GLOBAL ENVIRONMENT FACILITY
EVALUATION OFFICE

MID-TERM REVIEW OF THE GEF SYSTEM FOR TRANSPARENT ALLOCATION OF RESOURCES (STAR)

Technical Document # 1:

Comparison of the GEF STAR with other Performance-Based Allocation Systems

October, 2013

Table of Contents

1. Overview

This paper serves as an input to the mid-term review of the GEF System for Transparent Allocation of Resources (STAR), which is under implementation for the GEF-5 replenishment period. It compares the STAR with other performance-based allocation (PBA) systems in use by major multi-lateral development institutions, identifies recent changes made to these PBA systems, and synthesizes emerging best practices. This work builds upon the RAF mid-term review technical paper on design of RAF (2008).[1]

The key findings are:

- There has been a growing harmonization in the PBA systems of major multilateral development institutions with regard to the functional form and indices used to measure performance. At the same time, several organizations have made, or are considering making, changes that more closely align the PBA allocation system with their fund's area of interest.
- A recent review of IDA's Country Performance and Institutional Assessment (CPIA), which comprises part of the performance component of many organizations' PBA system including the GEF, found the content of CPIA to be broadly reflective of the determinants of growth and poverty reduction in the economics literature. The review also found CPIA ratings to be positively associated with aid effectiveness in the narrower sense – specifically, the performance of Bank loans. At the same time, the evaluation found little to no evidence to justify any particular weighting of CPIA ratings in PBA allocation systems.
- Most organizations have made, or are considering making, modifications to the index measuring portfolio performance in their PBA systems, with the aim of reducing volatility, removing incentives to under-report potential at-risk projects, and increasing the relevance of this indicator to overall country performance.

2. Background

2.1 Performance-Based Allocation Systems

Since 2007, the GEF has allocated a portion of its resources to eligible countries through the use of a performance-based allocation system. This approach, which is shared by a number of other major multi-lateral development institutions, utilizes a formula to determine the distribution of resources. The formula weights and combines indices measuring two broad

[1] GEF Evaluation Office, 2008. Mid-Term Review of the GEF Resource Allocation Framework – Comparative Review of PBA Systems – Technical Paper 8.

components specific to each fund's area of work: (1) potential benefits and needs, and (2) performance.[2]

The design of the GEF PBA system has been guided by the policy recommendations articulated during negotiations for the third replenishment of the GEF, and endorsed by the GEF Council in October 2002:

> "Participants request the GEF Secretariat to work with the Council to establish a system for allocating scarce GEF resources within and among focal areas with a view towards maximizing the impact of these resources on global environmental improvements and promoting sound environmental policies and practices worldwide." The system should be "…based on performance. Such a system would provide for varied levels and types of support to countries based on transparent assessments of those elements of country capacity, policies and practices most applicable to successful implementation of GEF projects."[3]

The GEF PBA system, which was initially called the Resource Allocation Framework (RAF), underwent substantive revisions for the GEF-5 replenishment period, however, the overarching goals remain the same. Changes introduced in GEF-5 included expansion of the PBA system to cover the Land Degradation focal area, elimination of group allocations (all eligible countries now receive individual indicative allocations), elimination of constraints on access to funding during the first two-years of a replenishment cycle, incorporation of a GDP-based factor in the allocation formula (to the benefit of poorer countries), and increase in the weight given to portfolio performance in the performance component of the PBA formula (see below). The revised PBA system is called the System for Transparent Allocation of Resources (STAR).

2.2 Balancing Needs with Performance

An inevitable tension exists between maximizing allocation based on needs and allocation based on performance. Depending upon how performance is measured, Least-Developed Countries, for example, would receive far less resources than other countries were PBA disbursements based primarily upon performance. While some countries exhibit similar scores in both needs and performance, given the global or regional scale at which most development and environmental funding institutions operate, there will never be a perfect portfolio-wide correlation between the two. Determining the precise balance between needs and performance is a key design component of all PBA systems, and is discussed further in section 3.

[2] "Performance" is taken to encompass the full range of country policies, laws, and institutional performance that have been found to affect development. This is distinguished from a "portfolio performance" index, which is typically one of several indices measuring overall performance in a PBA formula (see section 3.1).
[3] GEF/C.20/4. *Summary of Negotiations on the Third Replenishment of the GEF Trust Fund,* Annex C. Paragraphs 16 and 18.

2.3 Incentivizing Performance

A related issue to consider is whether and how PBA systems can be expected to provide incentives for changes supportive of improved performance. Although the GEF has not explicitly stated this as an objective for its PBA system, other multi-lateral funding institutions have. The African Development Bank, for example, states the following as one of three overall objectives of PBA systems: "To use concessionary (resources) as a lever to influence policy in member countries and to further policy dialogue with them."[4] The Caribbean Development Bank, in its mid-term review of CDB's Seventh Special Development Fund (2009-2012), says "Factors underlying the country performance rating become part of the policy dialogue between CDB and the (borrowing member countries)."[5] The International fund for Agricultural Development defines "…a performance incentive for member countries, particularly in regard to the quality of policies and institutions in the rural sector," as one of three objectives for its PBA system.[6]

Moreover, the mid-term review of the RAF found that "the RAF does not provide effective incentives to improve performance," and that "the relative weight of environmental portfolio performance in a country should be increased in GEF-5 to ensure that performance is rewarded."[7] This recommendation was endorsed by the GEF council in November 2009 in its guidance to the Secretariat for developing STAR.[8] Thus, it can be seen that there is at the very least an implicit assumption that the GEF PBA system should serve in part to incentivize improved performance among eligible countries.

A review of the literature finds that nearly all of the major multi-lateral donor institutions have struggled with how best to incentivize performance, with some observers suggesting that new approaches, particularly those that directly link allocation to results rather than to indicators of performance, would be more successful.[9] Difficulties standing in the way of incentivized performance through PBAs, including those cited in the mid-term review of RAF, are:

- the limited amount of funds available to reward improved performance, and the size of these funds relative to other finance flows;
- the extent to which policy makers are aware of opportunities for accessing additional PBA resources;
- the limited control of responsible parties over factors linked to improved performance;

[4] African Development Bank, 2007. *Stepping Up to the Future,* Section 5.2.

[5] Caribbean Development Bank, 2011. *Mid-term Review of the Seventh Cycle of the Special Development Fund.* CDB, Bridgetown, Barbados..

[6] International Fund for Agricultural Development, 2011. *Introduction to the Performance Based Allocation System.* Presentation available at: http://www.ifad.org/events/legal/doc/PBAS.ppt.

[7] GEF EO, 2009. *Midterm Review of the Resource Allocation Framework.* Evaluation Report No. 47.

[8] GEF/C.36/JointSummary.

[9] See for example, Kanbur, Ravi, 2005. *Reforming the Formula: A Modest Proposal for Introducing Development Outcomes in IDA Allocation Procedures*. And, Birdsall, N., Mahgoub, A., Savedoff, W. *Cash on Delivery: A New Approach to Foreign Aid.* Center for Global Development Brief.

- the long time lag between changes in indices measuring improved performance, and actual conditions on the ground;
- the limited number of projects to provide measures of portfolio performance in many countries; and
- the temporal disconnect between allocation cycles and political cycles.

Given the above concerns, it may be more appropriate to see most PBA systems, including the GEF STAR, as accommodating performance, rather than incentivizing policy changes or operational performance.

Several organizations, including the GEF[10] and the World Bank, are experimenting with different types of incentive mechanisms outside of PBA systems. The World Bank, for example, recently completed negotiations with the Mexican government on a "Low-Carbon Development Policy Loan," with disbursements triggered on sector-wide indicators including new emission control standards, the number of co-generation permits, more sustainable housing, and an increased number of sustainable forestry permits.[11] Others, including the African Development Bank, are considering tailoring their PBA systems to include measures of outcomes (see section 4.1). The World Bank analyzed the implications of these kinds of changes to IDA's PBA system and found that they introduced some potentially problematic issues (see section 4.6).

3. Comparison of GEF STAR with other PBA Systems

The World Bank's International Development Association (IDA) fund pioneered the use of a PBA system beginning in 1977. Within the past ten years or so, however, nearly all the major multi-lateral development institutions have adopted a PBA system. Table 1 provides a listing of these institutions, along with key attributes.

While the GEF is unique in its focus on achieving global environmental benefits, all of the institutions employing PBA systems have addressed, in one way or another, a set of key issues. These include:

- The choice of indices used to measure needs and performance, and the relative weights given to factors in the allocation formula;
- The setting aside of funds (outside of the PBA system) for other purposes, including supporting regional projects, LDCs and SIDS, or countries experiencing conflict or economic/natural disasters;
- Determining the frequency with which allocations take place;
- The use of floors and/or ceilings;
- Employing measures to limit volatility and ensure predictability of funding;

The issues are discussed in turn below.

[10] See the GEF's SFM/REDD+ incentive program, described in section 3.
[11] WB project id 57323-MX.

Table 1. Multilateral Development Institutions and Funds that use PBA Systems

Multilateral Development Institution, Fund	Funding Instruments and Objectives	Number of Eligible Countries (as of 2013)	Date of PBA System Operational Effectiveness	Average Annual Disbursements (USD millions) [A]	Percentage of Funding Allocated Through PBA System
Global Environment Facility, GEF Trust Fund	Grants covering incremental costs of measures to achieve global environmental benefits	144	2006	1,050	57% (GEF-5)
African Development Bank, African Development Fund	Concessional loans and grants to promote sustainable development and reduce poverty in least developed African countries	41	1999	2,089	67% (ADF-12)
Asian Development Bank, Asian Development Fund	Concessional loans and grants to reduce poverty among the poorest Asian and Pacific region countries	28	2001	2,629	80% (ADF-X)
Caribbean Development Bank, Special Development Fund	Concessional loans and grants to reduce poverty among Caribbean nations	18	2001	98	70% (SDF-7)
International Fund for Agricultural Development	Concessional and non-concessional loans and grants to improve food and nutrition security and alleviate poverty among rural poor.	115 (97 w/ongoing programs)	2005	352	100% (IFAD-8)
Inter-American Development Bank, Fund for Special Operations	Concessional loans [B] to reduce poverty and inequality and achieve sustainable growth in the region's poorest countries.	6	2002	248	100% (2011-12)
World Bank, International Development Association	Concessional loans and grants to reduce poverty within the poorest developing countries.	82	1977	16,433 (IDA16)	84% (IDA15)

[A] Average annual disbursements calculated as total replenishment resources divided by number of years in replenishment cycle, and includes funding allocated outside the PBA system. This figure is meant as a rough indication of disbursements and does not distinguish between resources allocated as grants or loans, or discount for the amount of resources held for the fund's operational expenditures.
[B] A program providing grants to Haiti, financed from income of the FSO, was established in 2007. These resources are not allocated through the FSO's PBA system.

3.1 PBA Formulae

Table 2 presents the current incarnation of PBA formulae for the seven institutions shown in table 1. Of first note is how similar most of the formulae are with respect to the choice of indices used to measure needs and performance, the algebraic form of the formulae, and even the weights and exponents given to factors. In particular, nearly all of the funds now employ some portion of IDA's Country Policy and Institutional Assessment (CPIA) indicators (see Box 1). This is largely reflective of both a desire to reduce the burden upon recipient countries, in-line with the Paris Declaration on Aid Effectiveness, and an assessment that the marginal gains realized by undertaking customized country assessments are not worth the considerable time and expense involved.[12,13,14]

---

[12] Asian Development Bank, 2004. *Review of the Asian Development Bank's Policy on the Performance-Based Allocation of Asian Development Fund Resources*. ADB, Manila, Philippines.
[13] Caribbean Development Bank, 2007. *A Review of the Special Development Fund (U) Resource Allocation System.* CDB, Bridgetown, Barbados.
[14] Inter-American Development Bank, 2012. *Proposal for the Allocation of Resources 2013-2014,* footnote 5. IADB, Washington, DC.

Table 2. Performance-based allocation formulae in use by multilateral development banks and funds.

Multilateral Development Institution, Fund	Needs Factors		Performance Factors	Result
Global Environment Facility, GEF Trust Fund	$GBI^{0.8} * \left(\frac{GDP}{capita}\right)^{-0.04}$	X	$(0.65CEPIA + 0.15CPIA_D + 0.2Portfolio)$	= allocation share
African Development Bank, African Development Fund	$Population^{1} * \left(\frac{GNI}{capita}\right)^{-0.125}$	X	$(0.26CPIA_{A-C} + 0.58CPIA_D + 0.16Portfolio)^4$	= allocation share
Asian Development Bank, Asian Development Fund	$Population^{0.6} * \left(\frac{GNI}{capita}\right)^{-0.25}$	X	$[(ADB\_CPIA_{A-C})^{0.7} * (ADB\_CPIA_D) * Portfolio^{0.3}]^2$	= allocation share
Caribbean Development Bank, Special Development Fund	$LogPopulation * \left(\frac{GNI}{capita}\right)^{-0.9} * Vulnerability^2$	X	$(0.7CDB\_CPIA + 0.3Portfolio)^2$	= allocation share
International Fund for Agricultural Development	$Rural\_Population^{0.45} * \left(\frac{GNI}{capita}\right)^{-0.25}$	X	$(0.2CPIA + 0.35Portfolio + 0.45RuralCPIA)^2$	= allocation share
Inter-American Development Bank, Fund for Special Operations (half of the fund allocated by each formulae)	$Population^{0.5} * \left(\frac{GNI}{capita}\right)^{-0.25}$	X	$(0.3Portfolio + 0.7CIPE)^2$	= allocation share
	$0.22FUND * \left(\frac{Population}{\sum Population}\right) + 0.133FUND * \left[\frac{\left(\frac{GNI}{capita}\right)^{-1}}{\sum\left(\frac{GNI}{capita}\right)^{-1}}\right]$	+	$(0.6FUND) * \left[\frac{0.7CIPE + 0.3Portfolio}{\sum(0.7CIPE + 0.3Portfolio)}\right]$	= $ allocation
World Bank, IDA	$Population^{1} * \left(\frac{GNI}{capita}\right)^{-0.125}$	X	$(0.24CPIA_{A-C} + 0.68CPIA_D + 0.08Portfolio)^5$	= allocation share

Notes – *GEF allocation formula*: The Global Benefits Index (GBI) is calculated separately for the three focal areas under STAR – **B**iodiversity, Climate Change, and Land Degradation. CEPIA factor is criterion #11, "Policies and Institutions for Environmental Sustainability," of the World Bank CPIA indicators. $CPIA_D$ is a simple average of the five criterion comprising cluster D (Public Sector Management and Institutions) of the CPIA indicators. GEF Portfolio factor is a weighted average of a country's GEF portfolio ratings of projects under implementation between 2005-2008 (for GEF-5). A 40% weight is given to the average of all Project Implementation Report ratings and a 60% weight given to the average of all Terminal Evaluation Reports ratings. *African Development Bank allocation formula:* $CPIA_{A\text{-}C}$ is a simple average of a country's CPIA ratings in clusters A (Macroeconomic Management), B (Structural Policies), and C (Policies for Social Inclusion/Equity). AfDB's Portfolio factor is based on the percentage of actual "problem" projects in a country's active AfDB portfolio using quarterly data. *Asian Development Bank allocation formula*: $ADB\_CPIA_{A\text{-}C}$ is the ADB's assessment of a country's economic management, structural policies, and policies for social inclusion and equity. $ADB\_CPIA_{A\text{-}C}$ is constructed using IDA's questionnaire and guidelines for CPIA clusters A-C, but assessed through an independent ADB rating process. Likewise, ADB_CPIA_D uses IDA's CPIA questionnaire and guidelines for Cluster D to arrive at ADB's independent rating of governance. ADB's Portfolio factor is based on the percentage of actual "problem" projects in a country's active ADF portfolio, and adjusted to reflect the relative age of a country's portfolio to all other IDA portfolios, similar to IDA. *Caribbean Development Bank allocation formula*: Vulnerability factor (VUL) is based on CDB's Vulnerability Index that combines vulnerability to natural disasters with vulnerability to economic shocks. CDB_CPIA uses CPIA criteria, data, and questionnaire, but weighted according to CDB's priorities. CDB's Portfolio factor is a loan size-weighted average that considers the performance of all active projects in a country's SDF portfolio except technical assistance projects (which tend to be smaller in size). *IFAD allocation formula:* Rural_Population is a measure of rural population based on WB WDI data. CPIA is a simple average of WB CPIA scores in clusters A-D. Rural CPIA is IFAD's rating of country performance on policies and institutions for rural development. IFAD's Portfolio factor is based on the percentage of projects at risk (actual and potential) in a country's active IFAD portfolio. *IADB allocation formulae*: CIPE is IADB's Country Institutional and Policy Evaluation assessment indicator that was harmonized with the World Bank's CPIA in 2010. Fund is the resources available through the FSO. Portfolio is a measure of portfolio performance, based on the percentage of undisbursed funds represented by projects classified as "problem" or "on alert." *World Bank IDA allocation formula*: $CPIA_{A\text{-}C}$ is a simple average of a country's CPIA ratings in clusters A, B and C, and $CPIA_D$ is the rating of CPIA cluster D. Portfolio is a measure of portfolio performance based on the percentage of actual at-risk projects in each country averaged over four quarters and adjusted for the average age of the portfolio. For each year that a country's portfolio is younger than the average age, the percentage of projects at risk is increased by five percent.

A 2010 review of the CPIA by the World Bank's Independent Evaluation Group (IEG) found the content of CPIA to be broadly reflective of the determinants of growth and poverty reduction in the economics literature. It also stated that while it is "difficult to establish an empirical link between the CPIA and economic growth outcomes…(the) CPIA ratings are found to be positively associated with aid effectiveness in the narrower sense – specifically, the performance of Bank loans."[15] At the same time, the evaluation found little evidence to justify any particular weighting of the four clusters, whether in the context of arriving at an overall CPIA rating, or in calculating an IDA allocation.

Box 1. The World Bank's Country Policy and Institutional Assessment (CPIA)

The World Bank's CPIA seeks to measure the quality of a country's present policy and institutional framework to poverty reduction, sustainable growth, and the effective use of development assistance. First used in 1980 by the International Development Association (IDA) as the basis for its country performance ratings, its use has grown to include nearly all of the major multi-lateral development agencies. Ratings are prepared annually and presently cover 136 countries.

CPIA methodology has evolved considerably over time to reflect current thinking on development. Key changes occurred in 1998-2000, where greater emphasis was placed on public sector institutions and social policies.* The current incarnation of CPIA consists of 16 criteria grouped into four clusters:

A. Economic Management
1. Macroeconomic Management
2. Fiscal Policy
3. Debt Policy

B. Structural Policies
4. Trade
5. Financial Sector
6. Business Regulatory Environment

C. Policies for Social Inclusion/Equity
7. Gender Equality
8. Equity of Public Resource Use
9. Building Human Resources
10. Social Protection and Labor
11. Policies and institutions for Environmental Sustainability

D. Public Sector Management and Institutions
12. Property Rights and Rule-based Governance
13. Quality of Budgetary and Financial Management
14. Efficiency of Revenue Mobilization
15. Quality of Public Administration
16. Transparency, Accountability, and Corruption in the Public Sector

While the CPIA weights each cluster equally, funding institutions employing CPIA indicators in their PBA formulae typically use a portion of the CPIA indicators and weight them according to the funds' overall objectives. The GEF, for example, uses just one of the 16 CPIA criteria (criteria 11) in the STAR. Other organizations, including the Asian Development Bank, use the CPIA questionnaire and guidelines, but perform assessments themselves to arrive at independent ratings.

*World Bank IEG, 2009. The World Bank's Country Policy and Institutional Assessment – An Evaluation. WB Group, Washington, DC.

[15] World Bank IEG, 2009. *The World Bank's Country Policy and Institutional Assessment – An Evaluation.* World Bank Group, Washington DC.

Other points of interest: the Caribbean Development Bank (CDB) includes a measure of county vulnerability in its PBA system, reflective of the risks that hurricanes, flooding, and other natural disasters pose to Caribbean nations. CDB also uses a logarithmic transformation of the population variable that has the effect of moderating the influence of population for the largest member countries. Similarly, the International Fund for Agriculture adjusted its PBA system in 2008 to include a measure of rural population, reflective of the Fund's focus on rural poverty.

All of the funds considered include a measure of country or household income, with the negative exponent on these factors signifying that as country income rises, overall scores for "needs" will be proportionally lower. As noted above, the GEF adopted a GDP-based indicator in its PBA system with the introduction of STAR in 2010.

More broadly, the overall balance between needs and performance is determined in part by the exponential weight given to these two clusters of factors. In general, the larger the value of the exponent, the greater weight given to that cluster, all other factors remaining the same.

All of the funds considered give relatively more weight to performance than to needs and potential. For needs factors, the exponents range from 0.6 to around 1. The GEF value of 0.8 falls squarely in the middle of this customary range. Exponents on performance factors vary more– from 1 to 5 – with the GEF value of 1 the lowest among organizations considered. However, it must be noted that the balance between performance and needs indicated by the PBA formulae is also moderated by the use of ceilings, floors, and set-asides, which are employed by all the multilateral funding institutions, and are discussed in more detail below. For example, a recent review of IDA's PBA system found that in absence of ceilings and set-asides, 72 percent of IDA resources would go to South Asia and only 20 percent to Sub-Saharan Africa. After applying ceilings and set-asides for post-conflict and reengagement countries, the share of resources for Sub-Saharan African countries increases to 50 percent.[16]

Finally, note that the IADB is unique among funders in that it allocates a portion of its funding resources using an additive rather than a multiplicative PBA formula. Instead of a single pot of funds allocated according to a single composite score, there are separate funding pots assigned to individual variables. A country's total allocation is the sum of its separate allocations from each pot. The advantage of this type of system is its simplicity: stakeholders can clearly see how changes in factors lead to higher or lower allocations of funds. The trade-off is that additive formulas are less responsive to changes in one variable or another, and so are less affected by changes in performance. Further, they ignore the fact that both performance and need related variables are critical.

3.2 Set-asides

Allocation of funding outside an organization's PBA system is typically purposed to provide incentives for regional projects, where benefits are not captured fully by individual

[16] World Bank, International Development Association, 2010. *IDA's Performance-Based Allocation System: Review of the Current System and Key Issues for IDA16*. World Bank, Washington, DC

contributing countries, and also to provide additional support for fragile or conflict-affected countries, countries experience natural or economic disasters, or to finance other objectives. Table 3 provides a listing of so-called "set-asides" among the organizations considered.

As seen in table 3, most of the organizations provide set-aside funding for regional projects. While the IADB does not, regional projects have been financed by IADB in the past. The MTR of RAF indicated that the IADB does not provide for regional set-asides because eligible FSO countries are geographically widespread and do not offer significant opportunities for regional projects unless non-eligible countries are involved as well.[17]

Table 3. Set-asides for regional projects and other objectives.

Multilateral Development Institution, Fund	Purpose	Amount	Conditions/Notes
Global Environment Facility, GEF Trust Fund	Set asides for regional and global projects, enabling activities, and incentives for sustainable forest management	20% of each of the focal area resources for all set asides	No set ratio for country contributions to regional projects. Funding for focal areas other than biodiversity, climate change, and land degradation is done outside of STAR. SFM/REDD+ incentive program subject to $10 million dollar ceiling for a country for SFM resources and at a ratio of 1:3 of SFM and STAR funds for SFM projects (see below).
African Development Bank, African Development Fund	Set asides for regional operations and fragile states	20% of total ADF funds for regional projects and 7.5% for fragile states	1/3rd of regional project funding must come from individual country allocation, subject to a 10% cap for countries with allocation of UA 20 million or less, 15% for other countries. 20% set aside for regional projects in ADF-12 is up from 17.5% in previous replenishment cycle.
Asian Development Bank, Asian Development Fund	Set asides for Pacific countries (tend to be small and poorer), as well as regional projects and post-conflict countries	10% of total ADF funds for regional projects and 4.5% for Pacific countries	1/3rd of regional project funding must come from individual country allocations, subject to a 20% cap, beyond which contributions from country allocations are not mandatory. 10% set aside for regional projects in ADF-X is double that of the previous replenishment cycle.
Caribbean Development Bank, Special Development Fund	Set asides for regional projects, disaster assistance, project management training, monitoring of MDGs, and economic research	30% of total SDF resources for all set asides	To access set asides, 20% of project budget must be provided by participating countries. All grants, aside from the Basic Needs Trust Fund, are funded from set-aside resources.
International Fund for Agricultural Development	No set asides	-	-
Inter-American Development Bank, Fund for Special Operations	No set asides	-	-
World Bank, IDA	Set asides for regional projects, re-engaging countries, post-conflict countries, and natural/economic disasters	~4.5% of total IDA 16 resources for regional projects ($2.25 billion), the bulk of which go to Sub-Saharan Africa	1/3rd of regional project funding must come from individual country allocations, subject to a 20% cap, beyond which contributions from country allocations are not mandatory. Beginning in IDA16, regional projects can be as small as 2 countries provided one is a fragile or conflict-affected country.

Beginning in GEF-5, the GEF has provided set-aside funding for projects involving sustainable forest management (SFM) and reduced emissions from deforestation and degradation and enhancement of forest carbon stocks (REDD+). For every 3 dollars of resources programmed from a country's STAR allocation from 2 or more focal areas, an additional dollar of funding is

[17] GEF Evaluation Office, 2008. Mid-Term Review of the GEF Resource Allocation Framework – Comparative Review of PBA Systems – Technical Paper 8, pg 11.

provided from the GEF with an upper limit of $ 10 million of SFM funds for a country.[18] The program has the effect of incentivizing the way in which countries use their PBA allocations, but does so by operating outside of the PBA system. One advantage of this is simplicity in avoiding further modification of the PBA system.

Some organizations attempt to explicitly incorporate performance into the programing of set-asides. The African Development Bank, for example, developed an "RO Selection and Prioritization Framework" in order to strengthen the link to performance and to select the most deserving projects. Similarly, the Asian Development Bank introduced criteria for country ownership of regional projects during ADF-X that seeks to ensure that regional projects benefit from strong country support.[19]

3.3 Frequency of Allocation

The frequency of allocation determines in part how responsive a PBA system is to changes in country performance. Any increase in responsiveness must be weighed against the benefits of predictability of funding provided by longer allocation periods. Table 4 compares the frequency of allocation among the seven funds. The World Bank IDA is most active in this regard, with reallocation of resources occurring annually. Most funds and organizations, including GEF, reallocate funds only once during their respective funding cycles and usually in the final year of their cycle.

Table 4. Frequency of fund replenishment and allocation

Multilateral Development Institution, Fund	Frequency of Replenishment	Reallocation Frequency within replenishment	Notes
Global Environment Facility, GEF Trust Fund	4 years	Once	Reallocation of additional or unused resources in the final year to eligible projects in any countries within a focal area, should this be necessary.
African Development Bank, African Development Fund	3 years	Once	Unused resources are reallocated in year 3 to active countries using the PBA formula.
Asian Development Bank, Asian Development Fund	4 years	Twice	Reallocation of unused funds in year 2.
Caribbean Development Bank, Special Development Fund	4 years	Once	Unused resources are reallocated using the PBA formula, accompanied by flexibility in loan and grant approval levels.
International Fund for Agricultural Development	3 years	Once	Immediate reallocation in year 1 from inactive to active countries. Reallocation of unused funds in year 3 using the PBA formula among active countries.
Inter-American Development Bank, Fund for Special Operations	2 years	Once	Unused resources are added to the budget for the next replenishment cycle.
World Bank, IDA	3 years	Three times	Country performance and grant eligibility are assessed every year. Firm allocations are provided only for the upcoming year and indicative allocations are provided for the outer years to facilitate planning at the country level.

[18] Subject to a combined ceiling of $30 million. See SFM/REDD+ Incentive program, at: http://www.thegef.org/gef/SFM_REDD_Incentives

[19] Asian Development Bank, 2011. *ADF's Performance-Based Allocation System: Policy Implementation and Key Issues for ADF XI.* ADB, Manila, Philippines.

3.4 Floors and Ceilings

Several organizations, including the GEF, have established minimum and maximum amounts (floors and ceilings) that a country can receive under through its PBA system. The practice is less common among regional development banks, perhaps because there are fewer countries among which to share resources. Table 5 provides a breakdown of floors and ceiling in use by the organizations considered.

Table 5. Minimum and maximum allocation parameters applied to PBA allocations.

Multilateral Development Institution, Fund	Minimum Allocation	Maximum Allocation	Notes
Global Environment Facility, GEF Trust Fund	$2 million for climate change; $1.5 million for biodiversity; $0.5 million for land degradation	No country can receive more than 11% of total climate change funding, or 10% of biodiversity and land degradation funding	For GEF-5, only 1 country has a capped allocation on climate change funding. No countries are capped in biodiversity and land degradation.
African Development Bank, African Development Fund	US $5 million for the 3-year cycle	None	-
Asian Development Bank, Asian Development Fund	None	None	-
Caribbean Development Bank, Special Development Fund	None	None	-
International Fund for Agricultural Development	$1 million per year	None	26 countries received the minimum allocation in 2010-2012.
Inter-American Development Bank, Fund for Special Operations	None	None	-
World Bank, IDA	SDR 9 million per replenishment ($13.6 million USD)	Countries with access to IBRD receive less than their allocation.	Capped countries include India and Pakistan, limited to 11% and 7%, respectively, of total IDA resources. For IDA 16, the per capita allocation ceiling was eliminated, to the benefit of small states.

3.5 Measuring portfolio performance

All of the PBA systems considered include a measure of portfolio performance among the indices measuring country performance, however the relative weight given to this factor as well as the methodology used to arrive at an overall performance score varies considerably. Capturing portfolio performance in a way that is truly reflective of a country’s ability to deliver developmental benefits, and avoids some potentially problematic effects has proven both controversial and challenging, with many organizations having made continual adjustments to this index over time.

A key issue regarding portfolio performance is how relevant any measure of project performance is to country capacity. Ratings on ongoing projects can be seen as more reflective of Agency performance rather than country performance. At the same time, ratings on closed projects, which focus more on desired outcomes and impacts, are often from long ago, and may not be reflective of current conditions.

A further complication concerns the size of a country’s portfolio, which for many countries is quite small – often limited to 1 or 2 ongoing projects in the case of the GEF. Here the challenge is twofold. First, a small number of projects, each focused upon a particular set of challenges and geographies, is unlikely to be a good measure of overall country capacity.

Second, the overall performance score may change quite substantially when a new project enters or a completed project leaves the portfolio. In fact, the portfolio factor is often the most volatile of those measuring performance in PBA systems.[20] Depending upon how portfolio performance is measured, this can also provide perverse incentives to both under-report projects experiencing problems, or to close an underperforming project early.

Organizations have adopted several approaches to mitigating the above issues. IDA, along with the African and Asian Development Banks, recently moved from a portfolio index based on the percentage of projects in a country's active portfolio considered at risk, to one that considers only the percentage of projects actually experiencing problems. In addition, both IDA and the Asian Development Bank make an adjustment for the relative age of a country's portfolio, due to the fact that it takes time for problems to emerge.

The choice of scale used to transform the percentage of problem projects to an overall rating also provides an opportunity to lower the volatility of the performance factor. The Asian Development Bank recently changed its conversion scale from a linear one to one that more closely matches the distribution of country scores on the ADB's country performance assessment. The result was a significant decrease in portfolio index volatility.[21]

Both the GEF and the Caribbean Development Bank differ from the general methodology used by the other four funds for their portfolio indices. The CBD uses a measure of average performance of all active investment projects, not just the percentage of projects considered at risk, and weights them according to the loan approval amounts.[22] The GEF is unique in basing its portfolio index upon both active and closed projects, with final ratings on closed projects given a weight of 60% in the portfolio index, and ratings on ongoing projects given a weight of 40%.

In terms of the relative weight given to the portfolio factor in the performance component of the PBA formulae, it ranges from 8% in IDA's current PBA formula to a high of 35% in IFAD's PBA formula.[23] The GEF's weight of 20% is near the middle of this range.

4. Synthesis of Evaluations and Changes to PBA Systems

Most PBA systems have been continuously modified and adjusted to reflect new analytical insights and implementation experience, with the aim of improving transparency and

[20] African Development Bank, 2010. *Issues Concerning the ADF Resource Allocation Framework*. Pg. 4. Praia, Cape Verde. Also, Asian Development Bank, 2008. *Refining the Performance-Based Allocation of Asian Development Fund Resources.* ADB, Manila, Philippines.

[21] Ibid 20, pg 4. The standard deviation of portfolio performance scores in ADF-X using the new conversion scale ranged from 0.4 to 0.5, compared with a range of 0.8 to 1.1 in ADF-IX under the previous conversion scale.

[22] The IADB also weights portfolio scores, but does so based on the percentage of undisbursed funds represented by project ratings.

[23] The performance component of the Asian Development Bank has a multiplicative form with exponents rather than an additive form, and so is not characterized by a percentage weight. The ADB's portfolio factor has an exponent of 0.3 while the country performance and institutional assessment has an exponent of 0.7.

increasing the performance orientation of the overall allocation. Key developments that have occurred recently in PBA systems include greater harmonization among organizations with regard to the functional form and indices used to measure country performance; changes in the way the portfolio index is calculated with the intent of lowering volatility (as discussed in section 3.5), increases in the set-aside for regional projects at the Asian and African Development Banks; and consideration of how outcome measures may be incorporated into aid delivery, both within and outside of PBA systems.

This section provides a summary of recent changes to, and evaluations of, PBA systems.

4.1 African Development Bank, African Development Fund

The most recent assessment of ADF's PBA system was undertaken in 2012 by a high-level panel of scholars and experts, in the context of a broader review of aid allocation systems in Africa.[24] Panelists found that the ADF PBA system had played a large role in helping the Fund increase donor confidence and triple the size of mobilized resources over the past decade. At the same time, panelists identified several broad changes affecting African countries' economic and institutional circumstances, which may necessitate changes in the ADF's PBA system. Those include changes in the composition of financial flows to Africa, with foreign direct investment now exceeding official development assistance in several countries. The result is a reduction in the incentive structure to improve institutional and AfDB portfolio performance. Panelists also noted a growing convergence in the client portfolios of IDA and AfDB, as many developing countries outside Africa appear poised to graduate from concessional assistance over the next 10-15 years. This raises questions about the appropriate division of labor between IDA and AfDB, and the comparative advantages of each institution.

The panelists identified several areas where the PBA system could be enhanced to reflect these changes. Proposals, which are currently under review, include:

- Adjusting the PBA to bring about stronger alignment with ADF's operational priorities. Panelists found that the current system closely tracks IDA's expansive portfolio and should instead focus on ADF's core mission of infrastructure, governance, and regional integration.
- Adjusting the CPIA questionnaire to better capture continent- and region-specific factors affecting development in recipient countries, including youth unemployment, armed conflict, food insecurity, and vulnerability to climate change.
- Including measures that reward outcome-based performance. These indicators, to be treated either as complementary to, or in place of, current measures of portfolio performance, should also receive a higher weighting than is presently given to the existing portfolio measure in the PBA formula.

[24] African Development Fund, 2012. High Level Seminar on Aid Allocation Systems in Africa. Port Louis, Mauritius, 16-17 February 2012. Available at: http://www.afdb.org/en/news-and-events/article/experts-provide-insights-into-aid-allocation-in-a-changing-africa-at-afdb-seminar-8868/

Regarding the third proposal to move towards some measure of outcome-based performance, panelists noted that additional analysis would be required to address programmatic sustainability while ensuring that the allocation is sensitive to on-the-ground changes.

In 2008, the AfDB adjusted the methodology used to arrive at a portfolio index rating. The current methodology only considers the percentage of projects experiencing problems in a country's AfDB portfolio, as opposed to those considered at risk. In addition, AfDB is currently considering using average ratings over 2 or 3 years as opposed to the current practice which considers only an average of quarterly ratings over 1 year, in an effort to mitigate volatility in the portfolio index.

4.2 Asian Development Bank, Asian Development Fund

ADB's PBA system was revised for ADF X (2009-2012) following an internal review. Key changes included:

- Stronger linkages to performance (For ADF X, 51% of allocations using PBA went to countries with strong performance assessment scores compared with 45% in ADF IX).
- Clarification of roles and greater independence for the ADB team responsible for Country-Performance Assessments, with the intent of avoiding conflicts of interests between departments responsible for country operations and allocations.
- Greater assistance to poorer member countries through a 14% soft cap on allocations to wealthier member countries.[25]
- Revised conversion scale for portfolio performance ratings resulting in a reduction of volatility in country allocations. In addition, to remove the disincentive to report potential problems, the PBA Portfolio factor now includes only projects experiencing problems (as opposed to projects considered at-risk for experiencing problems) – in-line with changes made to the IDA and African Development Bank PBAs in 2008.

Proposed changes for ADF XI include the establishment of a Crisis Response Facility, designed to assist poorer countries during sever economic crises or natural calamities. The proposed facility would be supported through 5% reserve of ADF resources, to be reallocated in absence of any crises.

4.3 Caribbean Development Bank, Special Development Fund

The most recent assessment of the SDF PBA was undertaken in 2006 by an independent evaluator.[26] Principle recommendations were:

- Country performance scoring should be done by senior management across the bank, not just from economics department, in order to bring additional and varied expertise. This recommendation has been implemented.

[25] Half of the allocation to wealthier countries (defined as those with access to both ADF funds and non-concessional Asian Development Bank capital) that exceeds the 14% threshold is distributed to other non-Pacific ADF countries.
[26] Ibid, 5.

- To address issues that arise in countries with small portfolios, the consultant recommended: (1) expanding the portfolio index to include all operations (technical assistance projects are not currently considered); (2) using an average of project scores for the previous three years as opposed to just the current year; and (3) reducing the weight on the portfolio factor from 30% to 20%. According to the latest mid-term review of the SDF (2011) these recommendations have not yet been adopted, in part because they raise "complex methodological issues."[27]
- Reallocations through the PBA system should be done more frequently, in order to avoid ad hoc adjustments. This proposal was rejected by CBD Management due to capacity constraints, and the sense that allocations would not be substantively different.

Issues proposed for future study in the mid-term review of the SDF-7 include whether more weight should be given to environmental sustainability in the allocation formula; whether the "country need" portion of the PBA formula might be adjusted to reflect poverty more accurately; and whether the vulnerability variable in the formula is working well.

4.4 International Fund for Agricultural Development

The IFAD PBA is currently under review. No major changes to the PBA have taken place since a measure of rural population was substituted for overall population in the allocation formula in 2006. Issues currently being considered include adjusting the relative weights of different elements in the PBAS formula, changing the allocation ceiling and floor, and whether there is a need for exceptional allocations for particularly vulnerable countries, in addition to the current support extended to post-conflict countries.[28]

4.5 Inter-American Development Bank, Fund for Special Operations

In 2010, the IADB updated the indicators used to calculate the Country Institutional and Policy Evaluation (CIPE) component of the PBA formula. Changes were made with the aim of harmonizing assessments with those of other MDBs, and the WB CPIA criteria and questionnaire were adopted as the basis for the CIPE. As noted in section 3, the independent panel that reviewed the IADB PBA found "little value added in having similar, highly correlated methodologies among MDBs."[29] Additionally, following the recommendations of the review panel, IADB will publically disclose scores on all 16 of the CIPE variables beginning with the 2013-2014 funding cycle. Previously, only the score of each policy cluster and overall CIPE score had been disclosed as part of the allocation exercise.

---

[27] No further elaboration provided. Caribbean Development Bank, 2011. *Mid-Term Review of the Seventh Cycle of the Special Development Fund.* CDB, Bridgetown, Barbados.

[28] International Fund for Agricultural Development, 2011. *Progress report on implementation of the performance-based allocation system*. IFAD, Rome, Italy.

[29] Ibid, 14.

4.6 World Bank IDA

Several changes were made to the IDA PBA system for IDA 15 (2008-2010). Key modifications included[30]:

- Increases to the minimum allocation, to the benefit of small states.
- Adoption of a 20% cap on individual country contributions to regional projects, to encourage countries with smaller allocations to participate in regional projects.
- Extension of the timeframe for special allocations to post-conflict and re-engaging countries to support their special development needs.
- Simplification PBA functional form, which both avoided double-counting the governance factor and increased transparency, making it easier for partner countries to better understand factors driving the size of allocations. In addition, the methodology for calculating the portfolio performance rating was modified in three ways to lower volatility: (1) the portfolio factor now includes only projects experiencing problems as opposed to projects considered at-risk for experiencing problems; (2) an average of quarterly data on problem projects is now used instead of an end-year rating; and (3) revisions were made to the scale used to convert the percentage of projects experiencing problems into a rating.

The most recent assessment of IDA's PBA (2010) concluded that "overall, the PBA system has continued to function well during IDA 15 period." Noting that the performance orientation of the system has increased from IDA 14, the review states that "(c)ountries with a higher per capita IDA allocation have on average experienced greater improvements in their development outcomes. At the same time, the system has continued to balance performance with needs by allocating, consistent with performance, about 50 percent of IDA15 resources to Sub-Saharan Africa, the region with the greatest needs for IDA resources."

In 2009, the World Bank assessed the implications of reforming IDA's performance based allocation so that the formula explicitly includes development outcomes – becoming in effect a results-based aid allocation system.[31] They found that while this kind of a system could be tailored to direct significant funding towards the neediest countries,[32] switching to a results-based allocation system raises a new set of concerns. These include:

- Increased volatility. The volatility of IDA allocations would increase more than five-fold relative to the existing IDA PBA system.
- Reduced incentives for policy changes for countries with a mid-to-high range of development outcomes because their outcomes do not change rapidly.
- Increased time lag between allocation and indicators of performance (outcomes in this case).

---

[30] World Bank, International Development Association, 2007. *IDA's Performance-Based Allocation System: Simplification of the Formula and Other Outstanding Issues*. World Bank, Washington, DC.

[31] World Bank, International Development Association, 2009. *IDA's Performance-Based Allocation and Development Results: An Update*. World Bank, Washington, DC

[32] If the system rewarded changes in outcome indicators (like HDI for example) rather than overall level of outcomes.

5. Discussion

PBA systems are now a widely adopted means for allocating development resources. At the same time, the multiple demands placed upon PBA systems, particularly the desire to maximize performance while allocating resources to the countries with the greatest need, ensures that a series of trade-offs must be made in determining the precise form and operation of PBA systems.

The question of whether and how PBA systems may be used to incentive performance is highlighted. As several observers have noted, the challenges faced by developmental organizations in incentivizing improved performance may only be increasing, given the decreasing size of developmental assistance relative to other financial flows. While modifying PBA systems to include measures of outcome performance is one approach being promoted by some outside observers, the findings of a recent World Bank review suggest that this strategy may bring additional, unwanted complications.

Lastly, the issue of how best to capture portfolio performance in a PBA index that is relevant to overall country performance and avoids the volatility problems plaguing countries with small portfolios, remains a challenge for most organizations including the GEF. While the GEF is alone in incorporating measures on completed projects in its portfolio rating, which has the advantage of presenting a fuller picture of project performance, the ratings on these projects are on average more than six years old, and may not be reflective of current conditions.