Principles or Principals?
Institutional Reform and Aid Allocation in the Global Environment Facility (GEF)

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Introduction

The Global Environment Facility (GEF) was designed by donor governments in the early 1990s to assist developing country efforts to address global environmental problems such as ozone depletion, climate change, and threats to biodiversity. However, given different domestic political interests, Western donors have sometimes been more interested in helping recipient countries to build such a capacity than developing countries have been to receive this help. Developing country governments often have been more interested in achieving economic development than in contributing to global environmental goods. To the extent that recipient governments were interested in environmental aid at all, they sought to address local environmental problems such as erosion control, pollution abatement, and clean water / sewage. This preference divergence between globally-oriented donors and locally-oriented recipients explains much of the politics, the institutional design, the reform efforts, and the portfolio allocation patterns of the GEF over time.

In this paper we employ principal-agent theory to deduce observable implications about a number of behavioral and institutional outcomes in and around the GEF.[1] The GEF presents scholars with an interesting case to learn about multilateral assistance and the politics of international organizations (IOs). Fortuitously, the mandated social purpose and normative principles[2] of the GEF were codified by participating governments and IOs in 1990 and a pilot program went into operation in 1991. The pilot program ran for three years and disbursed more

[1] We employ principal agent models that focus attention on the formal lines of authority, voting rules, and voting power of member states within the collective principal of an international organization. For examples see Nielson and Tierney 2003; Hicks et al 2008; Tierney 2008; Lyne et al 2009; and Copelovitch 2010.

[2] Barnett and Finnemore 1999 discuss the ways in which IOs create norms, principles, and social purpose in a given issue area and then diffuse these norms to states through their discourse and actions. In this case the relevant actions involve the allocation of environmental aid to encourage sustainable development or to help a developing country to complete a project in a way that enhances the natural environment or minimizes damage to the environment.

than $700 million in grants to developing countries. In 1994 the GEF member states decided to institutionalize the basic principles and purposes agreed back in 1991, but the formal rules for decision making were changed and the location of authority shifted from IO secretariats to member states on the GEF Council, which now approves both policies and individual projects. So, the principles, purpose, and the organizational mandate of the GEF stayed the same, but the principals and formal lines of authority/accountability shifted. This shift provides analysts with an opportunity to assess the impact of formal decision rules and an altered distribution of power within the authorizing body. Agency theory suggests that when such reforms are undertaken, we should observe substantial shifts in the policies, the behavior, and the institutional choices of IOs.

While this paper is an early draft and we may not have the appropriate evidence or models to assess all our hypotheses, so far we ***do not*** observe the kind of dramatic changes that one might expect from a fundamental restructuring of voting rules, voting power, and formal authority within the collective principal at the GEF. At this stage in the research process, we remain puzzled (and intrigued) by the outcomes we observe.

Given changes in representation within the collective principal (the GEF Council) that strengthened the position of developing countries, we expected developing countries to start receiving more of the types of aid that they prefer – that is more "dirty" aid and more "brown" aid.[3] We don't observe this, at least not immediately and seamlessly. As developing countries gained formal power after 1994 we also expected the GEF Council to authorize more agents to carry out GEF projects and for the archetypical agent (the World Bank) preferred by donor governments to receive less money and fewer projects after the 1994 restructuring than before. While we do observe a proliferation of IO implementation agents a decade after the restructuring, we don't observe the abandonment of the World Bank as an agent or even a substantial diminution of its role in designing and executing projects. Finally, we expected more recipient countries to gain access to GEF resources, even those that cannot credibly commit to effectively use the aid for its intended purpose; we do not observe this, either. Our initial

[3] We adopt the typology of environmental impacts developed by Hicks, et al (2008), which we summarize in greater detail below.

effort to explain the evolution of GEF behavior and the composition of the GEF portfolio raises as many questions as it answers. In the conclusion we offer several paths forward.

Literature Review, Theory, and Hypotheses

While the IPE and IO literatures on the allocation of multilateral assistance are voluminous, very few scholars have employed political economy models to explain the behavior of the GEF and none that we know of use systematically collected evidence to explain changes in the grant portfolio. Several scholars provide valuable descriptions of the politics in and around the GEF that focus our attention on divergence between developed and developing country governments (Fairman 1996; Streck 2001), the sequencing of institutional reforms (Sjoberg 1999) and the role of the GEF Secretariat after the 1994 reforms (Werksman 2004; Andler 2009). Others explain the impact of GEF projects on the ground in developing or transition countries (Gerlak 2004). And recently Andonova (2010) has employed principal-agent theory to analyze the incentives of IO bureaucrats to act as entrepreneurs in the development of the GEF small grants program and other public-private partnerships. However, none of these authors have focused much attention on the politics and the allocation of authority within the GEF's collective principal. If principals have the authority to set policy, allocate budgets, and hire/fire IO agents, then the preferences of those principals are likely to have a major impact on the choice of agents to perform tasks and the behavior they exhibit.[4] A fully satisfying explanation would no doubt analyze the strategic interaction of both principals and agents, but there may be an empirical payoff in focusing our attention on the principal side of that relationship and modeling the

[4] The glaring exception to this claim comes in a forthcoming paper by Johhanes Urpelainen (2011) where he develops a formal model to illustrate the conditions under which powerful states will be able to unilaterally subvert the formal rules of the delegation contract by influencing the IO agent *outside* of the authorized avenues of the delegation contract. While he offers little more than anecdotes from the GEF case to illustrate the equilibrium, all of them are consistent with what we have found in our initial search of the qualitative literature, and the predictions of the Urpelainen model are entirely consistent with our empirical findings in section 5 of this paper.

politics within the collective principal as a determinate of outcomes. This strategy has produced insights when used to study other multilateral organizations.[5]

Given the dearth of research on the intra-principal politics at the GEF, we draw upon the literature on multilateral aid allocation and PA theory as applied to IOs in order to develop some expectations about behavior and change at the GEF. A growing literature conceives of IOs as the agents of principals that are corporate actors, or collective principals. The members of these decision-making bodies must overcome collective action problems in order to make policy decisions that alter the status quo or to direct their agent(s). Whether they can make a decision and what decisions they make are determined by the decision rules that channel collective choices, the preferences of individual members, and the voting power of individual members of the group. Lyne et al (2009) adopt this approach to explain the shift from agriculture and infrastructure lending toward a greater focus on social protection and education projects within a range of MDBs from 1980-2000. Copelovitch (2010) uses a similar model to explain variations in the size and composition of IMF loans over time and across space. Tierney (2008) focuses on a unit veto collective principal, the UN Security Council, to explain the behavior of weapons inspectors in Iraq. Humphrey and Michaelowa (2011) explain how variation in shareholder preferences within MDB collective principals help to explain portfolios, lending volume, and the choices of borrowers who can shop for loans at a variety of MDBs. Schneider and Tobin (2011) analyze variation within multilateral aid institutions (MAIs) to explain the allocation of individual donor governments – that is, whether a donor government will choose to delegate to a particular MAI will depend, in part, on its ability to influence decisions within the collective principal of that institution.[6] Studies of individual IOs also illustrate recent efforts to highlight

[5] For examples see Lyne et al 2006; 2009.

[6] Schneider and Tobin also theorize about the ability of potential donors to realize their outcomes at the implementation phase in addition to the decision phase. Implementation issues move the analysis beyond the intra-member politics of the collective principal.

the role of small states on the Asian Development Bank's Executive Board (Kilby 2010) or outliers among MDBs in terms of their adoption of international norms.[7]

The typical analytic move for these PA approaches is to specify the preferences of all (Lyne et al 2009) or a sub-set (Copelovitch 2010) of the most important members of the collective principal and then explore how variation in the voting power and preferences of those members interact with the formal decision rule to produce policy choices. Like Humphrey and Michaelowa (2011) we adopt a simplified version of this approach by assuming that there are two types of governments represented within the collective principal – donors and potential borrowers. While there is variation within both these groups on specific policy issues,[8] in general donors have much higher per capita GDP and politically relevant environmentally-oriented constituencies within their electorates that expect their governments to provide global environmental public goods. Developing country governments, on the other hand, strongly prefer economic transfers that promote economic development domestically or that can be used to pay off political supporters (Barrett 1994; Streck 2001; Hicks et al 2008). This is precisely why, since the inception of the GEF, developing countries have been pushing for the inclusion of clean drinking water and desertification as environmental issues that could be financed through this facility. These types of "brown" environmental projects directly support national priorities for most developing countries.[9]

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[7] See O'Keefe (2010) on the Islamic Development Bank where the median preference of the collective principal is much less environmentally-oriented than at most other MDBs.

[8] For example, while most developing countries are not highly motivated to attract foreign aid that will protect bio-diversity, Belize and Costa Rica, who have burgeoning eco-tourism industries have been proponents (and enthusiastic beneficiaries) of such aid. On the donor side, in 2002-03 the U.S., U.K., and France pushed for a performance-based resource allocation framework (RAF) that would rate potential recipients on their ability to successfully implement projects; the Germans and the Dutch opposed this scheme and sided with developing countries (Hicks et al 2008).

[9] As Hicks et al (2008) explain, brown aid is environmental aid that is designed to protect, enhance, or remediate local environmental assets within a recipient country. Common examples include water projects, sewerage, erosion control, and abatement of air pollution with heavy particulates. The other type of environmental aid, green aid, is designed to address global or regional public goods, such as

Alternatives to this collective principal approach come in several flavors and all of them could be used to help explain the outcomes we observe in the empirical section of this paper. A close cousin of our complex principal model adopts a simplified assumption about the composition of the principal and argues that a given IO is effectively controlled by a hegemonic state. There is a long tradition of empirical work along these lines showing that the United States often dictates outcomes within IFIs, or shapes them in important ways (Thacker 1999; Gruber 2000; Nielson and Tierney 2003; Klepak 2003; Broz and Hawes 2006). These conclusions of IR scholars are often shared by economists who study IFIs. While Fleck and Kilby (2006) conclude that American geopolitical and, especially, commercial interests shape the geographic distribution of loans from the World Bank, Kilby (2006) finds that the U.S. and Japan overwhelmingly dominate allocation by the Asian Development Bank. Similarly, Andersen et al (2005) find even stronger influence of the U.S. at the IMF and at the World Bank (2006) when they proxy U.S. interests by voting similarity within the UN General Assembly. Received wisdom among empirically-oriented scholars thus suggests that the preferences of small states will not have a significant impact on IO outcomes in general or MDB behavior in particular. Our approach in this paper assumes that formal voting rules, voting power, and lines of accountability within IOs are efficacious.

A closely related and potentially more general alternative that explains IO behavior explores both the formal and informal power of a hegemonic state (Stone 2002; 2008) or powerful member states in general (Urpelainen forthcoming). Both Stone and Urpelainen explicitly theorize how members of a collective principal could shape the behavior of an IO agent *unilaterally and outside the formal procedures* governing the delegation contract. Both scholars suggest why and how powerful states might act outside the formal delegation contract to encourage IO behavior that is consistent with their interests.

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preventing ozone holes, global warming, dirty oceans, or species extinction of endangered flora and fauna. While brown aid is relatively more valuable to developing countries, the other type of assistance that is valued by developing countries includes many varieties of "dirty" and "neutral" aid, which may have properties similar to brown aid in that it can be chopped up and delivered to important political constituents and is more functional than green aid for promoting economic development. For details on this coding scheme that is employed in the empirical section of this paper, see Hicks et al 2008, chapter 2.

Finally, constructivist accounts of IO behavior explore the impact of normative principles (Barnett and Finnemore 2005; Weaver 2008) and causal beliefs (Chwieroth 2009) that become embedded within the organizational culture of existing international organizations. When these IOs are given new tasks, they often draw upon existing organizational scripts and routines in to help them make sense of a new problem and they typically use existing tools and organizational procedures to address these new problems. When governments cooperate to create new IOs to carry out some task, this may not be central concern; however, in the case we analyze in this paper the member governments have delegated planning and implementation of GEF projects to seven existing IOs that have well established organizational cultures. In fact, as we suggest below, state principals had prior beliefs about the cultures and capacities of various potential implementing agents and these beliefs drove many of the disagreements among them. Developed donor states wanted to delegate to the World Bank. Developing country governments, who were potential recipients of GEF largesse, wanted to delegate to UN agencies. Regional development banks were in the middle of this distribution and were actually the first new agents added after the 1994 restructuring.

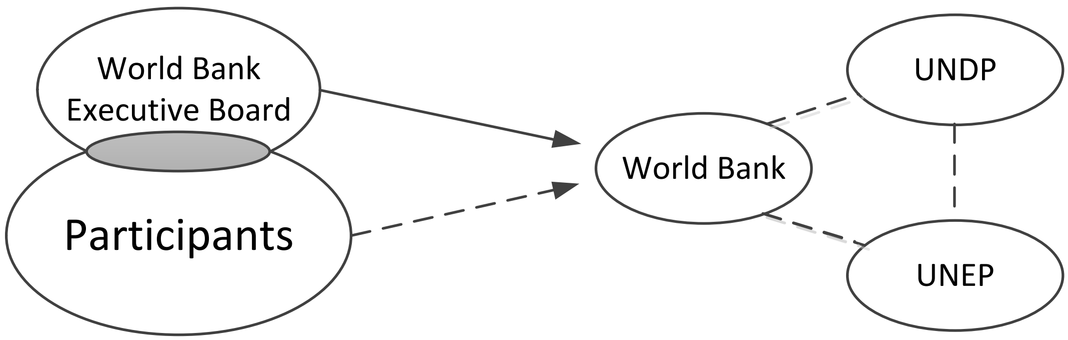
Delegation and Agency at the GEF

On March 14, 1991, the Executive Directors of the World Bank signed Resolution 91-5. This Resolution officially created the GEF Pilot Program, a new, three-year financial mechanism that would seek to "assist in the protection of the global environment and promote thereby environmentally sound and sustainable economic development" (World Bank 1991, 1758). A World Bank managed trust fund, the Global Environment Trust, or GET, was also set up as part of this arrangement.[10] The World Bank would administer the GET on behalf of "Participants," the governments which had chosen to participate in the GEF (World Bank 1991). Governance during the pilot phase was based on a loosely defined arrangement between the donors and three implementing agencies: the World Bank, the United Nations Development Programme (UNDP), and the United Nations Environment Programme (UNEP). These three agents were tasked with

[10] The Resolution also established a separate fund, the Ozone Projects Trust Fund, which was linked to the Montreal Protocol (World Bank 1991, 1763).

providing policy advice to recipient governments as well as designing and implementing projects by allocating money from the trust fund. Figure 1 illustrates the basic authority relationships.

Figure 1: Authority Relations for GEF Pilot Phase 1991-1994



Defining the Collective Principal(s): 1991-1994

A principal-agent relationship is defined by two conditions. First, there must be a contract that specifies the rights and responsibilities of the actors – principal and agent – in this hierarchical relationship. Typically in IOs this is a legal document such as a mandate, a resolution, a charter, or articles of agreement. This contract can be modified by subsequent decisions that are authorized in the founding document (Tierney 2008). Second, the principal has the authority to delegate specific types of tasks to the agent and also to revoke or modify the authority it has conditionally granted to the agent (Hawkins et al 2006). During the pilot phase, the World Bank Executive Board passed several resolutions clarifying the relationships among participating governments, the Global Environmental Trust, and the three IO agents. These resolutions defined the principal-agent contract for the GEF Pilot Phase by designating the agents and specifying decisions rules among members of the collective principal.

Discretion - a "grant of authority that specifies the principals' goals but not the specific actions the agent must take to accomplish these objectives" (Hawkins et al 2006) – figured prominently in the delegation contract in the Pilot Phase. In this particular contract the participating member states provided broad discretion to their three IO agents.[11] The preferences of the principal were broadly embodied in the document – to assist developing countries in their efforts to address global environmental problems – but the agents were granted substantial autonomy to interpret their mandate. Some guidelines were provided, particularly in the discussion on the roles of the three agents (see Annex C of Resolution 91-5); however, the specifics were not contained within the text of the Resolution.[12] The agents expressed their willingness to work in "close co-operation with each other" by agreeing to "procedural arrangements" among the three agencies (World Bank 1991, 1770-1771). But the participating governments did not design oversight mechanisms or decision procedures to ensure tight control of their three agents. By design, the World Bank enjoyed a privileged position within the delegation chain and it proved especially assertive.

Importantly, participation in the pilot phase occurred on a voluntary basis (World Bank 1991, 1749). This makes it straightforward to establish who was included among the Participants, and therefore who had ultimate authority over the agents. Those who contributed to the Trust Fund were the principals. By contributing (or withholding) funds, Participants could choose to delegate to the GEF or not. Initially, there were twenty-one donors, all contributing at least SDR 4 million. As Sjöberg (1999, 6) points out, "all Participants should be contributors in some measure to the facility, thereby bridging the division and underscoring the essence of the GEF: collective self-help without connotations of charity." In addition, countries that organized

[11] Fairman (1996, 72-76) explains that by not clearly resolving several key issues, the Resolution "deferred conflict by diffusing authority," but the conflict followed quickly as soon as the GEF Pilot Program went into operation. The features left unresolved in the Pilot Phase included: decision rules for the participating governments, the scope of operations, whether GEF projects could be integrated into ongoing project development within the three implementing agencies, and how GEF projects should serve the goals of various environmental treaties that had been recently ratified or that were concurrently being negotiated.

[12] Another World Bank document from 1991, "Establishment of the Global Environment Facility," provides more specificity and better encapsulates the preferences of the original participating states. This document provides more specific guidance on the role of different actors, and adds depth to the main Bank Resolution.

co-financing were also considered Participants. This definition of “Participant” gave the collective principal a decidedly donor-oriented cast.

Although the Resolution stipulates that Participants would jointly review a “consistent work program [developed collectively by the agents] ... semiannually” (World Bank 1991, 1760), there was no well-defined system of decision-making mechanism in place. In practice, the Participants met twice a year, and decisions were taken by consensus (Reed 1993, 197). According to the Resolution defines the work programs: “[t]he work program will in turn determine the allocation of GEF resources to the three agencies to fund their portions of the work program, according to the activities needed to support the operations and in line with the capacity of the agencies to implement...the proposed work program and the allocation of resources will be reviewed by the participants at the semiannual meetings” (World Bank 1991, 1746).

No one Participant had, *a priori*, more authority than any other member of the collective principal, but the definition of “Participants” and the consensus decision rule clearly favored donor governments. Despite the language about mutually agreed work plans, the World Bank played a commanding role among the three agents. Because the GEF pilot was an entity “of” the World Bank, the Bank’s Executive Board was a collective principal of the Facility, which was subject to Bank rules and decisions (World Bank 1991, 1758). Bank staff designed the GEF Pilot Phase and it was a World Bank Board decision that established the Facility. Also, the World Bank was given the central role in the coordination of GEF activities: “The Bank, within the terms of its Articles of Agreement and of this Resolution, will cooperate with other international organizations, in particular, will make procedural arrangements for such cooperation with UNEP and UNDP” (World Bank 1991, 1763). According to Sjoberg (1999, 8), “These two roles gave the Bank a virtual monopoly on relations with the Participants.”

The Participants were a collective principal of the GEF Trust Fund. However they did not govern together; this was therefore a case of two separate, but closely affiliated, principals. Formally the “Participants” made up the collective principal of the GEF, but in many cases when member governments were selecting their representatives to attend the Participants meeting, they chose the same individuals who served as their representatives at the World Bank – the Directors on the Bank’s Executive Board. Therefore, we see substantial overlap between the two governing bodies as represented in Figure 1. For those governments that did not have their own EDs in Washington, they typically sent representatives from the Ministry of Finance or Development who had working relationships with people in the World Bank and who served on the Bank Board (Fairman 1996).

As a group, the Participants provided funds to the GET, and charged the three agents with the allocation of these funds and implementation of the funded projects. However, unlike project approval at all multilateral development banks, the staff within the IO agents that were designing and implementing GEF projects were ***not*** required to seek ex-ante approval from the GEF participating governments. Approving proposed projects was left to the management of the Bank, UNDP, and UNEP. This allowed staff at the World Bank, and to a lesser extent the UN agencies, to implement projects without getting prior approval from any governing board or group of member states. Such broad discretion led to agent behavior that was unacceptable to many of the participating governments. For example, Sjöberg explains that UNDP initially sought to gobble up as much of the GEF pie as it could consume by proposing as many projects as its staff could generate. Since donor governments believed the UNDP was a less competent agent, they pushed for quotas that would send more of the GEF projects through the World Bank. Donors succeeded during the second meeting in December of 1991 when "the Participants decided to establish an indicative guideline, whereby 70 percent were expected to be investment projects, leaving 30 percent for UNDP technical assistance projects."[13] However, while donor governments were suspicious of the UN agencies, recipient governments were very unhappy with the role of the World Bank and they pushed repeatedly for a restructured GEF that would strengthen the collective principal at the expense of its dominant agent. As important, they wanted more authority within a reformed collective principal. Most importantly, they wanted formal voting rules that favored their interests. Recipient governments sought to allocate more funds to the UN agencies, and have more input on the types and destination of projects being implemented by the Bank. Recipient country governments eventually got much of what they wanted in terms of procedural reforms.

[13] See Sjöberg 1999.

Defining the Collective Principal: 1995-2009

The GEF had always existed in a state of flux, stemming from the fact that it had been established as an experimental three-year test pilot. As the principals contemplated the future of the GEF — and ways to formalize, adapt, or disband its structure — other, external forces were also at play. These, together with internal dynamics combined to instigate the transition to a "new," self-governing Facility. Specifically, there were increasing tensions between donors from the North and recipients from the global South[14] on the future of environmental aid (which reached a climax during the 1992 Rio Earth Summit); the galvanization of environmental movements and causes; and, the ability of NGOs and recipients to effectively leverage hard bargaining power.[15] In particular, recipients argued for the creation of an independent GEF with decision making rules organized along the UN agency norm of one-country, one-vote, rather than the shareholder style of decision making (one-dollar, one-vote) that was the norm in other major international financial institutions. Developing countries argued that the latter precluded their effective participation in the allocation process.

The transition out of the pilot phase culminated on 7 July 1994 with the signing of an agreement that instituted the new formalized governance structure of the GEF, making it an independent agency with a considerably stronger bureaucratic framework. It also reiterated GEF objectives, namely its determination to fund projects that would protect the global commons and catalyze co-financing for environmental aid; provided clearer procedures and lines of accountability; and created decision-making rules that greatly empowered developing countries.

[14] Collectively the Group of 77 "and China." (Sjöberg 1999)

[15] See Fairman (1996), Sjöberg (1999), and Andler (2009) for details on the politics and circumstances that led to the restructuring of the GEF.

The *Instrument for the Establishment of the Restructured GEF* (Instrument) was adopted in March 1994 by 73 member governments and the three implementing agencies.[16] The Instrument came into force on July 7, 1994.[17] While the GEF mandate — to provide additional funding to developing countries to "achieve agreed global environmental benefits" – remained essentially unchanged, the structure of the Facility was radically altered. Although the Restructured GEF does not have the same legal status as a fully independent international organization, it has nevertheless become an autonomous agency operating at the global level. Institutionally, the GEF resembles an IO: it now has a Participants' Assembly, a Governing Council, a Secretariat, and a technical advisory panel (STAP). For project implementation, however, it is still reliant on the original three agencies: the World Bank, UNDP, and UNEP. In 1999 four regional development banks were authorized as executing agencies in 2000 two additional UN agencies were authorized to execute GEF projects and in 2001 a final UN agency was so authorized.

The most striking modifications of the restructured GEF included the definition, composition, and distribution of power within the collective principal. As a consequence of the Restructuring, the composition of the principal, the mechanism for decision-making, and the scope of the contract with the GEF's agents were extensively reshaped. The line of delegation from Participants to Council to agents was clarified and strengthened. Notably, the reforms significantly increased the representation of developing countries within the Council.

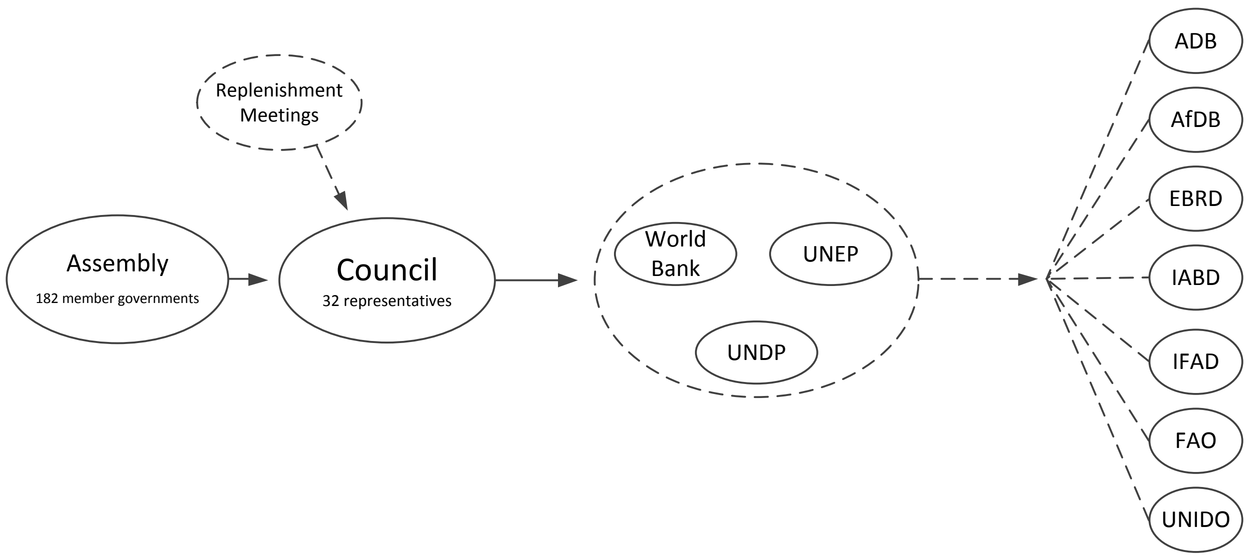
A key revision included in the Instrument had to do with how "Participants" were defined. During the pilot phase, the principals were the countries which had donated to the Global Environment Trust. But, the two terms, "Participants" and "donors," can no longer be used synonymously; the connotation of the former has changed. Today, any "State member of the United Nations or of any of its specialized agencies may become a Participant" (Instrument 13). The personality of the principal had changed. Membership in the GEF also increased

[16] Like an increasing number of IOs, the "founding members" of the GEF included both states and IOs (Johnson 2010); however, authority to re-contract is reserved for the member states acting collectively through the Parliament or the Council.

[17] The Instrument was amended on two occasions (in 2002 and 2006, respectively).

considerably; currently, there are 182 member governments. All constituent states are represented in the Participants' Assembly, which is authorized to meet every three years (Instrument, 15). The Participants have delegated decision-making authority to the Council, the collective principal of the Restructured GEF, which contains 32 voting members and meets on a regular basis.

Figure 2: Authority Relations for GEF 1995-2009



All GEF Participants are represented on the Council through a constituency system; groups are represented by a single Council Member, and generally organized according to geographic proximity. The Instrument established that there would be 16 constituencies representing developing countries, 14 representing developed countries, and 2 for economies in transition (Instrument, 15); these groupings are not static and have evolved over the years. Larger donors are typically represented by a single Member, although there are some interesting exceptions. For example Iran and China also belong to single-member constituencies despite the fact that other members who are in shared constituencies provide more money to the GEF than either Iran or China.   Council Members who represent constituencies are responsible for casting the votes of all the Participants they represent (Instrument, 20).

Voting Power and the Governing Council

The Restructured GEF also established new voting rules, and a formal mechanism for decision-making, which was a dramatic change from the informal consensus system employed during the Pilot Phase. These new rules established a distinctive "hybrid" system meshing together aspects of both Bretton Woods-type institutions, where vote shares are based on a member state's financial contributions, and UN-type institutions characterized by the one-country one-vote rule. Voting procedures in the GEF are characterized by a "double-majority" regime. Votes require "both a 60 percent majority of the total number of Participants and a 60 percent majority of the total contributions" (Instrument, page 20). This scheme gives both developing countries and developed country donors a veto on policies or projects that are contrary to their interests. While both observers and participants claim that, in practice, Council decisions are taken by consensus, this consensus is negotiated in the shadow of the double-majority voting rule.[18] Interestingly, voting power is defined by *cumulative* donations over the history of the GEF, allowing, in a sense, the formal power of individual donors in the collective to be "fine-tuned" by increasing donations.[19]

The Council is charged with approving and setting policy, and overseeing the allocation of funds. This authority includes the requirement that the Council approve each Full-Sized Project.[20] Decisions are taken at official biannual GEF Council meetings. The specific roles of the Council are stated in the Instrument (15): "The Council shall be responsible for developing, adopting and evaluating the operational policies and programs for GEF-financed activities, in

[18] The Council has never voted. But, during negotiations on the adoption of the Resource Allocation Framework, or RAF, the Members came "to the brink" of a vote (Ramankutty 2011).

[19] For details see "Rules of Procedure for the GEF Council." This document, which was adopted by the GEF Council in 1994, was amended three times: in May 1999, November 2000, and November 2006. The most exhaustive revisions to Council proceedings were implemented in 1999, and had to do with guidelines concerning constituency groupings (including the procedure that would allow Participants to join or switch constituencies, and the rules for appointing or changing a constituency's representative Council Member).

[20] Costing over a million dollars.

conformity with the present Instrument and fully taking into account reviews carried out by the Assembly." Although the Assembly of Participants has ultimate authority over the GEF, the Council is functionally the principal: all major decisions must go through the Council, including actions that revise the relationship (contract) with agents (both administrative and implementing agents). Acting together, the Council Members have the authority to terminate the contract with, or, less dramatically, withhold funding from their individual agents.

Delegation and Implementing Agencies

The three implementing agencies play similar roles as during the pilot phase: they are still expected to cooperate in preparing and presenting, in partnership with the Secretariat, a joint work program to the Council,[21] and they are in charge of implementing GEF projects (Instrument 19; 36-39). The source of authority, however, has shifted to the Council, which has more opportunities to guide or restrain their agents. As the Instrument specifies, the three agencies are "accountable to the Council for their GEF-financed activities" (19). And, the distribution of power among the three IO agents is more equitable than in the Pilot Phase; the World Bank, in particular has less discretionary power. Importantly, the system of governance that was established during the Restructuring allows the collective principal to alter the policies directing the project cycle (a right it has exercised on multiple occasions).[22] Given this authority, when the median preference of the Council changes, the Council is able to establish new policy parameters.

[21] And abide by "Principles of Cooperation Among the Implementing Agencies" (Instrument 36).

[22] In 1995, the Council approved the new GEF Project Cycle (GEF/C.4/7); other changes were undertaken multiple times thereafter.

Executing Agents

In 1999, the Council formalized an agreement, the "Expanded Opportunities Policy,"[23] that facilitated the official inclusion of other agents into GEF project implementation process. Like the Implementing Agencies, the agencies added under this policy were all pre-existing IOs and all of them (except the EBRD) were more favorable to the interests of developing countries than the World Bank.[24] At first, these were all Regional Development Banks (RDBs); the agents added in 1999 were: the African Development Bank (AfDB), the Asian Development Bank (ADB), the European Bank for Reconstruction and Development (EBRD), and the Inter-American Development Bank (IADB). Two more United Nations agencies — the Food and Agriculture Association (FAO) and the United Nations Industrial Development Organization (UNIDO) — were brought into the GEF in 2000. In 2001 the International Fund for Agricultural Development (IFAD) was added as an authorized agent. Additional agencies are currently under consideration (Ramankutty 2011). While these new "Executing Agencies" have an official agreement with the GEF, they do not hold the same status as the original three agents. The IAs have been designated as "partners" in the project cycle, while the EAs are simply "contractors" (Castillo 2009, 20). In general, Implementing Agencies remain accountable to the Council, and are responsible for overseeing the actions of the EAs. Therefore, the Executing Agents represent an additional "re-delegation" link and a formal extension of the delegation chain within the GEF (Bradley and Kelly 2008).

Informal Oversight: Funding the GEF

Funding at the GEF occurs in four-year cycles, or "Replenishment Periods." Contributing Participants of the GEF negotiate these Replenishments not in the GEF Assembly or Governing Council but, rather, under the auspices of the IBRD, which manages the GEF Trust Fund. Initially, the GEF Instrument established that "basic contributions" should be based on IDA 10

[23] GEF/C.13/3 (1999)

[24] More specifically, the Executive Boards of these RDBs had greater representation from developing countries than the World Bank Board had.

Basic Shares (34). But, GEF Replenishments have been volatile, with donors pledging variable amounts that have, in some cases, changed quite significantly over time. A Programming Document prepared by the Secretariat provides various scenarios to be funded by donors. The power dynamic present during Replenishment meetings is reminiscent of the pilot phase: it is driven almost exclusively by donors, who broadly specify programming (not at the project level). Specific policy recommendations can also be made to the Council.

Although the Council is still the collective principal with final authority -- all "decisions taken by the Replenishment process have to be considered and approved by the Council" (Castillo 14) – Replenishments are a way for donors to pursue their own preferences by leveraging their financial contributions. Donors decide on broad sectoral and focal area priorities at the same time that they decide on their overall contributions to GEF replenishment. For example, donors recommend that over the next three years the GEF should spend no more than 5 percent of its funds on desertification and/or erosion control projects (that are favored by recipients).   This "recommendation" to the Council can be linked to an external threat to withdraw the funding if the sectoral/focal areas targets are not adopted by the Council.   As a consequence, even though the Governing Council is authorized to approve or reject the programmatic decisions made during replenishment negotiations, it is extremely unlikely that the Governing Council will exercise this power, out of concern for jeopardizing future replenishments. Consequently, there is, according to Castillo (13), a widespread view at the GEF that "strategic objectives and programme priorities decided by the GEF Council were largely influenced by the replenishment process negotiated by donors." On occasion, donors have exploited their position not just to recommend but also to pressure the Council into its recommendations, by threatening to withhold funds (Clémençon 2006). In these cases, individual principals have acted as external third-party threats that bully the Council into approving certain policies (the "threat" is to withhold money from the organization). This was particularly evidenced during the in 2003 Replenishment period, which resulted in donors' particular success in obtaining certain policy changes that they desired.

Formal Oversight: Monitoring Project Implementation

One of the successful "policy recommendations" that emanated from the contentious 2003 Replenishment Negotiations was that the GEF should create a "Monitoring and Evaluation Unit" that would assess potential recipients and rate them based on the likelihood that they would be willing and able to implement GEF funded projects.   The unit was designed to be "independent of the various implementing agencies and report directly to the Council" (Terms of

Reference for an Independent Monitoring and Evaluation Unit, 2003). In the context of agency theory, the formation of such a body is an example of an oversight mechanism used by the principals to gain information about and control their agents; this is a classic example of a "fire-alarm." In this case, it was a policy pushed by GEF donors in the context of GEF replenishment negotiations. So, while recipient country governments and a handful of donor opponents within the Council still had the authority to block this recommendation based on the double majority voting rule, they reluctantly acceded to the pressure from the U.S. and its allies.

Theory

A straightforward reading of principal-agent theory yields a number of clear expectations about GEF project allocation. Recall that throughout the institutional reforms described above, the GEF's mandate remained constant – to assist developing countries in managing global environmental challenges, and to assist countries in contributing to international efforts to manage global environmental threats. The most salient change brought about by the transition from the GEF Pilot to the current organization was the introduction of the GEF Council and the double-majority voting rule. In the post-reform GEF, projects require approval by participants representing three-fifths of financial contributions as well as three-fifths of representatives on the GEF council (three-fifths of whom represented developing countries or economies in transition). Prior to these formal changes, GEF operations were managed under World Bank voting rules, which gave significantly less weight to developing countries, and which certainly did not give developing countries and economies in transition an effective veto.

As many others have noted, the GEF Council has not held a formal vote since its creation, operating instead by an informal norm of consensus. However, this need not undermine the effects of institutional reform in the GEF. Staff members at the GEF and implementing agencies are well aware when designing projects for Governing Council approval that either a developed or developing country coalition could prevent approval. Project design therefore occurs in the shadow of the formal authority of the collective principal. The GEF Secretariat and implementing agency staff receive feedback from Participants throughout the project cycle, and routinely veto projects before they reach the Council (Ramankutty 2011).

A conventional principal-agent approach suggests that as a consequence of these changes, post-reform GEF operations would more closely reflect the preferences of developing countries and recipients, mirroring the increased significance of those parties in the GEF's collective principal. Below, we describe a number of ways in which GEF projects vary, and how this variation is relevant to recipient country preferences. Before deducing those hypotheses, it is important to understand the measures of some variables we will use to assess these claims.

Measuring the Environmental Impact of Aid

As its name suggests, all GEF projects are supposed to yield distinct environmental benefits. Nevertheless, these benefits occur at a number of levels, some of which are of greater interest than others to developing countries. To capture this variation, we adopt the typology set forth by Hicks, et al (2008) and implemented in the AidData 2.0 research release where all projects (including GEF projects) are divided into five broad categories. These are: dirty strictly-defined (DSD), dirty broadly-defined (DBD), neutral, environmental broadly-defined (EBD), and environmental strictly-defined (ESD). Table 1 provides definitions and examples for each of these types.

Table 1: Environment Codes for Development Assistance Projects

Code	Definition	Examples
DSD	Projects that have an immediate and severely harmful impact on the environment.	Coal Energy, Dredging, Oil extraction & refinement, Mining, Road Transport
DBD	Projects that have a long-term, net negative impact on the environment.	Agriculture, Construction (general), Electricity Transmission
N	Projects that either do not have a clear environmental impact, or that entail a rough balance of positive and negative impacts.	Cottage Industries, Governance & Government Reform, Health, Humanitarian Aid, Media, Social Welfare
EBD	Projects that provide long-term environmental benefits.	Desalinization, Drought Control, Erosion Control, Nuclear Safety
ESD	Projects that have an immediate and significantly positive effect on the environment	Afforestation, Energy Conservation, Water Conservation, Watershed Protection

Developing countries generally prefer to receive development assistance that promotes industrialization and economic growth. In this system, those types of development projects are disproportionately classified either as DSD or DBD. This leads to our first hypothesis regarding post-reform project allocation.[25]

H1: As the voting power of developing countries within the collective principal increases, the amount of dirty aid, the proportion of dirty aid, and the number of dirty projects will increase.

Predictably, the great majority of GEF-funded projects are classified as "environmental." Although we argue that recipients generally prefer development assistance that promotes economic growth, it would be a mistake to conclude that they have no interest in environmental aid. At a minimum, all countries have an interest in local environmental quality (e.g., availability of clean drinking water). Following Hicks, et al (2008), we adopt the convention of distinguishing between environmental projects whose primary purpose is to provide local or national environmental benefits from those that are aimed at providing global public goods. Table2 provides definitions and examples of each type.

[25] This also leads to the obvious questions: Does the GEF fund dirty projects and, if so, why? The first answer is that very few GEF projects are classified as dirty strictly-defined. Less than one percent of all GEF projects and project dollars fall into this category. The great majority of GEF-funded "dirty" projects are classified as DBD. The reason that these projects are funded at all is that the GEF sometimes provides additional funding for "conventional" development projects. GEF involvement in these projects is intended to help mitigate the harmful environmental consequences of these projects.

Table2: Brown and Green Environmental Aid

Code	Definition	Examples
Brown	Projects that focus primarily on environmental quality in a specific country or locality.	Desalinization, Safe handling of toxics, Soil fertility, Wastewater treatment
Green	Projects that address regional or global environmental issues, and that produce benefits external to the recipient.	CO^2 & CFC emissions reductions, Nuclear safety, Recycling, Renewable Energy

This distinction between brown and green aid yields rather straightforward predictions. Given a choice between projects designed to provide exclusive benefits and those designed to produce positive externalities, recipients will have a clear preference for the former.

H2a: As the voting power of developing countries within the collective principal increases, the amount of environmental aid, the proportion of environmental aid, and the number of environmental projects directed toward local (brown) environmental issues will increase.

H2b: As the voting power of the developing countries within the collective principal increases, the distribution of money and the share of the portfolio across GEF focal areas favored by developing countries (desertification) will increase and/or the areas least favored by developing countries (Biodiversity, Ozone) will decrease.

Unlike some aid agencies, which also provide unrestricted cash or budget support, GEF operations are exclusively project-based. Accordingly, recipients have an interest not only in the allocation of aid projects, but also the ways in which projects are implemented. Although the 1994 reforms were partly designed to remove decision making from the World Bank, the Bank continued to be one of the leading implementing agencies for the GEF. We argue that, given a choice between working with the Bank or a UN agent (e.g., UNDP or UNEP), recipients will have a clear preference for the latter. It would be curious, indeed, were developing countries to fight so strongly for increased GEF independence (from the World Bank) and then express a preference for funneling GEF projects and dollars through the Bank. In addition to looking at the negotiating positions of developing country governments and inferring their preferences, there are sound principal-agent reasons for recipients to prefer UN agencies – they have more influence on the allocation of funds through those agencies through the one-country one-vote rule structure of UN agencies. Thus, our third hypothesis concerns the effect of institutional reform in the GEF on agent selection.

H3: As the voting power of developing countries within the collective principal increases, the amount of money, the proportion of money, and the proportion of projects flowing through the World Bank will decrease.

Reversing the perspective, our final hypothesis concerns the declining influence of donors on aid allocation. Much of the political science and economic literature on foreign aid assumes that allocation is essentially donor-driven. Researchers commonly argue that allocation decisions are driven by one (or a combination) of three factors: donor self-interest, recipient need, or recipient credibility / good governance (Neumayer 2003). We have previously argued that donors will have a greater interest than recipients in promoting green aid, since they disproportionately benefit from the positive externalities that green aid generates. By the same logic, recipients will favor brown aid projects that provide exclusive domestic benefits. Our final hypothesis concerns recipient governance.

We expect that donors will be more interested than recipients to maximize the marginal benefit of GEF project dollars. Other things equal, we expect that donors will prefer to allocate GEF projects and project dollars to recipients that are perceived to be reliable (i.e., unlikely to misappropriate aid dollars) and that have the capability to implement projects competently. To be clear, we are not claiming that recipients have a preference for allocating GEF projects toward corrupt or institutionally weak governments. Our claim is simply that recipients do not share donors' aversion to such allocation. This leads to our fourth hypothesis:

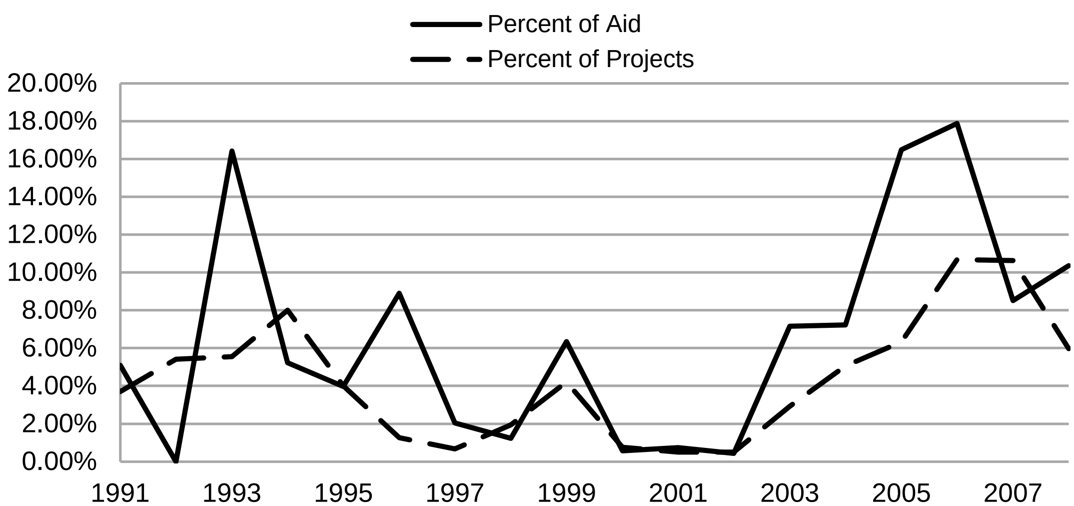
H4: As the voting power of developing countries within the collective principal increases, the amount and proportion of money/projects allocated to less credible recipients will increase.

Empirical Findings

To assess these hypotheses, we updated the AidData dataset to include environmental codes for all GEF projects from 1991-2008. Since each hypothesis corresponds to the 1994 reforms, we begin by comparing pre- and post-reform project allocation in the GEF. Since GEF project development frequently occurs over two years, we use 1995 rather than 1994 as the structural break point in our allocation data.

Our first hypothesis was that the amount of "dirty" aid would increase as the voting power of developing countries in the GEF increased. Based on its mandate the GEF should be, and actually is,[26] one of the "cleanest" and greenest donors among development agencies; however, there are many opportunities for recipient governments and IO agents to use GEF resources to fund traditional development activities that do not qualify as "environmental aid." Our project-level coding scheme captures this dirty aid and, while limited in scope, it does vary over time. At first glance the data seem to support this conjecture. From 1991-1995, there were 8 dirty projects, totaling just over $40M (constant 2000 dollars). From 1996-2008, there were 79 dirty projects, totaling roughly $468M. This "increase" is misleading, however, because GEF projects have become more numerous over time. It is more helpful to consider dirty projects as a proportion of the GEF's total annual portfolio, as shown in Figure 3.

Figure 3: "Dirty" Projects Funded by the GEF

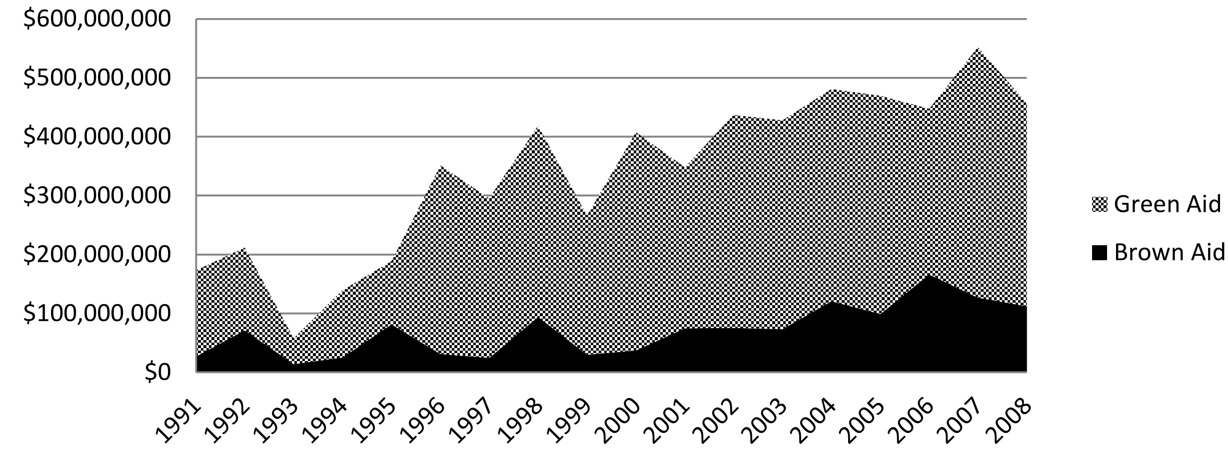


[26] Hicks et al (2008, pp 184-190) show that the GEF is the cleanest and greenest donor of all the multilateral donors, at least through 1999.

When we do this, we find that the number of dirty projects actually decreased after institutional reform (from 5 percent of total projects to 4 percent), though the difference is not statistically significant. There has been considerable variation over time, but this variation is not always consistent with our hypothesis. The overall trend in dirty aid – both as a proportion of projects and as a proportion of aid – declined in the years immediately following the reorganization of the GEF in 1994. The marked increase in dirty projects that we expected did not occur until several years later, beginning in 2003.

We find mixed results with respect to our second hypothesis: that the amount of "brown" environmental aid will increase as developing countries achieve greater voting power in the GEF. Recall, brown aid is environmental aid designed to address local, rather than global environmental problems. From 1991-1995, one out of five GEF projects were designed to address primarily local environmental challenges. From 1996-2008, the proportion of such brown projects increased to roughly one out of four. While this appears to be consistent with our hypothesis, two other trends prevent us from drawing such a conclusion. First, the relative increase in the number of brown projects has not been accompanied by a corresponding increase in project dollars. To the contrary, the proportion of the GEF's portfolio dedicated to local environmental concerns actually decreased after institutional reform: from 24% during the pilot phase to 17% in the post-reform period. Since these figures may be influenced by shifts in dirty and neutral aid, we also calculated the ration of green aid to brown during the pilot phase and post-reform. A corollary of our second hypothesis is that as developing countries gain influence in the GEF, relatively more environmental aid will be given for local (i.e., brown) issues. However, Figure 4 suggests just the opposite. During the GEF's pilot phase, for every dollar in brown aid the GEF allocated $2.50 in green aid. After institutional reforms that were designed to increase the voice of recipient countries, the ratio puzzlingly increased to 4.03.

Figure 4: Annual Project Commitments, 1991-2008

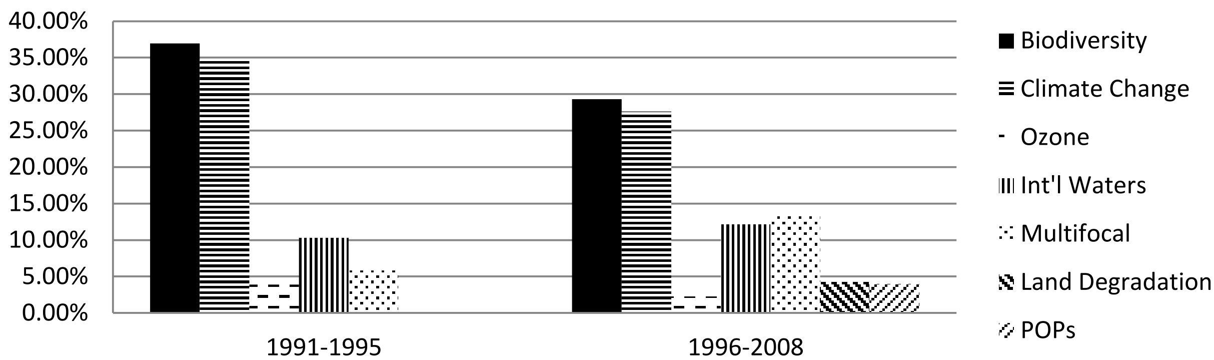


A corollary to our second hypothesis was that changes to formal voting power on the GEF Council would lead to changes in allocation among the GEF's focal areas. Specifically, we would expect to see decreasing allocation to primarily global focal areas and greater allocation to focal areas that provide a substantial local environmental benefit.[27] Figure 5 shows the proportion of GEF Project dollars by focal area, pre- and post-reform. At first glance, the data appear to be consistent with this hypothesis. From pre- to –post reform, we observe slight declines in the proportion of annual commitments targeted for climate change and ozone depletion, and a statistically significant ($p<0.1$, two-tailed t-test) decline in the proportion of commitments for biodiversity. Each of these focal areas, we argue, represents primarily donors'

[27] While all six of the focal areas that are now eligible for funding through the GEF address global environmental problems, some have much more tangible local benefits than others. These local benefits are more like private goods that recipient politicians can use to promote economic development, payoff important constituents, and garner broad domestic political support (Hicks et al, chapter 3).

priorities.[28] Post-reform, we observe the addition of two new focal areas, one of which (land degradation) strongly reflects recipients' interests. However, neither of these new focal areas accounts for a substantial proportion of GEF project commitments.

Figure 5: GEF Project Dollars by Focal Area



The timing of these additional focal areas also undercuts our hypothesis. The first year in which we observe GEF commitments for land degradation was 2003, more than eight years after GEF reform and more than six years after the entry into force of the UN Convention to Combat Desertification. In contrast, we observe GEF commitments for persistent organic pollutants as early as 2001, three years before the entry into force of the Stockholm Convention on Persistent Organic Pollutants and the Rotterdam Convention on Prior Informed Consent. While the creation of a new focal area for land degradation may reflect the increasing influence of recipients within the GEF, the comparative history of the POPs focal area suggests that this increasing influence remains contested. Donors are finding some way to contest and delay substantive changes demanded by recipients

[28] While some biodiversity projects are aimed at preservation of local ecosystems, these entail opportunity costs from foregone development opportunities, and may therefore be a net negative from a recipient's perspective.

Our third hypothesis concerned the effect of institutional reform on agent selection. As the voting power of developing countries increases, we expect that the proportion of GEF projects and project dollars flowing through the World Bank will decrease. Indeed, this was a major impetus for institutional reform at the GEF; recipient governments were dissatisfied with their lack of influence in World Bank decision-making, and pressed for the creation of an authorizing body in the GEF that would provide greater voice. We expected that this institutional change would have direct consequences for the selection of implementing agency for GEF projects. We find partial support for this hypothesis simply in the proliferation of implementing/executing agencies post-reform. In the pilot phase, all GEF projects were implemented by the World Bank, UNDP, or UNEP (or a combination thereof). Following GEF reform, several new implementing agencies were incorporated into the project cycle, including four regional development banks in 1999 and three additional UN organizations 2000.[29]

In practice, GEF projects often specify a combination of implementing agencies for a given project. For convenience, we have chosen to compare the number of projects and project dollars for which the World Bank served as the exclusive implementing agency. We do not argue that recipient countries have no preference among the multitude of other implementing agencies. However, it is accurate to claim that recipient countries have greater representation in each of the other implementing agencies,[30] whether regional development banks or UN organizations, than they do in the World Bank. Accordingly, it is reasonable to assume that recipient countries have a greater preference for the allocation of projects and project dollars through these avenues than through the Bank.

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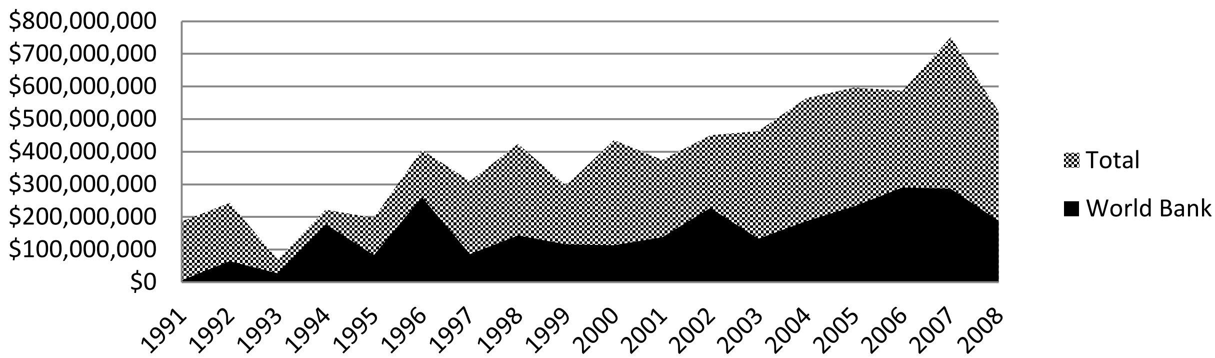
[29] These new agents are indicated at the end of the delegation chain in Figure 2 above.

[30] The one exception to this rule is the EBRD, where developing countries control a fleetingly small share of votes on the Executive Board. As at the World Bank the EBRD is dominated by the traditional donor governments.

This distribution of implementing/executing agencies among GEF projects is only partially consistent with this hypothesis. One trend that is consistent with our hypothesis is that the proportion of projects implemented exclusively by the World Bank has declined over time. The World Bank was the sole implementing agency for 47 of 157 GEF projects (30%) from 1991-1995 and 381 of 2051 (19%) from 1996-2008. However, given the proliferation of implementing agencies over time, this is not a surprising observation. More significant is the allocation of project dollars. Using this measure, we find almost no variation in allocation of project dollars through the World Bank. The GEF allocated $358M out of $916M (39.1%) through the World Bank from 199-1995 and $2.4B out of $6.2B (38.9%) from 1996-2008.[31] Clearly, the proliferation of implementing agencies in recent years has affected the GEF's tendency to allocate project dollars through the World Bank.

Figure 6: Annual Commitments by Implementing Agency



Finally, our fifth hypothesis was that GEF commitments to less credible recipients would increase as the voting power of developing countries on the Council increased. To evaluate this hypothesis, we constructed a cross-national-time-series dataset of GEF projects. This dataset

[31] If we include projects shared between the World Bank and another implementing agency, the corresponding figures are $409M (44.7%) from 1991-1995 and $2.6B (42.0%) from 1996-2008.

spans 104 countries, from 1991 to 2008. Source information and descriptive statistics are presented in Table 3.

Table 3: Cross National Data Set of Recipient Characteristics: 1991-2008

Variable	Obs.	Mean	St.Dev.	Min	Max	Source
Aid/GDP (millions)	1827	173	821	0	24762	AidData
Corruption	1781	-2.55	0.98	-5	0	ICRG
Bureaucratic Quality	1781	1.76	0.88	0	4	ICRG
GDP P.C.	1827	2469	2942	62	18264	WDI
CO_2 emissions (1000s kt)	1754	117	441	0.01	6533	WDI
PM10 $\mu g/m^3$	1844	67.68	46.32	5.56	480.56	WDI
Democracy	1904	0.52	0.50	0	1	Cheibub

Dependent Variable

The dependent variable in our models is the annual amount of GEF aid (in constant 2000 US dollars) to recipients, normalized by the recipient country's GDP (in millions USD2000). We normalize by GDP to control for extreme differences in the size of recipient countries. Since AidData provides comprehensive information on GEF projects, we set the dependent variable to zero in each country-year where the GEF made no project commitments.

Independent Variables

We are primarily concerned to assess the influence of recipient credibility. We expect that, other things equal, donors seek to maximize the environmental benefits that they can achieve per dollar spent. Accordingly, we focus on a number of recipient characteristics that are likely to influence donors' perception of a recipient's credibility to implement projects competently and in good faith. Specifically, we focus on governmental corruption, bureaucratic quality, and regime type. Donors may be wary of committing large sums to recipients with corrupt governments, or weak bureaucracies. Additionally, some donors may favor allocating environmental aid to democratic recipients. We obtained measures of bureaucratic quality and governmental corruption from the International Country Risk Guide. We use a dichotomous measure of democracy, provided by Cheibub, et al (2010).[32]

Control Variables

Our primary control variable is environmental need. We expect that, other things equal, environmental aid will be allocated functionally according to environmental criteria. Recipients that have the greatest environmental needs will receive the greatest amount of environmental aid. That is, donors will allocate environmental aid to countries where it can make the largest contribution to the global public good being targeted.   For example, biodiversity projects should go to recipients that have the riches natural capital stocks (rain forests, coral reefs, endangered species, etc.) and climate change mitigation projects should go to the recipients that burn emit the most greenhouse gasses per unit of energy produced. We use two measures, corresponding with our notion of two types of environmental aid: "green" aid (for global environmental issues) and "brown" aid (for more local environmental issues). To capture a country's "green" potential, we use the measure of aggregate annual carbon dioxide emissions, in thousands of kilotons.[33]

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[32] To avoid the possibility of simultaneity bias, and to account for the length of the GEF project cycle, we lag all covariates by two years.

[33] To be sure, there are "green" issues other than climate. We would have liked to include a measure of a country's relevance to global biodiversity, but we are not aware of a satisfactory measure that is available for our time series. Accordingly, we focus in this paper on climate.

To capture more localized environmental need, we use the pm10 measure of particulate air pollution. While particulate pollution can, and does, cross national borders, the primary environmental consequences are much more localized than those of carbon dioxide emissions. We obtain carbon dioxide and pm10 data from the World Development Indicators.

We also control for recipient countries' need for development assistance. We expect that poorer countries will be less able to adjust policies and practices that contribute to environmental threats; therefore, they are more likely to be targeted by donor agencies. We measure a recipient's relative need for development assistance by using per capita GDP (USD2000), which we obtained from the World Development Indicators dataset.

Discussion

Our findings are summarized below in Table 4. Model 1 provides a baseline, entering all covariates, and including all years in our sample. Model 2 is restricted to the GEF's pilot phase. Since the project cycle for many 1995 commitments began prior to the 1994 reforms, we extend this sample from 1991-1995. Model 3 is restricted to post-reform GEF commitments, from 1996-2008. Finally, Model 4 focuses on GEF commitments following the additional, donor-driven reforms of 2002.

As Models 1-3 show, the determinants of recipient allocation were substantially similar before and after the 1994 reforms. Governmental corruption has had a significant negative effect on GEF allocations throughout its history (Model 1). The effect of corruption on allocation during the pilot phase is nearly indistinguishable from the overall effect of corruption, 1991-2008. In the post-reform GEF (Model 3), the coefficient for corruption loses statistical significance, though its magnitude and sign remain essentially unchanged. Similarly, we observe a negative relationship between bureaucratic quality and GEF commitments across all three models. This contradicts our hypothesis that the predictive power of recipient credibility would decline following the 1994 GEF reforms that gave increased voting power to developing countries. The simplest, most reasonable explanation for this observation is that GEF aid has been given, in part, to help recipients develop their capacity to manage environmental threats. The one measure of recipient credibility that shows substantial change from the pre- to post-reform eras is democracy. However, while we expected democracy to play a less significant role after the 1994 reforms, we observe just the opposite. Democracy is a significant, positive predictor of GEF allocations over the entire sample (Model 1), and following GEF reform (Model 3). However, democracy yields a negative, though statistically insignificant, coefficient in the pre-reform era (Model 2).

Table 4: Linear regression, correlated panel corrected stand. errors (PCSEs)

	1	2	3	4
Sample	**1991-2008**	**1991-1995**	**1996-2008**	**2003-2008**
Corruption	-35.49*	-35.97***	-39.66	-80.59*
	(20.39)	(11.15)	(25.12)	(45.49)
Bureaucratic Quality	-34.85	-51.46***	-36.24	-74.07
	(28.02)	(9.04)	(35.50)	(69.44)
Democracy	95.25*	-48.22	121.58**	150.40
	(55.30)	(33.80)	(61.94)	(113.09)
GDP P.C.	-0.035***	-0.004	-0.040***	-0.045***
	(0.006)	(0.003)	(0.006)	(0.010)
CO_2 emissions (1000s kilotons)	-0.080***	-0.049***	-0.082***	-0.079***
	(0.015)	(0.007)	(0.015)	(0.011)
PM10 $\mu g/m^3$	0.279	-0.026	0.377	1.628*
	(0.458)	(0.270)	(0.516)	(0.969)
Constant	22.09	69.27	188.91	105.68
Year effects	Yes	Yes	Yes	Yes
N	1515	261	1254	605

*** $p < 0.01$; ** $p < 0.05$; *$p < 0.1$

Conclusions: Where to go from Here?

While a strictly formal reading of principal-agent relations provides some leverage on the changes we observe in agent selection, recipient selection, and the sectoral composition of the GEF portfolio, the formal decision making procedures within the GEF's collective principal do not tell the whole story – or, perhaps, even the most important parts. The 1994 restructuring dramatically shifted formal decision making authority in the GEF Governing Council toward developing countries. But, as with many UN agencies that employ one-country one-vote decision rules, powerful states have sought and found ways to achieve their preferred outcomes within the GEF.

The most striking and effective move by donors has been to shift the authority for some important decisions outside the ambit of the GEF Council and the GEF Assembly. Unlike the IBRD or IFC, the GEF cannot sell bonds, charge interest on loans, or invest profits in order to generate revenue. Since the GEF makes grants rather than loans, it is dependent on the continued willingness of donors to give money in order to continue operations. This provides donors with a periodic opportunity to threaten to withhold resources unless the GEF Council agrees to allocation guidelines regarding focal areas, to adopt recipient allocation criteria favored by donors, and to employ a mix of IO agents that is acceptable to donors.

In practice, this influence can be seen in the series of meetings surrounding the periodic replenishments of the GEF Trust Fund (usually, every four years).[34] The current replenishment (GEF-5), covers GEF operations from July 2010 through June 2014, and was negotiated over six meetings held between March 2009 and May 2010. Following preliminary discussions at the first replenishment meeting, the GEF Secretariat prepared a draft programming document, setting forth sectoral allocation guidelines. This programming document was reviewed and revised numerous times before being adopted at the sixth replenishment meeting for GEF-5. For

[34] Historically, GEF replenishment meetings have been closed to non-donors, although recent reforms will permit greater transparency, allowing representatives from recipient countries, IOs, and NGOs to participate – albeit as observers.

example, while the GEF Secretariat originally proposed that $785 million be allocated to the land degradation focal area, donors ultimately settled on $400 million – and, as in previous rounds, the GEF Council approved this recommendation.

While GEF-5 provides evidence that donors can, and do, influence allocation by focal area, GEF-4 provides clear evidence that powerful donors have also influenced GEF allocation by recipient country characteristics. During negotiations surrounding the fourth replenishment cycle, the United States pressed the GEF to adopt a "Resource Allocation Framework" (RAF) which would steer GEF commitments toward recipient countries that exhibited strong performance on several governance criteria – potentially at the expense of countries with greater environmental need or significance.[35] Despite widespread opposition among recipient countries (and even some donors), the threat of the U.S., U.K., and France withdrawing contributions to replenishment of the GEF Trust was ultimately sufficient to induce adoption of the RAF. Moreover, the implicit threat was strong enough to induce adoption by consensus – no formal vote was taken (Ramankutty 2011).

After a brief engagement with the literature on the GEF and some very preliminary analysis of funding patterns, agent selection, and recipient selection, we are unsatisfied with conventional principal-agent models that focus our attention on voting power and formal decision rules within the collective principal. While we expected to see recipients shaping the key decisions within the GEF Council and colluding with IO agents who share their interests, we observe minor behavioral and institutional changes in the direction preferred by recipient country governments. Instead, donor interests continue to explain the outcomes we observe, as they did during the pilot phase. This suggests that in this particular case, formal rules don't explain as much as we might like. In order to account for these surprising findings we could look at the strategic interactions between principals and agents and/or take the preferences and identities of IO agents more seriously. We doubt this will help to explain the patterns we observe here. Currently we are inclined to engage the suggestions outlined by Stone (2008) and Urpelainen

[35] For some specifications of our recipient model testing hypothesis #4, we did find corruption and bureaucratic quality to be negatively correlated with the probability of GEF allocations in the post-2005 era. Such findings are consistent with the interests of the U.S. and its donor allies. However, these findings were not robust to alternative specifications.

(2011), who focus on informal power within IOs to account for unexplained variance in IO behavior.

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