, funding for its first eight projects, of which four were adaptation, one mitigation, and three 'crosscutting' (adaptation/mitigation) projects. Although this is a very limited set on which to base an analysis, in this early fund distribution 9 per cent of adaptation-specific funding has been channelled through the 'direct access' modality. If half of the 'crosscutting' project funding (assuming a 50/50 adaptation/mitigation split) is included (as in Figure 7), the proportion going through 'direct access' rises to 20 per cent. In either case, thus far the use of the 'direct access' modality at the GCF is lower than that at the AF (with 33 per cent), described previously.

3. Overview

51 The preceding sections have examined the primary channels for public adaptation finance flows from developed to developing countries. The analysis has focused on the question of fund governance, identifying: 1) the actors involved in the governance of each

fund, 2) the high-level decision-making processes, and 3) fund distribution patterns. For each channel, the overall size of the funds was also expressed, but in different ways. For adaptation-ODA annual commitments were identified, whereas for the adaptation-specific funds only cumulative contributions were available. In order to provide a rough comparison of these amounts, Table 6 expresses them in terms of average annual flows. Although this approach only provides an approximation and conceals any variation in flows over time, it highlights the relative importance of the different funding channels discussed in terms of relative donor support. The GCF cannot yet be compared in this way as it is still in its initial resource mobilisation phase and only a very few projects have been approved, and those only recently.

Table 6. Relative donor support for the different adaptation finance channels considered, in terms of approximate average annual flow (for simplicity, current prices are used).

Funding channel	Total donor cumulative commitments/ contributions (million USD)	Years considered*	Approximate average annual flow (million USD)	Portion provided as loans (%)
Adaptation-ODA**	54,388	2010-14	10,878	29
-significant	36,820	2010-14	7,364	26
-principal	17,568	2010-14	3,514	34
PPCR	1,211	2008-14	173	38***
LDCF	992	2002-16	66	0
SCCF	346	2004-16	27	0
AF	343****	2010-15	57	0

Source: Summary of information presented in sections 2.1-2.5.

* For ODA, these are the full calendar years for which the adaptation Rio marker data are available. For the other entries, the 'years considered' run from the year in which the fund was first operational until the last year of available data. These are counted as full calendar years (i.e. the period 2008-14 is considered to be seven years), even though this may introduce a margin of error depending on the actual dates of fund operationalisation and of the last available data reported.

** As stated earlier, an undetermined portion of contributions to the adaptation-specific funds (PPCR, LDCF, SCCF and AF) may also be included in the adaptation-ODA figures. However, assuming 100% reporting as adaptation-ODA, subtracting all PPCR+LDCF+SCCF+AF funding from adaptation-ODA does not significantly alter the overall relative importance of flows.

*** Canales et al. (2014, 9-10).

**** As stated in the text, the Adaptation Fund is supported by donor contributions and by proceeds from the sale of CER credits. Only the former are included here in order to more accurately reflect the level of donor support for the fund and to make comparison with the other funding channels, supported uniquely by donors, more appropriate.

52 The overall governance characteristics of the different funding channels are summarised in Table 7. Although some details are lost, these two tables are intended as a succinct

reminder of the funds analyzed above and serve as a reference for the following discussion.

Table 7. Summary of the governance characteristics of the different funding channels considered.

Funding channel	**Decision-making body**	**Donor: recipient ratio in decision-making body**	**Provisions for voting in absence of consensus**	**Relationship to WB and GEF**	**Accountable to COP**	**Direct access (%)**
Adaptation-ODA	Donor	(n/a)	(n/a)	(n/a)	No	(n/a)
PPCR	PPCR Subcommittee	6:7	None	WB fund	No	No
LDCF/ SCCF	LDCF/ SCCF Council	14:18	Double majority (60% of members and of contributions)	GEF fund WB trustee	Yes	Pilot (0%)
AF	AF Board	5:11	One vote per member	Independent board WB trustee GEF secretariat	Yes	Yes (33%)
GCF	GCF Board	12:12	(as yet undefined)	Independent board and secretariat WB trustee	Yes	Yes (20%)*

Source: Summary of information presented in sections 2.1-2.5.

* Percentage of funds distributed through 'direct access' taking all adaptation and half of 'crosscutting' adaptation/mitigation funding, as described in the text.

4. Discussion

53 The objectives of this paper were to provide a useful overview of adaptation finance channels, an estimation of relative donor support, and an analysis of the governance characteristics of these channels in terms of the primary issues expressed in international debates. This will be the focus of the discussion in this section. To recall from the introduction, the main issues typically raised concerning adaptation finance are additionality, use of loans, accessibility, relationship to traditional development actors,

and representation in adaptation decision-making. In particular, this article's novel combined analysis of donor support, on the one hand (Table 6), and donor/recipient control, on the other (Table 7), allows three main trends to be identified:

54 *Adaptation finance governance has evolved through a series of iterative steps.* As reviewed above, a series of progressively created UNFCCC-mandated funds (LDCF/SCCF, AF, and GCF) propose increasing independence from traditional aid structures in terms of fund governance and the implementing agencies receiving funding. For example, the AF as compared to the earlier-implemented LDCF and SCCF is governed by an independent board rather than being under GEF control, although maintaining the GEF as its secretariat. The GCF takes a further step, with both its own independent board and secretariat. Similarly, a quick glance at Tables 2-4 suggests that the number and variety of institutions eligible to receive funding progressively increases as one moves from the PPCR, to the LDCF/SCCF, to the AF, and to the GCF. Further, the AF and the GCF provide 'direct access' to funds (although use of this modality to date has been somewhat limited). This would seem to suggest an iterative process through which developing-country demands on these issues have been progressively integrated into adaptation finance governance structures.

55 *The vast majority of adaptation finance currently flows through traditional development aid channels.* Although the GCF has the potential to upset this trend, adaptation-ODA, at over USD 10 billion annually, currently makes the largest contribution to adaptation finance overall, and by a wide margin. However, it is difficult to ascertain what portion of this is 'new and additional' to current aid budgets, given the simple Rio marker system through with which ODA is counted as adaptation-ODA. Further, the portion of adaptation-ODA which takes the form of loans is the same as (or higher than, when one considers principal-marked activities only) traditional ODA. In terms of governance, as compared to the adaptation-specific funds discussed in this article in which recipient countries are represented in relatively balanced decision-making bodies, adaptation-ODA appears singularly donor-driven. The emphasis on project-type interventions (greater than in the case of traditional ODA) also suggests a high degree of donor control over funding priorities. Developing countries' demands for additional, grant-based funding, increased independence from traditional development structures, accountability to the COP, representation in fund decision-making bodies, and 'direct access' to funds are clearly not well represented in the case of adaptation-ODA. However, even in the case of the more 'innovative' adaptation-specific funding channels, the World Bank and GEF continue to play important roles in many cases. Despite the success of 'direct access' in terms of the growing lists of eligible implementing agencies (Tables 2-4), the accreditation process that leads to entities being added to these lists has been quicker and has operated with fewer constraints for traditional development actors, who have also received the majority of adaptation funds distributed (Figures 3-6). More broadly, regardless of whether control over funding may be shifting from donor to recipient country control in some cases, the overall structures of development aid are largely reproduced. In any case, whereas shifting some measure of control to recipient country governments through the incorporation of the concerns highlighted above may be seen as necessary in order to gain perceived legitimacy, it is not at all clear that this would necessarily lead to the increased likelihood of adaptation benefits reaching the most vulnerable groups.

56 *As donor control decreases, so does donor support.* Excluding for the moment the GCF, the different funding channels reviewed above can be thought of as lying on a spectrum from

'traditional' to 'innovative.' At one end of that spectrum lies traditional ODA. This is the end of the spectrum that experiences the greatest levels of funding. At the other end of the spectrum, the Adaptation Fund—with an independent board, accountability to the COP, grant-only financing, a portion of resources 'donor-free' (sale of CER credits), a one-member-one-vote governance structure, board membership balanced in favour of developing countries, and support for the 'direct access' modality—is clearly the funding channel that responds most completely to developing-country demands on these issues. It is also one of the least-well-financed channels, with only about USD 57 million in average annual contributions. While millions flow through the new channels, billions flow through more traditional channels that provide higher degrees of donor control. It remains to be seen whether the GCF, which has received significant pledges but whose long-term support is not guaranteed and whose governance characteristics are not fully defined, will confirm or challenge this trend. One observer has noted that while the GCF has responded to developing country demands regarding independence from the GEF and increased developing country representation on the board, the resulting governance structure, including consensus-based decision-making and a balanced board membership (see Table 7), compromises donor control and therefore, likewise, compromises long-term donor support (de Sépibus, 2014, 14, 18-19).

5. Conclusion

57 This paper has presented the primary channels employed in the delivery of public adaptation finance from developed to developing countries. As such, it is intended as an overview and reference, providing, in particular, approximate annual flows through each channel (Table 6), an analysis of fund distribution among implementing agencies (Figures 3-7) and an overview of the governance characteristics of the different channels (summarised in Table 7).

58 In relation to the primary issues expressed in international debates regarding adaptation finance, the paper has further identified three primary trends: 1) the iterative inclusion of developing-country concerns through the creation of a series of progressively innovative finance channels, 2) the reproduction of the dominance of traditional aid channels and agencies in delivering adaptation finance, and 3) donors' preference for adaptation finance delivery channels that offer them the greatest control.

59 This review and discussion have relevance to the design of the Green Climate Fund. Whereas the GCF has already received significant resources in its first round of pledges and is broadly recognised as the primary channel for future climate (adaptation and mitigation) finance, tension continues over donor support, on the one hand, and perceived legitimacy, on the other. Will donors sideline the GCF and continue to prefer channels that offer them greater control? Will contributions to the GCF be perceived as acceptable by developing-countries in terms of fulfilling developed-country obligations under the convention (e.g. Articles 3.1 and 4.4) and, more broadly, under the principle of 'polluter pays' (Principle 16 of the Rio declaration)? In this context, we can expect continued debate over the specific governance characteristics of the GCF, including the composition of the board, the procedures for voting in the absence of consensus, and the nature and extent of accreditation and 'direct access.' The outcome of these debates will have a direct impact on the level of donor support for the fund as well as on the level of its acceptability as perceived by developing-country Parties.

60 Yet more broadly, given adaptation finance's heavy reliance on traditional aid delivery mechanisms, one may indeed wonder about references to the 'challenge' or the 'need' to 'mainstream' adaptation into development (e.g. IPCC, 2007, 818-835). What can be observed in the current adaptation finance architecture is rather a de facto mainstreaming of adaptation into development through the systematic reproduction of the roles of traditional development actors in adaptation decision-making and project implementation. In practice, it seems that 'adaptation-as-development' has become the accepted norm, despite the presence of alternative framings in the debate (Scoville-Simonds, 2015; Moore, 2012).

61 These concerns have implications that go beyond the mere question of donor/recipient country control of adaptation finance. Whereas international debates continue to reflect the struggle for control, between donor and recipient countries, over an essentially unchanged development apparatus, insufficient attention has been paid to the actual effects, at the local level, of adaptation interventions conceived and implemented along the same lines as development. An emerging body of case studies suggests that adaptation interventions implemented through existing structures may lead to some unintended consequences and not necessarily to the most socially just of outcomes (e.g. Barrett, 2014; Arnall et al., 2014; Taylor, 2014; Inderberg et al., 2015; Scoville-Simonds, 2015; Jamali, 2015). More generally, despite the growing engagement of the social sciences in theorising concepts such as 'adaptation', 'adaptive capacity', and 'vulnerability', the way that adaptation policies and projects are actually being conceived and implemented at national and local levels and the implications for social justice and the effectiveness of adaptation responses is an area of only limited empirical research, and thus one that ought to be explored.

BIBLIOGRAPHY

Adaptation Fund (no date a) *Multilateral Implementing Entities,*http://www.adaptation-fund.org/apply-funding/implementing-entities/multilateral-implementing-entities (accessed on 7 May 2016).

Adaptation Fund (no date b) *National Implementing Entities*,http://www.adaptation-fund.org/apply-funding/implementing-entities/national-implementing-entity (accessed on 7 May 2016).

Adger, N.W., I. Lorenzoni and K. O'Brien (2009) 'Adaptation now', in *Adapting to Climate Change – Thresholds, Values, Governance,* (Cambridge; Cambridge University Press), 1-22.

Arnall, A., U. Kothari, I. and Kelman (2014) 'Introduction to politics of climate change: discourses of policy and practice in developing countries', *The Geographical Journal*, 180(2), 98-101, DOI: 10.1111/geoj.12054.

Ayers, J.M. and S. Huq (2009) 'Supporting adaptation to climate change: what role for official development assistance?', *Development Policy Review*, 27(6), 675-692, DOI: 10.1111/j.1467-7679.2009.00465.x.

Barrett, S. (2014) 'Subnational climate justice? Adaptation finance distribution and climate vulnerability', *World Development,* 58, 130-142, DOI: 10.1016/j.worlddev.2014.01.014.

Barrett, S. (2013) 'The necessity of a multi-scalar analysis of climate justice', *Progress in Human Geography,* 37(2), 215-233, DOI:10.1177/0309132512448270.

Blaxekjær, L.O. and T.D. Nielsen (2015) 'Mapping the narrative positions of new political groups under the UNFCCC', *Climate Policy,* 15(6), 751-766, DOI:10.1080/14693062.2014.965656.

Brown, J., M. Stadelmann and L. Hörnlein (2011) *Fast-start finance to address climate change: what we know at the mid-point*, ODI Background Note (London: Overseas Development Institute).

Brown, J., N. Bird, and L. Schalatek (2010) *Direct Access to the Adaptation Fund: realising the potential of National Implementing Entities,* Climate Finance Policy Brief 3 (London: Overseas Development Institute).

Buchner, B., M. Stadelmann, J. Wilkinson, F. Mazza, A. Rosenberg and D. Abramskiehn (2014) *The Global Landscape of Climate Finance 2014* (Venice: CPI).

Canales Trujillo, N., S. Barrett, and S. Nakhooda (2014) *The effectiveness of climate finance: a review of the Pilot Program for Climate Resilience*, ODI Working paper (London: Overseas Development Institute).

Caravani, A., S. Barnard, S. Nakhooda, and L. Schalatek (2014) *Climate Finance Thematic Briefing: Adaptation Finance*, Climate Finance Fundamentals 3 (London: Overseas Development Institute and Heinrich Böll Stiftung North America).

CPI (Climate Policy Initiative) (2014) *A closer look at public adaptation finance*, www.climatepolicyinitiative.org/wp-content/uploads/2014/11/A-Closer-Look-at-Public-Adaptation-Finance.pdf (accessed on 3 December 2016).

de Sépibus, J. (2014) 'The Green Climate Fund: How attractive is it to donor countries?', NCCR Trade Working Paper 2014/19 (Bern: NCCR), http://www.nccr-trade.org/fileadmin/user_upload/nccr-trade.ch/wp5/5.1/The_Green_Climate_Fund_2015.pdf (accessed on 3 December 2016).

Dervis, K. and S.P. Milsom (2010) 'Responding to a changing climate: challenges in financing climate-resilient development assistance', Making development aid more effective, Brookings policy brief, https://www.brookings.edu/wp-content/uploads/2016/07/09_development_aid_dervis.pdf (accessed on 3 December 2016).

Diamond, J. and C. Bruch (2011) 'The International Architecture for Climate Change Adaptation Assistance', in R. Fujikura and M. Kawanishi (eds.) *Climate Change Adaptation and International Development* (London and Washington, DC: Earthscan), 291-315.

Eichenauer, V.Z. and B. Reinsberg (2016) 'What determines earmarked funding to international development organizations? Evidence from the new multi-bi aid data', CIS Working Paper No. 88 (Zürich: University of Zurich).

Eriksen, S., T.H. Inderberg, K. O'Brien, and L. Sygna (2015) 'Introduction – Development as usual is not enough', in T.H. Inderberg, S. Eriksen, K. O'Brien, and L. Sygna (eds.) *Climate Change Adaptation and Development* (London and New York: Routledge), 1-18.

Fankhauser, S. (2010) 'The costs of adaptation', *WIREs Climate Change*, 1, 23-30, DOI: 10.1002/wcc.14.

Füssel, H.-M. (2010) 'How inequitable is the global distribution of responsibility, capability, and vulnerability to climate change: A comprehensive indicator-based assessment', *Global Environmental Change* 20(4), 597–611, DOI: 10.1016/j.gloenvcha.2010.07.009.

GCF (Green Climate Fund) Secretariat (2016a) *Status of Pledges and Contributions made to the Green Climate Fund, December 7,*www.greenclimate.fund/documents/20182/24868/Status_of_Pledges.pdf (accessed on 8 December 2016).

GCF Secretariat (2016b) *Decisions of the Board – Twelfth Meeting of the Board, 8-10 March,* GCF/B.12/32.

GCF Secretariat (2016c) *List of Accredited Entities as of 9 March*, www.greenclimate.fund/documents/20182/114261/20160406_-_GCF_List_of_Accredited_Entities.pdf/e09bb9b3-9730-4adc-bca9-ff32739ecae8 (accessed on 8 December 2016).

GCF Secretariat (2015a) *Decisions of the Board – Ninth Meeting of the Board, 24-26 March 2015*, GCF/B.09/23.

GCF Secretariat (2015b) *Decisions of the Board – Tenth Meeting of the Board, 6-9 July 2015*, GCF/B.10/17.

GCF Secretariat (2015c) *Decision-Making Procedures for the Board in the Absence of Consensus 12 June 2015*, GCF/B.10/11.

GEF (Global Environment Facility) (no date) *GEF Agencies: Global Environment Facility*, www.thegef.org/gef/gef_agencies (accessed on 7 May 2016).

GEF (2016) *Progress report on the Least Developed Countries Fund and the Special Climate Change Fund, 12 May.* GEF/LDCF.SCCF.20/03.

GEF (2010) *Least Developed Countries Fund (LDCF) and Special Climate Change Fund (SCCF)*, www.thegef.org/sites/default/files/council-meeting-documents/LDCF-SCCF-22Feb2010_5.pdf (accessed on 8 December 2016)

GEF (2007) *Rules of Procedure for the GEF Council*, www.thegef.org/publications/rules-procedure-gef-council (accessed on 8 December 2016).

GEF (2006a) *Rules of Procedure for the LDCF/SCCF Council*, GEF/LDCF.SCCF.1/3, www.thegef.org/sites/default/files/council-meeting-documents/LDCF.SCCF_.1.3_Rules_of_Procedure_for_the_LDCF.SCCF_Council_4.pdf(accessed on 8 December 2016).

GEF (2006b) *Submission of the Global Environmental Facility (GEF) on Possible Arrangements for the Management of the Adaptation Fund*, GEF/C.29/Inf.2, www.thegef.org/council-meeting-documents/submission-global-environment-facility-gef-possible-arrangements (accessed on 8 December 2016).

Gore, T. (2010) 'Climate Finance Post-Copenhagen: The 100bn questions', *Oxfam Policy and Practice: Climate Change and Resilience*, 6(2), 89-98.

Grasso, M. (2011) 'The role of justice in the North-South conflict in climate change: the case of negotiations on the Adaptation Fund', *International Environmental Agreements Politics Law and Economics,* 11(4), 361-377, DOI: 10.1007/s10784-010-9145-3.

Grasso, M. (2010) 'An ethical approach to climate adaptation finance', *Global Environmental change*, 20, 77-81, DOI: 10.1016/j.gloenvcha.2009.10.006.

Gupta, J. (2014) *The History of Global Climate Governance* (Cambridge: Cambridge University Press).

Hufty, M. (2011) 'Investigating policy processes. The Governance Analytical Framework (GAF)', in Wiesmann, U. and H. Hurni (eds.) *Research for sustainable development: Foundations, experiences, and perspectives* (Bern: NCCR North-South/Geographica Bernensia), 403-424.

Inderberg, T.H., S. Eriksen, K. O'Brien, and L. Sygna (eds.) (2015) *Climate Change Adaptation and Development,* (London and New York: Routledge).

IPCC (Intergovernmental Panel on Climate Change) (2007) *Climate change 2007: Impacts, adaptation and vulnerability,* Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change, Parry, M.L., O.F. Canziani, J.P. Palutikof, P.J. van der Linden and C.E. Hanson (eds.) (Cambridge: Cambridge University Press).

Jamali, H. (2015) *Framing climate change adaptation – from international discourse to local realities – a case study from Pakistan*, unpublished PhD Thesis (Geneva: IHEID).

Junghans, L. and S. Harmeling (2012) *Different tales from different countries – a first assessment of the OECD 'adaptation marker'*, (Bonn: Germanwatch).

Klein, R. and A. Möhner (2009) 'Governance limits to effective global financial support for adaptation', in W.N. Adger, I. Lorenzoni, and K. O'Brien (eds.) *Adapting to Climate Change: Thresholds, Values, Governance* (Cambridge: Cambridge University Press), 465-475.

Michaelowa, A. and K. Michaelowa (2011) 'Coding error or statistical embellishment? The political economy of reporting climate aid', *World Development,* 39(11), 2010-2020, DOI: 10.1016/ j.worlddev.2011.07.020.

Michaelowa, K. and A. Michaelowa (2012) 'Development cooperation and climate change – Political-economic determinants of adaptation aid', in Michaelowa, A. (ed.) *Carbon markets or Climate finance?* (Abindgon: Routledge), 39-52.

Möhner, A. and R. Klein (2007) *The Global Environment Facility: Funding for Adaptation or Adapting to Funds?* Climate & Energy Programme Working Paper (Stockholm Environment Institute).

Moore, F.C. (2012) 'Negotiating adaptation: norm selection and hybridization in international climate negotiations', *Global Environmental Politics*, 12(4), 30-48, DOI: 10.1162/GLEP_a_00138.

Müller, B. (2007) *Nairobi 2006: Trust and the future of adaptation funding*, EV 38, (Oxford: Oxford institute for Energy Studies).

Müller, B. (2006) *Climate of Distrust: The 2006 Bonn Climate Change Adaptation Fund Negotiations* ,Oxford Energy and Environment Comment, (Oxford: Oxford Institute for Energy Studies).

Narain, U., S. Margulis and T. Essam (2011) 'Estimating costs of adaptation to climate change', *Climate Policy*, 11(3), 1001-1019, DOI: 10.1080/14693062.2011.582387.

O'Brien, K. and E. Selboe (2015) 'Climate Change as an Adaptive Challenge', in K. O'Brien and L. Sygna (eds.) *The Adaptive Challenge of Climate Change* (New York: Cambridge University Press), 1-23.

OECD (Organisation for Economic Co-operation and Development) (2015) *Climate-related development finance in 2013 – Update June 2015*, www.oecd.org/dac/environment-development/ Climate-related development finance_ENG_June2015_July2015.pdf (accessed on 3 December 2016).

OECD (2014) *Aid to Climate Change Adaptation*, www.oecd.org/dac/environment-development/ Adaptation-related Aid Flyer - May 2014.pdf (accessed on 8 December 2016).

OECD (2013a) *OECD DAC Statistics on climate-related aid*, www.oecd.org/dac/stats/factsheet on climate change_update 2013.pdf (accessed on 3 December 2016).

OECD (2013b) *Converged Statistical Reporting Directives for the Creditor Reporting System (CRS) and the Annual DAC Questionnaire – Addendum 2*, DCD/DAC(2013)15/ADD2/FINAL.

OECD (2011) *First-Ever Comprehensive Data on Aid for Climate Change Adaptation*,www.oecd.org/dac/ stats/49187939.pdf (accessed on 3 December 2016).

Parry, M., N. Arnell, P. Berry, D. Dodman, S. Fankhauser, C. Hope, S. Kovats, R. Nicholls, D. Satterthwaite, R. Tiffin, and T. Wheeler (2009) *Assessing the Costs of Adaptation to Climate change: A*

Review of the UNFCCC and Other Recent Estimates, (London: IIED and Grantham Institute for Climate Change).

Schalatek, L., S. Nakhooda and C. Watson (2014) *The Green Climate Fund,* Climate Finance Fundamentals 11 (Overseas Development Institute and Heinrich Böll Stiftung North America), https://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/9376.pdf (accessed on 3 December 2016).

Scoville-Simonds, M. (2015) *Adaptation-as-development: 'Socializing' and 'depoliticizing' climate change adaptation, from the international to the local level*, unpublished PhD Thesis (Geneva: IHEID).

Stadelmann, M., Å. Persson, I. Ratajczak-Juszko, and A. Michaelowa (2014) 'Equity and cost-effectiveness of multilateral adaptation finance: are they friends or foes?', *International Environmental Agreements*,14, 101-120.

Taylor, M. (2014) *The Political Ecology of Climate Change Adaptation*: *Livelihoods, Agrarian Change and the Conflicts of Development* (Oxford and New York: Routledge).

UNEP (United Nations Environment Programme) (2014) *The adaptation gap report 2014: A preliminary assessment report*, (Nairobi: UNEP), http://web.unep.org/adaptationgapreport/2014 (accessed on 3 December 2016).

UNFCCC (United Nations Framework Convention on Climate Change) (2016) *Historical membership charts,* http://unfccc.int/files/bodies/election_and_membership/application/pdf/consolidated_historical_membership_charts.pdf (accessed on 9 December 2016).

UNFCCC (2006) *Summary of submissions on specific policies, programme priorities, eligibility criteria and possible arrangements for management of the Adaptation Fund*,http://unfccc.int/files/cooperation_and_support/financial_mechanism/financial_mechanism_gef/application/pdf/summary_of_submissions (accessed on 3 December 2016).

World Bank (2016) *Adaptation fund trust fund: Financial report prepared by the trustee, as at December 31, 2015*, AFB/EFC.18/7, https://www.adaptation-fund.org/wp-content/uploads/2016/02/AFB.EFC_.18.7-Trustee-Report1.pdf (accessed on 3 December 2016).

World Bank (2015a) *PPCR Semi-Annual Operational Report, as of December 31, 2014*. http://www.climateinvestmentfunds.org/cif/sites/climateinvestmentfunds.org/files/PPCR_16_3_PPCR_SAR.pdf (accessed on 3 December 2016).

World Bank (2015b) *An overview of the CIF – Governance and Programming Information*. (Washington, DC: World Bank) https://www-cif.climateinvestmentfunds.org/sites/default/files/knowledge-documents/cif_orientation_booklet_web_final_0_0.pdf(accessed on 3 December 2016).

World Bank (2011) *Governance Framework for the Strategic Climate Fund*, http://www.climateinvestmentfunds.org/cif/sites/climateinvestmentfunds.org/files/SCF Governance Framework-FINAL.pdf (accessed on 8 December 2016).

World Bank (2010) *Pilot Program on Climate Resilience (PPCR): Financing Modalities*, https://www-cif.climateinvestmentfunds.org/sites/default/files/meeting-documents/ppcr_financing_modalities_final_0.pdf. (accessed on 8 December 2016). .

World Bank (2008a) *Strategic Climate Fund*, www.climateinvestmentfunds.org/cif/sites/climateinvestmentfunds.org/files/Strategic_Climate_Fund_final.pdf (accessed on 8 December 2016).

World Bank (2008b) *The Pilot Program for Climate Resilience under the Strategic Climate Fund*, http://siteresources.worldbank.org/INTCC/Resources/SCF_TFC_Decision_PPCR_Governance_Jan_27_2009.pdf (accessed on 8 December 2016).

World Bank (2006) *Institutional Arrangements for Adaptation Fund: World Bank View*, presentation of the World Bank's proposal at the UNFCCC Workshop on the Adaptation Fund, http://unfccc.int/files/cooperation_and_support/financial_mechanism/adaptation_fund/application/vnd.ms-powerpoint/world_bank.ppt (accessed on 3 December 2016).

NOTES

1. There are important methodological differences behind these estimates. See, e.g., Fankhauser, 2010.

2. The meaning of 'balanced' is periodically debated, and does not necessarily indicate a precise 50/50 split between mitigation and adaptation.

3. This is Buchner et al.'s (2014) clearest estimate regarding public adaptation finance flowing from developed to developing countries. However, given the high level of aggregation of flows in their methodology, their use of multiple data sources and their focus on 'climate finance' broadly speaking (not only adaptation), it is difficult to identify exactly what this figure refers to. Without these clarifications, the figure cannot be directly compared with the figures presented in this article, in which we clearly identify specific channels of adaptation finance and quantify the flows through each.

4. An initiative of the Heinrich Böll Stiftung and the Overseas Development Institute, CFU monitors dedicated climate funds and publishes periodic policy related briefs. See www.climatefundsupdate.org.

5. Adopting an analytical rather than a normative understanding of 'governance', we identify the actors, norms and decision-making processes (Hufty, 2011) involved in the control of adaptation finance. Specifically, the actors and norms involved in overall funding decision-making and funding distribution are identified. In the case of adaptation-marked ODA, the first channel considered, this approach proved the most problematic, given—in particular—the lack of transparency regarding the actors involved in receiving the funds and implementing projects. Thus, for this case, an alternative analysis seeks to address the question of fund governance from a different angle based on available data, as explained in the relevant section.

6. In this paper only ODA grants and loans are considered, not other flows such as equity investments or 'other official flows'.

7. Unfortunately, the most readily available references on climate aid, the OECD summaries (OECD 2011; OECD 2013a; OECD 2014; OECD 2015) do not contain the information necessary for identifying any trend for adaptation-ODA over the period, 2010-14, for which data is available. The data presented below are from the OECD CRS database of project-level activities.

8. Although reporting is increasingly detailed, the CRS database has a number of well-known limitations. For example, while some (adaptation-marked and regular) project-level entries in the CRS database are indeed identified as being channelled either through the recipient or donor government, by far the majority of activities are indicated as being channelled through 'Public sector (donor, recipient, other)' without further specification regarding which actors in which countries in fact receive and control these flows. Enhancing this data for this analysis would require recoding the entire CRS database based on the free-form text field 'channel reported name,' in which donors identify the entity through which funds are channelled. The huge number of entries (about one million for 2010-13) already make this impractical, and in addition in many cases this field contains only the donor's internally used acronyms and codes, is underspecified (e.g. 'NGO', 'consultants', 'other') or is left blank. Whereas Eichenauer and Reinsberg (2016) have completed significant work updating the 'channel code' variable, this work focused on commitments to multilateral institutions only. Their data do not update channel information for public sector institutions (channel codes in the 10000 series), including the 'catch-all' category 'Public sector (donor, recipient, other)', nor do they retain the Rio marker information necessary for the analysis in this paper (personal communication with the author).

9. An interesting exercise would be to trace the history of development thinking as it is reflected in the progressive addition of these fields to OECD CRS Form 1.

10. More formally, according to OECD directives, the Rio marker for adaptation is to be applied only to activities for which: 1) the climate change adaptation objective is explicitly indicated in the activity documentation; and 2) the activity contains specific measures targeting adaptation (OECD, 2013b, 45). If these two criteria are fulfilled, the activity is eligible for the Rio adaptation marker, at least at the level of 'significant objective.' To be considered for a marker of 'principal objective', adaptation must be, in addition, 'fundamental in the design and impact of the activity' (OECD, 2013b, 34).

11. Other types of flows, such as equity investment and 'Other Official Flows', are not considered here.

12. Ideally, trends in adaptation-ODA could be compared with a deeper historical picture of aid modalities. However, tracking aid in terms of 'type of aid' only began in 2010 in the CRS database, at the same time as tracking of adaptation-marked ODA began; thus the comparison over the years 2010-14 is appropriate.

13. 'General budget support', 'Imputed student costs', 'Debt relief except debt swaps', 'Administrative costs', 'Development awareness', and 'Refugees in donor countries' (OECD, 2013b, 35).

14. The most recent report only mentions the amount for pledges rather than for pledges and commitments. However, previous reports showed that commitments have been very nearly at the same level as pledges.

15. Two apparently mitigation-focused projects under the SCCF (GEF id 4040 for CO2 capture in Brazil and 4060 for wave-generated electricity in Jamaica) were subsequently cancelled.

16. Based on a review of SCCF entries in the GEF project list (www.thegef.org/project_list) on 6 May 2016. As of writing, the GEF project list system has changed and it is no longer possible to ascertain the funding window used for projects.

17. www.thegef.org/gef/project_list (accessed on 7 May 2016).

18. Figures as of December 2016. However, this shifts as AF board membership is not defined only in terms of developed vs. developing country balance, but also in terms of balanced representation from the five UN regional groups, plus the SIDS and LDCs (see Decision 1/CMP.3 for the constituency representation rules, and UNFCCC 2016 for current and historical board membership). Nevertheless, Annex I countries have never held a majority in the AF board.

19. In fact, this debate has apparently been postponed. 'Decision-making procedures for the board in the absence of consensus' was on the agenda of the tenth board meeting, scheduled for July 2015 (GCF Secretariat, 2015b, 13), including the consideration of a document presenting various alternatives such as consensus, majority, contribution-weighted voting, and double majority (of members and contributions) (GCF Secretariat, 2015c). However, this agenda item was not dealt with at that meeting, and was not on the agenda for any of the six board meetings that have taken place since.

ABSTRACTS

At COP21 in Paris parties to the UNFCCC reiterated the goal of USD 100 billion annually in climate finance by 2020 and agreed to set a more ambitious target by 2025. A significant portion of these funds is intended to flow through the newly operational Green Climate Fund and will be dedicated to climate change adaptation in developing countries. Meanwhile, growing support for adaptation is already flowing through diverse channels. International debates continue, not only over the amount of adaptation finance, but also with regard to fund governance. In particular, developing countries are seeking greater country control through increased participation in high-level decision-making and 'direct access' to adaptation funds. This paper proposes an overview of the primary channels currently employed in the emerging adaptation finance field, with particular attention to governance characteristics relevant to international debates. This analysis suggests that while both developing-country participation in decision-making and 'direct access' to funds have increased in some cases, the vast majority of adaptation finance continues to flow through traditional development aid channels and does not respond to developing countries' concerns regarding fund governance. If adaptation finance structures are not perceived as legitimate by developing countries, a global, coordinated response to climate change may be put at risk. Further, the implications, in terms of social justice and the effectiveness of adaptation, of conducting adaptation along the lines of development are currently under-represented in the literature. Given the goal of mobilising, for adaptation and mitigation in developing countries, USD 100 billion per year by 2020, there is an urgent need for empirical research in this domain.

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themesen official development assistance (ODA), climate change, international cooperation, environmental governance, social justice

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