

**Regional Public Goods: The Comparative Edge of Regional Development Banks**  
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While, undoubtedly, there are some development challenges that need to be tackled globally, it must be recognized that many Financing for Development issues are more effectively dealt with at the regional level. An example of this is the provision of public goods and services needed for development that are not provided by the market or by national governments in the absence of external assistance—regional health programs to contain endemic diseases, coordination of transport infrastructure among neighboring countries, regional energy cooperation, and financial regulation to limit cross-border contagion, to name but some of the challenges in point. The Regional Development Banks (RDBs) have a central role to play in the provision of these “regional public goods” (RPGs). However, this role, the mechanisms and constraints under which it operates, its relationship to country-focussed assistance, and the challenge of financing RPGs, have not received much attention in the past.<sup>2</sup> This paper attempts to fill the gap by examining these issues in the context of the broader on-going debate about cross-border public goods in international assistance.

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**I. Background and Definitions**

**a. The notion of public goods**

The concept of public goods goes back a long way in the history of economic thought and can be traced at least as far back as David Hume’s 1739 discussion of the “common good.” In 1954 Paul Samuelson developed a general theory of public goods in his article “The Pure Theory of Public Expenditure.” This stimulated a sizeable literature from which three interrelated characteristics of public goods emerge: first, public goods generate significant externalities; second, they are to

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<sup>1</sup> Inter-American Development Bank. The views expressed in this paper are those of the author and do not necessarily reflect institutional positions. The paper draws on Ferroni and Mody (forthcoming 2002). Thoughtful contributions by Stephen Meardon are gratefully acknowledged.

<sup>2</sup> For example, the Report of the High-Level Panel on Financing for Development (known as the Zedillo Report) has a section on global public goods, but does not refer to RPGs and their potential role in supporting national development and the creation of global public goods (Zedillo 2001).

a considerable degree “non-rivalrous” and “non-excludable” (box 1); and third, they create opportunities for the enhancement of welfare through collective action (IDS 2001).<sup>3</sup>

In the 1990s, because of the intensification of integration and interdependence that has come to be referred to as *globalization*, the discussion of public goods went global.<sup>4</sup> Research and policy statements on *international* public goods began to emerge.<sup>5</sup> It was noted that international public goods fall into the two categories of global and regional public goods, the latter differing from the former on account of the more limited geographical reach of the benefits conveyed. RPGs are a class of public goods in between national and global public goods. They benefit spillover communities that, depending on the problem being addressed, can range from a couple of neighboring countries to a continent or hemisphere. Their production typically requires cross-border collective action that engages all (or most) of the members of the spillover group. Exceptionally, RPGs may be provided by one or a few leading nations motivated by a combination of self-interest and broader objectives.

International public goods, and RPGs, include the knowledge, the regimes, and the standards and rules that are required to address cross-border problems or to engender desirable cross-border externalities; the institutions that monitor and enforce the rules and regimes; and the benefits that arise and are shared indiscriminately among countries.

This definition implies that international and regional public goods come in two forms: intermediate and final. Final goods are broad outcomes or manifestations of well-being such as peace, the absence of extreme poverty, a well-managed physical environment, and convergent international economic conditions capable of “lifting all boats.” Intermediate steps that themselves have the characteristics of public goods include shared policy frameworks, regimes (such as regional integration schemes), institutions, and certain kinds of joint investments.

Regional goods also arise when individual countries induce beneficial cross-border spillover. Regional “bads” arise in the case of undesirable spillovers. An epidemiological policy that improves domestic health while creating the externality of reduced transmission of pathogens and disease across borders is an example of an action generating beneficial spillover.

Spillovers induce “neighborhood effects” which can be positive or negative and in either case can play an important role in determining development prospects.<sup>6</sup> Neighborhood effects provide a rationale for RDB involvement at the regional and sub-regional level in addition to the institutions’ traditional country-focused work. The task is to help diffuse negative neighborhood effects and promote forces capable of engendering beneficial ones.

However, since neighborhood effects are the consequence of policies and measures taken individually by the countries that make up the neighborhood, they can also be seen as

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<sup>3</sup> If collective action is difficult to achieve, it is in large measure because of the property of non-excludability which creates coordination and financing problems in the creation of public goods because of the incentive to free-ride.

<sup>4</sup> See Kindleberger (1986) for an early influential contribution.

<sup>5</sup> For example: Kaul, Grunberg and Stern (1999); Kanbur, Sandler, with Morrison (1999); International Financial Institutions Advisory Commission (2000); Development Committee (2000); Soros (2001).

<sup>6</sup> Easterly and Levine (1997) estimate that neighborhood effects may shave economic growth in Sub-Saharan Africa by up to 1 percentage point.

confirmation of the appropriateness of the RDBs' longstanding country focus. Wherever they generate cross-border externalities, national policies have some of the characteristics of international public goods (or public "bads" as the case may be)—which makes it possible to say that, at bottom, *good national policies are the premier RPG*. Therefore, the merits of staking out a supranational (i.e., regional and sub-regional) role for the RDBs should be inferred, not presumed, and should be spelled out precisely.

#### Box 1: Regional Public Goods

An RPG is a service or resource whose benefits are shared by neighboring countries (the countries within the region). The benefits of pure regional public goods are "non-rival" (one country's consumption does not subtract from the amount available to other countries) and "non-excludable" (no country in the region can be excluded from benefiting, except at prohibitive cost). In reality, most RPGs are significantly, but not wholly, non-rival and non-excludable. Rather than being "pure," they are "mixed," meaning that they bestow a combination of national and transnational benefits. (The usual definition of the characteristics of "publicness" of public goods involves individuals as the relevant units. However, in the discussion of international public goods, countries, not individuals, are taken as the relevant units.)

Three kinds of activities to pursue RPGs can be distinguished:

1. Non-country specific investments in knowledge, dialogue, basic research into technologies meant to be in the public domain (for example, vaccines) and negotiation of agreement on shared standards and policy regimes.
2. Inter-country mechanisms for managing adverse cross-border externalities or creating beneficial ones, e.g., coordinated public health measures to contain the spread of disease; investments in cross-border infrastructure to enhance the preconditions for growth through trade and integration among participating countries; creation of regional institutions to facilitate solutions in areas ranging from financial and banking stability to the sustainable management of shared environmental resources. (An externality occurs when action or inaction of one country has consequences for others.)
3. Country-specific action to take advantage (or enable absorption) of the benefits created by the two means above. This will create national public goods such as improved policy environments and institutional indicators. In turn, these can engender transnational externalities.

Source: Adapted from Kanbur (2001).

#### **b. The merits of regional cooperation**

The rationale for "going regional" is linked to the belief that the right combination of country-based and transnational measures leads to outcomes that are superior to those achievable on the basis of national measures alone. Countries engage in regional cooperation to realize benefits that cannot be obtained autonomously. The efforts at regional and sub-regional integration of

recent years substantiate the point: regional integration agreements have proliferated in the past decade (most countries in the world are now members of at least one such agreement) and this is thought to be evidence that the demand for regional cooperation and for RPGs is growing (CEIP 2001).

The benefits pursued through regional integration are varied and include: locking yourself into reform commitments; creating venues and peer pressure to address negative neighborhood effects; taking advantage of opportunities for liberalization and reform in a more controlled and predictable setting than that encountered in a multilateral context; and creating value by following up on a derived demand for cooperation in areas beyond trade, including infrastructure, finance, labor codes, product safety, law enforcement, the environment, and other fields. For example:

☞ The economic case for the coordination of transport infrastructure among neighboring countries is compelling when remote regions and landlocked countries can thereby be connected to urban centers and ports.<sup>7</sup> Similarly, there is often considerable scope for efficiency gains by integrating the supply and distribution of energy across borders. Making the supply of electricity more reliable and lowering unit costs requires competition and the attainment of economies of scale. This typically calls for the integration of the power grids of small countries.<sup>8</sup>

☞ The possibility of cross-border financial contagion and, again, the desirability of bringing about economies of scale, are among the considerations in favor of regional approaches to regulating and stabilizing financial markets. Indeed, the absence of a regional focus is the reason why some observers believe that financial sector reforms in Sub-Saharan Africa during the 1990s were disappointing (World Bank 2000). The integration of the financial sectors of small, poorly diversified economies can help lower both the costs and risks incurred by banks and financial service firms. Integration is often achieved through cross-border consolidation of the industry. Policy measures promoting financial integration include harmonizing payments procedures, commercial and financial law, accounting standards, and prudential supervision. They also include appropriately endowed regional institutions to promote integration, help prevent crises through appropriate surveillance, and contribute to the stabilization of markets as a first line of defense, leaving the function of lender of last resort to global institutions such as the International Monetary Fund (Ocampo 2001).

☞ Infectious diseases severely disrupt economic life in many developing countries. Like financial contagion, they do not stop at national borders. In this situation, one country's negligence can easily nullify a neighboring country's epidemiological efforts. Coordinated international action can help (box 2).

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<sup>7</sup> The South American Regional Infrastructure Plan unveiled at the summit of South American presidents in September 2000 identifies twelve key corridors linking the continent's countries. The plan addresses transportation, energy, and telecommunications needs along these corridors and provides for an integral and multisectoral approach to infrastructure development in coming years, with financing from the private sector, the IDB, the Corporación Andina de Fomento, and other institutions (IDB 2001).

<sup>8</sup> Sparrow and Masters (1999) provide estimates of cost savings from electricity trade in southern Africa.

Environmental policy and the management of shared natural resources are further fields where cross-border cooperation has merit. Watershed management is particularly relevant in this context. On shared river systems, the use of water resources in one country can profoundly affect the quantity and quality of water available in downstream riparian countries. Diminishing water availability and water quality constrain economic development and can generate tensions, if not outright conflict. International law in the area of shared waters provides some guidance, but no universally accepted standards are available for the utilization and management of shared waters (see the report on the 1998 International Round Table on Transboundary Water Management at <http://wbln0018.worldbank.org/essd.nsf>). Riparian countries must search for cooperative solutions unique to their circumstances.<sup>9</sup>

#### Box 2: The River Blindness Control Program

Perhaps the best example in public health of what a judicious combination of national and regional approaches can achieve is the River Blindness (onchocerciasis) Control Program in West Africa. The program (now extended to all oncho-endemic countries in Sub-Saharan Africa) has operated since 1974 through a coalition of African governments, local communities, international organizations, bilateral donors, the business sector, foundations, and nongovernmental organizations. It combines a regional focus with capacity building at the national and local levels, including the training of hundreds of epidemiologists, entomologists, and other specialists in national ministries of health and the signing on of tens of thousands of community health workers. River blindness, a debilitating disease transmitted by a fly, is now all but eradicated from the original program area, leading to enormous economic gains and improvements in the quality of life of affected communities and individuals. The river blindness coalition has been held together by a strong sense of purpose shared by the participants, a judicious combination of leadership and submission on the part of individual contributors in accordance with their comparative advantages, a step-by-step approach following precisely defined and phased objectives, and what appears to have been the right amount of flexibility and compromise in execution (see <http://www.worldbank.org/gper/ocp.htm>).

The list of policy concerns in which regional cooperation can profitably complement national measures could be extended to cover additional fields. Research cooperation and knowledge sharing are key among these, as is cooperation to preserve or restore peace and security. International initiatives in these and other areas, including regional integration, as mentioned, have been on the rise in recent times. The recognition that regional policies and programs can generate dividends in terms of improved development outcomes at the national level is spreading (box 3). This is a welcome trend from the point of development effectiveness. It does not, however, mean that the challenges of collective action have become less formidable than they used to be. When it comes to individual initiatives, time-honored challenges such as political

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<sup>9</sup> The International Consortium for Cooperation on the Nile is currently attempting to do this for the Nile River Basin. Like the River Blindness Control Program, the consortium, established in 1999, is a multiactor partnership of governments, donors, advocacy groups, the private sector, and international organizations. Its objective is to improve the management of the Nile River Basin, a resource shared by 10 countries from Egypt to Uganda, all of which suffer from water shortages and are affected by what from the collective viewpoint are suboptimal patterns of use of the Nile (see <http://www.worldbank.org/afr/nilebasin/>).

tensions, lack of trust, and high coordination costs persist, as do the difficulties of engineering equitable solutions acceptable to all parties.

It is possible to formulate some requirements that should be fulfilled for regional cooperation to yield the full measure of benefits being pursued. First, the duration and depth of regional cooperation must be sufficient to make meaningful improvements possible. Eradicating the scourge of river blindness in West Africa took a generation, and appropriate national measures to keep the disease at bay will need to continue indefinitely. Eradication would not have been possible without persistence. Similarly, concluding a trade agreement is one thing, but persisting in the difficult effort of deepening integration is quite another. Deepening is likely to be needed in order to consolidate benefits over time, but it is also expected to call for contentious structural change. Meaningful regional cooperation in policy domains such as the ones discussed earlier requires long-term commitments and a willingness to go into adequate depth on the part of those involved.

Depth has to do with the complementary national measures needed to enable countries to contribute to, and absorb, the benefits of transnational cooperation (see below). This is the hard part, more difficult than signing an international agreement and rhetorically committing to the course of action that it implies. Regional cooperation consists of national measures taken in accordance with some agreed international plan. The absence of, or lags in, complementary national measures can bring the best collective action framework to naught.

Second, in the interest of sustainability, losers (or countries that gain less than others from cooperation in a given field) must be compensated to keep the coalition of actors and the pursuit of cooperative solutions alive. Again, this can be very difficult because of the possibility of disagreement over the nature and extent of asymmetries and because of resource constraints.

Third, contracting parties should bind themselves with treaties or agreements that are self-enforcing where this is feasible, because of the absence of supranational authorities capable of exacting compliance. Barrett (2002) shows that the requirement of self-enforcement reduces the number of feasible cooperative solutions.

These are demanding conditions, and they are seldom completely satisfied. Nevertheless, protagonists of regional initiatives ignore them at their risk.

### **c. Core and complementary activities**

The recognition that the production of RPGs requires the integration of regional programs and country-based activities has led to the distinction between core and complementary activities in recent literature which, as discussed later, is key to understanding the options for allocating official finance to RPGs. Core activities aim to produce RPGs. They include regional programs and policy frameworks, as well as activities that are focused in one country, but whose benefits spill over to others (mixed goods). Complementary activities, on the other hand, prepare countries to consume the RPGs that the core activities make available, while at the same time creating valuable national public goods. For example, a country cannot use international agricultural research goods effectively in the absence of adequate domestic agricultural services

and incentives. Thus, core and complementary activities and investments interact. For best results, they must go hand in hand. This suggests that the RPG agenda opens up new and heretofore little explored dimensions of coordination in international assistance that relate to matters of timing, balance, and synergy between core and complementary activities.

### Box 3: Regional Public Goods in the New Partnership for Africa's Development

The New Partnership for Africa's Development (NEPAD) exists to-date essentially as a manifesto of the development priorities on the African continent and the collective will and responsibility of its heads of state to address them both singly and jointly. The Partnership's initiatives—political and economic governance, infrastructure, human resources, capital flows, market access, and environment—are intended “to eradicate poverty and to place [the] countries ... on a path of sustainable growth and development” (cf. NEPAD Primary Document). The initiatives are still unfunded, but financing through the African Development Bank (AfDB) as well as the World Bank and other donors is envisioned.

The Partnership names immediate priorities to be put on a “fast-track” towards allocation of resources: communicable diseases (HIV/AIDS, malaria, and tuberculosis), information and communications technology, debt reduction, and market access. Although the plans to address the priorities are not yet sufficiently defined for detailed comment, one can expect projects addressing at least the first two priorities to constitute international and regional public goods. A “peace and security” effort subsumed by the political governance initiative, and a “macroeconomic stability” effort subsumed by the economic governance initiative, are also (if successful) likely to produce international public goods.

A conference on financing NEPAD is scheduled for January 2002 in Dakar, Senegal. The Conference Document foresees an active role for the AfDB; it also implies considerable emphasis by NEPAD on international and regional public goods. The language of such goods is already written into the document with respect to the environment: “the ecological lung provided by the continent's rainforests ... is a global public good that benefits all mankind.” As the language is intended to be helpful in obtaining official funding for the Partnership's initiatives, it may shift the priorities of the initiatives themselves still further in the direction of international public goods.

Sources: <http://www.hsrc.ac.za/corporate/conferences/sarprn/primaryMaterial/NEPAD.html> and the NEPAD website <http://www.mapstrategy.com/>.

#### **d. The role of the RDBs**

Fostering cooperation among countries is difficult, among other aspects because of a problem of valuation: different countries and their citizens value the benefits of cooperation and public goods differently, which makes it difficult to coordinate the production of the goods (World Bank 2001).<sup>10</sup> Regional policies to pursue transnational benefits tend to be in short supply because countries' first interest is their own national advantage. Countries acting on their own typically do not take into account the costs or effects of their actions on others. They may recognize that they could further their national advantage by the right combination of national

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<sup>10</sup> There are reasons to think that the challenges of coordination rise with the number of players involved. The presumption, therefore, is that coordination problems in creating RPGs are less severe than in pursuing global public goods.

and regional policies, but this recognition by itself is usually not sufficient to overcome barriers to collective action.

This is where the RDBs come in. Regional organizations can act as catalysts of collective action. They are playing an increasingly important role in the provision of RPGs through their ability to convene, generate and transfer knowledge, assist negotiations, and transfer funding. As argued below, they have begun to step up their engagement at the regional and sub-regional level. The principle of subsidiarity suggests a division of labor among the global multilaterals supporting global public goods and the RDBs fostering RPGs. This appears to be largely borne out in practice.

However, the RDBs are not unconstrained in their endeavor to support regional policies and programs aimed at providing RPGs. The pace of progress is affected by two factors: countries' limited ability (politically or because of limited institutional capacity) to take the national measures that are needed to carry joint projects forward, and constrained multilateral instruments to catalyze action. As a consequence, multilateral institutions face disincentives to lend and governments to borrow for the provision of RPGs. In addition, as explained later, grant-based funding faces constraints.

## **II. The Regional Development Banks and Regional Public Goods**

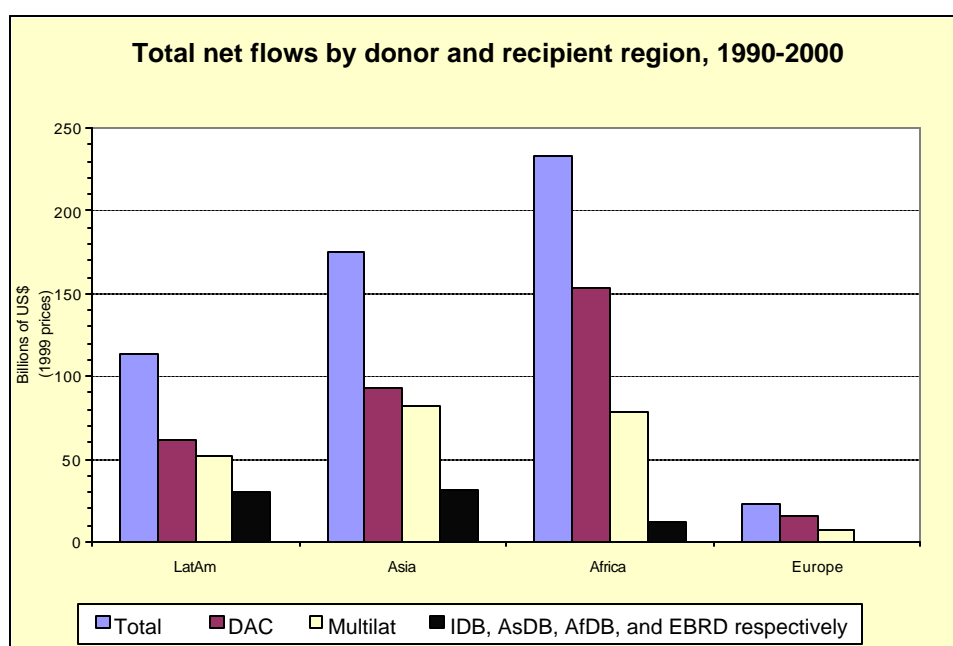
### **a. Players in the financial architecture of RPGs**

The RDBs are important players in the architecture of official development finance. The figure below shows the distribution of net official flows by donor and recipient region. The Inter-American Development Bank (IDB), the Asian Development Bank (AsDB) and the African Development Bank (AfDB) account for about 61%, 40%, and 13% of *net* multilateral flows to their respective region. Most of these flows finance domestic investments and policy reform (complementary activities and mixed goods)—making the RDBs important transmission belts for the production of RPGs in light of the prior claim that good national policies are the premier RPG.

However, the RDBs are also important direct sources of finance for international public goods. Based on a recently developed taxonomy of national and international public goods (partially congruent with the above definition of complementary and core activities), Table 1 confirms the prominence of the RDBs in the first area. But it also indicates significant spending in the second area, which in the case of AsDB and AfDB actually accounts for a larger share of total multilateral commitments than spending on national public goods. From their analysis of the sectoral break-down of aid spending on international public goods, te Velde, Morrissey and Hewitt (forthcoming 2002) conclude that in 1996-1998 most of the spending under the concessional windows of the IDB, the AsDB and the AfDB was devoted to environmental programs aimed at generating a mixture of national and cross-border benefits.

Recent literature regarding the allocation of official flows to international public goods points to a growing involvement on the part of official (multilateral and bilateral) agencies in endeavors of

transnational scope (World Bank 2001; te Velde, Morrissey and Hewitt forthcoming 2002). However, the allocation of resources to core and complementary activities by RDBs in their respective geographical areas of influence is under-researched. The numbers in Table 1 are quite disparate and are assumed to be the result of different roles and emphases on the part of different RDBs. They await more detailed analysis, as do such questions as how the RDBs prioritize the RPGs to be supplied<sup>11</sup> and whether spending on RPGs is additional to spending on country programs. While the existence of financial additionality is doubtful, judicious combinations of support to core and complementary activities are expected to yield additionality in terms of development impact. The nature and size of this additionality deserves to be investigated more systematically.



Source: OECD-DAC. "Flows" include aid and other official flows. "Totals" include bilateral (i.e. DAC donors) and multilateral flows. The latter include regional development banks and other multilaterals (World Bank, IFAD, etc.).

Pending such an investigation, the remainder of this section presents an overview of activities at the regional and sub-regional level by the IDB and the AsDB.

## b. The IDB and regional cooperation

The IDB has fostered regional cooperation since its inception, and during the 1990s expanded its involvement in the context of new and unprecedented interest in regional integration in Latin America and the Caribbean (Iglesias 2000). In addition to country-level programming, the bank programs operations at the regional and sub-regional levels and carries out research on regional integration. The Integration and Regional Programs Department serves as a focal point for regional issues, an institutional innovation not found in other multilateral development banks.

<sup>11</sup> Setting priorities for RPGs is less well established than country programming.

The IDB supports policy analysis and negotiation processes related to trade integration efforts at three levels: sub-regional (the Caribbean Community and Common Market, the Andean Community, the Central American Common Market, the Southern Common Market, and bilateral agreements), hemispheric (the proposed Free Trade Area of the Americas), and global in the context of negotiations at the World Trade Organization. In the financial area the IDB promotes the application of international standards that are needed both to preserve stability and promote financial integration. In regional infrastructure the IDB manages a portfolio of cross-border investments in transport infrastructure, border crossings, and energy, including gas pipelines. As an example, a privately owned and operated gas pipeline project received financing from the IDB's private sector window in 2000, together with support from a consortium of commercial banks, for a pipeline connecting northern Argentina and southern Brazil. New initiatives the IDB will support include the South American Regional Infrastructure Plan and the Plan Puebla-Panama, a recently unveiled regional development initiative covering southern Mexico and parts of Central America.

The IDB has long provided technical assistance on a regional basis. Regional technical cooperation supports research and knowledge management, training, and the creation and strengthening of institutions that foster regional integration. In 1999 the IDB created the Regional Policy Dialogue, a forum for policy discussion and strategic thinking in key areas pertaining to national development and Latin America's insertion into the global economy (see <http://www.iadb.org/int/DRP/index.htm>). The dialogue covers a variety of policy areas, including trade and integration, macroeconomic and financial policy, public management and transparency, poverty and social safety nets, education and human resources, and the environment and natural disaster management. It establishes networks of government officials proposed by the IDB's borrowing members, sponsors comparative studies that analyze experiences within and outside the region, maintains web-based resources, and organizes meetings and the dissemination of good practice. The IDB's regional policies and programs are financed by the bank's administrative budget, income from the Fund for Special Operations (the IDB's concessional window), donor trust funds, and limited lending.

**TABLE 1**

**Commitments to National Public Goods and International Public Goods  
by Region and by Institution, 1990-2000  
(billions of US\$)**

Region	Category	Regional Bank	Other Multilaterals	Regional Bank's Share of all Multilateral
Latin America & Caribbean	NPGs	35.2	30.3	54%
	IPGs	2.2	4.5	33%
Asia	NPGs	18.4	43.7	30%
	IPGs	3.8	8.1	32%
Africa	NPGs	5.7	21.3	21%
	IPGs	1.6	3.3	33%

Source: OECD-DAC, based on classification methodology in te Velde, Morrissey, and Hewitt (forthcoming 2002).

### **c. The AsDB and regional cooperation**

The AsDB supported regional policies and programs throughout the 1990s and has had a Board-approved policy on regional cooperation since 1994. The bank's mission statement on regional cooperation states that the AsDB (like the IDB, respectively) fosters economic growth and cooperation in its region, collectively and individually, and uses its resources for financing development in the region, giving priority to regional, sub-regional, and national projects (<http://www.adb.org/countries/cooperation.asp>). Regional endeavors the AsDB has supported include the promotion and institutionalization of economic cooperation in the Greater Mekong Subregion (discussed below); the support of the Indonesia-Malaysia-Thailand growth triangle; the promotion of subregional cooperation in South Asia; and the fostering of trade cooperation among China, Kazakhstan, the Kyrgyz Republic, and Uzbekistan. The AsDB supports regional technical cooperation and policy forums in areas ranging from the social sectors to competition policy, and from regional energy cooperation to telecommunications and health. Spending on regional technical cooperation is on the rise. The AsDB also supports a growing number of regional road construction and rehabilitation projects financed by coordinated loans extended individually to the participating countries. More recently, the AsDB's Regional Economic Monitoring Unit initiated regional economic monitoring to complement economic and financial surveillance at the national and global levels.

The Greater Mekong Subregion (GMS)—united by the Mekong River—comprises Cambodia, Laos, Myanmar, Thailand, Vietnam, and the Yunnan Province of China. A “GMS program” was instituted in 1992 to promote the subregion's economic development by way of seven sectors: transport, telecommunications, energy, tourism, environment, human resources, and trade and investment. The inter-governmental coordination of the program has been supported by the AsDB, which also has provided much of the program's financing. Of the approximately two billion US dollars allocated to the program from all sources through 1999, 39 million were allocated to technical assistance projects in all sectors. Meanwhile 1.96 *billion* dollars—a multiple of fifty—were allocated to infrastructure projects consisting of seven roads, one airport, and two dams.

The benefits of the infrastructure projects are intended to lie in the facilitation of commerce (including tourism) within and between countries, which is intended in turn to contribute to the reduction of poverty. But can it be said that the GMS program is concerned principally with the provision of public goods—particularly international public goods and RPGs?

The road projects meet the “international” criterion but their statuses as “public goods” vary. Road access is excludable wherever tolls are charged and rival wherever congestion is significant at the margin. The Yunnan Expressway and Southern Yunnan Road projects, which at a cost of a billion and a quarter dollars dwarf the others, are intended to be toll roads; they are thus excludable and, even if the margin of congestion caused by an additional vehicle is negligible, are not international public goods. The Siam Reap airport will presumably exclude aircraft that do not pay a landing fee, and will be subject to greater marginal congestion by an additional

landing than will the roads by an additional vehicle; it is thus excludable, somewhat rival, and not an international public good. Although the two dams are international insofar as their electricity is intended for export, the electricity is intended presumably for paying customers whose consumption lessens its availability to others; they are surely not international public goods. The aforementioned projects sum to just over a billion and a half dollars—three quarters of the cost of all the infrastructure projects, and approximately the same fraction of the entire GMS program including the relatively small technical assistance projects.

The aspects of the GMS program that are nearest to international public goods are the technical assistance projects. They include such projects as the building of a “Subregional Environmental Monitoring and Information System,” “Mitigation of Non-Physical Barriers to Cross-Border Movement of Goods and People,” and “Prevention and Control of AIDS/HIV in the GMS.” All are international public goods and RPGs: aside from protecting the environment, facilitating transportation and controlling HIV, their components include the compilation and international dissemination of data through symposia and written reports. They are concerned, that is to say, with the production of knowledge that is published and shared internationally. Published knowledge is the epitome of a non-excludable and non-rival good.

The GMS program consists roughly of a billion and a half dollars of dam, airport and road projects that are international but are not public goods; half a billion dollars of road projects that are arguably international public goods; and four hundredths of a billion dollars of knowledge production projects that are undoubtedly international public goods. The disparities do not constitute an indictment of the program: it could be that roads, airports and dams are needed most for the subregion’s development, and their excludability makes possible an efficient allocation of the benefits they confer. Nevertheless knowledge production, the part of the program given the least emphasis in money, has the most characteristics of an international public good.

### **III. The Financing of Regional Public Goods**

#### **a. Four mechanisms**

The provision of international and regional public goods can be financed through four mechanisms: public sources, private sources, payments by users and beneficiaries (internalizing externalities), and “partnerships” (Table 2).

Public sources include national contributions from developing and OECD countries, and payments made by (or channeled through) international organizations and financial institutions. Private sources include contributions by foundations, NGOs, individual philanthropists, and for-profit corporations. Payments by users and beneficiaries take the form of market mechanisms and international taxes and fees, to the extent that they are feasible today (IDS 2001). Partnerships, finally, are combinations of these sources.

#### **TABLE 2**

## Financing Mechanisms for Global Public Goods

Public sources	National	<i>Developed country sources</i> <i>Developing country sources</i>
	International	<i>International financial institutions</i> <i>International organizations and agencies</i>
Private sources		<i>Corporations (for profit)</i> <i>Corporations (not for profit)</i> <i>Individuals</i>
Internalizing externalities		<i>Market creation or strengthening</i> <i>Taxes, fees and levies</i>
Partnerships		<i>Combination of various sources</i>

Source: IDS 2001.

The economics of these mechanisms is set out in detail in Sandler (forthcoming 2002) and in World Bank (2001). Cooper (2001) provides a history of how international public goods have been financed over the decades. Owing to space constraints, the remainder of this section focuses on public mechanisms alone—in particular the role of developing country and donor country governments and, in greater detail, the role and *modus operandi* of contributions by the RDBs. The sub-section devoted to the latter topic explores lending practices and the need for grants, and suggests some scope for innovation in the financing of RPGs.

### b. Developing country governments

Domestically focused spending through government budgets in poor and rich countries in support of good policy is the key mechanism for financing international and regional public goods. In addition, three mechanisms, which overlap with the one just mentioned, are at work for developing countries, i.e., (i) their spending on complementary activities to enhance their capacity to absorb international public goods, (ii) their financing of collaborative programs with other, mostly developing countries, and (iii) their contributions to core activities that directly help create international public goods.

Examples of each of these pathways include, respectively: (i) action to strengthen the institutional capacity of sector ministries such as agriculture and health to enable them to access and intermediate new technologies that are relevant to their mission; (ii) technical cooperation and knowledge transfer among developing countries (there is a long tradition of this in Latin America, for example, in health, agriculture, trade and finance, and more recently, information technology); and (iii) resource allocation to transnational programs and to national activities that contribute to the creation of RPGs. Examples include: medical research such as the efforts of China, India and Brazil to provide inexpensive treatment for AIDS, and Vietnam's government-sponsored breakthroughs in locally produced malaria drugs and a vaccine against meningitis B (IDS 2001, p. 46); agro-biotechnology research such as the mapping of the genome of the bacterium *Xylella fastidiosa* by Brazilian scientists (Washington Post, December 29, 2001); and

the costs of complying with international financial standards such as the bank solvency proposals advanced in early 2001 by the Basel Committee of Financial Regulators.

**c. Donor countries**

Donor countries finance the provision of international and regional public goods through contributions from their Official Development Assistance (ODA) budgets, contributions from the budgets of non-ODA sector ministries and entities, and by means of tax incentives that aim to encourage private for-profit firms to contribute to the creation of international public goods through R&D and donations of such resources as drugs and vaccines.

**d. Multilateral development banks**

The RDBs contribute to the financing of RPGs by means of allocations from their administrative budgets, limited transfers of net income, the expenditure of donor-funded trust funds administered by the Banks, and lending. The first three of these modalities involve grant-based funding. The differential role of grants and loans in financing RPGs is of considerable interest. Loans are the more abundant resource, and should therefore be used before grants whenever possible. They are also preferable because of their tendency to strengthen borrower ownership of the activity in question and their educational role in promoting a credit culture in recipient countries where this may be needed. However, loans may not work for all aspects of international public goods. The choice between loans and grants is informed by the distinction between core and complementary activities pertaining to the production and absorption of international and regional public goods.

We defined core activities as activities to create international public goods and as measures to create mixed goods. The selection of the right funding instrument is relatively straightforward in the case of the first kind of core activities and in the case of complementary activities. It is more complicated in the case of mixed goods.

Core activities of the first kind tend to call for grant-based funding, whereas complementary activities can be financed using loans. Borrowers have an incentive to take out loans for complementary activities that support absorption, because the associated benefits accrue to them, spilling over to others only in terms of higher-order effects. The loans would be concessional or nonconcessional, depending on the status of the borrower as a country qualifying for loans from the “soft window” or the “ordinary capital” account.

*Grants.* The case for grants for core activities arises because these activities generate benefits that invite free-riding. Nonpaying parties cannot be excluded from the benefits being created. Hence partnerships such as the Consultative Group on International Agricultural Research, a global program, or the more recently established Regional Fund for Agricultural Technology in Latin America and the Caribbean are funded on a grant basis (the latter is funded by an endowment provided by its regional member countries and institutions). Grant-based global and regional programs coordinated by the different multilateral development banks are similar in terms of their basic orientation and objectives. They promote research, knowledge management, emergency preparedness, training and institution building, and policy discussions among bank

member countries to create awareness and possibly consensus regarding ways to address certain problems. The IDB's Regional Policy Dialogue is funded on a grant basis, and it is difficult to see how this could be otherwise.<sup>12</sup> Another example of a grant program sponsored by the IDB is the Inter-American Institute for Social Development, set up to provide strategic capabilities to the social area management teams of the governments of Latin America and the Caribbean (see <http://www.iadb.org/indes>).

However, while grants are necessary for some kinds of programs, their allocation, governance, and management can be challenging. Because they are free, an element of moral hazard may be associated with grants. The demand for grants is unlimited, by definition. Donors, international organizations, and issue-focused civil society groups formulate numerous calls for activities intended to produce international and regional public goods. In this situation, having transparent and participatory methods for setting priorities is extremely important, and the provenance of grant funding is important in this context. The multilateral banks must strike the right balance between grants funded from the administrative budget (controlled by all members in accordance with their voting rights) and funds made available by individual donors.

The multilateral banks and their shareholders must also be transparent with respect to the issue of burden sharing. The allocation of income derived from lending operations to finance International public goods represents a cost to the banks' larger borrowers (the borrowers that do not have access to concessional resources), because it leads to increased loan charges to meet income targets. In the eyes of the nonborrowers: "Because the loans are subsidized by their guarantee of the [banks'] liabilities, the effect on the cost of borrowing is not a measure of the cost of financing regional or global public goods" (CEIP 2001, p. 31).

Other issues that must be addressed include the leverage that grant funds should induce, for example, via cost sharing among the beneficiaries; the relationship between the grantor and grantees, which should be arms-length; and the assurance that innovation is being fostered under grant programs. Further aspects include the existence of an exit strategy, clarity with respect to subsidiarity or the subordination of grants to lending, and grantor awareness that an entitlement mentality could spread among grantees, which could tie up funds in the long-term that might more appropriately go to new endeavors. Therefore, while the call for grant funding for the production of International public goods is justified, the free nature of this financial resource (free from the recipients' point of view) should not detract from the need for ambitious, goal-oriented standards of deployment and rigorous monitoring and evaluation.

However, grant programs are often not evaluated, except in the case of large and long-standing programs that are known to have produced important international and regional public goods, for example, the River Blindness Control Program. Unpublished evaluation reports produced by some of the multilateral banks indicate that many small grant programs and regional technical cooperation activities do not have well-defined monitoring systems and are not systematically evaluated. The developmental impact of some long-standing grant programs administered by international agencies is not well documented. Thus calls for grant funding to support the

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<sup>12</sup> To be precise, grant-funding is allocated to regional activities such as the production of background papers and knowledge management activities. The cost of participation in Dialogue events is borne by the participating countries, which thereby signal a willingness to pay for the benefits that accrue to them.

provision of international and regional public goods should go hand in hand with calls for adequate monitoring and evaluation.

*Loans.* When it comes to financing mixed goods, borrowers hold loans in low esteem. They are reluctant to take on loan charges when they cannot capture most of the benefits expected from the investment financed by the loan. Countries' reluctance to borrow is likely to grow with the magnitude of the expected cross-border externality relative to national gain. Eradicating (or greatly lowering the prevalence of) tuberculosis in an endemic country yields a higher gain to that country than to others as long as much of the world is still prone to this disease, but eradicating the remaining pockets of poliomyelitis yields a larger gain to the rest of the world than to the few developing countries in which the disease occurs sporadically. Similarly, preserving forests and biodiversity may produce a larger gain for the rest of the world than for individual forest-rich lands. Should these countries be the only ones to pay for vestigial disease eradication campaigns or the preservation of natural resources? Or should they be compensated by those benefiting from the externalities?

Compensation brings up the issue of differential pricing for services that generate cross-border benefits. Differential pricing is on the table in discussions spearheaded by the Group of Seven on the products and governance of the multilateral banks. The discussion has not focused explicitly on financing global and regional public goods, but it could be extended to this topic. In between grants and regularly priced nonconcessional loans at near-market rates, there is room for a gradient of incentives in the form of differentially priced concessional loans that would compensate borrowers for precious externalities originating from their territory.

The World Bank (2001) argues that differential pricing, that is, lower interest charges for some investment loans, needs to be judged on efficiency grounds, because it does not expand the envelope of resources. Differential pricing would, in theory, permit fine-tuning of subsidies for different kinds of International public goods, but it could also be difficult to administer, with administration likely becoming a politically charged exercise. Multilateral financial institutions have basically offered two kinds of loans—concessional and nonconcessional—for many years, with borrowers' eligibility for each type being a function of their income and (implicitly) creditworthiness. The addition of an IPG criterion, while worthwhile, could complicate matters considerably. Borrowing and nonborrowing shareholders would have to engage in negotiations to agree about which International public goods to pursue, and nonborrowing shareholders would have to admit the principle of loan subsidies for the better-off developing countries that do not qualify for concessional loans.

In the absence of differential pricing, loans will need to be combined with grant funding in appropriate combinations to foster the production of mixed goods. This is already being done in the form of hybrid financial products combining concessional or nonconcessional lending and grant-based cofinancing from bilateral donors. The Global Environment Facility is a source of grant-based cofinancing for operations that address global environmental issues, but the facility is small in relation to needs, as are the resources that bilateral donors have been able to make available. No dedicated international funds for priorities other than the global environment are available (though the international community has recently agreed to establish a global AIDS fund). Funds for regional priorities are even scarcer. In addition, grant funding tends to go

largely to the poorest countries, which is appropriate from the point of view of fostering development within national confines, but may be inappropriate if one seeks to maximize cross-border externalities in key areas of transnational public policy.

In principle, a solution exists to the problem of financing such endeavors as cross-border infrastructure and campaigns to combat contagious disease: multicountry loans taken out jointly by the members of a spillover community or by countries that otherwise stand to benefit from coordinated action. In practice, however, such loans are difficult to manage. The difficulty lies in figuring out and obtaining agreement on who should pay what share of the cost of borrowing. This makes it difficult for official financial institutions to employ their basic financial instrument, a government-guaranteed loan, to support the creation of international and regional public goods.

The wider deployment of the described approach to coordinated lending would make it necessary for the institutions to overcome internal organizational setups that militate against communication across divisions and departments responsible for different countries belonging to the same spillover group. More generally, the culture of approaching problems from a regional point of view would have to be further strengthened, and the institutions' administrative budgets would have to accommodate what must be assumed to be heavy transaction costs of building partnerships and coalitions for joint action financed on the basis of loans. Coordinated loans extended under a common policy framework, but permitting as much national autonomy in program execution as possible without jeopardizing the common framework, would appear to offer the best scope for purposeful, loan financed, regional cooperation.

#### **IV. Issues for Discussion**

This paper has sought to introduce the case for RPGs as a recommended area of engagement for the RDBs in the interest of development effectiveness. The analysis was premised on the notion of complementarity between national and regional policies, the latter being seen as complements to, not substitutes for, the former. The paper also pointed to a number of issues that are as yet unresolved and/or deserve further analysis and discussion. These include: (i) more detailed description and measurement of the RPGs and beneficial cross-border externalities that could be realized by going regional in given policy domains; (ii) more in-depth investigation of the implied additionality in terms of development impact; (iii) discussion of the mechanisms and processes whereby the pursuit of different RPGs is prioritized; (iv) clarification of the issues of timing, balance and coordination between core and complementary activities in given policy domains; (v) assessment of potential synergies and needed cooperation between sub-regional, regional and global institutions in the production of international and regional public goods (an issue not addressed in this paper); and (vi) analysis of financing constraints.

With respect to financing, the paper analyzed how RPGs are being financed through lending and non-lending operations, seeking to clarify the circumstances under which lending is possible and when grant funding is in order. Some scope for innovation in regional lending was identified, the instrument of choice being a program of coordinated loans offered to and taken out by countries that belong to a given spillover community. Brokering arrangements of this kind is

challenging, however. Yet the rewards could be substantial in an era in which growing international interdependence calls for an increased supply of RPGs.

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