The full study (EGDI Study 2002:1) can be ordered from: Almqvist & Wiksell International P.O. Box 7634 SE-106 94 Stockholm Sweden Telefax: + 46 8 24 25 43 order@city.akademibokhandeln.se

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**Studies in brief** 

# Regional Public Goods: Typologies, Provision, Financing, and Development Assistance

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Pollution, disease and armed conflicts are examples of problems whose consequences often cross borders. How to combat such ills, especially in poor countries, has in recent years been intensely debated in terms of promoting global public goods. This study contributes to the debate through its focus on public goods at the regional level, a focus that has so far received little attention in the literature.

The main points being discussed are the challenges to foreign development assistance to efficiently support the provision and funding of regional public goods. Some of the questions discussed are: What type of public goods are best provided for at the regional level? Which regional public goods are amenable to collective action and which ones require public intervention? Who should participate in the provision and funding of regional public goods?

#### A definition of public goods

A good is generally considered public when the consumption of one agent does not limit the consumption opportunities for other agents (i.e. non-rivalry), and when no one can be excluded from consuming or benefiting from the good (i.e. non-excludability). Clean air is an example. Goods that possess both these characteristics are however rare. In most cases, public goods are characterised by *partial* rivalry of benefits and *imperfect* excludability of non-payers.

A distinction is made between public goods and the institutions that provide them. The United Nations Development Programme (UNDP) for example, is an organisation whose activities *produce* public goods in various forms, but which is not a public good in itself. Moreover, publicness refers to the goods being publicly available. The public good need not to be funded and/or provided by public, i.e. government, sources.

The non-excludability property accounts for the problem of efficiently providing public goods due to the risk of *free-riding*. Since any agent can benefit from a public good without contributing to its maintenance, the incentives to contribute are weak and provision will be inadequate. For example, efforts by Kenya to clean up the waters of Lake Victoria can substitute for efforts by Tanzania and Uganda to do the same. If beneficiaries cannot cooperate on a voluntary basis, public intervention may be advisable. However, the difficulties in providing public goods vary considerably between different types of goods and thus the need for corrective policies varies as well.

# A typology of public goods

The authors develop a typology which, when applied to RPGs, indicates a region's capacity for producing a public good.

EGDI Studies in Brief summarise recently published EGDI studies. The responsibility for the summary is with the EGDI secretariat. In a first step, four classes of RPGs are identified: pure public, impure public, club, and joint products. A *pure* public good is fully non-rival and non-excludable, whereas an *impure* public good possesses these properties only partially. A *club good* is partially rival for its members, but excludable to nonmembers. *Joint products* are activities with several public good outcomes that vary in their degree of publicness.

In addition, these classes may be subdivided by aggregation technology, i.e. the way in which individual contributions to the public good determine the overall level available for collective consumption. There are four relevant categories: summation, weighted sum, best-shot and weakest-link. Summation is the aggregator where the overall level of a public good corresponds to the sum of country contributions. An example is clean air: each effort to reduce pollution will make the air cleaner. Weighted sum is similar, but refers to cases when the marginal impact of each contributor varies. Limiting the spread of AIDS is such an example: its effectiveness varies between countries depending on factors like local attitudes. A weakest-link public good is one whose level of provision is entirely determined by the smallest contributor. Labour standards are a case in point. Best shot technology, in contrast, is at play when the greatest level effort determines the overall level of the good, an example being one country's successful effort in finding a cure to a wide-spread disease.

By combining the classes of RPGs with the categories of aggregation technology, the underlying incentive structure for various public goods is revealed.

#### Regional Public Goods are more difficult to provide than Global Public Goods

The study argues that regional public goods (RPGs) differ from global and national public goods in a number of ways that limit their provision and financing for development purposes. For example, donors are more comfortable in supporting development-related national public goods through grants and loans to recipient countries, whose actions can be easily controlled and monitored. Often donor assistance is given to nations to provide RPGs. Unfortunately, aid at the national level may be ineffective, since recipient nations are not properly motivated to supply RPGs in sufficient quantities.

Donors have also relied on multilateral institutions to manage and coordinate funds

for the support of global public goods. However, global institutions may be more interested in global than regional public goods. Unlike global public goods, donors may not benefit directly from RPGs and this will limit contributions. At the same time, regional institutions that may support RPG provision are much weaker in terms of reputation, experience, and funds than their global counterparts.

#### When is policy intervention needed?

When incentives are deficient, explicit policy intervention to support RPGs is required; otherwise, such actions are unnecessary. Limiting air pollution is one example where incentives are weak, as it is a pure public good abiding by a summation technology. Since a contribution by any nation is a substitute for that of any other in the region, every nation has the incentive to free-ride.

For club RPGs and joint product RPGs with substantial country-specific benefits, such as free-trade agreements and bio-prospecting, clubs or nations acting on their own can provide RPGs quite efficiently. The incentives to contribute to the provision of club goods are in most cases strong, as long as the benefits are restricted to club-members. Regional clubs thus achieve efficient results, but raise equity concerns and provide a role for donors to make sure that developing countries can afford the club fees for essential RPGs.

For best shot-RPGs, the problem is capacity rather than collective action, as they are characterised by *unilateral* action by one member of the region.

## Regional Public Goods can be provided either at the global or the regional level

The proper level from which to address the provision and funding of RPGs is an essential concern of the study. Generally speaking, the proper decision-making jurisdiction for supply of an RPG should match the good's range of spillovers. Nevertheless, various factors may dictate less than a perfect coincidence.

Many environmental and health RPGs lend themselves to provision at the regional level owing to the limited interregional spillovers. For a variety of reasons (e.g., significant interregional spillovers, regional providers pursuing their own agenda), peacekeeping, knowledge creation, and financial stability practices are better supported at a global level.

# Regional institutions should be strengthened

Health, the environment, and knowledge are the areas where RPG needs are growing and are the most pressing. Regional institutions therefore need to acquire greater capacity to finance RPGs in these areas. Regional institutions that require strengthening include the regional development banks. Once enlarged by donor countries and the global multilaterals, such regional institutions can assume a larger role in supplying RPGs in the future. Donors must also be prepared to support regional collectives that link member states into power grids, research groups, and environmental blocs.

In order to establish global networks for financing RPGs, donors should continue to rely on the multilateral institutions as intermediaries. Such networks can draw on their global reach for fund-raising, while responding to specific regions' RPG needs.

### Non-state actors can contribute to the provision of regional public goods

New participants - non-governmental organisations (NGOs), charitable foundations, and partnerships - also have a role to play in funding RPGs. In many cases, these new participants bring greater resources to the provision of RPGs by drawing from new sources of funds and not merely replacing existing sources. Reliance on NGOs, private companies, and charitable foundations has a downside, since such organisations may be pursuing an agenda (e.g., ideological concerns or commercial interests) not reflective of the interests of either the global community or the recipient countries. Partnerships among diverse agents from the public and private sectors have proven useful in financing some RPGs, especially those in health and the environment. Further partnerships for other RPGs should be pursued so long as the commercial interests do *not* compromise the legitimacy and political access that traditional development assistance agencies have laboured to gain.

# Some implications for development agencies

- Donor countries must ascertain whether they have a comparative advantage in providing some RPGs and, if so, they should concentrate some efforts on these RPGs.
- Regional institutions need to be given greater capacity to finance the provision

of RPGs. This capacity can be achieved if the global multilateral institutions agree to channel more funds to regional development banks and regional institutions.

- Public goods within the areas of health and environment are better supported at the regional level than at the global level.
- Novel institutional arrangements may be a means for supporting RPGs. Partnerships can bring in diverse interests, so as to draw on different participants' comparative advantages, while networks can be used to tie together multiple participants when the benefit range of the RPG justifies this linkage.
- Donor countries must differentiate the multilateral emphasis on RPGs that stem from mission creep, from the demand for RPGs that arises from a region developing the ability to meet basic human needs.
- Increased spending on RPGs diverts foreign assistance from traditional povertyreducing activities and the provision of national public goods. Thus, greater development assistance is needed if poverty is to be addressed in an increasingly globalised world.

The Expert Group on Development Issues, EGDI, was established by the Swedish Government in 1995 with the objective of contributing to an increased understanding of development issues in a global context and increasing the effectiveness of development co-operation policies.

The task of the EGDI is to initiate studies that will have the potential to make contributions to development thinking and policy-making. In order to ensure a close relationship with research and policy communities around the world, internationally renowned specialists with extensive networks in their respective field work as members of the Expert Group.

**A secretariat** assists the group and a number of reference groups have direct contact with the work in progress. An annual budget is determined by the Swedish Government.