CENTER FOR GLOBAL DEVELOPMENT

GPGs and Where to Fund Them: The Startling Implications of Financing Global Public Good Provision for the Multilateral Development Banks

RANIL DISSANAYAKE

Abstract

Increasing pressure is being placed upon the multilateral development banks (MDBs) to expand and restructure their operations in response to changing global needs. Specifically, influential commentators, shareholders, and senior managers in the MDBs themselves have argued that they need to 'do more' in order to address underprovision of important global public goods. In doing so, most have asserted that there is no trade-off between this expanded mission and the existing core mandate of much of the MDB system, the economic development of poor countries and eradication of poverty within their borders. This paper argues that public and policy discourse has been imprecise in its definition of what constitutes a global public good, with implications for our understanding of how MDBs contribute to them. Once this is corrected for, it becomes apparent that, except under restrictive conditions that are unlikely to hold in the real world, such trade-offs between objectives are unavoidable, though they may differ in severity. Ultimately, these trade-offs make it impossible to pursue the provision of goods that contribute to global public goods, core development objectives, and value-for-money in spending at once. It concludes by proposing the outlines of a more modest, but achievable GPGs agenda which does not come at the expense of development objectives.

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1. Introduction

In his first days as World Bank president, Ajay Banga neatly summarized the challenge that his organization has been tasked with: "We are at a critical moment in the arc of humanity and the planet. The World Bank Group is being asked to lead the way, to double down on development and climate efforts and to deliver even more impact and results."[1] It is a challenge he, and the multilateral development bank (MDB) system writ large, cannot ignore. The US has been clear that this expanded mission is central to their vision; Janet Yellen, secretary of the US Department of the Treasury, has made repeated public announcements to this effect.[2] Influential policymakers and academics have rejected that there is any trade-off across these objectives. Yellen flatly rejected that they exist at all;[3] the former chief economist of both the World Bank and the European Bank for Reconstruction and Development, Lord Nicholas Stern, has said much the same. Consider this passage from a recent paper he co-wrote (Lankes, Soubeyran and Stern, 2022):

> *"Managing climate change and overcoming poverty are the defining challenges of this century. They are deeply interwoven: if we fail on one, we fail on the other. Poorer people are more vulnerable to extreme events, disruptions and shocks such as health hazards, epidemics, natural disasters, conflicts and economic downturns, and they have fewer resources to cope and recover. Climate change amplifies the scale, frequency and intensity of these events and shocks, driving people into poverty and limiting their ability to escape."*

This goes further than suggesting that there is no trade-off; it suggests that action on climate change and development are complements: development reduces vulnerability to climate change, and action on climate reduces risks to development and poverty reduction.

Whether or not this is true, and more specifically whether or not it is true in the context of the operational decisions that the World Bank needs to take, is of tremendous policy importance. The International Development Association (IDA) arm of the World Bank makes annual commitments of around $35 billion.[4] Together with the resources made available by the other MDBs, this represents a substantial proportion of the concessional financing available to developing countries. The fidelity with which it is targeted to their needs is of first-order importance to their public finances and development investments.

1 https://www.reuters.com/world/world-banks-new-chief-asks-staff-double-down-development-climate-efforts-2023-06-02/

2 See for example this announcement from April: "Together, we are redoubling the World Bank's work on global challenges like climate change, while advancing the Bank's vital efforts to eliminate extreme poverty and promote shared prosperity." https://home.treasury.gov/news/press-releases/jy1405

3 See: https://www.csis.org/analysis/us-treasury-secretary-janet-l-yellen-addresses-evolution-development-finance-csis

4 https://ida.worldbank.org/en/financing

In this paper, I argue that while conceptually, the adequate provision of global public goods and development are indeed complements, this is *not* true at the operational level at which resource allocation and prioritization by MDBs (and indeed bilateral donors) must be made. Rather, because the provision of GPGs happens through place- and time-specific investments, except under very restrictive circumstances, there are inevitable trade-offs between development and GPG objectives. Furthermore, even when these trade-offs are shallow, it is impossible to allocate spending in order to achieve both GPG and development objectives while maximizing value-for-money in resource use on either development or GPG-provision grounds. Furthermore, none of the concrete proposals currently on the table for multilateral reform are capable of reconciling these trade-offs except saturation of funding needs.[5] If shareholders and stakeholders are serious that both GPGs and development must be handled within the MDB system, I propose more limited, but achievable, approaches to supporting both that limit or make more transparent the trade-offs identified.

The remainder of this paper is structured as follows. The next section sets out a more precise definition of global public goods and goods that contribute to their provision in the context of MDB operations. Section 3 builds on this definition to investigate how GPG provision and development investments relate to each other. Section 4 draws out implications for prioritization in the allocation of project effort and concessionality. Section 5 assesses popular proposals for MDB reform against their ability to navigate the trade-offs identified in the previous sections. Section 6 suggests alternative models for MDB reform that navigate trade-offs more effectively. Section 7 concludes.

2. GPGs and where to find them

Public goods are defined by the economic characteristics of non-rivalry and non-excludability. Non-rivalry means that consumption of the good by A does not reduce the capacity of B to also consume the good. If I see and navigate by the light of a lighthouse, this does not diminish the illumination available for use by another ship; the light is non-rival. Non-excludability means that once provided, there is no way of preventing any party from using the good. If a national defense system is provided for a country, everyone within the country is protected by it, regardless of whether they contributed to its funding, or even of whether or not they support the maintenance of national armaments.

These characteristics, taken together, make the provision of public goods by the private market difficult. Since they are non-excludable, the economically rational response of any potential payer is not to pay and to instead 'free-ride' on others who pay for the good. And since they are non-rival, waiting until others have paid for the provision of the good carries no risk: it will still be fully available to consume. At the very least, such goods will be provided at sub-optimal levels on the

5 That is, fully funding the MDB system to achieve both development and climate objectives independently. The prospects of such a funding settlement are functionally zero.

private market, and in extremis, will not be provided at all (Samuelson 1954, 1955).[6] Public goods require a state or coercive actor to provide.

Yet pure public goods are notoriously difficult to identify in the wild, and tend to be rather abstract. Take the classic example of national defense. A missile is not a public good. It is both rival (if I fire the missile at my enemy, you cannot fire the same missile at your enemy) and at least imperfectly excludable (if our enemies are not the same, then I can use the missile in ways that benefit me and not you). The public good here is collective security—the sense that we are both protected from unprovoked attack that does not discriminate between us. Collective security is provided (at least in part) by the use of private goods in a particular way—for example the state using its missile systems to protect its airspace, in such a manner that generates a (locally) non-rivalrous and non-excludable set of benefits.

A similar logic applies to the vast majority of so-called 'global public goods'. Climate action is commonly described as a global public good; this is at best a loose use of the concept and at worst actively misleading. The public good at stake is a world in which warming is kept below 1.5 degrees, keeping the consequences of anthropogenic climate change to manageable levels. If we achieve this outcome, collectively, the benefits are non-rival (we all benefit from a livable world) and non-excludable (everyone in the world benefits from it, regardless of their personal actions). However, a green power plant is not a public good. It is a private good in that the power plant itself is rivalrous (if I build the power plant here, you cannot have the same plant in your country) and excludable (if I want the plant to serve only my country or even just a subset of the consumers within it, that is easily achievable). Its primary benefit, the generation of power, is also rival and excludable. If, however, the green power plant might otherwise have been a coal-burning power station emitting large amounts of carbon dioxide and causing local pollution, it generates some positive externalities (or, more precisely, it avoids the generation of negative externalities). Some of these externalities are locally felt, for example cleaner air and lower fine particulate matter, which are locally non-rival and non-excludable. Others are global, such as the carbon emissions foregone, which contribute to the achievement of a 1.5 degree world. These external benefits are globally non-rival and non-excludable. In the same manner, a national disease surveillance system is both rival and excludable; but it generates information which, if shared, has globally non-rival and only partially excludable benefits. The information generated by surveillance is an external benefit with some public good characteristics, but the surveillance system itself is a private good.

This is a critical distinction, because no one directly provides the public good; it is a by-product of a private good, and this private good must be provided in a specific place at a specific time. Our

6 Paul Samuelson is usually credited for setting out the theory of public goods in its modern form. All of the key concepts used here are introduced in his (extremely short) 1954 article "The Pure Theory of Public Expenditure", though it does not use any of the phrases 'public goods', 'non-rivalry', or 'non-excludability', or includes a single concrete example of such a good.

underlying economic model for the provision of GPGs must therefore be updated. The economic problem we need to solve is not that a public good must be directly provided, and all countries or actors have an incentive to free-ride on provision, leading to a missing market. Instead, we are dealing with so-called 'merit goods': private goods that have positive externalities associated with them, and would thus be under-provided by the market (not missing altogether) in the absence of either a subsidy or a mechanism to internalize the externality generated. However, the externality itself has public good characteristics, in that it is non-rival and non-excludable. That means that some standard approaches to internalizing this externality, for example by assigning property rights that give one party the right to charge for or be compensated for the externality, are complicated: who should be assigned property rights when the externality affects everyone? (Others will work as usual; for example, a global carbon tax would, if correctly set, fully internalize the negative externality from carbon emissions. Regulation, set at the right level, i.e. fully accounting for global externalities, can also do so. Both, though, are difficult to achieve so long as these policies are primarily set at the national level, and there would also be equity concerns to consider.)[7] Where the externalities from an investment are not globally non-rival and non-excludable, that investment does not contribute to global public good provision, but only to local or regional public good provision.

This discussion illustrates a number of critical points about the generation of the global public goods that the MDBs are being pressed to provide or support the provision of:

1. **The MDBs contribute to the provision of global public goods almost exclusively through the provision of private merit goods.**[8] This is profoundly important: it means that they can (and should, as I argue below) assess the case for providing any given good based on its private *and* GPG characteristics. This is the level that trade-offs must be assessed at. Since individual private goods are place and time specific, choices must be made about where to invest and when to invest.

2. **The GPG contribution is context-dependent.** In the case of the green power plant, the external benefit of its building lies in the carbon emissions foregone by not building a dirty power plant instead. That means if the green power plant is preferred on purely private grounds (i.e. it is cheaper and more reliable, and would be chosen over the dirty alternative irrespective of their emissions characteristics), there is no positive externality

7 In the case of a global carbon tax that perfectly internalizes the externality from carbon emissions being set, many green projects would no longer have GPG characteristics. Since the external cost of carbon is fully internalized in all investment decisions, marginal private and social costs and benefits are equalized. Private action is socially optimal, with no unaccounted for social benefits or costs.

8 "Almost" because policy lending is not quite a private good, and may contribute to GPG provision if it helps finance specific investments which have GPG-enhancing characteristics. However, the logic that trade-offs must still be assessed at the investment level is unchanged, it is simply outsourced to the client country; and as we will see in section 5, MDBs themselves still need to grapple with the same trade-offs but at a more aggregated level.

or contribution to a GPG at all, since no emissions are foregone. There is no counterfactual world in which the dirty plant would be preferred.[9]

3. **Not all investments relating to global challenges contribute to global public good provision.** Climate finance, for example, includes both adaptation and mitigation spending. Adaptation spending will often have no global or regional positive externalities—it provides a purely local development good, which may have only local (fully nationally captured) positive externalities. In other cases, it may have regional positive externalities, but if they are not globally non-rival and non-excludable, they do not contribute to GPG provision.[10]

4. **Where the external benefits of private good provision are non-rival and non-excludable, subsidy is the primary solution to under-provision.** Unlike in cases where the incidence of the external benefits or costs can be clearly delineated, for external benefits with public good provision, there is no obvious way for property rights to be assigned in such a manner that fully internalizes the external costs or benefits of private action. While taxation and regulation, set at the right level and fully accounting for globally realized externalities, are alternatives, they are difficult to attain when most decisions on each continue to be set at national level.

The next section draws out the implications for the MDBs' challenge in prioritizing and allocating across investments that contribute to GPG provision.

3. Trading off external and private benefits

Recall the quoted passage from Lankes, Soubeyran and Stern (2022) on page 1. It argues that failure on climate change is failure on development and vice versa, that they are necessary complements, and must be pursued together, strongly implying that there is no trade-off between them. This is true at the level of the public good itself: a 1.5 degree world which is livable for all does not require

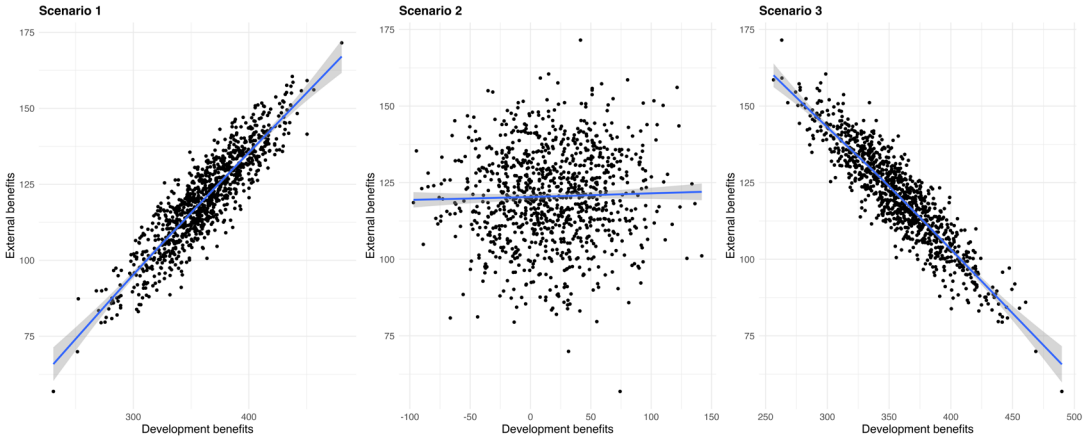
9 Equally, building a green power plant in a country with a massive energy deficit, which intends in any case to meet energy requirements through gas or coal-burning energy generation systems may also have no GPG characteristics or external benefits unless it shifts the final expected energy mix of the country once all generation plans are realized. This suggests the current donor practice of counting all green projects as 'GPG' spending dramatically inflates the true value of their contribution to global public good provision.

10 In much of the discussion in this paper, I include under 'private' goods those which have local (national) positive externalities or national public good characteristics. Such goods are 'merit goods' and should be subsidised or be provided by the state, but are too many to be financed domestically. It is the financing of these goods that form the core business of the MDBs at present.

that we hold back the development of poor countries. Rather, the better the global climate outcomes achieved, the better the development outcomes for poorer countries will be.[11]

However, as the preceding discussion should make clear, the MDBs (and indeed, all governments and nongovernmental and state actors) do not provide public goods directly. They instead provide rival and excludable goods that contribute to the provision of the public good, either through the manner in which they are used or through the externalities they generate (which may have public good characteristics). In practice, then, choices must be made over which goods to invest in. Whether or not a trade-off exists depends on the relationship between the contribution to the global public good and the locally excludable and rival net benefits of the universe of potential goods and investments MDBs may make (for simplicity, we will refer to these as the 'external benefits' and the 'development benefits' respectively). There are, broadly, three possible relationships: (1) the external benefits and locally captured development benefits covary—the investments which are most locally beneficial also contribute the most to the public good; (2) there is no relationship between local benefits and external benefit; or (3) there is a negative relationship between them. Figure 1 uses simulated data to illustrate what each of these scenarios might look like.

Figure 1. Three possible relationships between GPG (external) benefits and development (local) benefits



Note: These data are simulated using the statistical package R. Variables (n=1000) are generated and defined in relation to each other to other to create pairs for which the two variables covary positively, negatively and have no relationship to each other at all, and then plotted with a trend line. Code generating these simulations and those in Figure 2 are available at https://www.cgdev.org/sites/default/files/2023-07/dissanayake-MDB-GPG-tradeoffs-paper-code.zip.

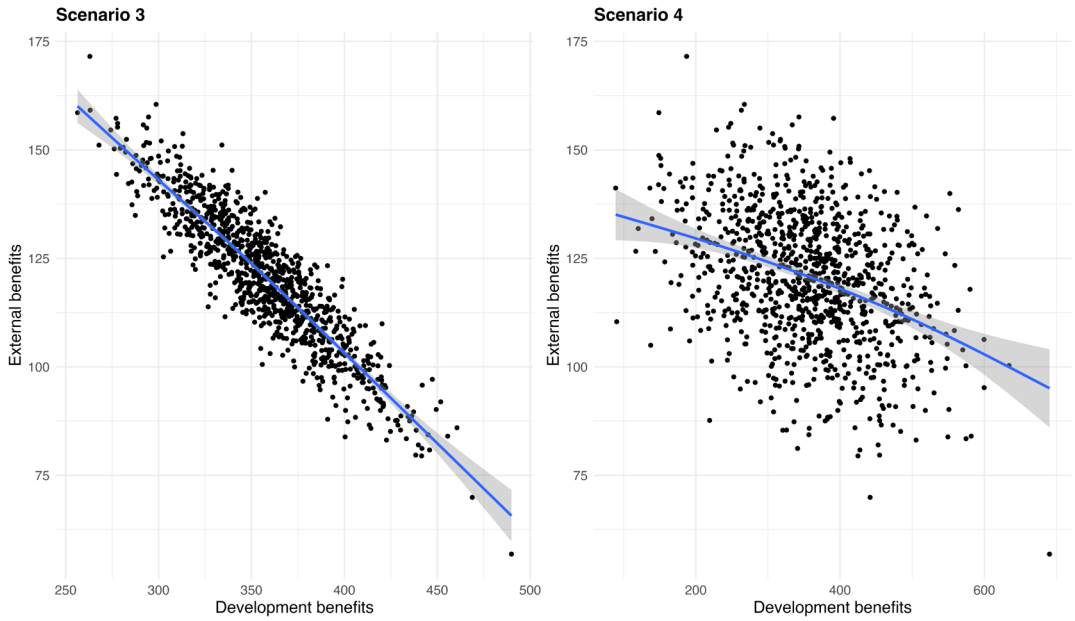
11 There are those who argue that *any* carbon intensive activity in developing countries is incompatible with our climate goals, a position that does imply a trade-off between development and climate outcomes. This extreme position is ignored here, since any sensible, welfare-maximising approach would simply resolve this problem through more-than-compensatory action by high (historical) emitting countries to allow for a development path for the poor. An alternative way of arguing for a trade-off is implying a global resource envelope which is insufficient for both global development and climate outcomes, forcing a trade-off in resource allocation. At the global level, this is simply not true.

Each scenario has a different implication for the existence of a GPG and development trade-off among the universe of projects an MDB might fund. Under scenario 1, the external benefits towards GPG provision are closely and positively related to the local benefits. If this is the true relationship observed at project level, then there is, on average, no trade-off between investing on GPG grounds and investing on local development grounds. This might be the case if the projects that have the biggest local benefits also do the most to, say, reduce carbon emissions, or generate the most information on novel pathogens.

Under scenario 2, there is no clear relationship—the external GPG benefits are randomly distributed with respect to the local development benefits. Under this scenario, there are investments that have high GPG benefits and high development benefits, but also projects that have high development benefits and low GPG benefits and projects that have low development benefits and high GPG benefits.

Scenario 3 is the mirror image of scenario 1: a tight negative correlation between GPG benefits and development benefits. If the best development returns are generally to be found in places with the lowest per capita incomes (see Dissanayake et al. 2020 for one exposition of this argument), but the most valuable GPG-enhancing actions are generally in richer countries, scenario 3 is most likely to describe reality (though, as elaborated in the next section, this does not need to be the case for scenario 3 to hold). A less stringent alternative to scenario 3, where the negative relationship is noisier, may also be considered, as in Figure 2 (scenario 4).

Figure 2. A negative relationship between GPG and development benefits with less (panel 1) and more (panel 2) noise



Note: These data are simulated using the statistical package R as for figure 1.

In scenario 4, the underlying relationship between GPG contribution and development benefits is the same as in scenario 3, but the relationship is noisier—that is, each project has more random variation in its development and GPG benefits, so in common with scenario 2, there are some individual investments with high development benefits and high GPG benefits.

Across these possible scenarios, only in scenario 1 is there no (or rather, a limited) trade-off between development and GPG benefits of an investment; on average, the best development investments are also the best GPG investments. This is not true in any of the other three scenarios, though in scenarios 2 and 4 there exist some projects which are good development and good GPG investments.

It is also worth discussing where the external benefits are realized. The fact that external benefits that contribute to GPG provision are non-rival and non-excludable does not mean that they are realized equally around the world, nor that the value of the benefits is equal in different places. Achieving a 1.5 degree world will have global benefits, but these benefits will not be evenly distributed. Some countries currently under existential threat will gain rather a lot as a proportion of their GDP; not all of these are poor or low-income. Others will avoid further hardship among the very poorest people in the world, already working in marginal conditions on the edge of poverty. But in absolute terms, the largest gains may accrue to wealthy places which suffer fewer catastrophic natural disasters; simply by virtue of being extremely wealthy, there is a great deal of damage to their assets that may be avoided. In other cases, the bulk of the benefits may accrue to other low-income countries, or regionally. A disease surveillance system with free information exchange established in, say Nigeria, might generate information that, while non-rival, may benefit neighbouring countries substantially more than it benefits, say, Germany. The incidence of the external benefits or the value of a global public good will have implications for prioritization, as we discuss in the next section.

In all of these scenarios, all of the projects have at least some external benefit that contributes to a GPG; in reality many—indeed most—development projects contribute nothing at all to GPGs. These would all be arrayed on the X axis, at the point where (global) external benefit is equal to 0. One important point to make explicit at this point is that some 'green' investments may have zero external benefit towards GPG provision, despite the fact that they are zero-carbon or negative-carbon. Take a carbon removal project: if an international social price of carbon is set that is equal to its marginal social cost, any country or actor implementing a carbon removal project is undertaking an investment on the basis of its private returns, and will undertake removal until the marginal cost of removing one more tonne of carbon is equal to the social price of carbon, provided the returns to doing so are greater than the next best use of the capital used in the investment. This would result in an economically efficient amount of carbon removal, which contributes to the achievement of a 1.5 degree world. But there is no external benefit to the project. It can be assessed purely on its private returns, because through the process of setting a correct global carbon price, the private and

social returns to carbon removal have been equalized.[12] The key point here is that when the 'green' action is economically viable on private grounds, there is no counterfactual path of higher emissions which we are avoiding—and thus the investment is not increasing the global speed at which climate change mitigation is proceeding. The same point applies to energy generation: once green energy is preferred to dirty energy generation on purely local economic grounds (that is, even excluding any global positive externalities), there is no longer any GPG contribution from the project, because there is no counterfactual path of higher carbon emissions being avoided.[13] The only remaining concern is whether to allocate scarce financing to the project (as opposed to other development projects). A similar logic applies to any other GPG items for which the social and private costs and benefits of the investments that contribute to their provision have been equalized. We will return to this point in Section 6.

4. Implications for prioritization of investment choice and concessionality

If the MDBs truly want to contribute to the achievement of both global public good provision and development outcomes, and must allocate their resources at an investment or project level, they need to be able to prioritize over potential investments on these grounds, and to decide how to allocate concessional resources. We may additionally impose a requirement to maximise value-for-money in spending. In this section, I argue that under most scenarios, it is extremely difficult, and potentially impossible, to satisfy the need to achieve development outcomes, GPG outcomes, and value for money at once.

Under scenario 1, prioritization is trivial. As long as the MDB (or partner country) is able to accurately identify either the investments that have the highest development return or those that have the largest external benefit that contributes to the provisions of a GPG, they can prioritize investments solely on this dimension without considering the other. On average, the investments chosen will maximise both development and GPG returns, which suggests that value for money is also trivially easy to maximise: maximizing the value achieved for a given investment size on either dimension will tend to maximise it on the other. That leaves only the question of allocating concessionality. There are two justifications for concessional financing in play here. First is the standard playbook for MDBs: progressive allocation of concessionality to allow poorer and more credit-constrained places the opportunity to invest in their own development. The other is the classical justification for subsidy in public economics: if there are any external benefits to an action, it will tend to be underprovided in the absence of subsidy. Under scenario 1, assuming that the projects to which the largest development benefits accrue are in countries which are poorer, the two justifications largely align.

12 The absence of carbon markets with appropriate prices suggests that MDBs may have some role in establishing them, however—provided the local development returns to doing so are sufficient.

13 Such a project would appear on the X-axis of figures 1-4—with positive local development benefits but no global external benefit.

But scenario 1 is a highly limiting case. We not only assume that the external and development benefits move together, but that they move together tightly: there are few cases where one is high and the other is low. There is no reason to expect that the kind of investments GPGs are built from are characterized by this sort of relationship.

All of the other scenarios pose much more difficult problems, and are more likely to apply in the real world for most categories of global public good. Under each prioritization is substantially more difficult. In scenario 3 (which will always hold if you believe that the best mitigation actions are in richer places but the best development actions are in poorer places), the trade-off is stark: the MDBs must choose to maximise on either development outcomes or contributions to GPGs; concessionality requires a similar choice. This may be too extreme, and the reality may look rather more like scenario 2 or 4. Both show wide dispersion on both GPG and development grounds, but in each scenario there are a number of projects which show high returns on both. It is tempting to argue for a restriction of the choice set to only those projects that satisfy a minimum impact on both criteria, and prioritize within this set. Such an approach hides two problems. The first is that it makes value-for-money in each dimension almost impossible to satisfy over a portfolio. The point is clearest in scenario 4, but visible in scenario 2 as well: the projects with the highest external benefits are not the same as those with the highest development benefit. Limiting the set of projects to those that satisfy minima on each criteria mean that we therefore do not maximise returns on either criteria. It is not possible to maximise value for money on either external or development benefits by following such a rule. Indeed, you may achieve better development returns and better GPG returns by splitting the budget and using each part to maximise on only one criteria; but doing so would mean at least some projects would have little or no development return. That would be a dramatic departure for the MDBs.

The second problem is that even selecting from projects within the quadrant of high development/high GPG projects requires making trade-offs within this quadrant.[14] How do we select between a project which is high GPG, but on the lower end of the satisficing level for development and one which has the opposite characteristics? Doing so means making a development/climate trade off and choosing which is your priority. Can MDBs even ethically prioritise within on the external dimension, even among the high-development return projects? What does it mean for an MDB to choose among development projects based on the returns to these projects that accrue at least in part to non-poor countries? Could an MDB making choices this way still argue that it is a development bank? It would rather be optimizing for GPG contribution subject to a minimum development impact. This is not how decisions are currently taken and would require a new infrastructure for project choice and a new mission for the MDBs. However, in cases where the incidence of the benefits of a GPG or the external benefit contributing to GPG provision primarily accrue within a region or income category, the leap

14 The actual choice of what MDBs finance includes another variable: their specific value-added in the financing and project development process. Accounting for this does not change the argument, it simply imposes an additional restriction on the choice set.

is less far: an MDB can easily argue that the bulk of the benefits being prioritized over accrue to developing countries.

What's more, any such approach to choosing projects would open up a host of second order issues in allocating concessionality. How should concessional resources be allocated when there are both development and GPG contributions made by a project? One option is to allocate concessionality purely based on development returns and need. If we think that fully realizing the external benefits that contribute to GPG provision requires subsidy (as economic theory predicts), then this further limits the portfolio of projects that can be chosen from, and likely reduces GPG impact. But if concessionality is allocated even in part based on external benefits, the MDBs enter a tricky terrain: allocating concessional resources according to benefits at least partly (and possibly primarily) reaped by rich countries.[15] Again, such an outcome suggests a fundamental reimagining of what the MDBs are for—not one that anyone has proposed.

It's worth noting that these concerns remain even if you believe the most cost-effective interventions for global public good provision are in low-income countries (Glennerster and Jayachandran 2023); the trade-off between external benefits and development benefits is embodied at the level of the specific investment and depends on investment-level characteristics. Even if the best development interventions and the best GPG interventions are to be found in the poorest countries, to avoid trade-offs between GPG provision and development outcomes, they need to be the same interventions (or there needs to be no trade-off in financing, i.e. both can be fully financed from within existing resource envelopes, which as we will discuss in the next section, is not true now and unlikely to be true in the future).

Despite the ubiquity of calls for the MDBs to 'up their game' on climate, it is hard to identify anyone calling for or acknowledging that doing so would likely involve such a fundamental reorientation to the MDBs' way of working and seeing the world.[16] The next section critically evaluates the main proposals for reform on the table.

5. Most existing proposals do not address the fundamental issues

A number of proposals seeking to square the GPG/development circle have been made. Each has merits, but fails to fully address the issues of trade-off, prioritization and allocation of concessionality set out above.

15 There is also the question of whether slightly cheaper terms would incentivise radically different borrowing behaviour.

16 This is a generalization to which there are honourable exceptions. Shanta Devarajan, ex-chief economist at the World Bank, has directly addressed these issues, as discussed in Section 5 (see Kopinski (2019) Rearranging deckchairs or changing course? The World Bank and global public goods).

First, some commentators have called for a focus on GPG and development win-wins: activities where the returns on both the GPG and development axes are substantial. In Scenarios 1, 2 and 4 these are the investments in the top right quadrant of the graphs. Such proposals are not wrong as such and indeed, I have made them myself (Dissanayake 2021). However, they are incomplete. The universe of such win-wins excludes many projects that would be valuable on GPG grounds or on development grounds alone; and, depending on the precise relationship between GPG and development returns, it may be rather small. It is also valid only at the project level, when individual investments that would be worthwhile on both development or GPG grounds alone are identified. At the portfolio level, unless they are complements at the level of the individual investment, the optimal strategy is more likely to be to separately construct portfolios maximizing for development and GPG objectives and to maximize value for money within each domain.

A second family of proposals suggests that the MDBs refrain from taking project-level investment decisions and instead support client-country green investment strategies themselves (best articulated by Lee et al. 2023). This approach defines success in terms of country-level climate and development outcomes, so finance allocation at the project level would be driven by what is necessary to achieve the country-level outcome targets rather than a project-by-project assessment of development vs climate benefits. As such, the MDB does not need to make any choice at the individual investment level and can rely on client country choices (though under this proposal, MDBs would be active in offering their highly demanded expertise to help shape these strategies). Prioritization is part of the investment strategy, and concessionality is handled in the usual manner. The approach, nevertheless, has drawbacks. First, it assumes that the country green investment strategy does not itself embody GPG and development trade-offs (or takes the judgement that if it does, as long as a client country willingly accepts them, the MDB should be willing to allocate financing accordingly). Second, if such strategies are national, they will tend to underprovide any GPGs for which the external benefit is not internalized; if the marginal social benefit of an investment (or family of investments) is larger than their marginal private benefit, too little of the investments will be made; if MDB advice on pricing is used to equalize the two, we are back to the MDB making direct trade-offs. And third, some high value GPG investments will be excluded entirely from such strategies if they have little development benefit. This is a feature, not a bug, of this family of proposals but nevertheless is a weakness if the intention to make MDBs truly accountable for GPG provision as well as development. What's more, this approach also opens the MDB to second-order trade-offs. There will inevitably be some countries whose strategies are strong on GPG grounds and poor on development grounds and vice versa: how should an MDB approach funding decisions in such cases? If MDBs are at all credit-constrained, and must choose who to lend to (or how much to lend), they still need grounds to prioritize across dimensions on.

A third set of proposals has been put forward by Shanta Devarajan (Devarajan 2022). Devarajan proposes that the World Bank, for example, move from operating a country-based investment portfolio to a regional and sub-national model, in which choices are made at supra- and sub-national

level. Such an approach internalizes any externalities that are primarily regional in nature, such as positive cleaner air that benefits countries on both sides of a border, or actions that support water supply in a region spanning multiple countries where it is at threat from climate change. It would also go some way to promoting some investments that promote GPGs for which the external benefits of the specific investments made are stronger locally than globally, such as the earlier example of infectious disease surveillance. The attractiveness of this proposal is that, while it requires a reimagining of the (arbitrary) internal decision-making structure of most MDBs, it does not require major change to the process, and entails no conceptual changes to how they make funding decisions.[17] It simply internalizes some of the externalities from investment and thus brings outcomes closer into line with the global optimal policy and investment mix. The drawback, however, is that it does not internalize the externalities that accrue outside of the region. For climate mitigation benefits, this is likely to be the bulk of the benefits, and given this is the most high-profile category of GPG, it is an important omission. It can, of course, be rectified by organizing the World Bank's portfolio decisions on a supra-regional or global level, which can fully internalize globally accrued externalities, but this takes us back to having to make trade-offs between development benefits (which are nationally or regionally concentrated in poor places) and globally accrued external benefits (which are not).

The last two sets of proposals both rely on financing to resolve tensions. The first is to, effectively, blend multiple sources of finance together to, collectively, provide appropriate levels of subsidy. One such approach would be to allocate concessionality on development grounds exactly as is done at present, but then to offer a less-concessional fund to 'top up' subsidies based on the external benefits of the investment. This proposal is attractive at first: it could function as a reverse-auction with developing countries proposing projects and MDBs deciding on the level of subsidy to be offered based on each criteria and from each fund. This leaves agency with national governments, and requires only that the external benefit be accurately priced by MDBs.[18] The approach has two major drawbacks, however. The first is in selection of investments for the reverse auction: proposals made by national governments will be a subset of the overall universe of potential projects, and will likely exclude some with very high GPG potential. As such, the old problem of being unable to achieve both goals and value for money is not solved, but accepted. The second drawback is that the use of subsidy to encourage the external benefits still represents a trading off of more spending on development with spending for GPG contribution (the subsidy could be used for another development project, regardless of GPG impact). Except to the extent that GPG benefits accrue primarily to developing countries, this still constitutes a downgrading of the 'D' in MDB; it merely disguises it somewhat.

17 Devarajan also argues that World Bank lending should be led by technical expertise, rather than technical expertise following lending patterns. This is again a change in the structure of decision-making, and in fact would strengthen the ability of the bank to prioritise across alternative investments.

18 This is, effectively, the proposal recently made by Oxford Economics. See here: https://www.oxfordeconomics.com/resource/multilateral-development-banks-for-global-public-goods/

The last proposal is the only one that truly resolves the tensions: to fund the MDBs fully to deliver all of the development work there is demand for and all of the GPG-contributing investments that are workable. Doing so would require an enormous increase in funding, whether this comes from capital increases or, more dubiously, from 'innovative' ways of using the MDB balance sheets to mobilise more money, or to crowd in private sector investment.[19] These proposals are not new. In 2011, Birdsall and Leo proposed a way of setting up and resourcing a new financing mechanism to fund GPG work (Birdsall and Leo 2012); an alternative, equally concrete proposal was put forward in 2021 (Kenny and Morris 2021). The drawback of these proposals is not technical: they would work and would resolve the tensions laid out above. They are political: there appears to be limited appetite for committing new funds to the MDBs. Rhetoric about global challenges and urgency is not remotely matched by action.

6. Alternative approaches may do better

Most of the proposals set out above have some merit. Squaring the GPG and development tensions, and prioritizing action might benefit from elements of each; but none (except a dramatic and unlikely increase in funding) can fully resolve the tensions. The foregoing analysis, however, forms the basis for two alternative approaches that handle the difficulties set out above somewhat better, though neither escapes them entirely. Both have implications for prioritisation and funding in the MDBs.

The first approach is completely separate GPG and development functions, removing the need to simultaneously deliver development and climate outcomes, as has been proposed by Hafez Ghanem (Ghanem 2023). This could happen within MDBs or by the establishment of a separate institution or cross-MDB financing platform in the vein proposed by Birdsall and Leo more than a decade ago. The key advantage of this approach is that it removes the impossibility of pursuing value-for-money and maximising impact on each of the GPG and development criteria simultaneously. We can maximise each, separately, subject to funding constraints on each.[20] In some cases the optimal development action will have GPG implications, and in others the optimal GPG action will have development implications. In some cases GPG actions may be optimally pursued in developing countries (Glennerster and Jayachandran 2023), but these actions should not be required to have any development benefit. Adaptation funding should be handled solely under the development function, as they mainly have limited external benefits and are captured by the country or region in which adaptation projects are undertaken.[21] They should be assessed solely on their development

19 Such solutions are incredibly popular: they let donors and shareholders off the hook for providing more resources. But we should start from a position of extreme scepticism. After many, many years of trying, the MDBs have shown very little ability to bridge the gap between need and existing financing in these ways. The hope is that there is an implementable solution that we simply have yet to try or think of. This seems unlikely.

20 This, of course, assumes that optimizing on GPG provision is a maximisation problem the MDBs as presently constituted can solve. On current evidence, it is not obvious that this is the case. If not, a completely separate entity, with a completely different set of technical and policy expertise, may be preferred.

21 There are exceptions. Investments in the development of technologies for adaptation may be a global public good, or one with benefits that spillover regionally.

benefits, since the idea behind adaptation spending is that they make future development paths more prosperous and secure. MDB development functions and such a GPG institution should have some coordination to assess and deal with instances where action in one domain has direct negative consequences for action in the other, but should recognise that the optimal portfolio may include some such projects (it may be that separately optimising development and GPG investments even when there are negative effects from one on the other may still be better than optimising GPG and development outcomes from the set of investments that do not have any such negative effects).

A second benefit of this approach is that it allows for existing mechanisms for prioritising action and concessionality on development investments to continue unimpeded, and may be combined with beneficial reforms to maximise the impact of such investments (such as the move to a more regional decision-making structure, as Devarajan has argued for). GPG actions can be prioritized solely according to their GPG contribution and subsidised purely on the value of the external benefit they generate. This greatly simplifies decision-making.

The drawback is that it does not eliminate the trade-off between development and GPG action. In fact, this approach makes the trade-off starker—intentionally. Except in the extreme case where all feasible development actions are fully funded, any allocation to the GPG fund is a choice not to fund a development action. However, it makes the trade-off much more transparent and clear: rather than burying the trade-offs within thousands of individual investment decisions, it forces funders to make an overarching decision on where they think the marginal dollar of funding should go. The choice will lay priorities bare in a way that can be questioned, criticised or indeed evidenced. Such an approach may also mobilise new donors, who do not give significantly for development causes, but are willing to fund GPGs.

There may not be appetite for a new institution, or a new financing platform. An alternative approach would be to focus GPG-relevant spending in the MDBs on making GPG-consistent actions preferred on purely private (national development) grounds. Such actions could include the development of new ideas and technologies or actions to induce price competitiveness of existing GPG-consistent technologies. Ideas are a truly non-rivalrous good that can be made non-excludable by policy choice, i.e. a rare public good that can be delivered directly; and if focused on technologies that primarily support developing countries and increase the pace of their development faster than existing alternatives while also contributing to the GPG desired (be it a 1.5 degree world or the capacity to identify and quickly act on potential pandemic diseases) they align development and GPG objectives such that the optimal development path is the optimal GPG path.

Such an approach would essentially remove the requirement to consider external benefits or GPG contribution at all: the optimal development investments would be optimal from a GPG provision perspective, and counterfactual actions inconsistent with GPG provision are no longer valid. To give a concrete example: imagine an MDB invests in the development of a scaleable and cheap green energy system that can meet the specific needs of developing countries more cheaply, quickly and

reliably than using gas or coal-fired power plants. This now becomes the optimal development investment in terms of addressing energy poverty; there is now no counterfactual path of dirty energy generation since coal and gas generation is strictly dominated by green energy generation. This removes the need to consider external benefits to the choice of energy generation system; the only questions of prioritization and allocation of concessionality are whether investing in energy generation is better or worse than the next best use of development resources. Importantly, such research would need to focus on developing country-specific problems: problems relevant to rich countries will likely already have large amounts of private and public research funding available, so the value of additional MDB finance is likely to be smaller; and if the benefits accrue primarily to rich countries, the justification of spending additional MDB resources on such technologies is weaker on development grounds. But developing country-specific innovation problems are usually under-funded. MDBs can make a difference.

The main selling point of such an approach is that it incentivises investment in technologies that are specifically relevant for developing countries; such R&D has been substantially underinvested in historically, and redressing this underinvestment is good in its own right (Suri and Udry 2022). It also dramatically simplifies the prioritisation and concessionality questions: only development returns need to be assessed.[22] It also emphasises the advisory and technical aspects of MDB operations, which are among their major selling points. And there is precedent: IBRD support the CGIAR research partnership, for example.

There are two key drawbacks with this approach. The first is that there simply may not be enough such technological problems that primarily affect developing countries to make this viable as a large-scale policy. The second is that this approach works best when the GPG is contributed to by the avoidance of a negative externality rather than the creation of a positive externality. A concrete comparison makes this clear. In section 2, I argued that green investments contribute to the GPG of a 1.5 degree world by avoiding counterfactual carbon emissions. Investing in making green technologies more economically viable than carbon-intensive ones (and cheaper than any existing technologies) means that this benefit is realised whether or not (or whenever) the green energy investment is actually made, since there is now no counterfactual world in which the carbon intensive technology is preferred. However, pandemic resilience is a GPG that may be contributed to by the external benefit generated by a local disease surveillance platform (or more specifically, the information it generates). Even if a technologically superior and cheaper such platform was developed from MDB-financed research and development, the contribution to the GPG is only realised when the investment is actually made, which in turn depends on the relative attractiveness of other alternative uses for this finance. The initial choice to fund research and development rather than other development interventions also itself embodies trade-offs with alternative development investments.

22 In the event of successful action: financing innovation is inherently risky and solutions may not always be found.

So, even these options are not without fault. The reality is that there is likely no perfect way of incorporating GPG provision into the MDB framework; all require that trade-offs be confronted.

7. Conclusion

Though the desire to make the multilateral development banks a primary vehicle for the achievement of global public goods is strong, this paper should encourage caution. Operationalising such a desire will almost inevitably force trade-offs between development and GPG functions. Under current arrangements, it is likely that such trade-offs will be poorly handled and un-transparent, and will likely lead to sub-optimal outcomes for both GPGs and development, and a failure to achieve value-for-money on either dimension, undermining the multilateral system rather than strengthening it.

Of the proposals currently in the international discussion, only one—a massive increase in funding—can fully resolve these tensions, but this is not presently politically viable. All of the main remaining approaches fail to resolve at least some of the tensions and difficulties identified in this paper. I have proposed two alternative approaches, both of which have drawbacks.

The conclusion should not be that there is no way to pursue both global public good and development agendas internationally. Rather shareholders in the MDB system must acknowledge the trade-offs and complexities of prioritization and allocation of concessional financing set out here, and make a principled, transparent assessment of where their priorities lie. They must then assess the various options on the table for reconciling these tensions and choose an approach that minimizes trade-offs and makes them as transparent as possible. Current discourse, disavowing the existence of trade-offs and prioritizing speed over clarity in MDB reform processes, are unlikely to yield a positive outcome.

References

Nancy Birdsall and Benjamin Leo. 2011. "Find Me the Money: Financing Climate and Other Global Public Goods." CGD Working Paper 248. Washington, D.C.: Center for Global Development. http://www.cgdev.org/content/publications/detail/1424979

Shantayanan Devarajan. 2022; "Multilateralism for International Public Goods." Global Perspectives 3 February 2022; 3 (1): 57732. doi: https://doi.org/10.1525/gp.2022.57732

Ranil Dissanayake, Charles Kenny, and Mark Plant, 2020. "What is the Role of Aid in Middle-Income Countries?" CGD Policy Paper 201. Washington, DC: Center for Global Development. https://www.cgdev.org/publication/what-role-aid-middle-incomecountries

Ranil Dissanayake. 2021. "Navigating the Straits: Pull Financing for Climate and Development Outcomes." CGD Policy Paper 239. Washington, DC: Center for Global Development. https://www.cgdev.org/publication/ navigating-straits-pull-financing-climate-and-development-outcomes

Hafez Ghanem. 2023. "The World Needs a Green Bank." Policy Brief PB-06/23. Rabat: Policy Centre for the New South. https://www.policycenter.ma/sites/default/files/2023-02/PB_06-23_Ghanem.pdf

Rachel Glennerster and Seema Jayachandran. 2023. "Think Globally, Act Globally: Opportunities to Mitigate Greenhouse Gas Emissions in Low- and Middle-Income Countries." NBER Working Paper Series 31421. Cambridge, MA: National Bureau of Economic Research. https://www.nber.org/papers/w31421

Charles Kenny and Scott Morris. 2021. "A Climate-Dedicated Capital Increase at the World Bank and IFC." CGD Note. Washington, DC: Center for Global Development. https://www.cgdev.org/sites/default/files/Kenny-Morris%20Note-ClimateCapitalIncreaseWorldBankIFC.pdf

Dominik Kopinski. 2019. "Rearranging deckchairs or changing course? The World Bank and global public goods" Mimeo. https://pubdocs.worldbank.org/en/164171559591285891/ABCDE-Kopiński-Rearrangingdeckchairs-final.pdf

Hans Peter Lankes, Eléonore Soubeyran, Nicholas Stern. 2022. "Acting on climate and poverty: if we fail on one, we fail on the other." London: Grantham Research Institute on Climate Change and the Environment and Centre for Climate Change Economics and Policy, London School of Economics and Political Science. https://www.lse.ac.uk/granthaminstitute/wp-content/uploads/2022/04/Acting-on-climate-and-poverty_if-we-fail-on-one-we-fail-on-the-other.pdf

Nancy Lee, Valerie Laxton, and Samuel Matthews. 2023. "What Would the Ideal Development and Climate MDB Look Like?" CGD Policy Paper 299. Washington, DC: Center for Global Development. https://www.cgdev.org/publication/what-would-ideal-development-and-climate-mdb-look

Paul A Samuelson. 1954. "The Pure Theory of Public Expenditure." The Review of Economics and Statistics, 36(4), 387-389.

Paul A Samuelson. 1955. "Diagrammatic Exposition of a Theory of Public Expenditure." *The Review of Economics and Statistics*, 37(4), 350–356. https://doi.org/10.2307/1925849

Tavneet Suri and Christopher Udry. 2022. "Agricultural Technology in Africa." *Journal of Economic Perspectives*, 36 (1): 33-56. https://www.aeaweb.org/articles?id=10.1257/jep.36.1.33