

# Environment Strategy



## Getting the Most for the Money — How Public Environmental Expenditure Reviews Can Help

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Public environmental expenditure reviews (PEERs) offer a way of systematically assessing the equity, efficiency, and effectiveness of public environmental spending. A PEER may be a stand-alone analysis, or it may be part of a wider public expenditure review or country environmental analysis (CEA). The data and insights it yields can be valuable for the design of government budgets, policy reforms, and investment projects.

The starting point for a PEER is an understanding of a government's appropriate role in managing natural resources and regulating environmental quality in a particular country. A low level of public environmental spending is not in itself an argument for more expenditure; the question is whether government expenditures are effective in meeting environmental priorities. Managing natural resources and controlling pollution emissions present very different challenges for governments. Some problems, such as conservation, entail short-term expenditures but yield benefits only in the longer term. These characteristics must be taken into account when assessing public expenditures.

This note introduces the basic elements of PEERS and presents good practice examples as illustrations.

## WHAT DOES A PEER INCLUDE?

PEERs can cover a huge range of issues, but the following may be considered core elements.

*Definition of environmental expenditure.* This is not as straightforward as it seems. Box 1 provides an example of a framework the World Bank has used in PEERs conducted in Colombia and Peru.

*Levels and trends in environmental expenditure.* The proportions of total environmental expenditures to gross domestic product (GDP), and of public environmental expenditures to total government expenditures, can be calculated, and these ratios can be compared with benchmarks for similar countries, allowing for differences in the scope and definition of activities.

*Disaggregation of environmental expenditures by type of activity.* Data permitting, environmental expenditures should be broken down by functions such as analysis, research, monitoring, investment in facilities, policy design, and enforcement.

*Distribution of environmental expenditures in relation to environmental priorities.* It is not uncommon to find that the allocation of public expenditures is not aligned with the priorities expressed in national strategies and public opinion surveys (see the example of Colombia in box 2). A remedy is to increase allocations for priority sectors. Policy measures should be prioritized so as to achieve development objectives, taking into account human resource limitations, political constraints, and the time horizon of the strategy.

*Efficiency and effectiveness of environmental expenditures.* Comparison of targeted and actual outputs and performance provides information on cost-effectiveness and promotes emphasis on program delivery and on the effective use of public resources.

*Government capacity for budget execution.* Financial management capacity is often a constraint on effective budget execution and therefore should be assessed as part of a PEER. Key issues to be examined include whether expenditure controls and procurement processes are adequate and whether budgeting systems that track variances between planned and actual expenditures are in place.

## BOX 1

### DEFINING AND CLASSIFYING ENVIRONMENTAL EXPENDITURE

- Control of outdoor air pollution
- Water supply, sanitation, and hygiene
- Reduction of vulnerability to natural disasters
- Control of indoor air pollution
- Control of soil degradation
- Watershed and water resources management
- Control of deforestation; reforestation
- Protection of biodiversity, landscape, and national protected areas
- Public space and urban environmental management
- Wastewater treatment
- Hazardous waste management
- Municipal solid waste disposal
- Mitigation of emissions of greenhouse gases and ozone-depleting substances
- Other environmental protection expenditures

## BOX 2

### COLOMBIA PEER

#### Matching environmental spending with environmental priorities

Colombia, a middle-income country, has significant problems with air pollution, waterborne disease, and natural disasters, yet allocations of public environmental spending to priority problems have been very low. A study conducted as part of the CEA found that the costs of environmental degradation—which were mainly attributable to increased mortality and morbidity and to decreased productivity—amounted to more than 3.7 percent of GDP. The burden fell most heavily on vulnerable segments of the population, especially poor children under age 5.

In a survey of more than 2,600 people countrywide conducted for the CEA, 79 percent of the respondents identified air pollution as a very serious problem. When the results were broken down, however, significant differences in priorities emerged. Low-income groups named air pollution, noise pollution, and vulnerability to natural disasters as major problems, while upper-income groups were more concerned about loss of biodiversity, global warming, and inappropriate land use in urban areas.

The PEER, which was part of the CEA, looked at spending by central and regional environmental authorities. The review found that Colombia's environmental management framework had focused on three main priorities: river basin management and conservation of water resources; reforestation; and conservation of biodiversity. Meanwhile, environmental health and reduction of vulnerability to natural disasters had received minimal attention. This misalignment was largely attributed to the absence of an integrated data system that could provide analytical support for decision making; to the failure to consult vulnerable groups; and to the lack of a formal mechanism for allocating financial and human resources according to clearly defined environmental priorities linked to poverty alleviation and social objectives.

The government subsequently requested that its Sustainable Development Policy Loan from the World Bank, as well as a complementary Investments for Sustainable Development Loan, focus on issues related to environmental health, environmental governance, and better alignment of resources with developmental objectives.

*Fiscal decentralization.* PEERs look at the equity of resource distribution, local and national sources of financing, and the efficiency of planning, allocation, and monitoring of central and decentralized spending.

*Sustainability of the environmental budget.* Developing countries generally depend heavily on donor grants to support their environmental budgets, particularly conservation activities. This raises questions of ownership and of sustainability, should donor support diminish or end. It is particularly important to calculate environmental expenditures with and without donor grants and so arrive at a measure of the government's use of its own resources for the environment (see the Madagascar example in box 3). PEERs can examine resource gaps and assess potential sources of revenue (pollution fees or environmental protection levies, for example) for sustaining the required level of protection.

*Ratios of current to capital expenditures and of salary to nonsalary expenditures.* A very high ratio of current to capital expenditures may mean that the state is not investing enough in the sector and is incurring large recurrent costs. And, if a large part of the operating budget is absorbed by salaries, government employees will not have the tools (such as fuel for vehicles) needed to do their jobs.

*Links between funding sources and environmental expenditures, and the potential for increasing revenues.* In many

### BOX 3 MADAGASCAR PEER

#### Ensuring sustainable funding for environmental protection

In Madagascar, with its rural economy, the natural resource base is of great importance for the sustainable development of the country. The main environmental problem is deforestation, which leads to losses of forest resources, biodiversity, and tourism revenues, as well as to downstream soil degradation, erosion, flooding, and siltation. Donors have worked with the government to build environmental institutions and finance the establishment of a protected areas system, but the magnitude of donor financing raises concerns about the sustainability of the program.

Among other tasks, the Madagascar PEER, which was prepared as a sectoral input to the 2004 public expenditure review, examined the finances of the protected areas system. Over the period 1997–2001 donor grants amounted to 50 percent or more of total spending on the environment. During the period 1997–2003 expenditures by the Environment Ministry and environmental agencies averaged more than 4 percent of the government budget—but when grant finance was deducted, the share was only 2.5 percent. The expenditure review pointed to an impending shortfall in development funds required to complete the protected areas system. It found, however, that enough additional revenue could be generated from ecotourism (by increasing park fees for foreigners and raising hotel taxes) to finance needed investments and make the operation of the protected areas system a net source of fiscal resources for the government.

cases the amounts collected for the provision of environmental services or in the form of pollution charges are much smaller than is desirable. Although public finance specialists frown on earmarking revenues for particular sectors, in practice earmarking for the environment sector often offers the only way to finance much-needed expenditures. Good public finance practice does require that such sources of revenue not be off-budget; otherwise, they can create hidden liabilities for the government and make it difficult to assess the government's true fiscal position. It is important to include all environmental expenditure (as well as donor financing) in a consolidated government account.

*Institutional capacity for environmental planning and management.* The capacity to set priorities is often key to effective use of public resources. If the PEER is being carried out as part of a CEA, assessment of processes for setting priorities would typically be undertaken as part of institutional analysis within the CEA (cf. Pillai and Lunde, 2006). For stand-alone PEERs, this can be an important area of analysis.

## CHALLENGES

PEERs are information-intensive products, and their implementation in countries with weak administrative systems can be challenging. For example—

- *A framework* that defines environmental expenditures consistently and ensures comparability may not exist. A prior exercise in data classification may be required before the PEER is carried out, and institutional capacity to manage such a database needs to be built.
- *Detailed budget and expenditure data* may be lacking. Careful reclassification of expenditure items is desirable but may not be possible within the time available.
- *Donor finance in government budgets* may be managed off-budget, creating significant problems of transparency and financial control. Consolidation is necessary but is time consuming.
- Government expenditure data often cannot be mapped to *classifications* that permit a fine-grained picture of expenditure by function and by subsector. The PEER team will frequently have to rely on partial evidence and their own judgment to assess what is going on at the sectoral level.
- *Measurement of efficiency and effectiveness* may be difficult in the absence of expenditure data by output and of effectiveness measures for the environment sector. Some administrative functions, such as timeliness of permit issuance or number of charges imposed under environmental legislation, may be quantifiable. Again,

the team has to make use of whatever information is available.

- *Institutional capacity* for priority setting, analysis, and execution and management of spending is highly relevant but may be difficult to assess.

## CONCLUSIONS

The information provided by PEERs can greatly increase the visibility of environmental issues. The Madagascar review, for example, highlighted a financing gap for the protected areas system but also found that the system could become a net source of fiscal resources. In Ukraine (box 4) the PEER provided guidance to the environment and finance ministries on areas where reforms were urgently needed. The Colombia PEER, along with other analytic work done as part of the CEA, laid the analytical base for a Sustainable Development Policy Loan that has enabled a shift in government environmental policy.

Ultimately, a public expenditure review is about much more than statistics

on budget execution. It should provide a context for environmental policy, including key issues, and links to development strategies such as poverty reduction strategy papers (PRSPs). PEERs should be seen as complementary to other types of analytical work. Ideally the combination of a PEER and the policy and institutional analysis embedded in the country environmental analysis should lay the basis for sectoral reforms. The analyses can then inform the design of operations related to the environmental sector, whether at the level of policy loans, technical assistance, or specific investments.

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## Reviewers

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The *Environment Strategy Notes* series aims to provide a forum for discussion on a range of issues related to the Environment Strategy, to help the transfer of good practices across countries and regions, and to seek effective ways of improving the Bank's environmental performance.

The views herein are those of the author(s) and should not be considered official policy of, nor attributed to, the World Bank Group.

### BOX 4 UKRAINIAN PEER

#### Pinpointing areas for reform

Ukraine, an industrial country, has serious air and water pollution problems, but the main challenge facing its environmental sector is the transition to environmental management within a market-based economy. A stand-alone PEER carried out in 2001 found that total and public environmental expenditure had fallen sharply during the transition. Even among the transition countries of Central and Eastern Europe, Ukraine appeared to be on the low side, and its spending on environmental investment was unusually low. In 1999, for example, total investment by the public sector on environmental protection was only 0.4 percent of GDP, while in neighboring Poland, which was also in difficult economic circumstances, the figure was around 1.4 percent.

The review determined that the pattern of public environmental expenditure was broadly consistent with national objectives. The water sector, which posed the country's most serious environmental problems, took the largest share of budget resources.

Selection of programs for implementation was less satisfactory. Many projects were approved, but only about 10 percent of them—not necessarily the most urgent ones—were funded. The review also cited the difficulty of tracking expenditures and determining when a spending unit had failed to deliver or had incurred cost overruns. In addition, it pointed to the need to rationalize the more than 1,600 environmental funds, each of which received allocations from the meager resources available and each of which had its own administrative costs. The PEER thus highlighted areas where improvements in allocation of resources and in the budgeting system were needed. Finally, the review recommended that the real value of pollution charges (which are earmarked for environmental activities) be increased and that the numerous exemptions be eliminated.



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