Climate Funding and the Governance of Climate Risks

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Multilateral climate change funds have an expanding role in the funding and governance of climate change. Several of these funds, including the Adaptation Fund and Pilot Program for Climate Resilience are dedicated to reducing climate induced risks, through funding adaptation in developing countries. The article formulates three models that serve in depicting the possible roles played by the funds in risk governance: the "risk compensation," "risk redistribution," and "risk regulation" models. The assessment of both funds in light of these models suggests they are far closer to the risk regulation model than would be expected or is mandated by the United Nations Framework Convention on Climate Change. The understanding that climate change funds are emerging as regulators, instead of compensators or redistributors, is looked at in the broader context of climate governance and implications are examined. This analysis may provide the basis for a possible reassessment of the design and function of multilateral climate funds in the future.

Introduction

In an opening statement of a recent UN report, UN Secretary-General Ban Ki-moon commented on climate financing saying it "is one of the most important aspects of the world's efforts to address the climate change challenge" (UN 2010). In recent years, climate financing, in the form of grants and concessionary loans, has been provided at an increasing rate by multilateral financing institutions. These organizations, supporting climate change mitigation, adaptation, and technology transfer, have grown in numbers and in prominence (Nakhooda et al. 2011; ECP 2006). Albeit, somewhat surprisingly, the governance of multilateral climate change funds (CCFs) has received little attention in the international organization literature. Notably, the role of CCFs in governing climate risks has been wholly neglected. This article aims at rectifying this lapse by suggesting three possible models of risk governance that could be potentially employed by CCFs and by assessing the *de facto* current forms of governance in prominent CCFs in light of these models.

The proliferation of climate funds has been substantially attributed to the administration of the past climate regime and the ongoing efforts to solidify a new climate pact from 2012 onward (Pallemaerts and Armstrong 2009). It has become evident that the provision of new, adequate, and predictable resources is critical in trust building and serves as conditions for the participation of developing countries in any future climate regime (Gosh and Wood 2009). Funding for adaptation, rather than mitigation, is of particular significance to most developing countries. Adaptation allows countries to prepare and lessen expected and already apparent risks associated with climatic change, while mitigation is aimed at reducing the emissions of green house gases causing climate change to begin with (Grasso 2011). It is well accepted that purposeful adaptation by human agency can prevent or decrease residual climate risks or strengthen the resilience and coping capacity of those affected by climate change (IPCC 2007C; UNFCCC 2007A; Tol and Verheyen 2004). A significant shift toward adaptation has been reflected in negotiations since the Copenhagen Round in 2009 (Blühdorn 2012), but even prior to that, adaptation funding has gradually come center stage since the 2001 seventh conference of the parties (COP7) to the United Nations Framework Convention on Climate change (UNFCCC or convention) held in Marrakesh (Mace 2005; Schipper 2006).

The resources coming from multilateral and bilateral climate change funds provide the major source of capital for addressing adaptation and climate risks in developing countries. As such, availability of funding and the architecture and policies of the funds will have a significant impact on the ability of developing countries to achieve their adaptation goals. At the same time, the funds' institutional makeup, policies, and mechanisms are central to the evolving architecture of international adaptation governance (Tompkins and Hultman 2007).

Although CCFs supporting mitigation and adaptation are relatively new organizations, the availability of resources, administration, and procedures have encountered criticism from various quarters. The voice and votes accorded to developing countries in some of the funds, especially those administered through existing mechanisms, such as the World Bank and the Global Environmental Facility (GEF), have been deemed unsatisfactory (Gosh and Wood 2009). Others have mentioned the lack of openness of the funds to participation and consultation with non-state actors and civil society in particular (Harmeling and Kaloga 2011; Shankland and Chambote 2011). Others have suggested that financing instruments need to be better attuned to the respective needs of developing countries in order to achieve effectiveness (Sagasti et al. 2005; Möhner and Klein 2007). Governance structures of most funds have been regarded as complex and the rules for accessing funding difficult and time-consuming (Davis and Tan 2010). Most funds, with the exception of the Adaptation Fund (Harmeling and Kaloga 2011), do not allow direct access and require the developing country to submit applications for funding through accredited external implementing entities (IE), such as the multilateral development banks or UN agencies. This has caused dissatisfaction among developed countries (LEG 2009). Additionally, except for the Adaptation Fund, finance provided through most funds, including the Least Developed Countries Funds (LDCF) and the Climate Investment Funds (CIF), has co-financing requirements. Funds only cover "full incremental or additional costs" (UNFCCC, article 4.3). The additional "full costs" then are borne either by the recipient government or by financing leveraged through other sources, creating difficulties inherent to meeting the requirement of co-financing (Ayers and Huq 2009).

Above all criticisms, the claim of the inadequacy and unpredictability of available resources to meet the needs and relevant costs of developing countries resonates strongly (Müller 2009; Flåm and Skjærseth 2009; Ackerman 2009). Funding sources have been deemed unpredictable, being mostly dependent on the voluntary contributions of developed countries. Available resources have been found to be inadequate by scales to meet the current adaptation costs in the developing world (Flåm and Skjærseth 2009). Finally, the fragmentation of funding between various funds (both multilateral and bilateral) complicates a sound analysis of the additionality requirement—demanding that all funds be additional to previously committed Official Development Assistance (ODA) funding (Tan 2008).

These criticisms reflect possible and divergent views on the role of multilateral CCFs in general and in particular, on the function and place of CCFs dedicated to adaptation funding within the wider international framework for adaptation. The divergent views have impeded an understanding of the possible role of CCFs as risk-moderating institutions, given that adaptation is essentially and primarily about the moderation of climate risks. The article suggests viewing the work or CCFs in the context of various modes of risk governance. It is suggested that this analysis underlines the potential paths of governance for CCFs, enables the crystallization of gaps between contrasting views, and would promote a more fruitful discussion as to the desirable models of governance in climate adaptation funding.

In order to broaden the discussion on climate change funding governance, while focusing on typologies rather than incongruent details, the article articulates three models of possible risk governance in the institutionalization of CCFs. The models are developed through integrating lessons learned from the general literature on risk governance, climate liability, and adaptation. The models are described in the following section and are summarized in Table 1.

They demonstrate the possible varied modes of addressing risks, uncertainties, and ethical considerations in the governance of adaptation funding.

The second section begins with a description of a "risk compensation" model that is highly correlative with the position held by many developing countries viewing transfers as entitlements and compensation. The second model projects many of the propositions of developed countries viewing transfers by CCFs as serving a redistributive function that is commensurate to parties' shared and reciprocal responsibilities. Finally, a risk regulation model is suggested as a close representation of the manner in which similar international financing institutions have been found to work and perceive their role.

In section three, I investigate two central multilateral funds, with the aim of assessing their administration and governance in light of the three suggested models: the Adaptation Fund (AF), which was formed part and parcel of the UNFCCC process, and the Pilot Program for Climate Resilience (PPCR), which was formed in a donor lead process initiated by the World Bank (Seballos and Kreft 2011).

The article suggests in section four that despite the expected differences to be found between the funds, both are far closer to the risk regulation model than would be expected or is mandated by the UNFCCC. Although this may be an unintended outcome, at least from a developing country's perspective, it may be explained by reference to similar processes that have been described for international financing agencies, such as the World Bank (WB) and the International Monetary Fund (IMF). The understanding that CCFs are emerging as new regulators instead of compensators or redistributors should be regarded with caution, and provide the basis for possible future reassessment in the design and governance of these international organizations.

Changing Prisms: Three Models of Climate Change Funding Governance

Table 1: Three Models for Risk Governance in Climate Funding

Model	Risk Compensation	Risk Redistribution	Risk Regulation
Normative Source	legal and moral principles of liability	negotiated principle of "common but differentiated responsibility"	autonomous
Purpose	restitution and compensation	distributional equity	regulating and monitoring risks
Financing Base	according to countries' contribution to climate damages	reciprocal donations based on relative wealth or "deficiency" funding	voluntary ODA style contributions
Method for Identifying Risks	damages occurring	risk and vulnerability assessment	risk assessment and evaluation
Criteria for Prioritizing Risks	immediate short term harms	degree of vulnerability	potentially diverse and multiple: i.e., cost-effectiveness, catastrophic risks, geographic equity
Monitoring	inconsequential	no role for central monitor	effectiveness efficiency fiduciary duties
Accountability and Coercion Mechanisms	inconsequential	inconsequential	imposing procedures, norms and values assuring "compliance"

Risk Compensation

The assumption underlying what I refer to as a "risk compensation model" of CCFs is that climate risks are the outcome of an unreciprocated historic contribution of developed countries

to GHG accumulated in the atmosphere (Stern 2007). Emissions have historically fueled developed countries' economies who have reaped the benefits. Developing countries, on the other hand, have contributed only slightly to creating global warming but are now bearing the main risks associated with this phenomenon (Stern 2007; Dellink et al. 2009). In this sense, CCFs funding adaptation can be seen as mechanisms to rectify and compensate for the harms and risks caused by developed countries, to the extent that these can be compensated by monetary transfers (Farber 2007–2008; Grasso 2010).

From a developing country's perspective, monetary transfers from developed countries for climate adaptation are not to be considered as aid but rather as an entitlement (Smith 1996; Müller 2009). Commentators and representatives of developed countries throughout the UNFCCC negotiations process repeatedly claimed that adaptation funding is by no means "charity or development assistance" (Grasso 2011). In drafts preceding the UNFCCC, clear reference to the principle of liability was included. Several draft texts serve as testimony to the developed countries' intent and demand that industrialized countries responsible for climate change compensate for resulting environmental damage (Verheyen 2005: 52). Diplomacy and public statements made since the signing of the UNFCCC serve as reminders of the developing countries' call for compensation for damages and risks caused to them by climate change (see, for example, the recent statement made in COP17 on behalf of the LDCs the Minister of Forestry and Environment, Gambia, and the proposal for financing made by the Association of Small Island States UNFCCC 2007B; Linnerooth-Bayer et al. 2003).

The inclusion of financial commitments to allocate adaptation resources in the final text articles 4.3 and 4.4 of the UNFCCC has been interpreted as placing a mandatory commitment on the provision of funding on developed countries. This interpretation views adaptation funding as substantially different from official development assistance (ODA) usually seen as voluntary (Verheyen 2005:52). Sands (1992: 275) has suggested that article 4.4 under which developed parties undertake to assist developing country parties that are "particularly vulnerable to the adverse effects of climate change in meeting costs of adaptation to those adverse effects" implicitly suggests acceptance of responsibility of developed countries for causing climate change.

CAUSATION AND COMPENSATION

Central to risk compensation is the rebuttable claim of causation (Faure and Nollkaemper 2007). From a moral perspective, establishing causation could be claimed to give rise to liability for compensation if there is an agency (emission by countries), even if there is no fault—meaning the conduct creating the harm was not intentional. Others would argue causation in itself is not sufficient to beget liability but should be accompanied by some form of knowledge of the risk-creating activity (Coleman 1992). From this perspective, liability and a subsequent duty to compensate could only possibly be ascribed to developed countries for emissions made from a point in time from which they were aware (or should have been aware) of the possible resulting damages (Müller et al. 2007)

Key to the determination of causation is the attribution of climate change damages to anthropogenic factors (as opposed to natural climate variations) (Dessai et al. 2009; Hallegatte 2009; Ranger et al. 2010). This determination embeds uncertainty especially as climatic events may at times be explained by natural variations in climate patterns (Allen et al. 2007). At the same time, risk compensation would require that causation be proved with some reasonable probability (Bouwer and Aerts 2006).

IDENTIFYING COMPENSABLE COSTS

Another aspect of risk compensation is the question of what costs are to be indemnified by those parties responsible for creating the risks. Damage already occurred (i.e., residual damage) is the most probable candidate for redistribution in a compensatory oriented system.

Adaptation costs that reduce climate risks and residual damage are a second category (Farber 2006–2007; Farber 2008; Tol and Verheyen 2004). Finally, countries may be said to bear the costs of the raised probability of climate-related damages.

Compensation for residual damage has multiple bases both in law and moral theory. Just to name a few, "corrective justice" theory can be said to create a moral imperative for those developed countries that have caused harm by their emissions, to rectify the imbalance caused through compensatory payments (Adler 2007; Honkonen 2009). The "no harm principle" in international law has also been reverted to and asserts that although states have complete control over their natural resources, they also have the responsibility to insure they do not cause environmental harm to other states. If they do so, they are required to redress and compensate (Dellink et al. 2008; Tol and Verheyen 2004).

Another principle that has been suggested as the basis for compensation of climate change residual damages is the "polluter pays principle" (PPP). From an economic point of view, this principle would suggest the negative side effects of GHG emissions must be internalized by emitting countries in such a way that expected damages are included in profit and utility functions (Shukla 1999). Since PPP is forward looking, it could be said to include reference to adaptation costs and even costs of future risks. This would complicate assessments because of associated uncertainties but may be justified on the basis of economic rationale referring to all externalities. "Just desserts theory" strengthens this view. It suggests that developed countries should not be allowed to profit from the emission of GHGs and the consequential harm caused. Hence, there is moral justification for requiring them to bear the costs of damages imposed by climate change on those bearing the lion's share of harm (Baer 2006; Farber 2007–2008).

Compensatory transfers for required adaptation measures can be justified by the duty of those potentially harmed to take action to reduce anticipated risks. The party causing the harm is subsequently required to cover costs of such preventative and anticipatory measures (Tol and Verheyen 2004). At the same time, the country seeking compensation for adaptation measures would be required to prove the necessity of these measures to reduce the impact of anthropogenic climate change rather than the impact of natural climate variability, socioeconomic, or land use changes (Bouwer and Aerts 2006). In addition, adaptation costs would need to be justified on the basis of sufficient certainty of materialization of climate risks.

Compensating for climate risks (or the increased probability of climate harms) is not entirely self-evident under a compensatory framework. In most legal systems, costs of unrealized risks are not borne by the perpetrator unless the party at risk can establish that manifestation of risk is more probable than not (Farber 2006–2007: 1635). Providing such proof of above 50 percent probability is increasingly difficult and unlikely in the case of the manifestation of most local climate effects. The literature has tried to overcome this hurdle by suggesting the adoption of a relative compensation rule. Such a rule allows for a fraction of the anticipated harm to be compensated on the basis of the relative probability of harm occurring or fraction of the attributable risk (Porat and Stein 2001; Faure and Nollkaemper 2007; Allen et al. 2007).

Contrarily, Allen et al. (2007) have suggested the only way to compensate for residual harms where causation by anthropogenic climate change is difficult to establish, is to compensate for the increased levels of risk. Climate risks may also produce real and tangible harms, for example, by raising costs of public or private financing and insurance premiums or causing the restriction or removal of insurance coverage (UNFCCC 2008: 41). These damages associated with increased levels of risk could more easily be justified under a compensatory model.

CONTRIBUTIONS TO COMPENSATORY RESOURCES

In a compensatory framework, the contributions of countries to the CCFs would be tailored to their liability for harm. Recent studies have suggested overcoming the difficulty in assessing a country's part in local manifested climate damages by an assessment of the country's historical share in cumulative emissions and global average temperature increase (Hohne 2011; Dellink

et al. 2009; Müller et al. 2007; Den 2005). Assessments vary as they are impacted by the choices in the initial year, gases included in the assessment, and the responsibility rule used (Müller et al. 2007; Dellink et al. 2009). Although there are variations in the country's shares allocated according to the different responsibility rules, it would be possible to roughly sketch out a minimum percentage for the contribution of developed countries to CCFs funding sources (Müller et al. 2007).

THE IMPACTS OF A RISK COMPENSATION MODEL

At first sight a compensation model of CCFs governance would seem beneficial to developing countries, since it requires compensation for all or most damages occurred (not risks). Yet, depending on the liability rule, several components of this model would in fact turn out to be counterproductive from a developing country perspective. The requirement for addressing causation would in all actuality create a significant barrier to those countries seeking compensation due to the difficulties in establishing a causal link between a particular experienced harm or a certain climatic event, to anthropogenic climate change.

The model favors transfers covering existing residual harms or already taken adaptation actions as opposed to funding actions aimed at addressing future risks. This approach would in effect create an incentive for a backward-looking rather than a forward-looking adaptation policy and could be expected to impede preventative planning. Finally, the model creates a latent preference for those countries already experiencing clearly related climate harm as opposed to those countries that are more highly vulnerable to climate change. Within a compensatory framework, vulnerability to future risks is, in effect, thrust aside at the potential expense of those most vulnerable.

Risk Redistribution

SOURCES OF JUSTIFICATION

The widely referred to principle of "common but differentiated responsibilities" adopted in the UNFCCC text entails, at least from a developed country's perspective, the acceptance of responsibility rather than that of liability for climate change (Paavola and Adger 2002). Consequently, it is acknowledged that monetary transfers from developed countries to developing countries are according to the UNFCCC justified as redistributive rather than compensatory payments (Rajamani 2000).

Adaptation funding through multilateral CCFs is understood as a form of reciprocal venture aimed at trust-building and furthering consensus between developed and developing states to allow for the evolution and cooperation in climate policy (Rübbelke 2011). Bodansky (1993) suggests that the reason for the original inclusion of financial resources for adaptation in the UNFCCC was part of a bargaining package aimed at aiding "developing countries in adapting to the adverse effects of climate change if steps taken under the convention fail to abate global warning adequately." Later commentators suggested that funding for adaptation is provided by developed countries as "quid pro quo" for the developing countries' acceptance of duties under the convention and acquiescence to watered-down mitigation responsibility by developed countries (Horstmann 2011).

Both views suggest that CCFs as international organizations correspond to the functionalist (or institutionalist) view of international organizations as venues of compromise and cooperation between states based on the substitution of short-term self-interest with larger long-term goals (Keohane and Martin 1995).

Although used often interchangeably, there is a great difference between compensatory liability and distributive responsibility. Where liability implies externally derived obligations of a legal nature, responsibility connotes self-imposed duties and voluntary acquiescence to agreed norms. Liability is one sided and unidirectional—from harm causer to risk receiver.

Responsibility is communal in nature and demands reciprocity at different levels, in and between funders and recipients. Where liability is primarily backward looking, responsibility addresses future risks and harms with a stronger focus on prevention. These aspects will be discussed hereafter.

TYPES OF REDISTRIBUTION

Risk and opportunities may be redistributed much in the same way as wealth to further equity in their allocation among parties. (Sefton 2006; Barr 2001; Haveman 1988). Funding could address exposure to risk, for example by endorsing sea barriers or other structural measures that reduce the likelihood of exposure, thus directly impacting the distribution of risk. At the same time, climate funding could be designed to address poverty, a significant determinant of vulnerability, thus impacting vulnerability as a key determinant of risk. (Paavola and Adger 2002). Funding priorities may be set to achieve distributional effects on additional strata such as geographic, gender, or ethnic descent (Danziger and Portney 1988).

REDISTRIBUTION BY VULNERABILITY

Prioritizing resource allocation to those most vulnerable has been seen widely as an acceptable way of advancing greater equitable climate-related risk distribution (Adger et al. 2006; Stern 2008, 2009; Bird and Brown 2010; Grasso 2010). Such an endeavor, however, is by no means free of contestation. An agreed meaning of the concept "vulnerability" has yet to evolve among scientists (Birkmann 2006; Gallopín 2006). To exemplify the multiplicity of meanings solely in the context of climate change, vulnerability has been defined both in terms of "outcome" and as "contextual" (O'Brien et al. 2007). Whereas "outcome" vulnerability is an end point definition that requires addressing scenarios of future climate hazards and the correlated expected impacts, "contextual" vulnerability relates to the starting point, entailing an assessment of socioeconomic vulnerability to current climatic stimuli (Fussel 2007). As no agreed definition has evolved, there are as of yet no agreed metrics nor a set of indicators that could automatically be used to enable a prioritization of countries or regions (Horstmann 2011; Sullivan and Meigh 2005; Yohe et al. 2006; Huq and Ayers 2007). A political rather than a scientific decision may have to be taken to determine the appropriate matrix of parameters that would be employed in determining vulnerability (Klein 2009).

CONTRIBUTIONS TO REDISTRIBUTIVE RESOURCES

The fact that the justification for redistribution is grounded not on legal liability but on collective responsibility and acquiescence to the UNFCCC's common but differentiated principle, need not imply the lack of norms or standards to determine country contributions. In line with the functionalist theory of international law, reciprocity norms are an important explanation of the ability to act collectively and provide public goods through the pooling of resources (Enjolras 2009). In this light, CCFs can be seen as "pooling mechanisms," allowing countries with common interests to associate and organize to unite resources to advance those interests (Horch 1994). Those parties already committed to providing funding would seek to overcome free riding problems hindering collective action and assure optimum participation of all potentially responsible parties (Holländer 1990; Hardin 1992).

Optimum participation could be determined on using several criteria. One such criterion is that of contribution to damages, much in the same way as in the compensation model. However, the various uncertainties associated with this model described above, and the possible rejection of its implicit normative assumptions, leave room for the adoption of other principles as the basis for burden sharing. A second principle of reciprocal funding addresses the capacity of parties to pay. Capacity to pay may be judged by per capita wealth indicators (such as GDP or GNI) (Dellink et al. 2008) or possibly by a combination of these with other indicators, such as the UN scale for participation in UN funding (Dellink et al. 2008) or national debt

indicators. These indicators entail much less uncertainly than historical contributions. Another possible principle for sharing resource provision could be prospective "deficiency" oriented funding: "Deficiency" meaning that countries falling short of their mitigation responsibilities would be required to substitute their mitigation deficits with payments to CCFs. This method stands in contrast to the harm-based principle. Instead of retrospective calculations of historical contributions, it would require prospective assessments of the future compliance of developed countries with their mitigation responsibilities. Each of these principles would most likely lead to different allocations of responsibilities among developed countries, adhering at the same time to a risk redistribution goal.

REDISTRIBUTIONS AND RECIPIENT COUNTRY AUTONOMY

In a risk redistribution model, vulnerability-based allocation would be far more important than ensuring efficiency or adopting any certain type of adaptation. Since assessing efficiency or determining the design of specific adaptation actions would not be required. Recipient countries would be left a great deal of discretion as to the effective paths for minimizing vulnerability. They could choose what risks to focus on and whether to focus on current risks, anticipated risks, (McGray et al. 2007; Klein and Persson 2008) catastrophic risks, or slow onsetting harms (Farber 2006–2007). Countries would also be free in deciding whether to promote specific adaptation programs, projects, or basic development and growth policies that complement adaptation efforts and are regarded as "no regrets" options (Fankhauser and Burton 2011).

CCFs as seen by the functionalist approach would not be required to create monitoring or enforcement mechanisms, as sufficient incentives would be in place for both developed and developing countries to effectively participate in such an allocation scheme. Noncooperation and noncompliance would be too costly to consider (Raustiala and Slaughter 2002; Shkabatur 2011–2012). CCFs would facilitate reciprocity, enabling states to use carrots and sticks on each other, and credibly build their international reputation and alter state behavior (Axelrod and Keohane 1986; Drezner 2000). Developed countries would regard their participation in resource provision as crucial for achieving an internationally agreed climate policy and reducing possible liability claims from developing countries. Developing countries would perceive continued and stable funding with utmost importance and would in turn strive to ensure effective compliance with the fund's demands, without substantial regulation efforts by the funds.

Risk Regulation

A risk regulation model traces the source of developed countries' responsibilities neither to the principles of liability, underscoring risk compensation, nor to the voluntary approach embedded in risk redistribution. It assumes that CCFs as organizations autonomously take upon themselves regulatory functions much in the same way as other international funding organizations such as the WB and the IMF. These organizations have been documented to act as financial risk regulators (Black 2002; Gilbert et al. 1999) or as meta-regulators that steer governing institutions of recipient countries to create normative and regulatory change in various areas (Humphrey 2002: 60; Scott 2003).

Although the regulatory focus on the IMF and WB has grown, there is little if any literature that has suggested that CCFs act as regulators. If they were to act as regulators, it would be expected that the various stages of risk assessment, risk evaluation, and risk management and would be of importance to the CCFs (Renn 2008). At the same time, emphasis would be placed on monitoring, accountability, and coercion measures meant to achieve compliance.

THE CENTRALITY OF RISK ASSESSMENT

Risk assessment, as a critical component of a regulatory approach, would most probably emulate to some degree vulnerability assessments undertaken within the risk redistribution

model. At the same time, regulatory posture toward risk may require addressing scientific assessments in conjunction with risk evaluations enabling CCFs to determine values upon which to judge the acceptability and tolerability of risks (Renn et al. 2011). As suggested by Renn (2008), climate change is an arena of both interpretive and normative ambiguity, where scientific evidence of impacts, and values establishing the acceptable level of risk, are disputed. Risk evaluation could allow risk assessments to be infused by stakeholders' perspectives and values. Other than scientific assessment, likelihood of exposure, and vulnerability, various considerations could be referred to in prioritizing risks, such as the prevention of catastrophic, low probability, high impact risks.

RISK ASSESSMENT AND REDUCED RECIPIENT COUNTRY AUTONOMY

Those risks found to be intolerable by CCFs through a risk assessment and risk evaluation process would require the adoption of response options designed to mitigate risk or increase social resilience (Renn et al. 2011). In managing risks, CCFs would need to investigate and choose among multiple measures available for addressing risk. Several principles could inform this process. Where uncertainty relating to impacts and vulnerability was not significant, cost-effectiveness would likely be the parameter for choosing among multiple response options (Baldwin and Cave 1999). If uncertainty was found as significant, the robustness of measures would be emphasized. This risk management strategy would place importance on measures designed to function under a wide range of climatic conditions (Agrawala and Fankhauser 2008). So-called "no regrets" adaptation actions focus on developmental measures, such as food security or poverty alleviation, aimed at strengthening individual and societal resilience or on those measures that increase institutional adaptive capacity.

Within a regulatory regime, monitoring is used to determine compliance, the effectiveness of regulatory efforts, and quality of outcomes. In a risk regulation framework, monitoring by CCFs as international organizations would be an important component of their institutional role. Through monitoring, CCFs would be able to act as information clearinghouses (Shkabatur 2011–2012) providing data on multiple aspects of the adaptation regime. Monitoring could focus on data regarding effectiveness in achieving program or project goals or the general aim of reducing climate-related risk and vulnerability. It would be directed to enable an assessment of whether funds were being used efficiently in compliance with fiduciary standards.

As risk regulators, CCFs would design and apply appropriate means to ensure accountability and to coerce funding recipients to implement adaptation programs and projects as approved with appropriate procedures. They may even go beyond these measures and require additional institutional or regulatory changes that could support the funded adaptation project. It is not uncommon for international funding and loan agencies to impose their worldview, norms, and demands for regulatory restructuring on recipient states (Goldman 2005: 205; Barnett and Finnemore 2004: 44). In the case of the IMF, Barnett and Finnemore (2004: 47) have found "there is little doubt that the IMF frequently uses its institutional authority to coerce—to compel others to make economic changes that they would otherwise would not."

CONTROLLING DATA AND LEARNING

Data supplied by the monitoring and evaluation of adaptation efforts could be used to create inward and outward learning opportunities. Inward learning uses the information as a basis for adapting decisions on the design of risk reduction measures and the allocation of resources by the CCFs (Renn 2008). Outward learning would supply countries facing similar risks comparative data and lessons on adaptation actions taken and their effectiveness.

These appraisals could be expected to contribute to knowledge production and to solidify the CCFs ability to regulate. In similar fashion, the knowledge generation function of IMF has been documented as a crucial factor of organizational behavior and the single most important

determinant of its ability to regulate domestic life in those states in which it is involved (Barnett and Finnemore 2004).

Two Climate Change Funds

The following section explores the mandate, organizational structure, governance, and risk-related practices of two CCF case studies, namely the Adaptation Fund (AF) and the Pilot Project for Climate Resilience (PPCR). This examination serves as a basis for assessing the funds' attitude toward risk and the degree to which the funds serve as risk compensators, risk redistributors, or risk regulators. Research about the funds draws on primary data, documentation, minutes, and reports released by the funds as well as interviews with key actors engaged with the funds' processes and governance, including secretariat members, board members (in the case of the AF), sub-committee members (in the case of the PPCR), and grant recipients.

The Adaptation Fund

ORIGINS AND FUNDING SOURCES

The Adaptation Fund (AF) has its formal origins in the Kyoto Protocol, which was adopted in 1997 at the third session of the COP to the UNFCCC (Horstmann 2011). The KP established that a share of the proceeds from the Clean Development Mechanism (CDM) be used "to assist developing country parties that are particularly vulnerable to the adverse effects of climate change to meet the costs of adaptation." (KP: para. 12(8)). In 2001, at COP-6 in Bonn, parties agreed that funds generated by this new financing source should be allocated by a new fund. They decided that "an adaptation fund shall be established to finance concrete adaptation projects and programs in developing country parties that have become parties to the protocol" (UNFCCC 2001). Only in 2010, however, did the fund become operational after the prolonged haggling about its structure, operational guidelines, and funding mechanisms. (Harmeling and Kaloga 2011).

Funding for the AF was to come from a 2 percent levy on the monetization of certified emission reductions (CERs) (See UNFCCC 2002: para. 15 of Decision 17/CP.7). The creation of an independent funding source, unattached to specific pledges made by donor states, was considered at the time and still is an innovation (Chandani et al. 2009). Yet since 2010, volatile CER prices and low volumes of trade produced only modest funding. So-called ODA type contributions by donor countries, first perceived as a secondary, grew to $85.8 million, amounting to 34 percent of total funding available in 2011 (AF(e) 2011). In 2011, donor countries included seven European countries and Japan. Sixteen annex II countries, signatories to the UNFCCC, did not contribute directly to fund at the time. Notably, noncontributing countries included the U.S. and Canada (AF(e) 2011), who (in addition to Japan) hold the largest contributive share to cumulative emissions and temperature increase (Dellink et al. 2009). Contributions made by significant and wealthy emitters such as Japan were minuscule even when compared to contributions by small polluters such as Monaco.

GOVERNANCE STRUCTURE

The AF is directly accountable to the UNFCCC COP serving as the meeting of the parties to the KP (CMP) (Horstmann 2011). The AFB serves as the AF governing body and is composed of recipient and developed country representatives with a majority for developing country representation, following a one vote rule (Harmeling and Kaloga 2011). Representatives of developed countries do not necessarily represent donor countries, yet, among the representatives of developed countries in the 2012 AFB, a majority did in fact represent those that donated to the fund.

One of the unique features of the AF was to allow for "direct access" by eligible developing country parties (Harmeling and Kaloga 2011). This arrangement was meant to allow developing countries to propose and design projects independently of international organizations (See UNFCCC 2009: paragraph 11; AF(a) para. 7). Instead of applying to the fund through

an international or multilateral organization, developing countries could accredit a local organization that would receive the status of a National Implementing Entity (NIE), which could then apply on behalf of the developing country.

NIEs undergo a scrutinous accreditation process in order to become eligible to submit project concepts or proposals to the AFB (AF(a): para. 27). The data associated with NIE accreditation as well as interviews conducted with country representatives suggest that the difficulties in the accreditation process remain the main barrier to "direct access." The accreditation process requires applying NIEs to meet extensive institutional, legal, and fiduciary standards adopted by the AFB. Financial integrity and management are scrutinized in the application process both from the budget perspective and the transactions perspective (AF(a): para. 33(a)). Also evidence of institutional capacity is required to demonstrate the ability to identify and develop projects, the competency to manage or oversee the execution of the projects, and the undertaking of monitoring and evaluation (AF(a): para. 33(b). These criteria have made it difficult for national ministries to be accredited as they usually are not experienced in designing and overseeing projects. Transparency and self-investigative powers also require competence of the entity to deal with financial mismanagement and other forms of malpractice (AF(a): para. 33(c)).

ALLOCATION OF FUNDING

An open-ended, "country driven" submission process allows for the submission of proposals by any eligible developing country through a NIE (AF(a) annex 3 art. 1). Since submissions to the fund are essentially open ended and represent a bottom-up approach, developing criteria for the allocation of funding among countries and the review of project concepts and proposals are both critical aspects of the work of the AF Board (AFB).

Seemingly, the AFB places risk and vulnerability as the guiding principles for addressing funding allocation. The determination of vulnerability by the AFB is formally addressed in a general guidance adopted by the CMP on "strategic priorities, policies, and guidelines of the adaptation fund" (UNFCCC 2009: Decision 1/CMP.4; and AF(a), Annex I). The guidance states that developing countries particularly vulnerable to the adverse effects of climate change are eligible for funding from the AF. The guidance first mentions as particularly vulnerable those countries with low-lying islands and small islands, low-lying coastal, arid, and semi-arid areas or areas liable to floods, drought, and desertification, or those with fragile mountainous ecosystems. It goes on to add criteria that address the risk evaluation stage: the level of urgency or risk arising from delay in providing for adaptation and the degree of adaptive capacity. The risk-dominated considerations are supplemented by a requirement that allocation provides for equitable access to the fund (AF(a): para. 16).

Yet the wide terms in which vulnerability is stated do not provide a clear methodology for assessment and ranking. The consideration of vulnerability therefore depends on the specifications of the AFB on the operationalization and access to the fund (Horstmann, 2011). In practice, an eligibility requirement has been used to label some countries (such as OECD members or countries that do not qualify for ODA) as non-eligible for funding (AFB 2010b; AFB 2010c). This criteria has allowed countries ranked by the OECD as ODA recipients to be allocated funding even when they are classified as upper middle income countries according to their GNI per capita (such as Argentina, Ecuador, Jamaica, and the Seychelles) (see OECD-DAC 2012 and AF web site).

Vulnerability assessment and prioritization of eligible developing countries according to risk has been consciously avoided by the AFB until "the COP, or some other body, had reported some progress on the definition of vulnerability" (AFB 2011:18). Instead, of vulnerability ranking at the allocation stage, the AFB adopted an "equal access" uniform cap of ten million dollars for all countries funded (see Decision AFB/B.13/23). Although determined as a temporary measure, the cap effectively limits the AFB's ability to substantially weigh vulnerability and risk in determining the division of funds (AFB 2011:18).

PROJECT APPROVAL

While the difficulties in allotment policy have been overcome by an equal quota cap, the assessment of project proposals' suitability is by far more complex. Project approval brings to bear various considerations that scrutinize the proposal at both technical and substantive levels. Criteria include whether the proposal is consistent with national sustainable development strategies and development plans and National Adaptation Programs of Action (NAPAs); the degree to which the proposal meets national technical standards; arrangements for management, monitoring, and evaluation; whether the project has a learning and knowledge management component to capture and feedback lessons; cost effectiveness and avoiding duplication of funding; whether the project secures economic, social, and environmental benefits; whether the project includes a consultative process with stakeholders and particularly most vulnerable groups (AF(a) Annex 1 para. 15; also see AF(b) AF(c).

Project evaluations undergo a thorough review process, either as project concepts (an initial stage in which concepts are endorsed or rejected, and if rejected may not be submitted as proposals) or project proposals (fully developed) that may be approved or rejected. Both procedures begin with a technical screening by the AF secretariat, continue with a review by the Project and Program Review Committee (PPRC), which then makes recommendations to the AFB and are concluded by a decision of the Board (AF(c)).

In the review process, a considerable number of concepts and proposals are rejected or remanded for corrections. An AF Secretariat report reviewing the evaluation process from June 2010 to September 2011 established that 69 percent of the submitted concepts were endorsed (i.e., a 31 percent rejection rate), while 61 percent of the total proposals submitted were approved (a 39 percent rejection rate). Seventy-seven percent of the concepts received endorsement on the first round, while 64 percent of the project proposals were approved in the first round, the rest being remanded to the proposing entity for corrections and elaboration and then approved in a second round of evaluations (AF(d) para. 3).

Refusals are brought to the implementing entity and country with requests for clarification (RC). These RCs can serve as a possible indicator as to the issues that are deemed important, and the issues most scrutinized. In the same AF Secretariat report, it was found that 21 percent of all RCs were given on the basis of "concreteness," i.e., the lack of sufficient cohesion between the project components and national policy, the unsuitability of measures to deal with the identified climate threat, and the difficulty of distinguishing between the adaptation project and a "business-as-usual" development project. A further 18 percent of CRs dealt with cost-effectiveness and insufficient description of alternatives. Twelve percent of the CRs related to the insufficient accounting of the social, economical, and environmental benefits of the projects. A lack of adequate consultative process preoccupied 7 percent of the CRs and a further 7 percent were related to the inconsistency with national technical standards or the absence of environmental safeguards for the proposed adaptation activity.

MONITORING AND EVALUATION

Monitoring, evaluation, and learning process are embedded in the AF procedures and are integrated through a Strategic Results Based Management Framework (RBMF) adopted by the AFB (AFB 2010a) The RBMF is dedicated to monitoring results in risk mitigation, resiliency, and capacity to address climate risks, and provides a concrete outcome oriented monitoring strategy (AF(f)).

Several layers of monitoring and evaluation complement each other to create a virtual monitoring pyramid. At the basic level, implementing entities undertake periodical data collection and monitoring for projects under implementation, according to performance monitoring plans set out in the project documents. Data is compiled and measured through indicators aligned to the RBMF. Reports are brought annually to the Ethics and Finance Committee (EFC) of the AFB and the Secretariat (AF(a)). The EFC, in turn, provides an annual report

to the AFB on the overall status of the portfolio and progress toward results. The AFB is responsible for strategic oversight and the assessment of whether overall projects and programs comply with the RBMF.

As project implementation comes to a close, projects and programs are subject to a final evaluation by an impartial and independent evaluating team selected and facilitated by the IE (AF (e)). Terminal evaluations are conducted according to common approved guidelines. These include an assessment and rating of adaptation outcomes, risks to the sustainability of outcomes, and the contribution made to the achievement of the AF targets and objectives in reducing climate-related risks. The final evaluation is submitted to the AFB and disseminated widely to facilitate accountability and learning (AF (a)).

Finally, the AFB may decide to carry out independent reviews, evaluations, or investigations of the projects and programs, as and when deemed necessary (AF(a)). At any stage of the project cycle, either at its discretion or following the independent review evaluation or investigation, the EFC may recommend to the board to suspend or cancel a project. This coercion mechanism is complemented by the right retained by the AFB to reclaim all or parts of the financial resources allocated for the implementation of a project (AF(a)).

The Pilot Program for Climate Resilience (PPCR)

ORIGINS AND FUNDING SOURCES

The Pilot Program for Climate Resilience (PPCR) was not institutionalized as a direct result of UNFCCC proceedings, as in the case of the AF. Its establishment was initiated by the World Bank and several donor countries. In early 2008, leaders from the UK, U.S., and Japan announced their intention to establish a multi-billion dollar fund that would boost the World Bank's ability to help developing countries tackle climate change (Seballos and Kreft 2011). Following early discussions with the three leading donors and several Multilateral Development Banks (MDBs), a "zero draft" document for the Climate Investment Funds (CIFs) was prepared by the World Bank (World Bank 2008A). The draft was followed by criticism from commentators, civil society, and even some central donors, a process that brought about its amendment as well as the release of a specific proposal including among the CIFs, a pilot program that would focus on adaptation (World Bank 2008B). Following a meeting of donors, developing country, and civil society representatives in May 2008 that approved and modified the pilot program focusing on adaptation (named PPCR), a July 2008 meeting of the G8 countries formally announced the establishment of the CIFs and PPCR among them (Seballos and Kreft 2011). In November 2008, the PPCR became the first operational program among the three programs of the Strategic Climate Fund, one of the two climate funds under the CIF's umbrella (Seballos and Kreft 2011; Ayers et al. 2011; Shankland and Chambote 2011).

Since its establishment in 2008 and until 2011, the PPCR received some $698 million from nine annex II country donors, while the remaining fourteen annex II countries refrained from contributing (CIF 2011(B)). The PPCR funds are sourced from ODA type grant funding in addition to concessional loan funds from the UK, amounting to 50 percent and from Spain, amounting to 2 percent of the total available resources until 2011 (data derived from CIF 2011(B)). The introduction of concessional loans as a major part of the resources available to the fund has rendered the PPCR the largest adaptation centered multilateral CCF (Harmeling and Kaloga 2011; Seballos and Kreft 2011).

GOVERNANCE STRUCTURE

The PPCR is directly governed by a subcommittee that is accountable to the Strategic Climate Fund Committee (SCFC). The subcommittee is composed of an equal number of representatives from contributor donor countries and recipient countries (six). The developing country chair or vice chair of the AFB is also a member, thus rendering a small majority to developing

countries (CIF 2011a: para. 5). This advantage was not, however, emulated in the membership of the SCFC which oversees the subcommittee. There, equal representation is broken by a representative of the World Bank and of a Multilateral Development Bank (MDB).

The important role of MDBs within the PPCR process is not limited to the SCFC. The PPCR mission guidelines issued to MDBs (CIF 2009a) gives the MDBs, at a minimum, equal stature with the PPCR country governments in initiating and managing programs. In many cases, although certainly not all, a lack of country level capacity has meant that the national government appoints the MDB as de facto leader of the process (Seballos and Kreft 2011).

Despite the equitable representation and small developing country majority in the subcommittee, the representation of developing countries may have limited effect. Organizational constraints and prior decisions on guidelines restrict change in the fund's operation (Seballos and Kreft 2011). In addition, major issues such as project evaluation and monitoring are decided elsewhere and brought to the subcommittee only for comment (CIF 2009a).

ADDRESSING RISK IN THE ALLOCATION OF FUNDS

In 2008, soon after the operationalization of the PPCR, an expert group (EG) was established by the subcommittee. The role of the EG was to make recommendations on the selection of countries that would be the first participants in the pilot program (CIF 2008: para. 15). In contrast to the AF, the PPCR aimed at forming a prejudgment on allocation on the basis of scientific analysis of country vulnerability.

The EG consisted of eight experts with scientific, economic, social, environmental, development, policy, and governance expertise as well as climate-related knowledge (CIF 2009B: para. 10). The guidance to the expert group established that it would make its recommendations based on several elements: transparent vulnerability criteria; country preparedness; willingness to move to a strategic approach in adaptation; and reasonable distribution of countries across regions and types of hazards (CIF 2008: para. 4).

The EG grounded its selection process mainly in the first element with some consideration to the second and third elements. It conducted an extensive, mostly quantitative risk assessment, using exposure to climate change hazards as an entry point to identify regional climate change "hot spots." Ten existing quantitative indicators complemented by expert judgment were used to identify high-risk and vulnerable countries within these "hot spots" regions (CIF 2009b). It is worthwhile noting that even though the risk analysis performed by the EG did not fully match the terms of reference, its recommendations were almost fully accepted, with only few minor changes (CIF 2011a; Seballos and Kreft 2011).

From interviews held with PPCR subcommittee members it appears that the use of experts to identify the initial recipient countries and the basic allocation scheme was seen as a way of dismantling political pressures from both donor and recipient countries. "Deciding on nine countries and two regions as pilots out of over 145 developing countries, all in need of adaptation assistance, is a potentially baffling and explosive venture" (interviewee A). The EG was used to "put a plug" on those lobbying for some country or region and to divert the discussion to "what should be done" and not to where the "money should go." Basing the allocation scheme on expert analysis was seen as a way of "reduced controversy and enabling quicker decision making" (interviewee B). This rationalization complements the stream in literature calling for the relinquishment of the pluralistic approach to risk prioritization and the return to technical expertise (Breyer 1993; Graham and Wiener 1995; Coglianese and Lazer 2003).

The expert analysis was also seen by some subcommittee interviewees as complementing the aim for the cost-effective use of the PPCR's resources. Some respondents mentioned that as funding was limited, the PPCR could not afford making mistakes and choosing the wrong countries to work in (interviewees B and C). "Investments in high risk countries are likely to produce larger reductions in risk at a relatively low cost" (interviewee C). "A thorough risk analysis could

help ensure the Fund's goal of cost-effectiveness" (interviewee B). Some respondents also mentioned the PPCR was a pilot project and, as such, continued funding would depend on success (interviewees B and D). "If countries were to be decided on politically rather than by experts this would place heavy responsibility on subcommittee members" (interviewee C). "They would pay a personal price if funding was discontinued by donor countries for any reason and especially if adaptation initiatives in recipient countries were perceived as failures" (interviewee C).

Indeed, the scarcity of resources and limited funding to address various essential risk areas has been cited in the literature as a driver for the revitalization of the "old idea" of the significant role of technical experts in risk analysis and the move away from policy responding to public perceptions of risk (Renn 2008). This may also explain the subcommittee respondents' tendency to rely on expert judgment instead of their own. The EG analysis not only laid the ground for creating a decision-making environment, which was not dominated by political alliances and seemed to ensure cost-effective expenditure of funds but also helped in reducing the perceived uncertainty. The scaling process by which countries were prioritized based on what was considered transparent, measurable, replicable, and equitable criteria, reaffirmed the country selection and helped decision-makers sense that resources allocation was being made on sound ground. These perceptions were unhampered by the fact that the analysis did emphasize that although the projections upon which the risk assessment was based enjoyed reasonably high levels of confidence, some aspects were inherently afflicted by uncertainty due to the limits of climate scenarios, possible underestimation of risk, and over-simplification overlooking cumulative impacts. (CIF 2009b: sec. 4).

Finally, the EG analysis also helped identify and clarify areas in which improved knowledge and data would strengthen country hazard and vulnerability analysis. Concrete recommendations were made as to the development of a hazard index and the refinement of vulnerability indicators. The development of a global database that would assess exposure to climate-change-related hazards at the national (or subnational, instead of the regional level as existed) was suggested as a means of improving the preciseness of the hazard exposure assessment (CIF 2009b: 51). The refinement of vulnerability indicators would improve their specification to a national developmental and hazard context (CIF 2009b: 51–52). This identification could potentially lead the way for the production of new knowledge and the integration of existing knowledge that would aid future decision making on adaptation funding and management.

Following country identification by the EG, and the selection and confirmation process by the PPCR subcommittee, a decision was taken to place an equal cap on the allocation of grants at forty to fifty million dollars per pilot country and sixty to seventy-five million dollars per pilot region, whereas concessional loans would not surpass fifty million dollars per country or region (CIF 2010b: para. 14). This decision requiring equal or almost equal allocation to those countries selected could be said to stand in stark contradiction to the purpose underlying the EG vulnerability-based selection process.

ADDRESSING RISK AT THE PROGRAMMATIC AND PROJECT PROPOSAL STAGES

The PPCR design document formally establishes the objectives of the fund as follows: "to pilot and demonstrate ways to integrate climate risk and resilience into core development planning, while complementing other ongoing activities." (CIF 2011a: para. 3). Poverty reduction and sustainable development goals are placed at the forefront of these activities (CIF 2011a: para. 4). At the core of the PPCR is the notion that adaptation and development are closely interrelated processes, where general "good" development progress helps increase the capacity to adapt to climate change and reduce vulnerability to its impacts (Seballos and Kreft 2011). This outlook has had a significant impact on the manner in which risk, vulnerability, and uncertainty are addressed in strategic project design and at the assessment stage.

Whereas the AF fund assists countries to implement concrete adaptation projects or programs mandated by country National Adaptation Programs of Action (NAPAs), the PPCR

does not adopt existing NAPAs as a basis for action. Nor does it adopt existing national or sectorial development plans or natural hazard preparedness and contingency plans. Instead, the PPCR requires countries to produce a new document entitled, the Strategic Program for Climate Resilience (SPCR) (CIF 2011a; CIF 20011b). This document includes a general adaptation strategy and framework for programs and projects (CIF 2009a: para. 18).

The programming and financing modalities for the PPCR stress the importance of risk assessment as a basis for formulating a SPCR and identifying vulnerable areas, sectors, communities, priority action areas, and needs within participating countries (CIF 2009a: paras. 21, 22). While risk governance is a central component in the formation of SPCRs, these documents often do not provide for the rigorous quantification that is inherent to some forms of risk governance (Amendola, 2002). Instead, the PPCR promotes the use of a participatory approach and the integration of multiple perspectives and stakeholders as a principle method of risk prioritization (Renn 2008). Countries are guided, in conjunction with stakeholders to "develop and prioritize alternative climate resilient development interventions within identified priority sectors and themes" (CIF 2009a: 7). Prioritization should not only weigh climate risks but such issues as relevant development priorities, existing sectorial plans, and an ongoing policy reform process (CIF 2009a: 27).

A basic objective of the SPCR process is the enhancement of capacity of national institutions for "robust policy reform and priority setting" (CIF 2010a). Consequently, most country SPCRs acknowledge the need to create and integrate institutional structures and policies on climate risk into existing structures in the respective countries. For example, the Nepalese SPCR includes such outcomes as the revision of policies for key sectors to reflect climate change policy (CIF 2011c). The Nigerian SPCR sets as a primary indicator of success, the development and use of "environmental tools" in planning processes at all levels as well as the inclusion of climate resilience in policy documents and sectoral initiatives (CIF 2011d). The Mozambique SPCR acknowledges the importance of institutional and policy reform and includes as a key result the integration of climate resilience into key sector plans and provincial development strategies.

In order to overcome the innate uncertainties associated with climate risks, SPCRs are guided to emphasize capacity-building and win-win measures with early environmental or development benefits (in terms of agriculture, water management, etc.) (CIF 2011c). For example, the Cambodian SPCR includes as a primary component of poverty reduction, increased agricultural yield and diversification, food protection, improved public health, and urban livability (CIF 2011c). Since many SPCR components are framed as complementary to development, they are perceived as "no regret" measures. These types of measures are considered a good way to bypass much of the uncertainty associated with local climate scenarios and the evolution of climate risks at the local level (Fankhauser and Burton 2011; Heltberg et al. 2009).

While SPCRs do stress the need for these types of "no regret" measures, in effect, much room is left for measures that depend on the uncertain outcomes of climate scenarios. Such is the case with large infrastructural climate-proofing projects, subject to the uncertainties of climate change (Hallegatte 2009). Going back to the Cambodian SPRC example, it includes several measures of infrastructure climate proofing such as, continuity of services in road, water, and sanitation infrastructure, and enhanced protection of coastal areas from storm surge, sea level rise, and saltwater intrusion. Infrastructural measures amount to the greater part of $57 million out of $105 million SPCR requested budget (CIF 2011c).

The Cambodian example demonstrates that although the PPCR claims to focus on integrating climate resilience into development trajectories, the resources allocated to uncertain measures such as climate proofing infrastructure may still be a significant tranche of total expenditures. While improving infrastructure might complement development goals, uncertainty is still a major factor in these measures. The Cambodian SPCR does not mention any specific way of addressing uncertainty in these infrastructural investments other than a general remark

acknowledging the risk and the need to integrate a "decision making framework to assist planners and decision makers to decide on investments in the context of uncertainty" (para. 214).

In order to more fully understand the way in which the PPCR addresses risk in projects, we turn to the first project confirmed under the infrastructural investments category in the Cambodian SPCR: A provincial roads improvement project (CIF 2011c), the aim of which is to "rehabilitate and upgrade 157 km of flood-vulnerable roads" in several provinces "to climate change-resilient conditions" (CIF 2011:2). As mentioned, the approval of a SPCR is a first but not final step in project funding allocation. In order to receive funding from the PPCR, a country must submit a full-length project proposal jointly with its respective MDB. The proposal is consequently discussed and accepted or remanded for adjustments by the PPCR subcommittee.

Looking at the budget allocation in the provincial road project proposal, it is evident that the direct investment in "low regret" climate resiliency measures, such as water capture and storage systems, planting appropriate species to restore ecosystem functions, and emergency management systems, constitutes less than a third of the overall approved budget of $17 million (CIF 2011c): 39). The major part of the investment is allotted to engineering works. The successful and sustainable outcome of the engineering segment of the project is highly influenced by climate scenarios and, as such, is subject to substantial uncertainty. The project proposal and the assessment by the MDB partner, the Asian Development Bank (ADB), acknowledged the lack of hydrological data that would enable an assessment of climate risks affecting the road engineering improvements (CIF 2011c:31, 33). In addition, the ADB assessment of the project reveals that the project was not necessarily designed so as to address roads in the most vulnerable areas. The assessment mentions, for example, that "Despite Prey Veng being highlighted as a province that is highly vulnerable to flooding in Cambodia's NAPA, the project road does not run through the highly flood-prone areas of the Province" (CIF 2011c:33, para. 13). This, however, did not hamper the ADB's support for the project or approval by the PPCR.

While no risk-oriented managerial strategy exists with regard to vulnerability outcomes of projects, a fully developed risk managerial strategy is implemented in the management of project risks. Going back to the Cambodian provincial roads project, we find that full governance and risk frameworks are implemented by the ADB as a supervising entity (ADB1, ADB2). A qualitative risk assessment identified five risk themes: public financial management, procurement, technical capability, corruption, and due diligence. The assessment also puts into place managerial mitigation measures for each theme, and assesses their effectiveness in reducing risk levels from high level to low (ADB2).

These assessments and measures do not only portray a different understanding of risk, which focuses on financial management, procurement, disclosure, and corruption rather than on climate and vulnerability. They exemplify the institutional understanding of the role of the PPCR as a funding source and MDB's oversight role. Interviews indicate that officials at PPCR perceive that financial risk mitigation is an important function of the fund and hence their understanding of risk is first and foremost centered on the risks embedded in poor financial management, low implementation capacity, and corruption in the receiving states. Officials in ADB accentuated the fact that the ADB supervising role is very much directed at the identification and rectification of project management risks.

MONITORING AND EVALUATION

Similar to the AF, the PPCR has adopted a multilayered monitoring and evaluation program supported by a PPCR results framework. However, in contrast to the extensive procedures adopted by the AFB to guide the monitoring process in a consistent and uniform manner, the PPCR has left the content of each level of assessment somewhat less defined and open to interpretation by MDBs and country participants. Efforts rest heavily on existing national

monitoring and evaluation systems and the MDBs' own system for monitoring development results. The PPCR has declared it will avoid the creation of parallel structures or processes and its subcommittee involvement in monitoring is scarce. Most of the oversight responsibilities rest with the SCFC.

As mentioned, specific projects or program components under an SPCR are monitored by MDBs in accordance with their respective results-based procedures. Country level SPCR monitoring is achieved through joint country and MDB data collection and evaluation. Monitoring is conducted according to key results and indicators identified in SPCRs (CIF 2009a). Metrics and approaches differ widely, depending on country and targeted sectors and practices of MDBs. While MDBs own systems focus on development rather than adaptation goals and outputs, monitoring is not specified to addressing results in climate risk mitigation but rather has a broad focus on project completion with salience on financial and management issues. Possibly as a substitution, the PPCR has pledged a final long-term monitoring component. The PPCR design document specifies that final ex-post evaluation of the country pilots will address the impacts and effectiveness of adaptation measures, including sustainability. The long-term monitoring commitment to take place years after SPCR pilots are completed (generally most pilots are expected to last for several years) is unique compared to AF. It is justified based on the claim that effects and sustainability of outcomes are typically apparent only after the lifespan of interventions (CIF 2009a).

Where They Stand: Are Climate Funds Compensators, Redistributors, or Regulators of Risk?

The analysis undertaken brings to light that although many developing countries have called for compensation for climate risks and damages, the current institutionalization of multilateral adaptation funding is far removed from a compensatory disposition. The idea of liability has been wholly neglected by the funds. Moreover, most interviewees indicate that it has been intentionally purposefully and persistently avoided (interviewee A, C, E, and F). Neither CCFs studied prioritize already existing harms nor do they rely on mandatory contributions by industrialized countries. Quite the contrary is true: Contributions to both funds are voluntary, vary between funds, and do not employ any scale of participation in funding.

Although the AF was set up as a direct outcome of the UNFCCC negotiations process, developed countries fail to perceive donations to the fund as mandatory. The U.S. and Canada, which are considered among the world's largest contributors to historic GHG emissions, have made no contribution to the AF, while Japan, the second-largest emitter among developed countries, made a minuscule contribution (AF(e) 2011; Dellink et al. 2009). The PPCR has enjoyed much larger contributions by these significant emitters as well as contributions by Germany and Australia. Yet, no effort was undertaken for corresponding contributions to the relative historic share in emissions or the contribution of these countries to climate harms as is suggested by Dellink et al., (2009) and others. Nor have these funds, or the funding countries, made any serious effort to correspond donations on the basis of measurable principle of "capacity to pay" or in fact any other proven standard of equitable burden sharing among donor countries. This is the case despite the UNFCCC commitment to "appropriate burden sharing among the developed country parties" in providing funding (UNFCCC article 4(3)).

Risk redistribution judged from the allocation perspective (rather than from the contribution to funding) is somewhat more ostensible. Both funds have adopted to a degree a policy of resource distribution to those countries most vulnerable to climate change. Nevertheless, the means and degree by which both funds have strived to implement vulnerability-based resource allocation are found to be inconsistent.

The AF, although committed both legally and principally to the idea of allocation according to vulnerability, has deviated from this in practice. The AFB relies heavily on reporting by countries on climate hazards and the corresponding adaptations. In determining funding

priorities, the AFB does not conduct independent comparative risk assessments but requires the country programs to correspond to NAPAs. A "first come first serve" or "bottom up" approach has been adopted for distributing funds. This has resulted not only in LDCs and lower middle income countries receiving funds but in some cases in contributions made to middle and upper middle income countries, such as, Uruguay, Georgia, and Ecuador (AF web site).

Additionally, a uniform upper limit, regardless of country size, wealth, or vulnerability set by the AFB, undermines the possibility of fund allocation according to risk. A uniform funding rule connotes equality in circumstances where there is none and undermines principles of just redistribution.

The PPCR has, in contrast, determined the initial participation of countries and the allocation of resources through a scientific lead vulnerability assessment. The multilevel assessment took into account physical exposure and country resilience as well as capacity to a lesser degree. This initial assessment could have served as a basis for determining just allocation. However, as in the case of the AF, the consequent allocation scheme devised by the fund was also subject to an equal quota rule, ensuring practically equal allocation to all participating countries or regions.

In both cases, the equal allocation rule serves to facilitate decision-making through the deflection of the scientifically complex and politically sensitive issue of ranking relative risks and vulnerabilities. While it could be claimed that the principle of equality has been upheld by this policy, it is doubtful whether equity in risk redistribution has been served.

The process of evaluation and approval of project proposals has in both funds served as fertile ground for the introduction of regulatory considerations and criteria. The study of the AF evaluation process suggests that the ability of the project to reduce climate associated risk and vulnerability are important and central, albeit not exclusive concerns. Moreover, uncertainty in climate scenarios, in the outcomes or impacts of projects, is of limited concern. The AFB has not developed guidance on addressing uncertainty at the project proposal stage and is likely to accept a proposal even if significant uncertainty exists, as long as potential benefits are clearly prescribed. At the same time, the AFB is substantially involved in considering broader issues indirectly related to risk management, such as cost-effectiveness, governance, accountability, stakeholder participation, and the consistency of the proposal with national standards. Interviews of board members and the Secretariat indicated the AFB is ready to reject projects that do not meet the required standards set by the board, even if projects demonstrate a reasonable response to climate risks and vulnerability.

Reviewing the PPCR policy on actions included in country SPCRs brings to bear that the scientific assessment of climate risks is only one consideration in the prioritization of risks and corresponding actions. Rather, a participatory approach of risk evaluation through the involvement of multiple stakeholders is advocated. In addition, conformance of measures with existing development strategies and policies is highly supported. These considerations emphasize that the feasibility of measures for addressing risks is perceived as central by stakeholders. This could be otherwise described as a form of pragmatic risk regulation (Renn 2008).

The PPCR promotes regulatory changes required to address adaptation at the planning and decision-making levels in respective countries. Advocating policy and institutional reform to address climate risks, it acts as meta-regulator (Humphrey 2002; Scott 2003).

Both funds closely regulate financial propriety and accountability. Through fiduciary duties imposed either on MDBs (in the case of the PPCR) or IEs (in the case of AF), the use of funding is closely scrutinized. The accreditation process in the case of the AF is heavily regulated to ensure accredited IEs are financially stable and capable of managing and monitoring appropriate use of funds.

Monitoring and evaluation are key components for the work of both funds and also suggest the dominance of a risk regulation approach. Both funds have multiple and layered monitoring and reporting requirements that draw from results management frameworks.

Nevertheless, the involvement of both funds in setting standards and indicators for monitoring and oversight vary. While the AFB demonstrates strong stewardship and involvement in detailed requirements on monitoring, the PPCR imposes few preconditions and allows pilot countries and MDBs to design appropriate monitoring strategies themselves.

Finally, a similar disparity between funds exists with regard to the use of coercion mechanisms. Where the AFB retains full authority to compel countries to comply with program demands, the PPCR leaves any required coercion to the MDBs. The AFB, through the rigorous accreditation process of IEs and by retaining the right to withdraw funding, has preserved coercion authority over programming and financial demands. In the case of the PPCR, coercion is mostly delegated to MDBs by placing the supervision of financial and programing matters in their hands. This delegation may serve to diminish the ability and willingness to coerce since MDBs share in the program's success or failure.

Implications and Conclusions

The role of multilateral CCFs in the governance of climate change adaptation is clearly of central importance to the future of any climate regime. Diplomatic efforts have focused on establishing mechanisms of funding, the provision, availability and predictability of resources, and ensuring acceptable administrative structures (Gosh and Wood 2009; Grasso 2010; Seballos and Kreft 2011). Little regard has been paid to the manner in which these organizations distribute resources and ultimately the impact of the distribution on governing risks and adaptation. Looking upon the governance and policies of the studied CCFs, what are then the salient features that have created the existing risk governance style and what are their implications?

The Rejection of a Compensatory Approach to Resource Allocation

In UNFCCC negotiations, many developing countries lobbied for a compensatory approach in dealing with climate risks and damages, based on developed countries' liability (Müller 2009; Grasso 2011). This view has been either purposefully avoided or implicitly rejected by CCFs. Despite the fact that funding rests on the premise of responsibility of developed countries and is mandated by the UNFCCC both for incremental adaptation costs (UNFCCC article 4(3)) and the full costs for particularly vulnerable countries (UNFCCC article 4(4)), CCFs have harbored the idea that funding is essentially voluntary in nature and does not derive from liability. Hence, it does not connote compensation or any specific commitment by developed countries. The rejection of liability and duty to compensate for harms caused and risks already experienced is therefore the first prominent feature or risk governance by CCFs.

Financially, an acknowledgment of liability would require developed countries to correlate their payments to CCFs on a scale corresponding to their contribution to emissions or harms caused. Funding provided would have to be proven sufficient to compensate for damages and risks attributable to anthropogenic climate change. Consequently, funding would be required to grow unconditionally to match the unfolding of climate damages, creating uncertainty as to the amounts due and the boundaries of liability. The recognition of liability for climate damages would thus be detrimental to developed countries financially.

Liability entails the imposition of external rules determining a country's contribution. Contributions could no longer be discretionary and would need to correspond to strict legal rules, minimizing developed countries' ability to determine what damages would be paid. Also, the recognition of liability would undermine the reciprocal nature of the UNFCCC and the negotiations process. It would provide for unidirectional responsibility, compromising developed countries' ability to obtain concessions and demand actions from developing countries. Both of these considerations render the acceptance of liability as a model for allocation as politically unacceptable to developed countries.

It could be claimed that a compensatory model would have provided greater assurance and predictability of funding and a clearer model allocation among developing countries.

Nevertheless, these assumptions may be countervailed by the requirement for causal attribution of harm and the prioritization of manifested harms that would complicate actual allocation. Adopting a risk compensation model would also create adverse impacts on risk reduction and preventative planning, incentivizing the adoption of a retrospective approach. This would increase harms, as countries might opt for waiting until clearly attributable climate harms occur, rather than managing complex adaptation measures, seen as uncertain and possibly redundant.

The Limited Role of Vulnerability in Redistribution

A second salient feature of risk governance by CCFs is the shallow and partial interpretation given to risk redistribution based on vulnerability assessment, which is especially pertinent in the AF. Efforts to quantify vulnerability have been portrayed as hindered by the uncertainties associated with the concept. At the same time, vulnerability-based redistribution has encountered a tendency toward an egalitarian division rather than a risk-based dispensation of funding. Consequently, CCF procedures have impeded the use of vulnerability and risk as singular criteria for monetary transfers.

Additional multiple considerations introduced through authorization procedures have further deflected from vulnerability as a basis for redistribution. Criteria such as cost-effectiveness, geographical distribution, and capacity have fractured the risk-driven incentive to fund adaptation. At the same time they have allowed stronger discretion in addressing funding allocation and project authorization by CCF boards.

The implications of a reduced role for vulnerability in the allocation of funding are already evident. When vulnerability is not an overriding concern in allocation of funding, monies may be dispersed among developing countries as well as those with medium and high-medium income, which are located around the median of the Human Development Index. The ability of more highly developing countries to access the funds occurs because these countries have both higher capacity for dealing with the complexity associated with the submission of detailed funding requests and for the implementation of projects once confirmed. The outcome may be that significant trenches of already limited adaptation funding will go not to the most vulnerable, but to those countries capable of preparing adaptation proposals and advancing their claim within the CCF boards.

Intensive Involvement in Determining Appropriate Adaptation Actions

CCFs have developed (non-homogenous) visions of adaptation and are "implanting" these visions in recipient countries through funding. The PPCR vision of tying development and adaptation and the AF understanding of concreteness of adaptation projects determine to a large extent the nature of adaptation measures taken in recipient countries. This stance is justified on the claim for improved effectiveness of adaptation actions. It may however prove detrimental if little flexibility is left for funded countries to respond to changing circumstances or uncertainties in the manifestation of climate scenarios.

Intense Regulation of Fiscal Performance, the Demand for Internal Regulatory Reform, and Monitoring

Boards have adopted a practice of scrutinizing projects, addressing not only issues such as risk reduction and suitability of adaptation measures, but in demanding evidence of sound fiscal and management practices. Fiscal issues are highly regulated, and detailed instructions for the fiscal and fiduciary management of projects are provided to funding recipients, who are then required to implement them. This measure is without doubt motivated by the need for assuring the sound use of the funds and preventing mismanagement and corruption. At the same time, it provides additional leverage to the CCFs in increasing their regulatory powers over recipient countries.

Additionally, projects are often directed to address policy and planning reforms required to advance and mainstream adaptation. The demand for integrating policy and regulatory

reform as part of an adaptation strategy in the PPCR is a powerful tool used by the PPCR to steer changes in governance in recipient countries complementing the broader developmental agenda. This strengthens the influence CCFs hold over the adaptation agenda in developing countries and at the same time broadens their influence beyond what may be considered as purely adaptation.

Finally, affirmation of projects is followed by close monitoring, directed at project implementation and the compliance with fiduciary duties. Monitoring is supplemented by varying degrees with coercion powers and methods. These three characteristics: the laying of fiduciary rules, the requirement for internal policy and regulatory reform, and close monitoring of projects, when placed together promote the view that CCFs have become mechanisms of risk regulation rather than redistributive organizations.

Regulation entails a shift from emphasis on the provision of adequate funding and sharing of burden among developed counties. Focus is redirected to the role of developing countries in providing for appropriate adaptation plans and programs. Through this lens, developing countries are not seen as having entitlement to resources. Rather, they are constructed as recipients of aid that must adhere to the many terms and conditions applied by the donors. This shift diverts attention from risk reduction prevention and redistribution, the primary reasons and justifications for adaptation funding. It causes countries to focus on technical and managerial aspects of adaptation rather than on the substance of risk mitigation.

CCFs' practices and countries' responses to the imposed requirements create, in effect, a global phenomenon of regulating adaptation as an extension of what Goldman (2001) has termed the "regulatory regime for the environment" created by the World Bank. Regulation may contribute toward project and fiscal management and ensuring cost-effective action in adaptation. It may even benefit lesson-learning through the intense monitoring efforts undertaken. It will not, however, contribute to country ownership of projects, mainstreaming adaptation, or improving the resilience to climate change of those most vulnerable. Instead of providing incentives for rapid and effective adaptation, regulatory governance by CCFs may slow down the impetus for adaptation and reduce desired risk mitigation results, counteracting the very purpose of climate funding.

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