Chapter 28

International Aid and Adaptation to Climate Change

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Introduction

Although the world is now fully engaged in the climate change debate, international efforts to limit greenhouse gas emissions are not translating into a detectable slowing down of the rate of global warming. According to the Intergovernmental Panel on Climate Change (IPCC), the impacts of climate change will be severe, particularly for the poorest people in vulnerable developing countries that have the least capacity to cope (Schneider *et al.* 2007). For these groups, adaptation to the impacts of climate change is a priority. Adaptation describes the adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm, or exploits beneficial opportunities (IPCC 2007). It can be any process, action, or outcome in a system (ecosystem, household, community, group, sector, or region) that helps that system to better cope with, manage, or adjust to the changing conditions, stresses, hazards, risks, or opportunities associated with climate change (Smit and Wandel 2006).

Historically, adaptation was seen as a marginal policy option in global climate governance arenas, often perceived as the "poor cousin" of mitigation, which describes efforts to limit greenhouse gas emissions (Pielke *et al.* 2007). However, as both the inevitability and implications of climate change become apparent, especially in vulnerable developing countries, adaptation has risen up both the global environmental and international development policy agendas. In 2007, adaptation was adopted as one of the four "building blocks" (along with mitigation, technology cooperation, and finance) of a comprehensive climate change response under the United Nations Framework Convention on Climate Change (UNFCCC), and has also been taken up as a key priority for international development agencies working in vulnerable developing countries.

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Adaptation to climate change requires huge resources. Although estimates of the costs of adaptation vary widely, recent estimates suggest that the "global price tag" for adaptation in developing countries is US$70 billion–US$100 billion per year for 2010–2050 (Narain *et al.* 2011). This presents a challenge to the international global community committed to supporting vulnerable developing countries in adaptation: where will this money come from, who should pay, and how should it be delivered?

From a global perspective, developed countries hold the greatest responsibility for climate change, given the relative contributions of historic and current greenhouse gas emissions and their greater capacity to respond, while developing countries are most in need of adaptation. In line with this argument, the UNFCCC commits developed countries to providing finance for adaptation to developing countries. Given that the international aid architecture already has well-established mechanisms for channeling resources from high-income to low- and middle-income countries, we might assume that aid finance and institutions would play a significant role in adaptation finance.

However, the principles governing adaptation finance under the global climate change regime explicitly require that adaptation funding should be *additional* to existing international aid commitments, because climate change poses an additional burden to existing development needs. Several climate funds for adaptation have already been established on this basis. This principle has resulted in a great deal of confusion over the role of international aid in funding adaptation. On the one hand, international aid should have a strong role to play in supporting adaptation, because many of the objectives of aid such as reducing poverty and improving social welfare also contribute to reducing climate vulnerability. Further, the impacts of climate change threaten the sustainability of aid investments in vulnerable developing countries, so aid institutions need to consider the implications of climate change for their development portfolios. On the other hand, at the global level, arguments for the additionality of climate finance to existing aid commitments have been used by developing countries to negotiate for fair and equitable international funding arrangements for adaptation under the UNFCCC. This creates a paradox for adaptation finance (Ayers 2011): international aid is clearly relevant for funding adaptation, but it is important that this principle of adaptation funding as additional to aid is upheld.

So, what is the role for international aid in supporting adaptation? This chapter addresses this question by exploring the question of "additionality" in principle and practice, and the challenges for financing effective adaptation that this gives rise to. We begin by discussing the synergies and conflicts between international aid and adaptation finance, including the role of development in enabling effective adaptation, and also the challenges that this relationship gives rise to at the global policy level. Next, we explore how the international institutions of climate change and international aid are dealing with these challenges, in terms of how funds for adaptation are sourced, governed, and delivered. We show that while the global governance of adaptation finance attempts to achieve a relative distinction between international aid and adaptation finance "on paper," in reality there is a complex web of funding flows for adaptation that confuse the relationship between the two. We conclude by reflecting on the implications of these challenges for achieving effective adaptation in developing countries through the global climate and development funds.

How and Why Does International Aid Matter for Adaptation to Climate Change?

This section begins by briefly outlining the cost implications of adaptation to climate change, before considering why international aid is perceived as relevant to meeting some of these costs.

The Costs of Adaptation in Developing Countries

Estimates of the costs of adaptation vary from US$4 billion to US$109 billion depending on the assumptions and methodological approaches used in different studies (Narain *et al.* 2011). A key challenge for assessing adaptation costs is that there is no uniform and agreed definition of what constitutes an adaptation intervention. Adaptation can be a "hard" intervention specifically targeted at the anticipated impacts of climate change, such as an irrigation system, or it can be a "soft" intervention such as information awareness and capacity-building. The "target" for adaptation can be managing specific climate-change risks, for example coastal infrastructure in anticipation of increased storm surges and sea-level rise. Or adaptation can try to address a range of factors underpinning vulnerability to climate and other risks, such as poverty and social marginalization, which prevent people from coping with and responding to climate impacts, in which case adaptation overlaps significantly with development approaches. A review of a wide range of projects and programs labeled "adaptation" revealed that all of these approaches are legitimate, and most adaptation sits on a scale between "development-based" approaches and "climate-impacts-focused" approaches (McGray *et al.* 2007). How adaptation is defined gives rise to very different issues and activities that need to be included in the costing process.

The most common approach to assessing the costs of adaptation is to focus on adaptation in different sectors and compare the costs of that sector under a "business-as-usual" scenario, with the cost based on projected future climate change (Haites 2011). This approach is problematic for two reasons: first, it depends on many assumptions such as perfect foresight, when in reality there is a huge amount of uncertainty over what the future impacts of climate change will be and how they might interact with a future state of any one particular sector. There are a number of changing and interacting variables in making this calculation. Second, these estimates are almost always limited to the costs of new "hard" adaptation measures, and many observers have criticized this approach for not including the significant but harder-to-measure "soft" adaptation actions (Haites 2011).

Further, estimates often assume the baseline for adaptation costs is the current development scenario. Yet, those most vulnerable to climate change are also those in development deficit situations, so maintaining the "status quo" in light of climate impacts will not lift people out of vulnerability. They will continue to live in a development deficit situation, and to experience vulnerability to *existing* climate variability – an "adaptation deficit" (Burton 2004). Confusions exist around whether to include the costs of addressing the development deficit and/or the adaptation deficit as adaptation costs or development costs.

One of the more comprehensive efforts to cost adaptation that addresses this issue is a recent study launched by the World Bank in 2009. This study defines "adaptation

costs" as those additional to development due to climate change, thereby avoiding cofounding the costs of the development deficit and the implicit adaptation "deficit" (Narain *et al.* 2011). This study estimates the cost of adaptation in the developing world at US$70 billion–US$100 billion per year from 2010 to 2050 under a 2 °C increase in global temperatures by 2050 (Narain *et al.* 2011).[1] Although this range is huge, and based on a number of uncertain assumptions, it nevertheless demonstrates the scale of the adaptation finance challenge.

The Role of International Aid in Funding Adaptation in Developing Countries

There are a number of arguments for exploring the role of international aid in meeting some of the costs of adaptation. A key argument is the significant overlap between aid and adaptation objectives (Ayers and Dodman 2010). One definition of adaptation is to enable social and economic activities and to reduce their vulnerability to climate risks, including its current variability and extreme events as well as longer-term climate change (Smit 1993). Key components of vulnerability are economic, social, and cultural factors that determine whether a person, group, or system has the capacity to cope with and adapt to climate change and other risks (Blakie *et al.* 1994: 9).

International aid comes in the form of Official Development Assistance (ODA).[2] According to the Development Assistance Committee (DAC) of the Organisation for Economic Co-operation and Development (OECD), ODA is defined as financial flows that are designed to promote economic development and welfare as their main objective (OECD DAC n.d.). Following on, economic welfare and development are key components of adaptation to climate change, because they underpin vulnerability. For example, the Millennium Development Goals of reducing poverty, providing general education and health services, improving living conditions in urban settlements, and providing access to financial markets and technologies will all improve the livelihoods of vulnerable individuals, households, and communities, enabling them to better adapt to climate and other risks. An analysis of the categories of ODA activities reported by the OECD DAC countries demonstrated that more than 60% of all ODA could be relevant to reducing climate vulnerability and facilitating adaptation (Levina 2007).

Climate change also carries implications for the effectiveness of development interventions in three ways (Klein 2001): first, climate change poses direct risks to aid investments, given that the impacts of climate change will be felt first and most severely in the poorest and most vulnerable communities that are the target of international aid; second, the climate vulnerability of the community or system that is the target of aid may impinge on how the investment is implemented; and third, aid investments and their deliverables may have effects (positive or negative) on the vulnerability of communities or ecosystems to climate change (Klein 2001).

Given these synergies between adaptation and aid objectives, supporting adaptation through development makes sense (Dodman *et al.* 2009). Development assistance can reduce vulnerability to climate change; indeed on the ground, the way climate adaptation finance is spent in helping vulnerable countries adapt to climate change is in many instances indistinguishable from aid, because often actions related to poverty reduction are the best way to reduce climate change vulnerability.

Adaptation activities are therefore often regarded as synonymous with development activities and key to good development practice. As noted by Huq and Ayers:

> Good (or sustainable) development (policies and practice) can (and often does) lead to building adaptive capacity. Doing adaptation to climate change often also means doing good (or sustainable) development (Huq and Ayers 2008: 52).

A second argument for turning to aid channels to support adaptation is a pragmatic one. Adaptation finance requires fund flows from high-income countries, which have driven the causes of climate change, towards low- and middle-income countries that bear the brunt of climate-change impacts. International aid has well-established institutions, mechanisms, and principles of governing financial flows from developed to developing countries. Some observers have proposed that there are many lessons gained from the experiences of development cooperation that could be useful as climate finance (OECD DAC 2009; Bird and Brown 2010).

In particular, donors and developing countries have developed the Aid Effectiveness Principles that are embedded in the Paris Declaration and the Accra Agenda to guide their partnership. These are: support for national ownership of the development process, promotion of donor harmonization, alignment of donor systems with national systems, management for results, and mutual accountability between donor and recipient. The aid-effectiveness agenda grew out of many years of experience and lessons on aid implementation, and has developed from a retrospective view of what has been judged to be the successes and failures of aid delivery (Bird and Glennie 2011).

Such a body of experience is missing from the adaptation finance arena, and much could be learned about "good practice" in relation to the international transfer of funds for activities related to adaptation and development. The OECD DAC suggests that the principles relating to the governance arrangements for climate-change finance at the national level and how these arrangements are established to channel external sources of public finance are especially relevant for climate finance (see Box 28.1).

Box 28.1 Lessons from Development Financing Applicable to Climate-Change Financing Ownership

For development to be sustainable over the long term, developing country governments must exercise effective ownership over the development process. Developing countries must therefore take the lead in establishing and implementing their national climate-change strategies through a broad consultative process and ensuring that these strategies are fully integrated into policies, plans, and programs in all relevant sectors.

Alignment

Climate change financing needs to be integrated into countries' own planning and budgeting mechanisms, to enable the partner country to exercise genuine ownership and control over financial resources. Recording these resources in

the national budget ensures that the use of these funds is subject to scrutiny by parliaments, other domestic accountability institutions, and civil society.

Capacity Development

Capacity development will be critical to ensure that partner countries have sufficient capacity to absorb and manage climate-change financing and to integrate climate-change adaptation actions into national planning.

Harmonization

Experience with aid has shown the importance of harmonization of international financial flows. When there are scores of contributors and funding mechanisms, each with its own administrative and reporting requirements, the resulting workload may place a strain on partner countries' administrative capacity. It is important for the international community to coordinate their actions, simplify procedures, and share information to avoid proliferation and duplication of funding mechanisms.

Managing for Results

The challenges posed by climate change call for effective responses, which yield actual results on the ground. This is well recognized by the Bali Action Plan, which stresses the need for the various actions undertaken by Parties to implement the Convention to be "measurable, reportable and verifiable."

Source: OECD DAC (2009).

However, there are strong counter-arguments for turning to aid to fund adaptation. Although it makes sense to support adaptation through international aid from an operational perspective, from a global policy perspective there are important reasons for separating out international aid and adaptation finance (Klein 2008; Persson *et al.* 2009).

From a global policy perspective, negotiations around climate adaptation finance are based on a fundamental equity principle of "common but differentiated responsibilities and respective capabilities." In relation to the global negotiations around adaptation finance, this principle recognizes the relative contributions of developed and developing countries in driving greenhouse gas emissions, as well as their respective capabilities to take responsive measures. The principle implies that those with the responsibility and capacity should pay for adaptation – that is, it is the responsibility of developed countries to finance adaptation in vulnerable developing countries. This is laid out in Articles 3.1 and 4 of the UNFCCC convention text.

Upholding this principle at the global level presents three challenges for understanding the role of international aid in financing adaptation. First, under international aid paradigms, it is donor countries that have the power to define positions or institutional arrangements that govern financials flows (Bird and Glennie 2011). But

as pointed out by Bird and Glennie (2011), the narrative of "common but differentiated responsibilities" as interpreted under the UNFCCC suggests a very different type of partnership. Financing for adaptation is not owed to poor countries as "aid" with the accompanying implications of donor-recipient power relations, but rather as compensation from high-emission countries for those that are most vulnerable to the impacts, implying a very different – and more equal – partnership in determining how the money is allocated (ActionAid 2007; Oxfam International 2007). Climate finance should in principle offer a much more equal "seat at the table" for recipient countries to define allocation of adaptation resources. Using international aid to finance adaptation shifts the balance of accountability back to donor countries and institutions.

Second (and reflective of the power dynamics inherent in international aid), aid flows have historically been voluntary transfers, defined by donor country governments and then negotiated with developing country governments (Riddell 1987). Although a 0.7% ODA target was agreed in 1970 and has been repeatedly reendorsed at the highest level at international aid and development conferences, including the most recent Rio+20 conference, this remains a target and not mandatory. Only Sweden, the Netherlands, Norway, and Denmark have managed to consistently meet this target since it was established (OECD DAC 2010). By contrast, Bird and Glennie (2011) point out that there have been strong, early calls within the UNFCCC negotiations to make climate finance transfers mandatory within a legally binding global agreement. The outcome of such an agreement has yet to be reached, but achieving it would be based on the premise that adaptation funding is an obligation, and not a voluntary donation, from developed to developing countries.

Third, and perhaps most significantly in terms of operationalizing fund flows from international aid for adaptation, adaptation finance under the global climate regime should be "new and additional" finance – that is, over and above existing aid commitments. This principle is laid out in the Bali Action Plan agreed during the 13th Conference of the Parties to the UNFCCC (COP 13) in Indonesia, which states explicitly that funding for adaptation is made available above and beyond that which is provided as ODA. This decision was followed up two years later at COP 15 in Copenhagen, with the resulting Copenhagen Accord calling for a collective commitment by developed countries to provide "new and additional resources . . . approaching USD 30 billion for the period 2010–2012 with balanced allocation between adaptation and mitigation." The same holds for Cancun Decisions agreed at COP 16.

At first glance, this principle that funding for adaptation should be additional to aid might render the role of international aid in adaptation obsolete. However, as this chapter will show, although the role of aid in adaptation is highly contested in principle at the level of global policy, in practice both confusion over and failure to adhere to these principles have resulted in aid playing a significant role.

The Role of International Aid in the Global Adaptation Finance Architecture

This section begins by describing the international architecture of financing adaptation, before considering how the role of international aid within this framework responds to the principles of adaptation funding described above.

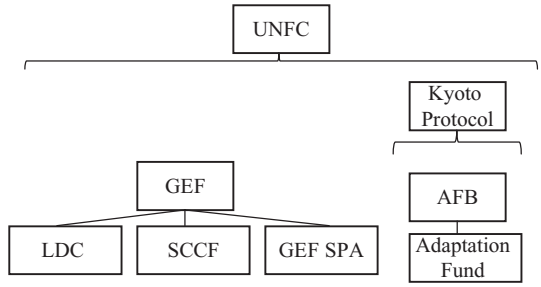

Figure 28.1 Structure of adaptation funding under the UNFCCC.

The International Architecture for Adaptation Finance

Funding for adaptation exists both under the UNFCCC and outside it. Under the UNFCCC, the 2001 Conference of the Parties to the UNFCCC meeting in Marrakesh (COP 7) established the Marrakesh Accords, which included three new funds, collectively known as the "Marrakesh Funds": the Least Developed Countries Fund (LDCF), established under the Convention, to support the 49 least developed countries to adapt to climate change, and initially used to support the design of National Adaptation Programmes of Action (NAPAs); the Special Climate Change Fund (SCCF) to support a number of climate-change activities including mitigation and technology transfer, but intended to prioritize adaptation; and the Kyoto Protocol Adaptation Fund (AF) to support concrete adaptation projects in developing countries that are party to the Protocol. This fund sits under the Kyoto Protocol, managed by the independent Adaptation Fund Board (AFB), and is financed from a levy on the Clean Development Mechanism. Decision 6 of the Marrakesh Accords further requested that the Global Environment Facility (GEF), the financial mechanism of the UNFCCC with responsibility for the transfer of funds from developed to developing countries, should fund pilot adaptation projects, leading the GEF to establish the Strategic Priority "Piloting an Operational Approach to Adaptation" (SPA) under the GEF Trust Fund (see Figure 28.1).

In addition to the UNFCCC funds, international finance for adaptation is provided through bilateral climate funds, development banks, and ODA. For example, the World Bank-established Climate Investment Funds (CIFs) have been established outside the UNFCCC process, to provide concessional loans and grants to policy reforms and investments that achieve development goals through a transition to a low-carbon development pathway and a climate-resilient economy (World Bank 2008). The Pilot Programme for Climate Resilience (PPCR) is the CIF that is most relevant to adaptation.[3] The PPCR has a target size of US$1 billion, and is aimed at increasing climate resilience in developing countries. Private-sector sources and investments also contribute, although currently these contributions are much smaller and so the remainder of this chapter focuses on public finance streams.

In principle, funds outside the UNFCCC should be aligned with the same principles, as illustrated by Article 11 of the Convention text, which states that "developed country Parties may also provide and developing country Parties avail themselves of, financial resources related to the implementation of the Convention through bilateral, regional and other multilateral channels" (UNFCCC 1992: Article 11). Thus,

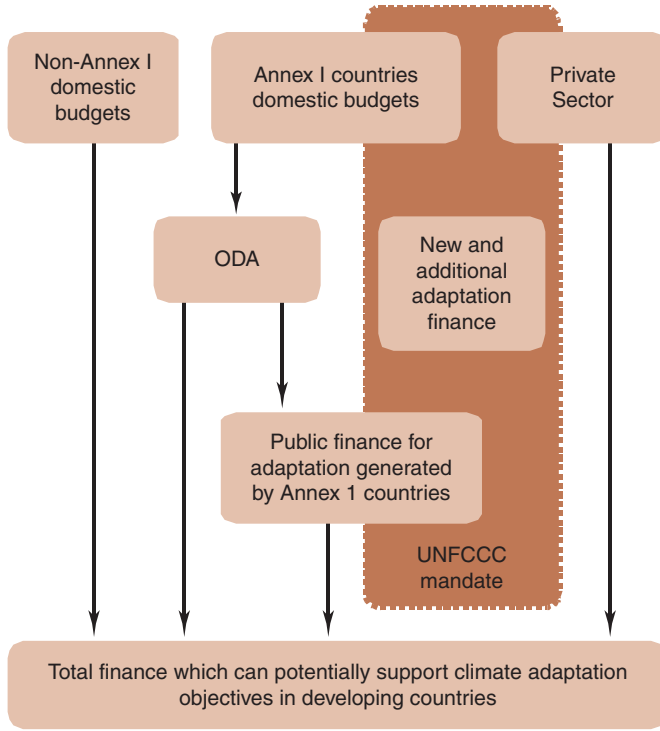

Figure 28.2 Overview of adaptation funding channels.
Source: Persson, A., R.J.T. Klein, C.K. Siebert *et al.* 2009. *Adaptation Finance under a Copenhagen Agreed Outcome.* SEI Research Report. Stockholm: Stockholm Environment Institute. With kind permissions of SEI, Stockholm.

the global climate change architecture includes funds for adaptation both within and also outside the Convention, but all funding should be aligned. However, as illustrated by Figure 28.2, the adaptation-financing landscape is highly fragmented, with a proliferation of funds and accompanying policies, rules, and procedures (Klein 2011).

What do these institutional funding arrangements mean for the role of international aid in adaptation finance? This chapter addresses this question in terms of the source, governance, and delivery of adaptation funds.

Sources of Funds for Adaptation: New and Additional?

To date,[4] a total of US$32 billion climate change finance has been pledged, of which US$2.1 billion has been disbursed. Of this disbursed finance, 21% went to adaptation, and many critics have pointed to the inadequacies of the level of funding available relative to the current and anticipated costs (Flåm and Skjærseth 2009; Pauw *et al.* 2011; Smith *et al.* 2011).

In terms of the sources of these funds, almost all funding for adaptation currently comes from public finance, drawn from international aid budgets. In 2009, developed countries pledged to provide US$30 billion "new and additional" resources for the

period 2010–2012 (labeled "Fast Start" funding), with balanced allocation between mitigation and adaptation (see Box 28.2 for an example of the UK's commitment to Fast Start financing). They also committed to a goal of jointly mobilizing US$100 billion by the year 2020 to address the needs of developing counties, although they did not specify how this would be allocated. The 2011 Cancun Agreement that emerged out of COP 16 in Mexico established the Green Climate Fund, through which a significant share of this new climate finance would flow (Klein 2011).

Figure 28.2 suggests that sources of public funding for adaptation stem from Annex 1 (developed countries and economies in transition) and non-Annex 1 (developing countries) country domestic budgets. In terms of flows from Annex 1 countries, funds are seemingly divided into ODA funds (outside UNFCCC mechanisms) and "new and additional" adaptation finance, which falls under the UNFCCC. From this framework, it appears that funding under the UNFCCC *is* additional to ODA funds, whilst that outside counts as international aid. Such a framework upholds the principles of the global climate change architecture.

However, as pointed out by Brown *et al.* (2010) and Forstater and Rank (2012), interpretations of "new and additional" to ODA vary considerably. Brown *et al.* (2010) show how the current debate over what constitutes "new and additional" climate finance can be divided into four broad positions, each with different technical and political implications (see Table 28.1).

As demonstrated by Table 28.1, there is no agreement on the baseline for assessing whether adaptation finance pledges are "new and additional." Depending on the baseline chosen, between all and almost none of the amount pledged "counts" as additional (Smith *et al.* 2011). In Table 28.1, the first definition – that "new and additional" means additional to 0.7% ODA commitments – is the most common definition supported by developing countries and is also formally backed by both Norway and the Netherlands. It has the greatest cost implications for increasing financial flows to developing countries, and suggests that ODA should not be included in climate finance at all.

However, if we review the current situation of climate pledges in light of this definition, all climate finance is currently double counted as aid (Forstater and Rank 2012). For example, 96% of contributions to the GEF are recognized as ODA. The UK's £1.5 billion Fast Start commitment has been reported to be reallocated from existing aid budgets (Forstater and Rank 2012; see also Box 28.2). Thus, in reality most of the adaptation funding within the UNFCCC funds is in fact sourced from international aid.

As shown in Box 28.2, much international climate finance is channeled through funds outside the UNFCCC, which Figure 28.2 suggests do not carry the same expectations of "new and additional" contributions. For example, the PPCR has a total of US$972 million pledged by 12 countries, with the UK as the largest contributor. Funds are sourced from international aid budgets. However, one controversy over the sources of funds in the PPCR is that some of this money is provided in loan rather than grant form. The idea of "loans for adaptation" raises the same ideological challenge: if climate impacts occur mainly due to historical and current high contributions of developed countries and are additional to existing development needs, developing countries should not be expected to pay back funding for addressing them, even if this investment can lead to a return. Although many developing countries have now

Table 28.1 The four definitions of climate finance additionality.

	Definition	*Technical considerations*	*Political considerations*
1	Aid that is additional to (over and above) the 0.7% ODA target	Easy to track given that it is measuring an increase at disbursement level and technically feasible but raises same questions around the validity of the ODA tracking system and what gets counted as climate finance.	Most countries have difficulty reaching the 0.7% target in the first place, so politically challenging to raise the target. Supported by international development community.
2	Increase in climate finance on 2009 ODA levels directed at climate change activities	Easy to track given that it is measuring an increase at disbursement level and technically feasible but current issues with ODA tracking. There will be no diversion from development objectives for donors who have already met their 0.7%, but may not be the case for those who have not.	Some issues with setting 2009 as financial baseline – implies different things depending on if donor has met the 0.7% target or not. Those donors who have not given to ODA-related climate finance before 2009 will have a lower baseline compared to those who have, implying equity issues.
3	Rising Official Development Assistance (ODA) which includes climate change finance but limited (e.g. to X%)	Aid diverted to climate finance causes changing the composition of finance if overall levels of ODA are not raised sufficiently. Issues around how to know what percentage is the right level – and should ideally only apply to governments who have already met their 0.7% so that the percentage of ODA spending going to climate change is above the 0.7% for development related efforts. Still need to secure additional channels of funding over and above a percentage of ODA, especially if limited to only 10% as is the case with UK proposal.	Countries which have already met their 0.7% target will not want those who have not to sacrifice this original goal for climate change objectives. It signifies a diversion in priorities. Setting the percentage in relation to ODA spending means funding is based on a country's current contributions, even if they are insufficient. Contributions are therefore not based on ability to pay, unlike one set on percentage of GNI.
4	Complete separation between ODA and CC financing	Emphasis on separation of funds at source. Need to ensure that new sources of finance are mainstreamed with existing ODA flows – technically challenging.	Would allow concerns regarding diversion of ODA funds away from development goals to be allayed. Politically challenging to agree what a new financial mechanism would look like, who should be in charge of the tracking, and how it should be tracked.

Source: Brown, J., N. Bird, and L. Schalatek, L. 2010. "Climate Finance Additionality: Emerging Definitions and Their Implications". Climate Finance Policy Brief 2. Washington, DC: Heinrich Böll Foundation North America and ODI. Used by permission.

welcomed highly concessional loan contributions from the PPCR, this has proved to be a sticking point for negotiations around the establishment of the fund (Ayers and Huq 2009) and also the way in which it has been delivered (Ayers *et al.* 2011), as will be discussed later in this chapter.

Box 28.2 UK International Climate Fund and UK Fast Start Climate Finance

The UK Government is providing £1.5 billion in Fast Start finance for climate change from 2010 to 2012, making the UK the biggest EU donor to Fast Start. This funding makes up part of the £2.9 billion for climate finance approved by the UK government for the period 2011–2015 under the UK International Climate Fund (ICF). The ICF commits UK finance for two years beyond the Fast Start period.

The money allocated to the ICF comes from ODA sources. As such, spending from the ICF is consistent with the DAC definition of ODA, and be in line with the overall purpose of UK development assistance, which is poverty reduction.

The ICF will channel Fast Start funds through various avenues: £122 million will flow through bilateral programmes; and £934 million will flow through multilateral funds. The UK has committed £310 million to the Pilot Programme for Climate Resilience (PPCR), which includes £287 of Fast Start funding. The UK has also committed £30 million Fast Start funding to the Least Developed Countries Fund and £10 million to the Adaptation Fund.

One fund that does meet the sourcing requirements of "new and additional" is the Adaptation Fund under the Kyoto Protocol (see Figure 28.1). Although some contributions to the Adaptation Fund are counted as ODA (for example, the UK ICF contributes some funds through this source), funding is mainly sourced from a levy on CDM trading (see note 4). The revenue generated from the CDM levy is projected to be between US$160 million and US$190 million, and potentially much more depending on the volumes traded and prices as targets are set (Müller 2007).

Thus, international aid does play a significant role in the generation of funds for adaptation. Beyond the CDM levy contributions to the Adaptation Fund, and some small private-sector opportunities, the majority of money flowing through funds for adaptation both under and outside the UNFCCC is international aid. A recent DARA/CVF report suggest that only 9% of allocated Fast Start Finance can be said to be "new and additional" (DARA/CVF 2011).

Governance of Climate Adaptation Finance: What Is the Role for International Aid Institutions?

As noted, many argue that the institutions of the international aid architecture are well placed to mobilize and channel funds for adaptation, because of the well-established mechanisms for managing financial flows from high-income to lower- and middle-income countries. So what is the role of these institutions? This section

will consider this question, paying particular attention to the role of the Bretton Woods Institutions (the World Bank Group and the International Monetary Fund).

The governance of the climate funds falls broadly under three models. First, the management model of the Global Environment Facility (GEF), the financial mechanism of the UNFCCC.[5] The GEF Strategic Priority Fund, the Least Developed Countries Fund (LDCF), and the Special Climate Change Fund (SCCF) are all managed under GEF guidance. Under Article 11 of the UNFCCC, the GEF is required to have "an equitable and balanced representation of all Parties within a transparent system of governance" (UNFCCC 1992). While decisions by the GEF Council are taken by consensus of all Parties to the Convention, if no consensus is available then a majority of countries, weighted by donation, is required to carry a vote. This means that GEF Council members from countries that make the largest contributions carry the most weight, essentially giving veto power to the group of five largest donor countries (Streck 2001). This lack of "one country, one vote" structure has come under criticism from civil society actors for undermining any ownership of adaptation funds by developing countries (Müller 2006; ActionAid 2007; Ayers 2009).

Second, the Adaptation Fund model. The Adaptation Fund has its own independent board with representation from the five UN regions as well as special seats for the LDCs and Small Island Developing States. The GEF provides secretariat services to the Adaptation Fund on an interim basis. Decision-making is by consensus of the board members, and if consensus fails, by a two-thirds majority vote, based on one member, one vote. Ballesteros *et al.* (2010) suggest that this balance of power in favor of developing countries on the AFB may be attributable in part to the fact that financing of the Adaptation Fund is not dependent on donor contributions.

Third, the international aid model. This model has been valued by donor agencies because of its familiarity and perceived low fiduciary risk (Tanner and Allouche 2011). The previous section suggested that the decades of experience in international aid funding, and the resulting Paris and ACCRA principles of aid effectiveness, could bring benefits to adaptation fund governance in terms of ownership and accountability that are lacking under the GEF-managed funds. But is this the case?

Although the governances systems that are channeled through ODA vary depending on the donors involved and whether funds are made available as part of a bi- or multilateral initiative (Persson *et al.* 2009), this section will address this question by examining the Climate Investment Funds (CIFs), as the largest set of funds outside the UNFCCC process.

The CIFs are managed by the World Bank. However, as pointed out by Ballesteros *et al.* (2010), the governance structure of the CIFs is a departure from the traditional donor-dominated Bretton Woods model governance structure. Although early drafts of the CIFs' governance structure were heavily criticized for not including adequate modalities for developing country decision-making (Seballos and Kreft 2011), the final agreed structure features an even division of membership and decision-making power between contributors and recipients. Each of the CIFs is governed by a Trust Fund Committee, with an equal number of contributor country representatives and recipient country representatives. Under each of the CIFs, decisions are made by consensus.

However, Seballos and Kreft suggest that the set-up of the World Bank was designed to engage the multilateral banks in adaptation finance, and as such has

served to reinforce a donor-driven and top-down approach to decision-making. In their critique of the political economy of the PPCR, the authors state that there was weak inclusion of developing countries in the design of the CIFs, which

> [l]ed to a programme and structure more in tune with the donor and MDB agenda than one which seeks to respond to the needs of the most vulnerable and establish true country ownership . . . The overwhelming power has been retained in the hands of the World Bank and MDBs (Seballos and Kreft 2011: 39).

Of all the governance structures of adaptation funds presented, there is strong consensus among developing country Parties that the Adaptation Fund model presents the most democratic and accountable structure for meeting the principles of adaptation funding. Persson *et al.* (2009) propose that in comparison with international aid mechanisms, developing countries consider adaptation finance delivered through UNFCCC processes as promoting a greater degree of country ownership, imposing fewer conditionalities, allowing greater access, and ensuring a more equitable distribution of resources. On the other hand, the role of the Multilateral Development Banks (MDBs) and the World Bank as lending institutions means they are perceived as vehicles for developed country interests (Seballos and Kreft 2011). Indeed, critics such as the Bretton Woods Project watchdog have suggested that rather than bringing the lessons of aid effectiveness to the climate change arena, climate change finance reflects a "huge leap backwards" and has been used as a platform to reverse much of the progress around "good governance" in international aid made over the past decades (Bretton Woods Project 2008).

The Role of International Aid Mechanisms in Adaptation Finance Delivery

International aid has a significant role to play in the delivery of adaptation. In operational terms, some observers have suggested that international aid has a wider remit than specific climate adaptation funds, enabling a greater degree of flexibility when it comes to investing in the diverse range of activities that can reduce vulnerability to climate change (Ayers and Huq 2009). The climate funds that are managed by the UNFCCC have a narrow remit: to address the impacts of climate change. This is in part a repercussion of the "additionality" debate around adaptation funds at the international level. Lemos and Boyd (2009) suggest that the need to meet the "additionality" criteria of the international adaptation funding frameworks constrains the kinds of local-level adaptation options that can be developed. The result is that national and local-level decision-makers are encouraged by an international climate change discourse to segregate "adaptation" from more general "development," when in fact the most appropriate means of addressing vulnerability would be to take the two together (Lemos and Boyd 2009).

As discussed, building adaptive capacity requires actions that focus not only on the measurable and verifiable impacts of climate change but also on a wide range of factors that contribute to a broader reduction in vulnerability to climate variability and climate change (Adger and Kelly 1999; Schipper 2007; Klein 2008). It is important that funding is made available for adaptation activities that can also

address these other, non-climatic "baseline" aspects of vulnerability. Such activities have traditionally been the focus of development practitioners.

In principle, then, bilateral international aid funds and funds such as the PPCR should provide a more open discourse of climate change risk that moves away from an "impacts-based" approach. Indeed, the name of the PPCR focuses on "climate resilience" and seems an explicit attempt to open up adaptation support to a broader range of activities than climate sensitivities alone. In line with this thinking, Ayers and Huq (2009) optimistically suggest that the arrival of the PPCR signified a real opportunity for development assistance to address underlying factors of vulnerability that are overlooked by a UNFCCC-based approach. The authors state:

> [The establishment of the PPCR] does point to progress in understanding the role of ODA as contributing to broader adaptive capacity – or "climate-resilient development" – rather than specific and additional climate-change adaptation . . . new development funds relevant to climate-change adaptation should be used to fund what the UNFCCC cannot; namely, broader resilience building, necessary for "additional" adaptation to be successful (Ayers and Huq 2009: 682).

But has this opportunity materialized, and has it resulted in new avenues for a more inclusive approach to defining climate-change risk beyond the UNFCCC? One approach adopted both by the PPCR and other bilateral international aid mechanisms in an attempt to deliver adaptation and development benefits together is "mainstreaming" (see Box 28.3).

Box 28.3 Mainstreaming Adaptation to Climate Change

Mainstreaming involves the integration of information, policies, and measures to address climate change into ongoing development planning and decision-making (Klein *et al.* 2003). It is seen as making more sustainable, effective, and efficient use of resources than designing and managing policies separately from ongoing activities. In theory, mainstreaming should create "no regrets" opportunities for achieving development that is resilient to current and future climate impacts for the most vulnerable groups, and avoid potential trade-offs between adaptation and development strategies that could result in maladaptation in the future.

Source: Klein *et al.* (2003).

Mainstreaming adaptation into development can be approached in different ways. On the one hand, mainstreaming can be interpreted as targeting development efforts at issues that are essential for reducing vulnerability to climate and also other risks. Klein (2010) provides the example of ensuring water rights to groups exposed to water scarcity during a drought. It recognizes that adaptation involves many actors, requires creating an enabling environment by removing existing financial, legal,

institutional, and knowledge barriers to adaptation, and strengthening the capacity of people and organizations to adapt (Klein 2010).

But a second and more common approach is "climate proofing" of existing development efforts, that is, ensuring that projections of climate-change impacts are considered in the decision-making about climate investments, so that the technologies are chosen or improved to withstand the future climate. For example, in an area projected to experience more intense rainfall events, water managers would fit a drainage system with bigger pipes when replacing old ones (Klein 2010).

A "climate-proofing"-only approach to mainstreaming has been widely criticized for failing to fully address the underlying drivers of vulnerability; for not addressing maladaptation; and for not realizing the potential of development interventions to achieve climate resilience (Klein 2008; Ayers *et al.* 2011; Seballos and Kreft 2011). For example, strengthening an embankment to ensure it can withstand anticipated increases in storm surges will not protect those who cannot afford to reside behind it, and may inadvertently encourage investment and settlement in a climate-vulnerable area. Yet, this approach is also more straightforward – it requires "screening" existing development efforts for climate sensitivities and then responding to those. A more holistic approach requires us to question the basis of the development intervention altogether in terms of its impact on climate vulnerability.

Unfortunately, early signs suggest that large international aid funds for adaptation such as the PPCR are favoring a "climate-proofing" approach (Ayers *et al.* 2011; Seballos and Kreft 2011). Further, Seballos and Kreft comment that:

> This climate "add-on" approach to development allows the World Bank Group and other multilateral development banks (MDBs) to claim a space in managing future climate finance flows . . . curtail[ing] opportunities for multi-stakeholder dialogue and thus the potential for development of broad country ownership of programmes (Seballos and Kreft 2011: 33).

There are other channels for the delivery of international aid that appear more promising for addressing adaptation and development together. Many donors are using climate change as an opportunity to review whether their bilateral portfolios are actually addressing vulnerability. For example, the Bangladesh office of the UK Department for International Development (DfID) has used climate change as an entry point for reviewing its livelihoods program, and reviewing whether it is producing sustainable development benefits over the long term, and for the climate-vulnerable poor (DfID Bangladesh, personal communication).

Further, a growing number of NGOs are channeling international aid to the grassroots through "community-based adaptation" (CBA). CBA is a growing field, which operates at the community level to identify, assist, and implement community-based development activities that strengthen the capacity of local people to adapt (Huq and Reid 2007). Proponents of a CBA approach suggest that the localized networks already in place undertaking good community-based development work are the kind of institutional design that could be used to channel international aid in ways that can identify and address the diversity and complexity of local vulnerability contexts (Jones and Rahman 2007; Ayers and Forsyth 2009).

However, some critics of this approach suggest that community-based approaches are limited in terms of spatial and temporal scale (Ribot 2002), a particular problem for managing "global" environmental risks where there is a need to connect to higher-level governance structures. As noted by Dodman and Mitlin (2011), while there has been much work on developing participatory tools and methods for enabling community-based development at the project level, relatively little attention has been paid to building up the links with political structures above the level of the settlement. Both donors and NGOs are responding to these critiques, and attempts are ongoing to "scale up" community-based efforts and link them with subnational and national climate and development planning.[6]

Thus, the institutional structures of international aid already in place provide good opportunities for delivering climate-adaptation finance in ways that address vulnerability. However, caution is needed to ensure that the principles of good development are not overlooked in the process.

Conclusions

This chapter has considered the role of international aid in adaptation. We have shown that international aid has a strong role to play in adaptation in principle, not least because of the synergies between adaptation and development, which means that tackling the two together makes sense. Focusing only on responding to climate-change impacts without also addressing the underlying factors related to development that drive vulnerability will not lift the poorest and most marginalized people out of vulnerability to climate change or other risks. Development interventions that do not consider the potential impacts of climate change risk proving maladaptive in the long term.

However, within the global climate-change arena, there are important reasons for separating out international aid from adaptation funding: climate change places an additional burden on developing countries, so additional resources should be provided. This is a fundamental equity principle underpinning many of the negotiations around international climate finance.

Yet when this principle spills over into operationalizing investments in adaptation, the role of international aid becomes confused. Indeed, there is not yet any agreement on what "new and additional" adaptation funding actually means. In terms of sourcing funds, developed countries are not meeting their international aid obligations, so almost no funds flowing through the adaptation finance architecture are additional. Further, contributions to funds outside the UNFCC process dwarf those within it.

In terms of governance, there are disputes over the role of international aid institutions. Donors favor the use of development institutions like the Multilateral Development Banks for governing and delivering climate-change finance because it affords them greater control over spending decisions (Fankhauser and Burton 2011). Many developing-country recipients of these funds dispute the role of these institutions for the same reasons. When development institutions cross over into the role of managing climate finance, it appears that many of the principles of "good governance" of international aid are left behind.

It is in the role of delivery that international aid institutions have the greatest comparative advantage. On the ground, adaptation interventions differ little from good, sustainable development. Both bilateral and NGO agencies have a wealth of experience in targeting participatory and localized development interventions that generate benefits for the poorest groups, who are also vulnerable to the impacts of climate change; there are also decades of development failures to learn from. It is critical to engage international aid institutions in delivering adaptation benefits to ensure these lessons are incorporated, and to avoid competing or duplicating efforts to reduce vulnerability on the ground.

Notes

1 A 2 °C increase above pre-industrial levels by 2050 is considered highly probable under the business-as-usual assumption of global warming (Allen *et al.* 2009; Meinshausen *et al.* 2009) and is commonly regarded in climate policy-making as the limit for avoiding "dangerous climate change." However, other prominent climate scientists have demonstrated that temperature rises of up to 4 °C by 2060 are much more likely outcomes, given the record of climate action to date and the slow foreseeable progress on future action for limiting greenhouse gas emissions, with much more severe implications for the costs of (and limits to) adaptation (Anderson and Bows 2011).
2 ODA is the largest type of international aid, consisting of aid provided by donor governments to low- and middle-income countries.
3 www.climateinvestmentfunds.org (accessed October 20, 2012).
4 For the most up-to-date figures on climate finance, see www.climatefundsupdate.org (accessed October 20, 2012).
5 The GEF was established in 1991 following the Earth Summit, to provide a mechanism to fund projects and programs that protect the "global environment." The GEF is a designated financial mechanism to the international environmental conventions of six focal areas: biodiversity; climate change; international waters; ozone; land degradation; and persistent organic pollutants, with the mandate to support the generation of "global environmental benefits" under each: www.gefweb.org.
6 See, e.g., the Local Adaptation Plans of Action (LAPA) framework development by the Government of Nepal (www.moest.gov.np); and also NGO efforts towards mainstreaming CBA into local government planning (www.arcab.org).

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