The World Bank and Climate Change

Forever a Big Fish in a Small Pond?

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Abstract

The world has a problem. There is no serious funding and no strong, credible, global framework for addressing a set of critical common challenges, including climate change, increasing cross-border health risks, the collapse of fisheries, and politically and economically destabilizing water and other natural resource scarcities.

The World Bank also has a problem. Its mission—to reduce poverty through shared growth in the developing world—is increasingly threatened by failures of global collective action on these problems.

In this paper, I discuss the future role of the World Bank in addressing global commons problems, using the example of climate management and financing to set out the principal-agent problem facing the global development and climate communities. I do so taking into account the current global climate architecture and the implications of the shifting dynamics of power in the world as the advanced developing countries exercise their growing influence.

I conclude that a future role for the Bank or for that matter for any other global commons institutions would have to be the outcome of an initiative of China and other emerging markets, perhaps with the support of the oil-rich economies.

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The world has a problem. There is no serious funding and no strong, credible, framework at the global level for addressing a set of critical common challenges, including climate change, increasing cross-border health risks ranging from pandemic flu to drug resistance, the collapse of fisheries, and politically and economically destabilizing water and other natural resource scarcities. Many of these global commons problems carry grave risks to economic growth in the developing world and to the livelihoods and welfare of their people.

As an institution the World Bank also has a problem. Its mission—to reduce poverty through shared growth in the developing world—is increasingly threatened by failures of global collective action on these problems. Inaction is reducing access of the world's poor to the global commons on which development relies.[1] Unchecked climate change in particular puts at risk the Bank's mission of reducing poverty in the world, given its potential impact on the poorest countries in Africa, the Pacific islands, Bangladesh and India.[2]

In this paper I discuss the future role of the World Bank in addressing global commons problems. I use the example of climate management and financing to set out the principal-agent problem the global development and climate communities face in assigning functions to any existing or new institution. I do so taking into account the current global climate architecture (including the agreement under the auspices of the United Nations to create a new Green Climate Fund), and the implications of the shifting dynamics of power in the world as the advanced developing countries (Brazil, China, India, and other major emerging markets that are members of the G20) exercise their growing influence.

On the one hand the global reach and technical depth of the Bank put it in a key position to dramatically expand its advisory and financing services to help manage pressing collective action challenges including climate change. On the other hand, the Bank has neither the explicit mandate nor the additional capital to go beyond its current *ad hoc* activities related to global commons problems, and the continuing dominance of the traditional Western donors in its leadership and governance militate against its members agreeing on a new mandate. The advanced economies are in no mood to further increase the Bank's capital, and the low-income countries are legitimately concerned about diversion of scarce new donor contributions from their immediate traditional "development" needs. There is also the complication of resistance on the part of international environmental and humanitarian advocates to any increase in the role of an institution they do not trust—in part because of its outdated governance structure.

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[1] Recent examples include the costs to the world's poor of failures in global food markets that led to the food price spikes of 2008 and the effect of the global financial crisis of 2008-09 on poverty rates that followed inadequate management of the systemic risks associated with global financial markets.

[2] Cline, 2007; Wheeler (natural disaster effects), 2010.

I conclude that a future role for the Bank or for that matter for any other global commons institutions would have to be the outcome of an initiative of China and other emerging markets, perhaps with the support of the oil-rich economies. China along with other non-western countries would have to take leadership on creation of an entirely new arm of the Bank, contributing a major portion of new capital and setting the rules and protocols for the governance of the new arm. Presumably a new Bank arm would then be located in Hong Kong, Shanghai, Sao Paulo or Mumbai, and would have its own leadership and governance structure distinct from that of the two major lending windows of the Bank, the IBRD and IDA. A new arm with its own capital and governance structure would have the advantage of providing a mechanism for the major middle-income borrowers to obtain increased voting power and influence at the Bank overall. It might help ameliorate the current lack of trust and engagement of many developing countries in the world's largest and arguably most effective development institution. And it would take useful advantage of the confidence of its traditional western supporters in its technical and fiduciary capacity.

(I do not argue that creation of a new arm of the World Bank Group for global commons is likely, only that it would make sense both for the Bank as an institution, and for the cause of development given the growing reality that development and global prosperity depend increasingly on collective action to effectively manage the global commons.)

A new mandate for the World Bank is not the only option. Creation of a Green Climate Fund was agreed to at the United Nations climate meeting in Durban, South Africa in 2011—but climate is only one of several global commons problems. The BRICs (Brazil, Russia, India and China, as well as South Africa) are discussing the idea of a new BRICs Bank; in principle the emerging market economies could create their own new global commons bank—but in fact a BRICs-owned bank would have operations primarily at the country and perhaps regional level. And a new BRICs bank faces the same obstacles to its creation and funding as a new World Bank arm, without the advantage of the enormous technical and financing capacity and development culture already fully embedded at the Bank.

In Section 1 I describe the current basically *ad hoc* role of the World Bank in the financing and management of global public goods, including climate, in and for the benefit of developing countries and their people. On global commons financing the World Bank is a big fish compared to the United Nations and other institutions, but in a small underfinanced pond for such work; that is most obviously the case for climate transfers. In Section 2, using the example of the climate and development challenge, I set out the functions best carried out at the global level by some institution; and describe the principal-agent problem at the global level in assigning those functions. Contributors of capital and other financing, whether China or traditional western powers, and whether to an existing or new institution, want assurance (as the principals) that their resources will be deployed effectively and efficiently by the agency; they want certain capabilities embedded in the institution and a governance structure to maximize their control over use of those capabilities.

In Section 3, I outline two contrasting future scenarios for the World Bank on climate and other global commons issues in the light of the resulting dilemma—one reactive and one more proactive, and argue for at least a modest version of the more proactive in the interests of the Bank as an institution and more fundamentally in the interests of the world's poor and most vulnerable people (though it is the reactive one that seems more likely in the current (2012) circumstances). In a concluding section I end where I began: Collective action on global commons problems is a key development challenge of this century. Without a larger and clearer mandate, the Bank risks becoming merely one of many aid agencies dealing with a smaller and smaller group of low-income fragile states. More important, it would be good for the world, and especially for the world's poorest and most vulnerable people, that some institution operates more actively on global commons and other global public good challenges—a currently undersupplied space.

Section 1. The World Bank and GPGs Up to Now: A Big Fish But in a Small Pond

Financing of global public goods relevant to development has been small compared to traditional foreign aid going directly to developing countries. Compared to the UN institutions the World Bank has been relatively active in GPG financing and related management and advisory services. But it has never had an explicit mandate to go beyond its traditional business of country-directed loans, nor a capital base to help finance its non-income generating policy, research and advisory activities. Whatever financing it has comes from direct contributions, and can be seen as competing indirectly with contributions to its concessional window, IDA. The example of climate financing is illustrative.

In general GPGs are underfunded

Up to now collective initiatives to deal with global challenges that are closest to pure public goods such as agricultural and health research and climate change have been funded at far lower levels than country-directed development assistance programs. Official aid for country-based programs in 2009 from members of the OECD amounted to about $120 billion.[3] In that year, a rough estimate of official transfers to support non-country based global programs targeted to developing country needs and circumstances—including basic agricultural research, vaccine production and distribution, UN peacekeeping, financial surveillance, preserving biodiversity, and reducing greenhouse gas emissions—amounted to less than $12 billion (see table 1).[4]

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[3] This figure had been growing significantly on an annualized basis in the 2000s, until the 2008-09 global financial crisis.

[4] The table is from Birdsall and Leo, 2011. The figure for financial surveillance actually exaggerates the amount that addresses global systemic as opposed to single-country risks, and thus overstates the amount that can actually be justified as financing a global public good.

Table 1: Estimated Annual Contributions and/or Expenditures: Select Global Public Good Funds and Facilities, 2009 (*USD Millions*)*

Initiative	USD Millions
EITI Multi-Donor Trust Fund	25
CGIAR Contributions	606
UN Peacekeeping	8,968
International Initiative for Impact Evaluation (3ie)	13
Total planned encashment of GEF-4 replenishment for 2009	332
Interim Administrative/Operational expenses of the UN Adaptation Fund	3
Advance Market Commitment (AMC) for Pneumococcal Vaccines	125
Montreal Protocol	113
International Finance Facility for Immunisations (IFFIm)	291
Climate Investment Funds	1,159
IMF Surveillance	363
Total GPGs financing	**11,997**

In comparison to traditional development aid, revenue mobilization to finance these development-pertinent global public good programs has been limited.[5] Some of the difference may be due to the fact that the challenge is relatively new, as in the case of climate change, or has only become obvious in the last decade, with the increasing competition for natural resources due to rapid growth of India and China, and the risks associated with the growing interdependence of global markets, as in the case of the 2008 food price hike and the 2008-09 global financial crisis.[6] The country-directed development aid systems, after all, go back to the 1960s and 1970s.

It is also the case that in contrast to bilateral government-to-government development aid, spending by the traditional donors on the global commons has two essentially political handicaps. First, to the extent it is not managed and allocated to particular recipient countries, it does not provide the same returns diplomatically or in conventional security terms as spending on bilateral aid does for the donor country (consider for example U.S. aid

[5] This is so despite several recent and creative approaches. Two of the best known are the International Financing Facility for Immunizations and the Advance Market Commitment. In 2006, the International Finance Facility for Immunization (IFFIm) was established to accelerate the availability and predictability of funding for immunization programs. To date, the IFFIm has leveraged medium- to long-term donor funding commitments to raise $2.6 billion in international capital markets to finance near-term immunization campaigns. In practice, the IFFIm does not raise new money. It simply shifts out-year donor budget outlays forward to finance immediate programs, which helps to illustrate the inherent challenges in mobilizing *new* resources. In 2007, five donor governments (Canada, Italy, Norway, Russia, and the United Kingdom) and the Bill & Melinda Gates Foundation committed $1.5 billion to launch the first Advance Market Commitment to accelerate commercial availability of a new pneumococcal vaccine tailored to developing country requirements. See Barder, Kremer and Levine 2005.

[6] Though there have always been such concerns—as in the 1972 publication of The Limits to Growth, or the Paul Ehrlich book, The Population Bomb, published in 1968.

to Iraq, Israel, Mexico for its drug war, Pakistan). In this context, the political dynamics of public funding for a more collective or global good raise the same or even more difficult political challenge domestically as committing resources to the United Nations and other multilateral institutions. Second, to the extent the global challenges constitute a new demand on politically limited rich-country "aid" budgets, they compete with traditional development aid programs—which already rely on relatively fragile constituencies. Taxpayers and legislators in the United States and France are more likely to support programs to put more children in school or finance treatment of AIDS victims than agricultural research.

In that sense, global public goods and collective action at the global level in general will always be more difficult to fund than traditional "aid"—even taking into account that the latter is not in itself an easy lift.

The World Bank has a role without a mandate

The traditional Western donors have tended to rely heavily on the World Bank to manage whatever GPG programs they finance through their traditional foreign aid budgets. In the early 1970s, for example, the Western donors created the Consultative Group on International Agricultural Research (CGIAR), which played a critical role in the Green Revolution in South Asia, and housed it at the World Bank. In the 1980s, the Global Environmental Facility (GEF) was created to support programs and projects in the developing world for protection of biodiversity, forests, marine life, and other related issues; the GEF is jointly managed by the World Bank, the UNDP and the UNEP—with its management housed at the World Bank. More recently, the donor community created a set of Climate Investment Funds managed by the World Bank and the other multilateral banks, with the administrative unit housed at the Bank. The largest and most active to date is the Clean Technology Fund at the World Bank.

The United Nations World Health Organization (and before it the Pan-American Health Organization) have had as a central function the combat of cross-border disease through research and surveillance and early warning systems. Similarly the Food and Agriculture Organization and UNESCO have global functions respectively in the agriculture and food, and education areas. However even in these areas of health, education, and food security, the World Bank, starting in the 1970s and increasingly in the decades since, has played a role not only as a lender but in terms of policy and knowledge creation.[7]

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[7] For example, in 2002, responding to a G-8 initiative several rich country members of the Bank contributed to a special trust fund for education, the Fast Track Initiative, which though nominally independent is housed at the World Bank and relies primarily on Bank staff to deploy its resources. In 2010 the United States took the lead in pressing for creation of a global fund for food security, and along with other Western donors, established a trust fund at the World Bank for deployment in developing countries. These are only a few of many examples where members have turned to the Bank because of its fiduciary, technical and/or policy prowess to manage their funds.

The reality is that the financial and technical clout of the World Bank have made it a favored institution from the point of view of the major Western donors for managing programs to address cross-border problems and opportunities.

At the same time, however, these "global" programs have never been central to the work of the Bank. In contrast to the Bank's lending to borrowing members, based on its capital or on periodic contributions to its soft window, its global programs have been ad hoc and their financing not seen as an institutional responsibility. They have been funded almost entirely through special trust funds at the initiative of rich country members.

In the last decade Bank staff and management have made modest attempts to be more explicit about the Bank's potential in the financing and delivery of GPGs. In 2007, for example, under the guidance of Francois Bourguignon, a former chief economist at the Bank, staff prepared a report on long-term strategy for the World Bank Group, in which expanding the delivery of regional and global public goods was one of four building blocks for a future bank.[8] But the focus was primarily on how the existing traditional lending operations of the Bank could be a vehicle for supporting borrowing country members' programs to limit emissions or deforestation—with "additional concessional resources needed". In the absence of a clear initiative from member countries, and probably in deference to the role of the Board (which rarely as a Board takes a new initiative) in setting any new direction, the report language uses the passive voice in referring to a new mandate and financing:

> Limited use of IBRD net income also could be considered for specific global public goods objectives. But the Group cannot finance such initiatives on its own, and new funding sources and instruments should be mobilized *only when a clear objective and funding gap has been identified* (p. 78, my italics).[9]

The cautious approach in a staff document about future strategic directions is not surprising. But it is revealing:

> As primarily a country-focused development institution, for the Group the key will be its ability to work consensually with partner countries at the intersection of national development priorities and global challenges. Strategies for international collective action will have to reflect governments' perspectives on national priorities (p. 77).

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[8] World Bank, 2007.

[9] Three years earlier, now six years ago, Birdsall and Kapur 2005, in a Center for Global Development Report, included as one of five crucial tasks for the next president of the World Bank to corral the members to provide a clear mandate and funding for the Bank to work on GPGs. See also Birdsall and Subramanian, 2007; and Birdsall, 2009.

The proposal was not for Bank management to seek a new mandate or special financing for subsidizing such functions as data development and surveillance and research grants to others, none of which generates income as does lending.

Behind the lack of explicit action on a GPG mandate is the political reality of competition between periodically raising revenue from the Bank's rich country members to support its highly concessional lending window (IDA) for its poorest country members, and raising grant funds to support agricultural, health and climate research and operational activities (such as surveillance and verification) that are not region or country specific and do not generate income. Any initiative of management to consider the latter creates unwelcome pressure on the budget-beleaguered rich country members and raises concerns on the part of the Bank's poorest country members that donor contributions to the Bank to finance global public goods will compete with the limited development aid budgets in rich country capitals.

In addition, habit and history inside the World Bank militate against the leadership "corralling" its country members to deal with development-pertinent global public goods, as I and others called for in 2006 and since.[10] First, in the last two decades, each successive president has seen raising money for the Bank's soft window from the Bank's rich countries as a personal challenge, and one which is best met by setting a higher goal and meeting it. Second, and more fundamental, the Bank bureaucracy has been built and operates as a lending institution.

That the lending programs of the World Bank (and the other development banks) are country-focused is no accident. It is built into the DNA of those institutions, where the key instrument for transfer of funds is the loan to a member country borrower, who as a member of the credit cooperative, provides a sovereign guarantee that the loan will be repaid.[11] It is also the case, of course, that lending from the Bank's regular (hard) window, generates interest income that helps pay the operational budget. Inside the Bank, there is no bureaucratic unit with a clear mandate to raise grant resources to fund agricultural or energy research for example, that would not be deployed by the Bank itself, or even more recently to fund the incremental cost of deploying clean, renewable energy production over commercially viable production. Even the Clean Technology Fund at the World Bank is a

[10] Birdsall and Kapur, 2006; see also Birdsall and Subramanian, 2007; and Birdsall, 2009.

[11] A former staff member at the Bank, in personal correspondence, wrote: Although all loans require a sovereign guarantee, this country-led or country-focused approach is to some extent a management artifact, though now it has been embraced by the Board. The 1987 and 1997 reorganizations moved the locus of decision-making away from an approach that gave weight to sector priorities to one determined by ministries of finance at the country level. Attempts to manage resources regionally or globally have been resisted by countries and country directors, e.g. the use of budgetary funds for regional rather than country specific analytical work or programs or the allocation of IDA resources to regional rather than country programs in Africa. (Inserted 9/30/2011).

Trust Fund initiated by the British with support from the Bush Administration Treasury, not by the senior management or shareholders of the Bank as a group.[12]

In short the Bank has never had a clear mandate from its member governments and a sustained source of financing that would make it responsible, in the area of climate change for example, for (1) financing the incremental costs (covering the difference between the commercial and social returns) of reduced emissions and deforestation within countries (2) developing and deploying new clean-energy[13] and other technologies addressing global commons problems (agriculture, water, health) or more broadly, for (3) complementing country-based lending with strategic leadership on challenges where global collective action is sorely needed. The Bank does all of these things, but in the absence of an explicit mandate, in an ad hoc manner and with limited concessional funds made available primarily through special funds.

Climate financing is an example

As with global public goods in general, the World Bank is a relatively big fish in climate work for development, but in what is still a small pond. On how much to raise and spend in developing countries for climate, and how financing and associated functions should be managed, the global community is still basically stuck.

Despite the apparent difficulty of raising revenue for global public goods, the rising profile of climate change and the pressure to achieve some concrete outcome at the UN Conference in Copenhagen in December 2009 triggered agreement to try to generate substantial new financial pledges by the developed countries. In late 2009 the developed country signatories to the Copenhagen Accord agreed to provide $30 billion by the end of 2012 ($10 billion a year) and to mobilize $100 billion annually by 2020 "through a variety of sources" to address the needs of developing countries.[14]

The apparent assumption has been that much of the $100 billion will be generated through some form of carbon trading (in the form of developed country transfers to developing countries to offset the former group's emissions above some agreed level) and from private investors. That is evident for example in the November 2010 report of the UN High-level Advisory Group on Climate Change Financing (hereafter UNAGF—in which some estimates of resources that could be raised assume a market price of $25 per ton of

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[12] My impression is that it was Bank environment staff, not senior management, who fought for the creation of the Global Environment Facility in the late 1980s, with the support of international environmental non-government organizations.

[13] The World Bank is currently working with partners to explore the idea of a CGIAR-like network of centers of expertise on low emissions development.

[14] Estimates of the cost of mitigation and adaptation in developing countries range to numbers much greater. The goal of $100 billion a year by 2020 is not unreasonable given current estimates of annual financing required by developing countries. See Ghosh, 2010, Table 1.

emissions.[15]) However, the reality is that even with global trading of emissions rights and increasing opportunities for profitable private investment in, for example, renewable energy, the rich world will still need to raise considerable public resources to meet its announced commitment. That is obviously true in the short run, as a global cap and trade system is not in the cards in the next few years. In the longer run, large transfers through private trading to developing countries (say on the order of $50 billion a year) depend on initial allocations of emissions rights that are politically unlikely[16] (as well as a price of at least $25 ton[17]). Moreover, even if the world does manage to create a carbon trading system involving such large transfers, there will still be a need to deploy public resources to cover the gap between social and commercial returns that trading will not cover until and unless the price of carbon and other greenhouse gas emissions rises (because of a global tax or cap and trade system, or such systems prevailing within the large emitters).[18]

A number of rich countries have pledged amounts totaling more than $30 billion (including the $15 billion Japanese pledge) for the period 2010-2012 (Table 2). But pledges have been far ahead of disbursements; less than $7 billion against the initial $30 billion pledge for 2010-2012 had actually been deposited in some form by the middle of 2011.[19] (The alternative to voluntary (or quasi-voluntary) pledges by high-income countries is the development of commonly agreed new revenue mechanisms, such as aviation and other transport fees, some form of currency transactions tax, or use of Special Drawing Rights or some other "global"

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[15] The UNAGF team also published a series of background papers detailing each potential source of finance. The papers and final report are available at: http://www.un.org/wcm/content/site/climatechange/pages/financeadvisorygroup/pid/13300. This paper draws upon the UNAGF analysis in several areas, such as the potential impact of international aviation taxes and capitalization-based financing vehicles.

[16] Until now, most developing countries have resisted the use of offsets by developed countries. One reason to limit such offsets might be that they would undermine incentives for technological breakthroughs in the advanced economies (Birdsall and van der Goltz, forthcoming). Another is that the adjustment costs implied in developing countries in terms of changes in production and exports would be difficult to manage where social safety net programs are minimal (Mattoo and Subramanian, 2010).

[17] The price in the EU trading system has fallen to below $20 with the recession. Although it will rise assuming a larger proportion of emissions rights is eventually sold rather than awarded to large polluters. The EU Emissions Trading System has been the only serious source of demand; carbon finance trades were estimated as just $2 billion at the end of 2011 (Buchner et.al, 2011).

[18] In addition, Mattoo and Subramanian (2011) make the case that emerging market economies may not seek or welcome transfers through any form of carbon trading, even if such transfers were on the table, among other reasons because of the very high adjustment or transition costs they would imply in terms of manufacturing jobs.

[19] See also Ghosh, Figure 7, who cites ClimateFundsUpdate.org (2009). (In 2008 donors reporting to the OECD reported more than $8 billion in aid for climate mitigation and adaptation activities (http://www.oecd.org/dataoecd/33/60/45906157.pdf) . The fast track $30 billion for 2010-2012 is in principle not aid, and would not be reported as aid.)

Table 2: Fast Start Financing in the 2010-2012 period			Apparently Deposited/Budgeted by Channeling Institution		Total Deposited Budgeted
Country	Pledged	Requested/Committed	Multilateral	Bilateral	
European Commission	215	72	35	15	50
Belgium	215	57	28	28	56
Denmark	231	53	379	7	386
Finland	157	35	23	9	32
France	1,804	601	113	484	597
Germany	1,804	510	269	149	418
Iceland	1	1	some portion	some portion	some portion
Ireland	143		n/s	n/s	n/s
Luxembourg	13	4	4.2		4.2
Malta	1	0.2	0.21		0.21
Netherlands	444		125	206	331
Portugal	52	17			n/s
Slovenia	11	0.7			n/s
Spain	537	192	169		169
Sweden	1,145	165	161	15	176
United Kingdom	2,454	929	870	93	963
Remaining 12 EU Member States	1,295				
EU Aggregate Pledge	10,307	3160			
Australia	640	640	178	453	631
Canada	414		386	80	466
Japan	15,000	7200	1200		1200
Norway	1,000	382	181	275	456
Switzerland	159		17		17
United States	1,704	1704	472	400	872
TOTAL	39,746	15,722.9	4,610.41	2,214	6824.41

Source: World Resources Institute (May 2011) available at: http://pdf.wri.org/climate_finance_pledges_2011-05-09.pdf
Note: Exchange rates used: 1 USD=0.71 Euros=6.32 SEK=0.615 GBP=0.95 AUD=0.97 CAD=0.87 Francs

asset. But none of the revenue mechanisms discussed by the UN panel and others[20] has political traction in the advanced countries, most of which are coping with high fiscal deficits and high public debt following the 2009 recession.[21])

Of the amounts pledged, the World Bank dominates in terms of administering resources, reflecting the confidence, relatively speaking, of the major donor countries in the Bank. Ghosh (2010) provides a useful list of existing climate funds: five multi-donor multilateral bank funds (of which the World Bank administers four); five bilateral funds (Japan, UK, Germany, Australia and the European Union); seven United Nations funds (including four managed by the Global Environmental Facility in which the Bank has a key role); and 16 public-private funds, with the Bank the key manager in 14 of them.[22] Overall, the funds managed at the World Bank had received cumulative pledges of about $8 billion and the United Nations' funds much less—about $3 billion—by the end of 2010.[23].

Section 2. The Climate Example: Institutional Functions and the Institutional Dilemma

In this section I set out two types of functions that would ideally be carried out at the global level by some institution in the case of climate: knowledge-based climate management, and climate financing. I then turn to the institutional dilemma that arises in the form of a typical principal-agent problem: The difficulty of raising revenue for financing mitigation (and related adaptation) to climate change in the developing world is compounded by the lack of clarity on how that money would be spent and by what institutions controlled by what countries. In the absence of clarity on the "agency" issue (how and by whom), the principals (the potential funders) are reluctant to act. Though the World Bank is a potential agent, with considerable technical and fiduciary capability to perform the key functions, its history and current governance structure are not conducive to its obtaining a mandate and raising new capital (where capital could be available, from China and other emerging markets) to finance those functions.

The functions or activities to deal with climate can be divided into two types: a set of knowledge-based and technical functions; and the direct financing of investments in developing countries related to reducing and coping with climate change.

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[20] Birdsall and Leo (2011) propose capitalizing a fund on the basis of voluntary assignment of a modest amount of their SDRs by countries, building on Bredenkamp and Pattillo (2010). See also the Bill Gates report to the 2011 G20 meeting.

[21] A possible exception is the financial transactions tax supported by several EU members and particularly by President Sarkozy of France.

[22] See Annex III of Ghosh (2010).

[23] For more on climate finance from all sources through all channels, see Buchner at.al., 2011. That report makes clear that much of the public financing labeled as climate has come through traditional bilateral and multilateral sources, and that the increment of spending over pre-Copenhagen amounts has been small (e.g. p. 25).

Knowledge-based functions in managing the global climate challenge

Consider a set of knowledge-based or technical functions on climate (and other public goods) that are best done at the global level, both under a bottom-up approach to emissions reductions and should there be an agreed global treaty or treaty-like agreement sometime in the future. All are activities that are in the nature of global public goods. Many are now carried out at one or another institution, but with respect to climate most are undersupplied at the global level, especially in and for developing countries.

Knowledge-based and technical functions at the global level can be put into at least seven categories:

- data creation, collection, acquisition, management and dissemination;
- research and policy work;
- surveillance including monitoring, reporting and verification (analogous in some ways to functions carried out at the International Monetary Fund for international financial markets;
- supervisory and regulatory functions around making and enabling private markets in trading of emissions rights at national, regional and global levels[24];
- new product development (e.g. advance market commitments[25] for creation of publicly open technologies and creation of endowment funds to finance forest people's protective services);
- managing third-party financing of technology transfers to low-income countries where new technologies are protected by intellectual property rights;
- in the case of any trading of emissions rights, arbitration functions, operational insurance, and dispute resolution analogous to the role of the World Trade Organization.

Research, development and piloting of new products and processes such as non-centralized low-carbon energy for poor households in low-income countries is a good example of a global public good that is undersupplied. In general R&D[26] on new technologies for poor countries is grossly undersupplied—this is true for health and agriculture as well as energy—because it is difficult for even major suppliers like the National Institutes of Health in the U.S. to capture all the benefits of its work for U.S. citizens only. In the World Bank, the current focus on mainstream lending discourages development of new ideas for creating and piloting new products. Birdsall and Subramanian (2007) point out that it took almost 10

[24] It seems unlikely this would take the form of global supervision of carbon trading as opposed to some meta functions needed if and when parties operating in existing trading markets (Europe, California, perhaps China) interact extensively. It could also assume some functions associated with the Clean Development Mechanism if that continues (maintaining an inventory of investments).

[25] On the idea of advance market commitments, see Levine et al, 2005.

[26] The discussions on the proposed CGIAR-like low-emissions-development framework could be an example.

years for a good idea -- the Advance Market Commitment for vaccines[27] -- to create a market-like incentive for private industry to invest in medicines for neglected tropical diseases—to be turned into an actionable policy proposal that would generate pledges of funding from public and private donors—ten years involving technical and legal analysis, convening and persuasion—the kinds of activities that require cooperative and collective effort that constitutes in itself a global public good.

The World Bank's absence from that product development in its initial stages is not in retrospect surprising, since the Bank lacks any clear mandate to work on such global public goods and is organized and managed primarily to lend to individual governments. On the other hand, interested private and bilateral donors having agreed to consider the vaccine AMC, eventually turned to the World Bank to work out the legal, financial and technical details of a contractual agreement.

Similarly consider the role a global institution could play in monitoring, reporting and verification of public and private parties' behavior on climate mitigation (referred to in the Cancun Agreements as International Consultation and Analysis)—a subject of intense and contentious discussion in the UN-managed climate negotiations.[28] The mandate could be to report periodically on countries' compliance with actions they agree to in the form of new policies, new spending, or implementation of domestic mandates (e.g. for developing countries in their NAMAs—Nationally Appropriate Mitigation Actions) (in some ways analogous to IMF monitoring and reporting on countries' financial and capital market health) [29]; and in the context of trading of emissions rights, in the verification of country and private parties' reporting.

China, India, Brazil and several other developing countries have outlined positions emphasizing reliance on domestic systems for reporting on agreed actions or emissions reductions. But any trading of emissions rights, whether through the Clean Development Mechanism or in the context of broader international agreements or private trades, will require third-party verification of additionality (which itself will need to be defined and on which some sort of case law is likely to develop)[30] and compliance to be credible not only to developed country public parties but to private parties wherever they are based, as well as to be effective in reducing emissions. Similarly, developing countries will want a third party to monitor and verify any developed country public commitments and perhaps as an arbitration or adjudication center in the case of disputes over performance and payments.

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[27] See Levine et al, 2005, and the latest GAVI report, http://www.gavialliance.org/results/gavi-progress-reports/

[28] The United States has insisted on international verification of domestic actions; the developing countries, led by China, have resisted any external supervision of actions as they do not have obligations to reduce emissions under the Kyoto Protocol .

[29] International Monetary Fund, 2011.

[30] The Clean Development Mechanism does this now in the case of purchases of emissions reductions by rich countries from developing countries, though allegedly not in a very effective or efficient way.

Independent verification will also be required regarding actions on forest conservation and reforestation. Though independent reporting will be increasingly taken up by civil and public advocacy groups[31], and parties to any agreement could agree on any third party verification system, all countries would benefit from having a global institution accountable to them to gather, evaluate and vouch periodically for the usefulness of such publicly available information.

Data monitoring and reporting; and development and piloting of new products in the area of the global commons (climate, health, agriculture, water and other natural resources) critical to global poverty reduction are only two examples of undersupplied functions where the current comparative advantage of the World Bank—financial and technical) could be tapped. These along with other public good functions noted above are critical to successful mitigation of climate change, whether a formal Kyoto-style treaty is ever forged, or agreement instead takes shape around a bottom-up set of commitments (as at Copenhagen and Cancun) among sovereign states and major industrial groups on climate change mitigation.

Obviously no single institution will or should have a global monopoly on this reporting function; but some institution would ideally have an explicit mandate to create and maintain publicly accessible data bases, and would be expected to be active in analysis of those data (in the way the World Bank has in the last two decades on global poverty).

The financing function

Many institutions are participating now in transferring resources to developing countries for climate, including the traditional bilateral donors through their aid budgets; the United Nations (using modest amounts generated through the Clean Development Mechanism for an Adaptation Fund; the World Bank and regional development banks, which deploy contributions from the traditional donors (the Climate Investment Funds); potentially the Green Climate Fund being established and the BRICs Bank under discussion.

None of these, however, now has a sustainable capital base of its own, with a mandate to increase that capital base and its financing by raising new capital if and when appropriate from official country and private resources. A capital base would allow for equity investments (as at the International Finance Corporation of the World Bank) as well as lending, guarantees and grants using periodic contributions and/or net income from other financing activities. It would also create the internal bureaucratic incentives for periodic revenue-raising (indeed that function could be set up as a service to other institutions)—

[31] Wheeler, 2009 and Wheeler and Ummel, 2008. Also see: Forest Monitoring for Action (FORMA - http://www.cgdev.org/section/initiatives/_active/forestmonitoringforactionforma) and Carbon Monitoring for Action (CARMA - http://www.cgdev.org/section/initiatives/_active/carbonmonitoringforactioncarma).

building on the approach the World Bank has used in its periodic rounds of revenue-raising for IDA, its concessional arm.

For example, no public institution now has the mandate to make climate mitigation "investable" for institutional investors and other big private asset owners.[32] On this there is a growing literature describing the challenge, much of it based on the assumption that there are investable projects for example in renewable energy in low-income countries, but they are small and scattered, their returns though positive are relatively low, and they tend to carry some political and other country risks.[33] Imagine a specialized investment bank housed in an institution with a separate board and charged with creating investable opportunities in climate-mitigating activities to present to institutional investment capital. It could have the ability and the mandate to arrange application of existing multilateral and bilateral public finance in the forms and consistent with rules established by the providers.

The World Bank is certainly not the only institution with the capability to undertake "banking" and other financing functions in and for developing countries on climate. There are the regional development banks and domestic development banks. However, it may be the single best institution for combining financing with the knowledge-based functions explained above. The combination has advantages. In the long run, the financing function can generate net income which helps sustain the technical functions. (The IFC and the IBRD over the years have both generated sufficient net income to permit transfers to the IDA arm of the World Bank group.) And as often argued by Bank insiders, it is the risks associated with financing that provide the platform for continuous upgrading through staff experience of the technical functions.[34] A combination of own-financing and technical capacity also makes it easier to leverage other public and private capital—as demonstrated at the World Bank IFC and in the leverage attained in the use of the Climate Investment Funds at the World Bank and regional banks.

However, it is also the case that were the traditional World Bank function of direct financing (whether grants, loans, guarantees, equity, etc.) to create an actual or apparent conflict of interest with knowledge-based functions (whether in a new World Bank arm or some other institution providing knowledge-based functions at the global level), it would be better to limit the financing function. In other words, it would be better to have at the global level some institution with a mandate to manage the knowledge-based activities, with adequate funding of the operational costs of the reporting, verification, regulatory, dispute resolution and other public good functions, than to have the independence and credibility of the knowledge functions questioned because of financial interests. Realistically speaking financing of climate mitigation and adaptation will be provided anyway by many other bilateral and multilateral and private sponsors. Indeed even the investment bank function

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[32] Ken Lay made this point in a review of an earlier version of this paper.

[33] See Nassiry and Wheeler, 2011.

[34] Borrowers including China sometimes argue along similar lines that they believe Bank advice is of higher quality when it is linked to a prospective Bank loan.

noted above could in principle be carried out without an institution having its own capital base.

The principal-agent problem and the resulting institutional dilemma

Insufficient funding (and the undersupply of knowledge-based and technical functions at the global level) for the creation and provision of global public goods is difficult to separate from the lack of agreement on where and under whose control large amounts of funding would be managed. This is especially the case for official or public contributions on the part of sovereign nations for the provision of global public goods.

Consider the case of the World Bank. The advanced countries have favored financing through the World Bank not only because of its technical and fiduciary capacity but because they have substantial influence there and can be confident they will retain some control of decisions on the use of funds. (Though the Climate Investment Funds at the Bank have equal representation of contributing and beneficiary countries, most decisions are made by consensus, so contributors have tended to prevail where there are differences; beneficiaries have only the possibility of stalling altogether a decision. On the one hand this protects beneficiaries from policy and program changes they want to avoid. On the other hand as at the Global Environmental Facility, where consensus is also the norm, it has the potential to hold up indefinitely changes in the absence of which contributors will not sustain let alone increase contributions.)

But many developing countries and environmental non-governmental organizations would prefer that if there is any umbrella organization for managing collective climate funds it be one or another part of the United Nations. [35] They are critical of the World Bank on the grounds it imposed and still imposes harsh and unreasonable "conditions" for its lending to low-income countries. Though the World Bank's IDA performs relatively well on a variety of quantitative indicators of aid quality[36], the Bank is viewed as highly intrusive by many beneficiary countries and NGOs. Beneficiary countries do not want the Bank to have undue influence in the design of climate projects or the allocation of any global funds; particularly for adaptation funds they want the financing to be based far more on needs and vulnerability than on country "performance".[37] And because the Bank is still, for all practical purposes from their point of view, controlled by the United States and the other traditional Western

[35] E.g. ActionAid, 2009.

[36] Birdsall and Kharas, 2010.

[37] On this I agree, see Birdsall and de Nevers, 2012. The allocation of World Bank IDA funds is based in part on the performance of recipient countries, using the Country Performance and Institutional Assessment, a World Bank measure.

powers, they would be unlikely to support a major increase in its role on any GPG short of changes in the governance of the Bank itself.[38]

Both the NGOs and low-income countries view even the Global Environmental Facility with some suspicion, despite both being represented on its board. In fact the 49 low-income countries have received relatively little GEF funding, apparently because of an allocation framework that gives heavy weight to countries' total populations, and perhaps because of the greater difficulty of finding and managing projects there than in China, Brazil and India. The same is true for the Clean Development Mechanism; almost 90 percent of transfers and credits have gone to 10 countries, all but Vietnam middle-income not low-income.[39]

At the same time, the high-income traditional donors are not likely to put their funding in agencies of the United Nations they believe are not efficient or effective, particularly given they believe they would have limited control over the use of the funds. (The same might well be said of other potential contributors to a new institution's capital base, such as the Chinese.) [40] The United Nations Adaptation Fund, where 75 percent of board members represent developing countries, relies almost entirely on income from a 2 percent fee on Clean Development Mechanism operations, and without any serious contributions from donors has since its start in 2001 spent just over a paltry $2 million on projects and programs. In addition, they recognize that channeling fund through the multilateral banks has a major advantage: their public contributions can be leveraged with a country's own funds and with domestic and foreign private investments.

A third group of countries are the advanced developing countries, including China, Brazil and India. As Annex II countries in the Kyoto Protocol, with "differentiated responsibilities" they have generally maintained negotiating positions aligned with the other developing countries and have not contributed to existing funds. However they have been vocal and active in shaping the governance of the Climate Investment Funds at the multilateral banks to ensure their influence—for example insisting on consensus decision-making which ensures they can block decisions and policies they do not want. In the context of climate negotiations, Brazil, India and China along with South Africa now make up the so-called BASIC group; along with such other emerging markets as Indonesia, Turkey, Argentina, and Mexico that are members of the G-20 (first constituted as a group of heads of states in late 2009 when the global financial crisis hit) they are not lining up to receive public transfers from rich countries—though not clearly ready to become contributors to common funds to assist low-income countries either. Their stance on climate issues, including financing, is increasingly relevant to how the overall climate system or architecture will evolve, since some are major emitters (China especially) in absolute terms (though not of

[38] On World Bank governance and the need for reform, see Bhattacharya, 2009; Woods,2006; statements of the G-24 (www.g24.org) and Birdsall and Kapur, 2006, among many others.

[39] Ghosh (2010) Figure 12, cites UNEP-RISO (2010).

[40] See ClimateFundsUpdate.org. Total donor contributions as of January 2011 were $3.3 million; somehow cumulative operational expenses were by then almost $10 million.

course in per capita terms), and most are now carrying less debt and have relatively high net reserves compared to many of the advanced economies (Table 3).

Table 3: Official Reserves of G-20 Countries

Country	Official Reserve Assets (as of June 2010, in millions of USD)
Australia	37,277
Argentina	49,240
Brazil	257,299
Canada	55,393
China (1)	2,454,300
France	142,834
Germany	189,736
India	273,794
Indonesia	76,321
Italy	144,288
Japan	1,063,513
Mexico	105,560
Russian Federation	461,201
Saudi Arabia	
South Africa	42,203
Republic of Korea	274,219
Turkey	78,590
United Kingdom (2)	72,236
United States (3)	131,216
Data Source: IMF Data Template on International Reserves and Foreign Currency Liquidity, updated Aug. 25, 2010 (http://www.imf.org/external/np/sta/ir/IRProcessWeb/colist.aspx), source of Import data: IFS database (2009)	
1: Not IMF data; obtained from http://www.chinability.com/Reserves.htm	
2: Central government, rather than IMF, data.	
3: As of Aug. 6, 2010	

All three groups of countries (advanced, advanced developing, and low-income) have supported in principle the establishment of the Green Climate Fund. But it is not likely to alone constitute the sole or even the principal mechanism for the financing and overall governance of transfers to developing countries to deal with climate change. Indeed the prolonged discussion about the roles and governance of the Green Climate Fund is both a symptom of and may reinforce the difficulty of funding it adequately for the long run.

The institutional dilemma reflects the general problem of potential principals (public and private donors) lack confidence in the potential agent. Until the agent's functions are agreed, and its governance, the global community will remain stuck with an undersupply of activity to address climate (as well as other global public goods.)

Section 3. Two Scenarios for the World Bank on Climate and Other GPGs

I outline two contrasting future scenarios for the World Bank on climate and other global public goods (GPGs), and argue for the second of them, though it is the first that seems more likely in the current (2012) circumstances. In summary form they can be called reactive and proactive. I then turn to the question of governance in the case of the proactive scenario, and the broader question of whether the functions I discuss might just as well be taken up by other institutions or by a new global institution, rather than by a new arm of the World Bank.

Reactive, ad hoc, incremental

In the first scenario, the Bank's work on climate and other GPGs continues to grow primarily in response to demands from its traditional members, i.e. incrementally and in an *ad hoc* way. The Bank remains a strong contender among the many institutions across the world, including the United Nations and international NGOs, for traditional donor resources to deal with implementing various climate and other GPG programs. Several of its Trust Funds, such as the Clean Technology Fund, grow at a rate or slightly above the rate of commitment of donor funds to climate, as bilateral donors continue to look to the Bank because of its strengths in identifying and managing investments, primarily at the country level, while minimizing fiduciary and other risks.

The Bank's contribution on GPGs is as a result similar to that of a competent holding company. It is not guided by any broad strategy and sense of priorities regarding its own strengths and long-run potential comparative advantage. It is not guided by any larger vision of what the world needs from the premier global development institution. It continues to implement primarily country-based programs as opposed to global programs of research, new product development, data management, surveillance and dispute resolution. Without any clear mandate to raise revenue for spending on GPGs (in contrast to its clear mandate to raise money for the IDA window), Bank management continues primarily to accommodate its traditional trust fund contributors, and in the UN-led (seemingly endless) discussions of the future climate architecture ends up mostly defending its current bureaucratic short-term interests.

This scenario is consistent with a long history in which the Bank bureaucracy has kept its many constituencies (country members, international NGOs) happy by accommodating effectively more and more tasks by managing donor-financed Trust Funds: for Gaza; for

Afghanistan; for education (the Fast Track Initiative, now called the Global Partnership for Education); for a carbon trading facility; for the recovery of assets stolen by former leaders of oil states—to name just a few.[41]

The reactive approach deprives the Bank of an opportunity to maintain its position as the leading institution on development management and financing. Climate change (and more broadly put, a low-carbon growth path for all countries, but especially for energy-poor developing countries), is emerging as a defining global challenge of this century—with potentially dire effects on the reduction of poverty, the Bank's mission.[42] The same can be said of a number of other cross-border natural resources issues, including water.

The risk of a lost opportunity is all the more poignant in the light of the Bank's declining contribution in its traditional area of financial support for developing country investments. The Bank's concessional lending window, IDA, is now one of many players in an increasingly crowded business. In 2011, IDA lending and grants (of $16.3 billion)[43] accounted for less than 10 percent of all official external resources to IDA-eligible countries. If other inflows—from private foundations and charities, China aid and state-sponsored investments, private capital flows, and remittances are included—the percent from IDA figure falls to 5 percent (see figure 1). And the number of IDA-eligible countries is declining with income growth; Moss and Leo (2011) project that by 2025 the number of eligible countries will have declined from 79 to 31 (excluding small island nations). Though lending from the Bank's hard window to middle-income countries increased dramatically in 2009-10 following the global financial crisis, the long-run trend prior to the crisis was down (figure 2). (Indeed many middle-income countries are now coping with the opposite problem, of high private capital inflows with resulting pressures on their exchange rates.) The rationale for subsidized lending to middle-income countries has not disappeared. But with the increase in per capita incomes in those countries, and the increase in the size and economic commands of their middle classes, private capital flows have and will continue to increase to them, and at some point more of them will be able to generate greater domestic savings.[44] Already for some middle-income countries (and for China, a lower-middle income country in World Bank parlance), the Bank has become less a direct financier and more an adviser (often with

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[41] In 2010 Trust Funds at the Bank financed more than one-third of operational costs (World Bank Group, 2011 Trust Fund Annual Report); management had instituted changes to encourage donors to consolidate their efforts, and several small trust funds were consolidated into a multidonor fund. On the Trust Fund and other examples of the Bank's accommodation over time to many demands, Birdsall and Subramanian, 2007 comment: "Whether this is flexibility or mission creep, its protean ability to be all things to all parties has kept is influential "stakeholders" reasonably happy." See also Einhorn, 2001.

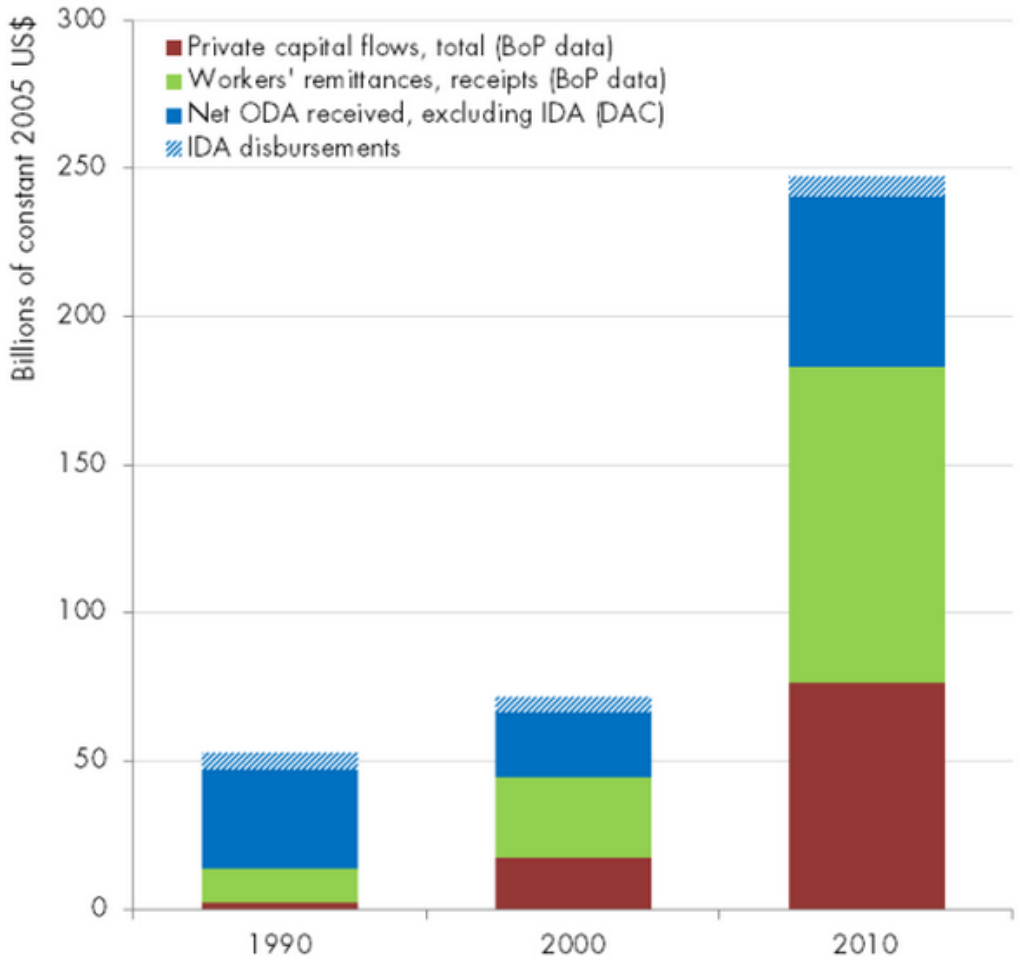
[42] See footnote 2.

[43] World Bank Finances Database; available at https://finances.worldbank.org/dataset/IDA-Commitments-Gross-Disbursements-and-Net-Disbur/tark-i8qh

[44] The long-run trend of a decline in lending to MICs may be slightly but only slightly offset as countries like India, Pakistan, Nigeria, and Bangladesh graduate from IDA and borrow from IBRD.

but sometimes without lending[45]), sharing best practice experience across and within countries on technical and governance issues—on expenditure management, environmental standards, health financing, procurement, anti-corruption, bank supervision and so forth; it began labeling itself as a knowledge bank more than a decade ago. It is that adviser role (which is in itself a global public good) that represents its institutional comparative advantage—ripe for greater exploitation in addressing global public good problems.

Figure 1: Selected foreign inflows to current IDA and blend countries



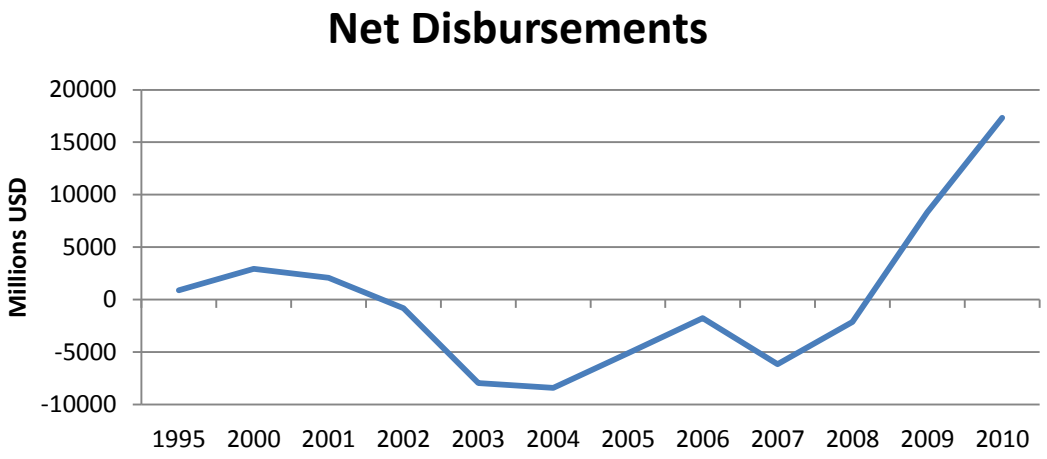
Sources: CGD calculations, based on World Bank WDI/GDF, OECD DAC.

Notes: All figures for current IDA and blend countries. constant sample over time (see go.worldbank.org/83SUQPXD20 for more information). Disbursements are drawings by borrower on loan commitments during the year specified, net of principal payments, plus IDA grants. All figures are in 2005 U.S. dollars adjusted using US urban CPI.

[45] Chile and several high-income countries in the Middle East pay the Bank for advice and analysis through what is called reimbursable technical assistance.

The reactive or *ad hoc* scenario deprives the Bank of an opportunity as an institution; more importantly it deprives the world of a key institutional vehicle for increasing the size and scope of the GPG pond by revisiting the role of its premier development institution in the light of other institutions' potential contributions. It makes no contribution to cutting through the current state of unhealthy, contested confusion and resulting lack of momentum in addressing fundamental challenges to development and opportunities for sustainable income growth and poverty reduction arising in GPG space.

Figure 2. IBRD Lending from 1995-2010 (Net disbursements)



Note: 1995= $897 million; 2000= $2,934 million; 2005= -$5,131 million; 2010= $17,320 million

Sources: World Bank Annual Report 1995, http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/1995/08/01/000009265_396121911135 2/Rendered/PDF/multi_page.pdf; World Bank Annual Report 2003, http://www-wds.worldbank.org /external/default/WDSContentServer/WDSP/IB/2003/10/16/000012009_20031016142147/Rendered/PDF/ 270000PAPER0English0WBAR0vol.01.pdf; World Bank Annual Report 2005 Financial Statements, http://siteresources.worldbank.org/INTANNREP2K5/Resources/AR05-FS001.pdf; World Bank Annual Report 2010, http://web.worldbank.org/WBSITE/EXTERNAL/EXTABOUTUS/EXTANNREP/ EXTANNREP2010/0,,contentMDK:22626599~menuPK:7115719~pagePK:64168445~piPK:64168309~theSiteP K:7074179,00.html

Proactive: A clear mandate, new functions, separate governance and financing

The alternative scenario for the future is one in which the Bank's members agree on the creation of an entirely new arm of the Bank, with an explicit mandate to be a key player in a set of public good functions that are currently undersupplied at the global level. The new

arm is based in Hong Kong, Sao Paulo or Mumbai, with more than half its capital coming from China, Brazil, and other emerging market and developing countries.

There are two options with respect to the functions of this new arm of the Bank. One option is a mandate that excludes the traditional lending and other financing operations that are the mainstream function of the Bank, and instead exploits the Bank's comparative advantage as a global knowledge-based institution. Traditional lending and other financing operations for climate programs in the developing world would continue through existing channels inside the World Bank: IBRD, IDA and the IFC, as well as through the Climate Investment Funds financed by bilateral donors at the World Bank and the other multilateral banks, and through other existing international funds such as the GEF (Global Environmental Facility), the UN-based Adaptation Fund, and the new Green Climate Fund whose design was agreed at the December 2011 Durban meeting.

This first option has at least three advantages. It is more likely to be acceptable to environmental ministries across the developing world, the many existing funds already operation, and the United Nations community and civil society groups suspicious of the World Bank's financial power and alleged associated intrusiveness. Second it would be far easier to organize inside the Bank from a bureaucratic point of view, particularly assuming the new arm were located outside of Washington. Third it would ensure appropriate distance between the Bank's lending and other direct financing work and the new functions, many of which require the ability to make and maintain sufficient independence from Bank operations.

A second option would add lending, guarantees and grant financing in the new arm, with the advantages referred to above, and the risks of conflicts of interest.

Governance and financing of a new World Bank arm

One way or another a new arm of the Bank, to ensure its long-term legitimacy in a changing global system, would require legitimacy and sense of ownership, particularly if it is to take on tasks such as reporting and verification, making a market to support trading in emissions rights, and dispute resolution. To make that possible, its governance would ideally be based on new capital contributions, with periodic adjustments related to additional flows of contributions -- perhaps in a manner affording greater weight to contributions from countries with lower per capita income and lower emissions per capita.[46]

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[46] This is not a new proposal. In Birdsall and Subramanian, 2007, we outlined the logic of the Bank's work on GPGs in terms of its strength as a knowledge institution. The wording in a 2005 report of the Center for Global Development, authored by me and Devesh Kapur, referred to an explicit mandate and special governance: "Obtain an Explicit Mandate, an Adequate Grant Instrument, and a Special Governance Structure for the Bank's Work on "Global Public Goods" (p. 21). I made explicit the idea of creating a separate arm or window of the Bank, with its own separate governance, in a 2009 speech at the Center for Global Development

Emerging market economies have been for almost a decade demanding greater influence at the World Bank—in terms of capital shares, board chairs and staffing. With the traditional supporters of the Bank preoccupied with budget and debt problems at home, new capital from them would be difficult to raise in the near future. But China and other emerging markets with other developing countries have ample reserves and could put up 50 percent or more of an initial capital base of $10 billion or more.

If several emerging market economies plus several oil economies committed initial capital of even $5 billion (China's current reserves are over $2 trillion) they could invite the Western members of the G20 to join as well. The founders could negotiate an algorithm that tied voting power over time to a combination of their initial capital contribution and future contributions from all participating members (perhaps with future contributions discounted in some formula for weighted votes as a positive function of emissions per capita). To include countries that are currently low-income (below about $1000 per day per capita), the founders could agree to some arrangement like no-interest loans to finance the capital contribution of low-income countries, which those countries would commit to pay back to the new arm if and when their GDP per capita increases.

Initial capital of $10 billion could support an administrative budget of as much as $500 million for undertaking the non-income producing functions set out above; and would be sufficient to support borrowing on capital markets for investments in mitigation around the world that yield positive if below-market returns. (The current administrative budget of the World Bank is over $2 billion and of the IMF almost $1 billion annually.) Additional contributions over time would ideally support the awarding of grants for research and new product development in laboratories around the world, the funding of technology transfer licensing fees, the catalyzing of advance market commitments and so on.

There are precedents for this kind of initiative inside and outside the fold of existing institutions. The Andean Development Corporation (the CAF) was founded by an initially small group of countries with technical support and a loan from the Inter-American Development Bank. In 2010 it had 18 members in Latin America, and disbursed almost $8 billion in loans. It raises money in the private capital markets and in the late 1990s had a better credit rating than any one of its members, illustrating the benefits of a credit cooperative. The Multilateral Investment Fund, a large Trust Fund at the Inter-American Development Bank, was started by the United States and Japan, with leadership during the George H.W. Bush administration. It now has 37 other members and contributors and last year disbursed almost $30 million in grants, loans and equity commitments. Since the World Bank's founding, its members have created the International Development Association (IDA) for concessional lending to the poorest countries, the International Finance

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(Birdsall, 2009). In Birdsall and Subramanian, 2010 and in Mattoo and Subramanian, forthcoming, the potential leadership of China, India and other major emerging markets in financing new clean energy technologies is outlined. See also Wheeler, 2011.

Corporation (IFC) for direct lending to the private sector, and other smaller but separate "arms" of the World Bank group as MIGA and FIAS with separate financing and for some separate governance structures than that of the original IBRD.

In all these cases, new "institutions" have begun with different governance and financing, but tapping the existing strengths of their sponsors or "home" institutions.

Because the mandate of the new arm should give priority to public good functions, a large portion (e.g. more than 60 percent) of staff and other operational costs would ideally be covered by income from that initial capital base[47], perhaps supplemented by periodic contributions from members. (The capital base for IBRD lending and for the International Finance Corporation has been periodically increased, and the grants and concessional loans made through the International Development Association (IDA) window at the World Bank rely on periodic contributions.

The members could also give the institution the mandate on an ongoing basis to raise new contributions or revenues—both to cover its own costs and to channel some funds to others, to the extent the new arm has a comparative advantage in revenue-raising[48]. As an arm of the Bank, it could in principle also benefit from transfer of some of the Bank's net income from its lending, though this might raise problems of conflict of interest. Finally for some possible supervision and service functions it might generate income from charges.

At the World Bank?

An obvious question is whether this new arm of the Bank might better be conceived as an entirely new institution that somehow taps into the fiduciary and technical strengths of the World Bank The new Green Climate Fund might take on that role with respect to climate. The immediate question (in mid-2012) is whether there is a sufficient core of "interested nations" to initiate any institutional arrangement for management of the public good functions I have outlined.

That is as much or more a question of international political leadership as anything else. In the wake of the global financial crisis, and given the long-term debt and fiscal problems of the United States and other traditional supporters of the World Bank, it feels (and "feels" is the right word in early 2012) more likely that any initiative of reasonable ambition would come from China and other rising emerging markets—especially Brazil or India, with the collaboration of countries such as South Africa and Indonesia. The World Bank president could play an initial important role in catalyzing the potential players but his (or her) role is

[47] The surveillance function of the IMF was the rationale for the decision of members to set aside in an endowment-like fund sufficient resources (from sale of IMF gold) to cover about 30 percent of IMF operational costs. See the IMF report on long-term financing, 2007.

[48] The precedent for this is the success of the revenue-raising work of World Bank management and staff for periodic replenishments of IDA.

neither necessary nor sufficient (and depending on his or her ties to the U.S. Administration might or might not be a positive one).

One way or another, the mandate and management of the new arm, to be effective, ought to be shaped in a manner likely to be consistent with whatever broader principles emerge in the next few years on the "architecture" of global climate financing.[49] It might make sense for the technical, administrative and fiduciary role of this arm of the World Bank to be under the umbrella of the UNFCCC, with that UN institution playing some role in its governance; it could for example be responsible for proposing candidates to head the new arm to the board of that new arm.[50]

Conclusion by Way of Summary

Let me end where I began. The world has a problem. A set of critical global commons problems -- climate change, destabilizing water and other natural resource scarcities, drug resistance and more -- put at risk long-term economic growth and the livelihoods and welfare of billions of people, especially in the developing world. These global commons problems pose the need for collective and cooperate action across sovereign nations. Yet collective action among sovereign nations is difficult—more difficult than it was for most of the postwar 20th century, when the combination of the Cold War and the hegemonic clout of the United States in the west allowed the creation and sustenance of the United Nations, the World Bank, the IMF, the GATT and its successor the WTO, and a host of other global institutions.

Among those institutions the global reach and technical depth of the World Bank put it in a key position to take leadership in shaping a response to the challenges. Given its financial, technical and fiduciary strengths, the World Bank can make a major contribution and rescue its own future by finally turning proactively to the management and financing of GPGs.

But that implies a mandate that goes well beyond the traditional business of sovereign-guaranteed lending at the Bank, and funding to take on that mandate. An initiative in that direction has to come from somewhere.

On climate, an initiative on the part of China and other emerging market economies, perhaps nurtured by the president of the World Bank, would make sense. As an entirely new arm of the Bank, it could have a governance structure that would more adequately reflect the critical role emerging markets will need to take in leading the management of global public goods, especially climate, in their own interests. An initiative on their part would help rescue the Bank which has been hostage to 20th century antiquated governance set-up.

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[51] Muller, 2010.

[50] Dervis, 2005, makes this proposal in a broader context.

Alternatively the functions I outline could be undertaken in other existing or in an entirely new institution. The Bank could no doubt provide technical, legal and other start-up assistance. In the end much depends on what is hard to predict: the direction that the Bank's members themselves, in their collective wisdom, take; the leadership they choose; and the outcome of the still nascent and mostly inchoate discussions at the global level of how to address the collective action challenge that climate change and other global commons problems pose.

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