

# Environmental Funds

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*Environmental funds are increasingly popular environmental financing mechanisms in developing and transition economies. The failure of governments to tackle environmental problems by putting in place incentive policies, environmental regulations, and enforcement mechanisms, as well as failures of the financial and capital markets to provide access to financing at reasonable terms, are typically the underlying reasons why special environmental financing mechanisms are established. Environmental funds, however, often only postpone rather than solve these problems, and they may contribute to existing distortions. This chapter provides guidance on approaches to dealing with environmental funds.*

## Main Categories and Characteristics of Environmental Funds

Environmental funds are earmarked financing mechanisms that may support a variety of environmental expenditures. Three main categories of environmental funds can be distinguished: earmarked tax funds (ETFs), directed credit funds (DCF), and green funds (GFs).<sup>1</sup> Some examples of environmental funds are shown in Table 1.

### *Earmarked Tax Funds*

ETFs are created by governments that designate environmental taxes, charges, and other, mainly environment-related levies for special funds. Several countries (e.g., Poland and Russia) have attempted to set up a charge system to compensate for environmental damage and create incentives to change polluter behavior. In reality, however, charges are rarely high enough to significantly influence behavior. ETFs are extensively used in transition economies, where they have a broad range of environmental financing objectives, including nature and biodiversity conservation; environmental education and awareness building; environmental research and institution building; and public and private pollution abatement. Public and commercial financing functions are mixed in the operation of ETFs that typically provide grants and soft loans. They

are usually set up as extrabudgetary funds functioning as part of the environment ministry or strongly influenced by it. ETFs often lack transparency, and the participation and influence of the main stakeholders in decision-making are limited.

### *Directed Credit Funds*

DCF may be established as financial intermediaries by either donor organizations such as the World Bank or national governments. They are designed to finance small commercial or municipal pollution abatement projects by avoiding the transaction cost of direct financing.<sup>2</sup> DCFs typically operate on a revolving basis, often for a predetermined time period corresponding, for example, to the disbursement period of donor lending. They are commercial institutions with strong development goals aimed at correcting certain market, administrative, and regulatory failures. Donor lending is sometimes supplemented by the recipient government or other sources in order to soften onlending terms through grant elements, technical assistance, or better-than-market interest rates.

### *Green Funds*

GFs are typically capitalized at the initiative of external donors by one-time donor contributions or debt-for-nature swaps to finance expenditures

**Table 1. Examples of Environmental Funds**

<i>Example</i>	<i>Revenues</i>	<i>Main expenditures</i>	<i>Beneficiaries</i>	<i>Disbursement</i>
<i>Earmarked tax funds</i>				
Hungary: Central Environmental Protection Fund	Fuel tax; product charges; traffic transit fee; pollution fines; EU PHARE grant	Air pollution abatement; waste management; water pollution control; public awareness building	Public transport companies; municipalities; industrial enterprises; research institutes	Grants; low-interest loans
Poland: National Fund for Environmental Protection and Water Management	Air and water pollution charges; water use and waste charges	Air and water pollution abatement; soil protection; environmental monitoring and education	Industrial enterprises, municipal companies, universities	Soft loans; loan guarantees, grants
Russia: Federal Environmental Fund	Pollution charges, fines	Pollution control; environmental R&D; institution building	Municipal companies; industrial enterprises; research institutes	Grants
<i>Directed credit funds</i>				
China: Tianjin Industrial Pollution Control Fund	IDA credit; pollution charges	Waste reduction and recovery; pollution prevention (cleaner technology)	Industrial enterprises	Market-rate loans plus grant (10–30%)
Russia: Pollution Abatement Facility	IBRD loan	Waste recovery	Public and private industrial enterprises	IBRD rate plus 400 basis points
Slovenia: Eco-Fund	Budget allocation; IBRD loan	Urban pollution abatement	Households; cooperatives; commercial and industrial enterprises; municipalities	London interbank offered rate (LIBOR) plus 200 basis points
<i>Green funds</i>				
Bolivia: FONAMA	Debt-for-nature swaps by international NGOs; foreign government contributions	Support to protected areas in nature conservation	Local communities; NGOs	Grants
Colombia: ECOFONDO	Debt-for-nature swaps; NGOs; foreign governments	Nature protection; environmental education; integrated watershed management	NGOs; local groups	Grants

in nature and biodiversity protection, most often providing grants to cover the recurrent costs of operating national parks and small community-based programs.<sup>3</sup> The willingness of industrial countries to contribute to GFs is strengthened by the benefits of investment in nature conservation that accrue outside the boundaries of countries where such investments

are undertaken. A popular form of GFs is trust funds that utilize only the revenues of invested funds, leaving the principal intact. Many GFs have successfully pooled revenues from various donor sources. In some cases, domestic sources, such as royalties and ecotourism revenues, also accrue to the fund. The design of GFs usually requires transparency of spending and decision-

making and the participation of the main stakeholders such as NGOs and community groups.

### Conceptual Issues

Environmental funds are financing mechanisms established to solve the problem of “insufficient funding” for environmental projects. Although dysfunctional and underdeveloped financial and capital markets, unsolved collateral issues, high transaction costs, and insufficient information often limit access to financing in developing and transition economies, such constraints are not unique to environmental investments. Financial system weaknesses affect all investments in the economy, but the key financial constraints on environmental investments are typically on the demand side. Some of these constraints are:

- The failure of governments to tackle environmental problems by putting into place proper incentive policies, environmental regulations and enforcement
- Low political priority attached to the environment in government budgeting
- Uncertainties about environmental regulations and the low perceived likelihood of serious penalties for violating regulations
- Limited knowledge and expertise available to municipalities, local groups, and enterprises for identifying solutions to environmental problems, using alternative funding sources, and preparing projects for financing
- Sluggish response of polluters to incentives as a result of the dominance of the public sector
- Slow change in traditional enterprise decision-making, capital budgeting, and accounting practices that traditionally exclude environmental considerations.

### Key Lessons from Practical Experience

Raising awareness of environmental problems has been one of the main benefits of environmental funds. Donors have used their financial leverage successfully during the establishment of several green funds, for example, by requiring matching funds and government commitment to policy reform. ETFs have facilitated the introduction of environmental taxes, establishing the framework for incentive environmental policies

and raising enterprise awareness of environmental costs.

Environmental funds are generally better suited to addressing “green” (nature and biodiversity protection) than “brown” (pollution abatement) issues. The use of public funds to finance environmental expenditures is justified when benefits cannot be allocated to private economic agents or public financing is more efficient than private. Most green environmental expenditures fall into this category because of their global and transgenerational benefits. By contrast, pollution is a negative externality that can be tackled most effectively by making polluters internalize the social costs of pollution. The use of public funds to support pollution abatement should therefore be temporary, targeted to areas where it can accelerate environmental improvements and the adjustment of behavior to changing environmental regulations.

Because of the fundamental differences in the nature of various categories of environmental funds, they do not mix easily. Donors, for example, have not considered most ETFs suitable channels for their financial resources. The World Bank decided to capitalize new DCFs in several countries (e.g., China and Russia) despite existing ETFs. There are many reasons for such incompatibility, including: conceptual problems in using earmarked tax revenues for primarily commercial lending; lack of financial and banking expertise in ETFs; a too broadly defined mandate of ETFs; lack of transparency and accountability in the operation of ETFs; and limited willingness of ETFs to accommodate donor requirements.

Financing through environmental funds will be effective only if the underlying reasons for the environmental problems are simultaneously tackled at the policy level. Most environmental problems are the result of regulatory and market failures such as price subsidies for energy and fertilizers, underpriced natural resources, undefined property rights, and the failure of environmental regulations and enforcement to force the internalization of the social costs caused by environmental damage. Without policy reform to accompany the operation of environmental funds, environmental problems re-create themselves, and environmental funds postpone the introduction of sustainable solutions.

Without strengthened environmental regulations and enforcement, environmental funds send the wrong messages and contribute to existing distortions. Subsidies to remedy environmental problems and to provide public environmental services may reward and attract environmentally damaging practices, lead to postponement of environmental improvements in expectation of support, and crowd out commercial financing. Only a carrot-and-stick approach that simultaneously rewards improved practices and strengthens environmental policies, regulation, and enforcement can ensure the positive role of environmental funds.

Environmental funds can more effectively contribute to finding sustainable solutions to environmental problems if attention is paid to building self-financing capacities and tackling the causes of financial constraints. Environmental funds should therefore focus on eliminating such constraints as lack of information about alternative ways to achieve environmental improvements, limited access to commercial financing, and lack of cost recovery.

Without a clear spending strategy and eligibility and project selection criteria based on cost-effective solutions to environmental priorities, the allocation of financial resources becomes sub-optimal and wasteful. Environmental funds should therefore have links to the environmental policymaking body to obtain guidance for spending priorities.

Transparency and accountability in the operation of environmental funds are essential for avoiding ad-hoc political influence and mismanagement of public funds. Mechanisms for the participation of the main stakeholders in the decisionmaking of environmental funds not only contribute to the transparency of fund operations but also build local capacity to identify and implement environmental projects. Capacity-building has been especially strongly emphasized and successfully carried out by green funds.

### **Checklist for World Bank Projects**

Before agreeing to a government request to use World Bank resources to support an existing environmental fund or set up a new one, it is rec-

ommended that World Bank staff consider policy issues, design issues, onlending criteria, and measures to be avoided.

#### *Policy Issues*

- Examine or identify the environmental priorities of the borrowing country.
- Identify steps and measurable indicators of strengthened environmental policies.

#### *Design Issues*

- Evaluate the pros and cons of direct versus intermediary lending alternatives.
- If intermediary lending is justified because of the high transaction cost of reaching a large number of small borrowers, assess the following choices of intermediaries: the banking sector; an existing environmental fund; and a new environmental fund. The default should be onlending through the banking sector rather than establishing new institutions and full-blown environmental funds. For environmental funds designed to address pollution abatement, establish a schedule for phasing out the environmental fund tied to monitorable improvements in environmental regulations and enforcement.
- Onlending is best introduced on a pilot basis, and a thorough economic analysis of the impacts should be carried out after the initial phase of operation.

#### *Onlending Criteria*

- Define clear criteria for project selection based on environmental priorities.
- Instead of softening the financing conditions of onlending, give preference to assistance in eliminating the main constraints on financing. Possible areas for support include financing environmental audits to identify low-cost solutions to environmental problems and alternatives for improving environmental performance; providing technical assistance in appraising and preparing loan applications for environmental projects; and disseminating information about available technologies and best practices.

- If softening the final credit terms of subprojects becomes necessary to target existing pollution sources, credit-plus-grant schemes are usually preferable to subsidized interest rates because of transparency and other considerations.
- Financial performance indicators should be at least as strict as indicators used in commercial lending.
- Eligibility for grants has to be linked to noninternalized environmental benefits expected from subprojects.
- Clear and measurable environmental performance indicators have to be agreed on, and grants should be converted to credit at market terms if a borrower does not comply with these indicators.
- Grant allocation should be transparent, and the people and institution in charge of the grant facility should be held accountable for the proper handling of funds. The participation of NGOs or community groups in the design of the program and in the monitoring of implementation is highly desirable.

#### *To Be Avoided*

- Setting up an onlending program with soft credit terms for pollution abatement when significant improvement in environmental regulations and enforcement cannot be expected or enterprise management is nonresponsive
- Financing pollution abatement projects at soft terms without clear objectives for environmental quality improvements and strong links of subproject financing to these improvements.

## Notes

1. The term *environmental fund* is also used to denote investment funds that specialize in environmentally friendly industries and services. This chapter does not deal with this type of funds.

2. In a broader sense, social funds also belong to this category insofar as they finance basic environmental services such as waste disposal and sanitation. Although social funds often have environment-related expenditures, their primary objectives are to alleviate poverty and provide a social safety net targeting the poor.

3. Debt-for-nature swaps are debt-conversion programs in which either an international NGO purchases commercial debt of a developing country on the secondary market at a discount, or official debt is forgiven by lender governments in exchange for the debtor country's commitment to spend an equal or agreed amount on nature protection. Commercial debt-for-nature swaps typically establish green funds; environmental funds created by official debt-for-nature swaps have broader environmental objectives.

## Sources

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