

**Profiles of Tools and Tactics  
for  
Environmental Mainstreaming**

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**PUBLIC ENVIRONMENTAL EXPENDITURE  
REVIEW  
(PEER)**

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## PUBLIC ENVIRONMENTAL EXPENDITURE REVIEW (PEER)

<i>What is PEER for?</i>			<i>What issues does PEER focus on?</i>	
Policy development	√	Aligning public financial strategy with environmental priorities	Environmental	√√√ (improving spending to match env priorities)
Planning	√	Informing budget to ensure plans are implemented	Social	
Field work			Economic	√ (fiscal discipline)
Investment	√	Priority-setting	Institutional	√ (distribute env funds to effective bodies)
Assessment	√	Assessing effectiveness of implementation		
Monitoring	√	Reviewing expenditure against policy priorities		
Campaigning				

### Purpose

A Public Environmental Expenditure Review (PEER) examines government resource allocations within and among sectors, and/or at national and subnational levels of government, and assesses the efficiency and effectiveness of those allocations in the context of the environmental management framework and priorities. In addition, it identifies reforms needed to improve the effectiveness, efficiency and sustainability of public spending for environmental management.

PEERs offer a way of systematically assessing the equity, efficiency, and effectiveness of public environmental spending. The data and insights they yield can be valuable for designing policy reforms, government budgets, and investment projects. They examine whether government expenditures are effectively matched to environmental priorities, and identify areas of inconsistency. If done well, they frequently result in highlighting the mismatch between (new) environmental policy and plans and (historical) low levels of spending in those areas of government that are now linked to environmental priorities. In many cases, they have helped to redistribute spending towards institutions responsible for environmental priorities, towards longer-term goals rather than short-term, and in some cases have helped to considerably increase environmental budgets.

According to the World Bank's Public Expenditure Management (PEM) Handbook (1998), the accepted objectives of PEM *in general* are:

- *Fiscal discipline*: maintaining sustainable fiscal prudence;
- *Allocative efficiency*: facilitating strategic prioritization of the total expenditure envelope across policies, programmes and projects to promote efficiency and equity;
- *Cost-effectiveness*: encouraging better use of resources to achieve policy outcomes and produce outputs at the lowest possible cost.

Thus there is a wide range of possible purposes of a PEER – environmental effectiveness, fiscal prudence in environmental spending and revenue raising, and/or management efficiency in terms of making the best investments in the right programmes. A good PEER will be tailored to meet the needs of individual countries. For example, the purpose, approach and coverage of the Tanzania PEER is discussed in the Case Study in Box 5.5.1.

## Background facts

Experience with PEERs is still rather limited. PEERs have usually been *ad hoc* documents rather than the product of regular procedures, or they have appeared as sections within other documents. They tend to have been performed in three basic ways: as a stand-alone analysis, as part of the wider public expenditure review process; or within a country environmental analysis (CEA). The coverage of PEERs has also often been quite different.

They include one or more of the following environmental expenditure issues (Markandya *et al.*, 2006):

*a. Definition of environmental expenditure.* This can be quite complex, especially separating out the difference between integral spend that also affects environment from separate activities. A framework that defines environmental expenditures consistently and ensures comparability may often be in place. Types of environmental expenditure which are often included in the definition are:

- Air and water pollution control
- Hazardous waste management
- Mitigation of greenhouse gas emissions and ozone-depleting substances
- Sanitation and solid waste management
- Water supply
- Watershed management
- Water resources management
- Soil degradation control
- Controlling deforestation
- Protecting biodiversity and landscapes

*b. Levels and trends in environmental expenditure.* This might be in terms of a proportion GDP, or a proportion of total government expenditures. These proportions can then be compared with levels for similar countries or benchmarks such as the World Bank's recommendation for environmental expenditure in developing countries at between 1.4% and 2.5% of GDP.

*c. Disaggregation of environmental expenditures by type of activity.* If the data is available, environmental expenditures should be broken down by functions such as analysis, research, monitoring, investment in facilities, policy design, and enforcement.

*d. Distribution of environmental expenditures according to environmental priorities.* This is one of the key purposes of PEERs. Environmental expenditure is reviewed against development objectives, expressed either in agreed national policies, strategies and plans or in terms of emerging ideas or public opinion surveys. A frequent result is to increase allocations to those institutions whose job it is to handle the existing or emerging priority. Most environmental policies will result in public expenditures of some kind. For example, policies that are based on 'polluter-pays' and 'user-pays' principles will result in few subsidy expenditures but may lead to larger regulatory and monitoring expenditures (Swanson and Lunderthors 2003).

*e. Efficiency and effectiveness of environmental expenditures.* Here, targeted and actual environmental outputs and performance are compared, providing information on cost-effectiveness and promoting programme delivery and the effective use of public resources.

*f. Government capacity for budget execution.* Here, key issues are examined, such as the adequacy of expenditure controls and procurement processes; and whether budgeting systems that track variances between planned and actual expenditures are in place. This is because financial management capacity is often a constraint on effective budget execution.

*g. Fiscal decentralization.* The equity of resource distribution may be examined, taking account of local and national sources of financing. PEERs also examine the efficiency of planning, allocation, and monitoring of central and decentralized spending.

*h. Sustainability of the environmental budget.* PEERs can examine resource gaps and assess potential sources of revenue (e.g. pollution fees or environmental protection levies) for sustaining the required level of environmental service delivery. In developing countries in particular, where much recent environmental expenditure has depended heavily on donor grants to operational and investment

budgets, it is important to calculate environmental expenditures with and without donor grants – to arrive at a measure of the government’s use of its own resources for the environment. Sustainability is often threatened if donor support diminishes or ends.

*i. Assessing types of expenditure.* Key issues which PEERs might address include:

- (a) the ratio of current to capital expenditure – a high ratio of current to capital expenditures may mean that government is not investing adequately in the sector and is incurring large recurrent costs;
- (b) the ratio of salary to non-salary expenditures – if much of the operating budget is absorbed by salaries, government employees will not have the resources to do their jobs.

*j. Links between particular funding sources and environmental expenditures.* It is important to include all environmental expenditure (including donor financing and government commercial revenues) in a consolidated government account; otherwise they can create hidden liabilities for the government and make it difficult to assess the government’s true fiscal position. But in many cases, the amounts collected for the provision of environmental services or in the form of pollution charges are much smaller than is desirable, and ‘earmarking’ for the environment sector often offers the only way to finance much-needed expenditures. In such cases it is important to be clear about the policy and environmental reasons for such links, e.g. revolving funds.

**Table 5.5.1**

**Table 1. Summary of issues covered by World Bank PEERs**

Country (year)	Purpose	Definition of environmental expenditure used	Scope	Comparison with policy priorities	International comparisons	Period covered	Project-level analysis	Foreign aid included/specifically examined
Philippines (1996)	Determine impact of macroeconomic strategy on environment	Not explicit	Selected departments	Yes	No	Single year	No	Not clear/no
Bangladesh (1997)	Improve environmental management	Brandon and Ramankutty (1993)	Capital expenditure only, across government	Yes (NEMAP)	No	Single year	No	Yes/no
Malawi (1998)	Determine future resource requirements	Forestry Department expenditures	Department	No	No	Multiyear	Yes	No/no
Kenya (1998)	Prepare for budget cut	Not explicit	Ministry	No	No	Multiyear	No	Yes/no
Thailand (1999)	Examine impact of Asian financial crisis	Not explicit	Across government	No	No	Multiyear	No	No/no
Korea, Rep. of (2000)	Examine impact of Asian financial crisis	Not explicit	Ministry	Some	No	Multiyear	No	No/no
Indonesia (2001)	Examine impact of Asian financial crisis	“Core”	Capital expenditure only, across government	No	Some	Multiyear	No	No/no
Uttar Pradesh, India (to be completed)	Compare with priorities and problems	Brandon and Ramankutty (1993)	Across state government	Yes	No	Multiyear	Yes (revised terms of reference)	Yes/yes
Ukraine (to be completed)	Track funds	OECD pollution abatement and control (PAC) definition	Primarily fund within ministry	Some	Some	Not defined	Some	No (no foreign aid goes to fund)
Mongolia (expected 2002)	Provide baseline on trends and patterns in expenditure	“Core”	Across government	Yes	Yes	Multiyear	No	Yes/no

Note: NEMAP, national environmental management and action plan; OECD, Organisation for Economic Co-operation and Development.

Source: Swanson and Lunderthors, 2003

### **Brief description of the main steps involved in application of the tool:**

One key issue is whether the PEER is undertaken separately from, or as part of, the overall public expenditure review (PER). Undertaking the PEER and the PER simultaneously can help environment interests to take advantage of the entrée that the PER process provides to central government bodies outside the ministry of environment, especially the ministry of finance. The cooperation of the finance ministry is often crucial for tracking down information on environmental expenditures by entities other than the core environmental ministries and agencies (Swanson and Lunderthors 2003). On the other

hand, PER demands on time and political attention might sideline the PEER. On balance, we suggest that coordination of the PER with the PEER will tend to assist the overall mainstreaming process.

The approach taken, and the choice of issues to be covered, will significantly determine the main steps involved in the PEER process. Ten typical steps are:

1. *Scope the purpose* of the PEER – involving finance, environment and development authorities.
2. *Survey the data available* – this will help to finalise (and indeed limit) the type of analysis that can be carried out and the most appropriate way of collating the data.
3. *Compile an environmental expenditure review database* – often a time-consuming process of poring over lists of expenditures from various ministries.
4. *Understand where environmental expenditures are made* – spending units include core environmental agencies as well as non-environment agencies such as industry or agriculture authorities and decentralized bodies.
5. *Understand where the sources of environmental funds are coming from* – taking care to include donor, off-budget, subsidy and government revenue sources.
6. *Assess the distribution of sources and expenditure* – e.g. as a measure of mainstreaming across institutions.
7. *Compare actual expenditures against declared policy priorities, or against stakeholder preferences* – trends over time, or international comparisons, may be included.
8. *Probe relevance, efficiency and effectiveness issues* – often not a desk-based exercise, examining expenditure at sample project level and assessing preferably against outcome measures.
9. *Suggest ways to better meet priorities* – adjust budgets, target areas of fund-raising, change responsibilities, etc.
10. *Policy-level discussion and decisions* on the above.

### **Expected outputs**

- A PEER document that provides clear, understandable, relevant information to influence budgetary and revenue-raising decisions;
- A regular PEER update that shows trends over time;

Some illustrative outcomes include (Markandya *et al.*, 2006):

- In Madagascar – on the one hand highlighting both a financing gap for the protected area system and its 50% dependence on aid, and on the other how it could become a net source of government revenue through ecotourism fees;
- In the Ukraine – rationalising the many hundreds of separate environmental funds, reducing overall administrative costs;
- In Tanzania – demonstrating the value of environmental investment for livelihoods, and increasing the environment authority's (then very low) budget by five times;
- In Colombia – comparing current expenditure to the results of a stakeholder survey of upcoming priorities, thereby providing the justification for a major World Bank 'Sustainable Development Policy Loan';
- In Mozambique – the PEER demonstrated that environmental expenditure was only 0.9% of GDP and identified very weak links between environmental policy and actual budgets, highlighting the lack of prioritisation in environmental policy (Cabral and Dulcídio 2008).

## Basic requirements

*Data* – PEERs are very data-intensive, requiring information on:

- Spending agency (department or other institution);
- Expenditure type (capital or recurrent expenditure);
- Function (policy development, communications, regulation, public works, etc.);
- Environmental domain (air, water, biodiversity, etc.);
- Location (national, HQ, regions, etc.);
- Financial source (foreign aid, earmarked taxes, user charges, revolving funds, etc.);
- Time (period over which expenditure is made, and changes over time).

*Cost* – the cost of the ten PEERs reviewed by Swanson and Lunderthors in 2003 averaged US\$200,000 for a full review.

*Skills and capacity* – often a multidisciplinary team is required – particularly where scoping indicates the need to address multiple or complex issues. PEERs have predominantly been prepared by economists and public finance professionals, with technical assistance from environmental professionals. Senior economics expertise is required: only recently has guidance become available (Markandya et al., 2006), and in addition there are many decisions to be made about the scope and limitations of PEERs. With the requirement to access and understand detailed government records and deal with administrative issues, government personnel need to be involved.

## Pros (main advantages) and Cons (main constraints in use and results)

- Pro: PEERs are often the first time that detailed budget and expenditure data on environment is brought together, with often an agreed framework that defines environmental expenditures. This can help to clarify in very concrete terms who is – or should be – contributing what to environmental ends;
- Pro: PEERs form perhaps the best means for public finance and environmental officials to understand one another's' priorities and to adjust to meet both sets of priorities as far as possible;
- Pro: PEERs can be quite flexible in terms of shaping the product to meet the issue – addressing total environmental spend against other forms of spend, assessing the match of spend against priorities, looking at potential to increase sources of funds, assessing sustainability, and assessing commitment;
- Con: Detailed budget and expenditure data may be lacking, especially with much of it off-budget in many countries, and often cannot be mapped to classifications that permit a fine-grained analysis by function and by subsector. As such, a PEER can also be very time-consuming

### **Box 5.5.1: Case Study: Environment in Tanzania's Public Expenditure Review – the Ministry of Finance seeking value for money from environmental investments**

*Purpose:* For some time, public sector reform processes in Tanzania have been promoting outcome-based approaches and results-based management. Public finance reform, too, has stressed performance budgeting. Key tools for this have been public expenditure reviews and medium term expenditure frameworks. The Public Expenditure Review (PER) system is designed to assess the value for money achieved from alternative government investments. It is comprehensive, identifying multiple sources of revenue including non-tax revenues, and now allows for an expanding agenda beyond priority sectors that tend to have protected budgets. Today, its central focus is to ensure the allocation and effective utilisation of financial resources from local and external sources to implement the National Strategy for Growth and Reduction of Poverty (MKUKUTA). The PER for the environment sector aimed to 'establish levels, trends and distribution of environmental expenditure by government; and to establish the level of environmental expenditure required to meet the country's environmental priorities and poverty reduction objectives' (VPO 2004).

**Rationale:** Under the superseded Poverty Reduction Strategy (PRS), there had been a requirement for each of the priority sectors to undertake an annual PER. The Ministry of Finance (MoF) had not been receiving information from sector ministries on key environmental values, expenditures or revenues in early PER submissions at either sector or macro levels. Given the economic importance of natural resource management to Tanzania, MoF had hoped to see a substantial increase in non-tax revenue collection. It therefore called for an inquiry on environment, energy and land within the PER exercise in 2004. By making the MKUKUTA focus on outcomes (rather than assuming priority sectors), and asking all sectors to show what they could offer to achieve such outcomes, the door was open for improved environmental investment.

**Process:** The steps involved in the environmental expenditure review involved assessing

1. The contribution of the environmental resources to national income over several years.
2. The pricing of environmental products in relation to replacement cost.
3. Environmental budgetary allocations and expenditures of Central and Local Government, and key sectors for two financial years
4. Government expenditure on capacity building for environmental management and proposing elements for capacity building.
5. The proportion of expenditure on environment from aid flows in relation to requirements for the implementation of multilateral/bilateral environment agreements.
6. Sector programmes/strategies and planning/budget guidelines to identify strengths, weaknesses and gaps in capturing environmental issues

**Results:** Conducted by Norconsult using figures for two financial years 2000-2, the PER for the environment sector turned out to be a critical turning point in highlighting:

- *Below-potential revenue collection* – the considerable potential for environmental resources to contribute to revenue; but significant under pricing, and very low revenue collection in e.g. forestry, fisheries and wildlife (with e.g. only 5-10% of potential forest revenue being collected).
- *Poor decentralisation of revenue* – the low share of revenue going to districts.
- *Low environmental expenditure* – the relatively low levels of investment and recurrent expenditure on environmental assets and improved revenue capture; some environmentally sensitive ‘priority’ sectors, in spite of identifying environmental needs, spent nothing on environmental management.
- *Procedural constraints* – the constraints to environmental integration posed by established government budget formats and codes.

**Impacts:**

- Through the environment PER, the potential for investing in environmental management for poverty reduction has become clearer to MoF.
- The importance of an environmental PER has also become clear to the environment authorities, as a means to claim an appropriate share of the national budget.
- The environment PER consequently proposed a significantly increased medium-term expenditure framework for the environment, emphasising those sectors and local government authorities that deal with poverty-environment issues.
- The official environment budget has now grown considerably – by five times from the equivalent of US\$ 850,000 to US\$4.5M in 2006-7.

Furthermore, the Strategic Budget Allocation System now links public sector expenditure planning to the national development and poverty reduction strategy (MKUKUTA) in a way that both focuses on outcomes and clarifies different ministries’, departments’ and agencies’ responsibilities. All of this has helped to take the MKUKUTA far out of the realms of planners’ dreams and into real daily operations.

Source: Aongola *et al.* (2007).

***Key sources of further information and useful web-links***

Aongola *et al.* 2007. *Environment at the heart of Tanzania's development*. IIED, London.

Cabral L. and F. Dulcídio. 2008. *Environmental Institutions, Public Expenditure And The Role For Development Partners: Mozambique Case Study*. ODI, London

Dalal-Clayton B. and S. Bass. 2006. *A review of monitoring mechanisms for national sustainable development strategies*. Environmental Planning Series. IIED, London

Markandya A, Hamilton K, and E Sanchez-Triana. 2006. *Getting the Most for the Money – How Public Environmental Expenditure Reviews Can Help*. World Bank Environment Strategy Notes No 16. World Bank, Washington DC

Swanson A and L Lundethors, 2003. *Environmental Reviews (PEERS). Experience and Emerging Practice*. World Bank, Washington DC

Vice President's Office (VPO) Government of the United Republic of Tanzania. 2004. *Public Expenditure Review (PER) of the Environment*. Dar es Salaam

World Bank. 1998. "*PEM Handbook*". World Bank, Washington, D.C.

[www.oecd.org/env/finance](http://www.oecd.org/env/finance)

[www.worldbank.org/environment](http://www.worldbank.org/environment)