The logo consists of a dark rectangular box with a fine, repeating dot pattern. Inside the box, the text "OECD" is positioned above "EAP Task Force", both in a white, serif font. The box is outlined with a thin white border.

**OECD**  
**EAP Task Force**

**TENTH MEETING OF THE EECCA ENVIRONMENTAL FINANCE  
NETWORK**

*22 – 23 February 2007, Paris, France*

**CHAPTER ON ENVIRONMENTAL FINANCE  
AS PART OF THE REPORT ON PROGRESS IN ENVIRONMENTAL  
MANAGEMENT IN EASTERN EUROPE, CAUCASUS AND CENTRAL ASIA**

**Document 9**

*This document will support the discussion under session 6 on Emerging Issues.*

*ACTION REQUIRED: For information.*

## **OBJECTIVE 5. FINANCE FOR ENVIRONMENT**

### ***INTRODUCTION***

Limited availability of financial resources is clearly a cross-cutting barrier to achieve progress across environmental policy areas (whether air, water, waste or biodiversity). Improved financial management of financial resources for environment would also support achievement of policy objectives by ensuring both that financial resources are not wasted and that they are allocated to the highest-value activities. Good financial management would also increase the confidence of partner countries and encourage them to provide additional financial resources.

Mobilisation and management of environmental finance has also relevance in terms of public finance, good governance, and social policy. While budgetary allocations to the ministries of environment are generally low from a national budget perspective, financing needs (and eventually expenditure) for environmental infrastructure can be very significant.

The environment can also represent important sources of finance – primarily from user charges related to environmental services (such as water supply and sanitation or waste management), but also from innovative sources, such as carbon finance. Other sources of environmental finance, although modest, may play a critical role for the financial sustainability of certain sub-sectors – such as nature-based ecotourism.

Ensuring that management of environmental finance (both in the revenue and expenditure sides) is aligned with good financial management practices will also contribute to the good governance agenda. In addition, measures needed to ensure the financial sustainability of environmental services (such as water supply, sanitation and waste management) may conflict with social policy goals – and reforms may require policy dialogue across ministries to develop coherent “policy packages”.

Progress in environmental finance will require progress in environmental policy. Environmental policy priorities are needed to guide spending. Market-based environmental policy instruments can act as a source of finance (although their primary objective should be to provide incentives). And, critically, environmental policy instruments should provide incentives for private environmental spending.

Overall, mobilisation of finance for environment should be guided by the polluter pays and user pays principles. And its management should be guided by environmental effectiveness, fiscal prudence and management efficiency – as described in the OECD Council Recommendation on Public Environmental Expenditure Management.

This chapter draws heavily on long-standing EAP Task Force work on environmental finance and in particular the 2007 “Environmental Finance Trends” report (from where most of the figures are taken), on dedicated PPC input, and on the joint PPC/EAP Task Force/REC/World Bank report “Mobilising Finance for Environmental Priorities: Recommendations for the Future”.

### ***RECENT PROGRESS***

**Total environmental expenditure** in the region has increased (in constant USD terms) in all countries reporting data. Environmental expenditure is steadily increasing in the three major economies (the Russian Federation, Ukraine and Kazakhstan). Environmental protection expenditure remains generally low – particularly in smaller, poorer countries, where it has stabilised at around USD 5 per person and year (see figure 5.1). As a share of GDP, environmental expenditures have increased in Kazakhstan, decreased in Belarus, Ukraine and the Russian Federation, and remained roughly stable in Armenia, Azerbaijan, the Kyrgyz Republic and Moldova. As a share of total government expenditure, environmental expenditures have increased in Armenia and Kazakhstan and decreased in other countries (see figure 5.2)

Armenia has made particular progress in raising the ratio of **environmental investments** to total environmental expenditures – from 6% in 2000 to 35% in 2005. The ratio has also increased in the Russian Federation, reaching 32% in 2005. Belarus and Kazakhstan keep it above 40%. In other countries, it remains below 15%. Environmental investments focus almost exclusively on end-of-pipe technologies, although investments in cleaner technologies have been identified in Ukraine (wastewater) and Azerbaijan (air pollution control). As a share of total investment, since 2000 environmental investments have increased in Armenia, Kazakhstan, Moldova and Ukraine – Kazakhstan and Ukraine have caught up with the Russian Federation, reaching 2%, while in other countries it remains at below 0.6% on average over 2000-2005.

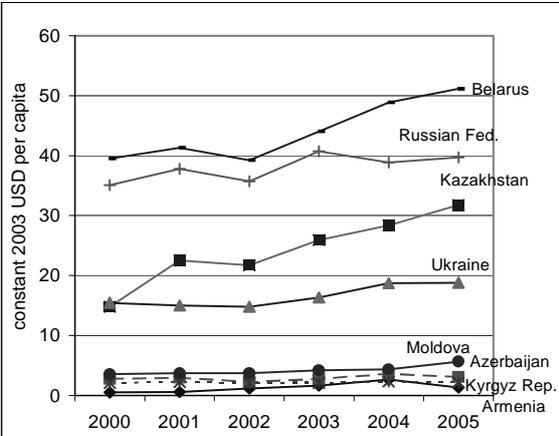
**Sectoral allocation** of resources is dominated by wastewater, where practically all EECCA countries spend above 40% of their resources (although figures reported may include water supply investments). In addition, Armenia, Belarus, Kazakhstan, the Russian Federation and Ukraine spend an important share on air pollution control (32%, 20%, 37%, 22% and 22% respectively); Moldova and Azerbaijan on biodiversity and landscape protection (37% and 15% respectively); and Kazakhstan and Ukraine on waste (18% and 15%). The public sector tends to spend on wastewater management, while the private sector tends to spend on air pollution control.

Progress has been made to harmonise environmental expenditure **information** systems with OECD/Eurostat standards.

**User charges** represent the largest source of finance for environment-related expenditures. Although hard figures are not available, user charges (channelled through service providers) are likely to be contributing over half of financial resources for the provision of water and waste services. Tariffs and collection rates have been increasing, and, in most countries, are coming close to cover operation and maintenance costs – aided by increases in operational efficiency.

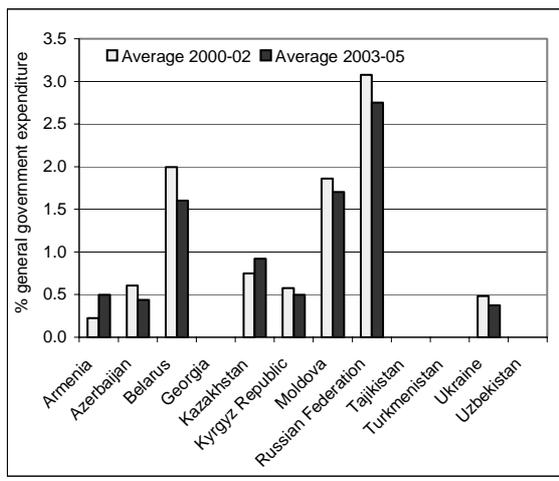
**Private industry** is also a major contributor to environmental expenditures. Almost all air pollution control expenditures and a significant share of waste management expenditures can be attributed to industry. As a consequence, and with the possible exception of the Russian Federation, the private sector (combining users of environmental services and private industry) spends more on environmental protection than the public sector.

**Figure 5.1 Environmental protection expenditure per capita**



Source: EECCA countries' responses to EAP Task Force questionnaire

**Figure 5.2 Environmental protection expenditure in the public sector as share of general government expenditure**



Source: EECCA countries' responses to EAP Task Force questionnaire

**Inter-governmental transfers** are the main recourse to fill the gap between the costs of providing local environmental services (now a responsibility of sub-national levels of government) and the revenues generated from the service through user charges. Examples of progress in managing those transfers have started to show up. For example, the Russian Federation has made use of broad-based statistical information to estimate revenue capacities, expenditure liabilities and the need for equalising transfers; it has allocated resources between regional governments on a competitive basis; and it has introduced transfer mechanism to allocate finance directly to investment projects. Also, Ukraine has set priorities and stipulated procedures for considering proposals made by regions.

Resources raised through **environmental levies**, when earmarked, can represent significant financial resources for environment. According to information reported by countries, Ukraine raised USD 676 million USD in 2005 (up 37% in nominal terms from 2002; reaching 0.82% of GDP), the Russian Federation USD 465 million (up 176%; 0.06% of GDP), Belarus USD 365 million (up 264%, 1.23% of GDP), Kazakhstan USD 188 million (up 267%, 0.34% of GDP), Uzbekistan USD 52 million (up 22%; 0.45% of GDP), Armenia USD 10.4 million (up 56%; 0.27% of GDP) and Moldova USD 2.6 million (doubled from 2002, 0.09% of GDP). In other countries, environmental levies seem mostly testimonial, as they generate less than USD 1 million per year. Earmarking ratios seem to have increased slightly since 2002 – they are generally between 40% and 60%.

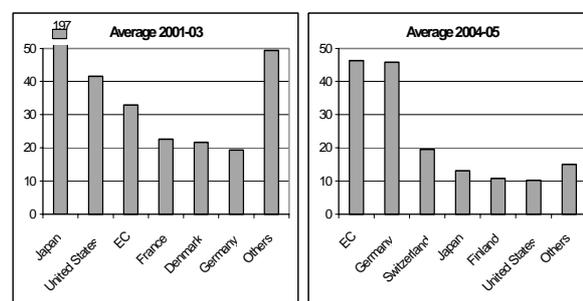
Not much progress has been made on tapping **local capital / financial markets**. The recent revitalisation of financial institutions provides opportunities to mobilise local savings to finance environmental investments.

While available data on national expenditures and **international assistance** flows are not directly compatible, they show that EECCA countries cannot rely on international environmental assistance to solve their environmental problems. Total environmental

expenditure in four countries (Belarus, Kazakhstan, the Russian Federation and Ukraine) reached some USD 7.5 billion in 2005. By comparison, total environmental assistance reached USD 526 million in 2005 for the whole region<sup>1</sup>.

The structure of environmental assistance is changing. While bilateral and multilateral assistance had the same order of magnitude in 2001, in 2005 the level of multilateral assistance was almost six times that of bilateral assistance. IFI-channelled assistance doubled, while bilateral assistance decreased. This last fact can be attributed to a change of donor priorities, since environmental assistance as a share of total bilateral assistance halved over the period. With bilateral donors progressively exiting the region, the EC is assuming a more prominent role as the lead provider of environmental grant assistance (see Figure 5.3)

**Figure 5.3 Environment-related ODA/OA by donor**



Source: OECD Aid Activity database, donors reporting

In absolute terms, environmental assistance (loans and grants combined) has concentrated in commodity-rich countries, such as the Russian Federation, Kazakhstan, Uzbekistan and Azerbaijan. Poorer countries receive much less – the most notably exception is Armenia, which seems to have earned a reputation as a good performer. In per capita terms, Armenia and Kazakhstan are at the top of the league (see Figure 5.4). As a share of GDP, Armenia has

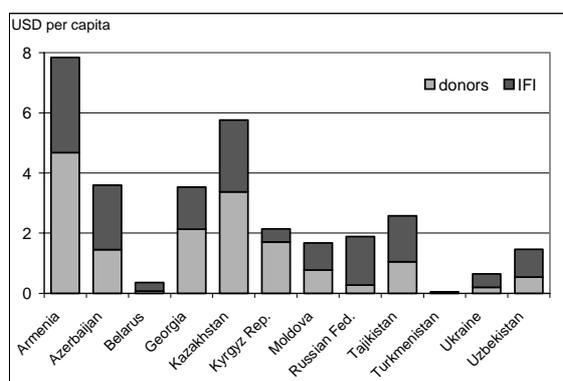
1. Note that bilateral assistance is mainly grants or soft loans while multilateral assistance is mainly loans

been able to attract resources equivalent to 0.8% of GDP and the Kyrgyz Republic 0.6%, while in the rest of the region environmental assistance represents less than 0.4% of GDP.

The share of donor assistance to EECCA that is environment-related has decreased. It is now below 10%, the lowest among all world regions (see figure 5.5).

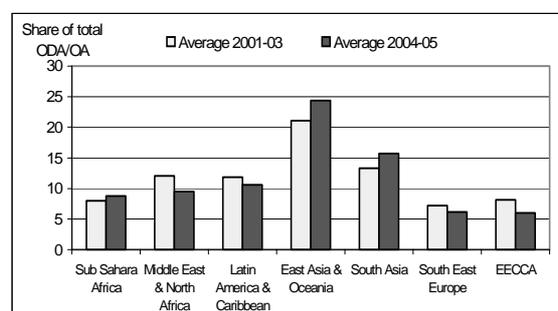
International assistance (whether grants or loans) focuses largely on water-related projects. Biodiversity and solid waste management receive the lowest allocations (see figure 5.6)

#### 5.4 Environment-related international assistance by donors and IFIs



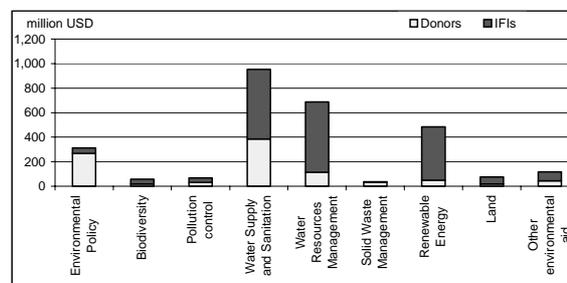
Source: OECD Aid Activity database, donors and IFIs reporting

Figure 5.5 Regional comparison of environment-related ODA/OA



Source: OECD Aid Activity database

Figure 5.6 Environment-related international assistance by policy area



Source: OECD Aid Activity database, donors and IFIs reporting

**Innovative approaches** in environmental financing have been explored in some countries – such as debt-for-environment swaps in Georgia and the Kyrgyz Republic and CDM in Armenia. For EECCA Ministries of Environment, preparations for debt-for-environment swaps are a good exercise, because they require continued analytical and communication efforts with exigent partners, including the Ministry of Finance. However, the most promising innovative financing mechanism is carbon finance. Despite the EECCA region having the potential to capture up to 40% of the global carbon market (PPC, 2006), EECCA submissions to the CDM represent less than 1% of total submissions – by contrast Asia Pacific represents 61% and Latin America represents 36% (UNFCCC, 2006).

### Box 5.1 Mobilising finance through bundling

Bundling a number of smaller environmental projects has been an effective way of enabling IFI involvement in projects that would otherwise be too small to attract investment. This procedure enables IFIs to finance projects that fall below their normal threshold for lending but also increases the effectiveness of the IFIs and improves that beneficiaries' capacity to develop, assess and implement environmental projects. For example, the Lake Sevan Environmental Project in Armenia will reduce pollution in Lake Sevan and the Hrazdan River, through the rehabilitation of two operating wastewater treatment plants and building three new ones. Bundling together the investment needs of five small municipalities has made it possible to attract an EBRD loan of €7.2 million loan together with grant co-financing of €5 million and technical assistance from the EC. In addition to obvious local environmental and health benefits, these investments will enhance the potential for eco-tourism and improve the quality of the environment in national parks.

Source: PPC staff

Overall, progress in improving the **management of financial resources** seems limited. EECCA countries have reasonably well developed strategic frameworks (in terms of thematic environmental strategies having been developed), but for roughly half of those strategies/action plans the cost of implementation has not been assessed, and this ratio has not improved recently. Costing seems to be well established for water strategies and rare for waste strategies. At the same time, there is an increasing awareness of the need to develop "financial plans" to support implementation of environmental strategies and action plans – for example Uzbekistan's latest national environment programme now includes identification of possible funding sources.

Some countries, such as Kazakhstan, Moldova and Ukraine, have showed progress in the management of public resources by implementing **results-oriented budgeting**, developing MTEFs and better controlling budgetary resources. Since investment and operational costs are generally not calculated ex-ante in a robust way, they are not used to inform

policy development. Most public resources in the environmental sector are still spent without clear programmatic frameworks stating objectives to be achieved. On a positive note, EECCA countries are increasingly aware of the benefits to be gained from the improved management of public environmental expenditure programmes.

There has been some progress in the management of environmental **investment programmes**. In 2005, the number of investment programmes overseen by national environmental authorities varied from none (Moldova) to 16 (Kyrgyz Republic) – with the average being 5.4 programmes. Most countries claim that their investment programmes are fully funded – notable exceptions being Georgia (only 2 out of 9) and the Kyrgyz Republic (11 out of 16). It is generally recommended that project selection is done by a specialized unit in the Ministry of Environment, while project procurement should be done outside the Ministry. In EECCA, the number of countries using those specialised units has increased from 5 to 7 between 2003 and 2006, and only 2 among those 7 units also undertake procurement functions.

**Environmental funds** in EECCA are not playing the same role as in some CEE countries and if poorly managed, risk leading to marginalisation of environment in public expenditures. Some EECCA countries do not have environmental funds – such as Georgia and Kazakhstan. Armenia, which had none in 2003, has created 3 funds (each one managing on average 0.3 million USD). Most countries have a small number of environmental funds (1 to 4). Those countries with a greater number of funds have started to reduce them – the Kyrgyz Republic has reduced from 10 to 8 and Moldova from 7 to 4. As environmental funds generally manage modest resources (less than 0.4 million USD on average, with as little as 17,000 USD in Azerbaijan), this is a positive development that should help to reduce management costs.

**Box 5.2 Adopting a Strategic Approach – the Financing Strategy for the Water Supply and Sanitation Sector in Armenia**

With technical support from the EAP Task Force Secretariat and funding from the UK and Germany, Armenia has identified the level of water supply and sanitation services that is affordable for the country, the additional financial resources that need to be mobilised to achieve the objectives and the possible sources of finance. The technical work and an extended policy dialogue process involving different ministries and stakeholders have made possible to convince donors and IFIs to lower their expectations in terms of achievable wastewater treatment objectives, to convince the Ministry of Finance that central budget support to the water supply and sanitation needed to be extended, to demonstrate that there was room to increase water tariffs if combined with a social protection package, to identify priority investments (some of them now included in the EBRD pipeline) and to identify technical assistance needs (some of them being considered for funding by UK DFID).

Source: EAP Task Force Secretariat staff

**Box 5.3 Learning from the students**

International training events offer a rare chance to “learn from the students”. A training event for Moldovan officials on managing public environmental expenditure programmes provided the following insights:

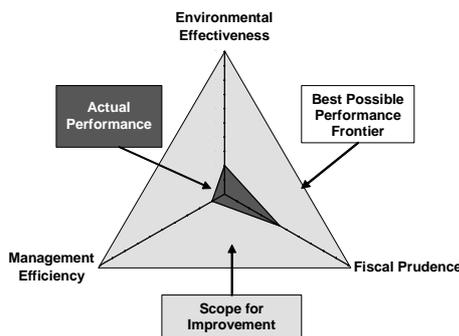
- Policy-makers and practitioners increasingly recognise that the system of public environmental funds requires significant reforms
- There is strong demand for modern management tools both for designing expenditure programmes and for appraising, selecting and implementing cost-effective investment projects.
- Targeted and on-the-job training for practitioners is badly needed.
- Exposure to successful change in other countries is a good motivator.

Source: OECD (2007)

Some EECCA countries have taken proactive steps to develop their **capacity to attract and manage finance** for the environment. For example, Georgia (with the support of the World Bank) has established the Municipal Development Fund with responsibility for coordinating investment (including IFI loans and donor support) in environmental infrastructure such as water supply and sanitation and solid waste management.

**Box 5.4 How are environmental funds performing?**

The OECD *Good Practices for Public Environmental Expenditure Management* represent a benchmark to assess the performance of environmental funds, or similar structures, in terms of environmental effectiveness, fiscal prudence and management efficiency. A recent analysis of Ukraine's State Environmental Protection Fund has revealed weaknesses and suggested a reform plan. More transparent and robust criteria and procedures for project appraisal and implementation monitoring are needed if the Fund is to play a role in managing/leveraging foreign sources of finance, for instance through matching grants for IFI-supported investment projects.



Source: EAP Task Force staff

**MAIN BARRIERS**

“Structural” and “legacy” barriers include corruption, lack of management skills and the drying-up of donor finance. Most Caucasus and Central Asian countries face the combined challenges of low income and no EU accession incentive.

Current policy frameworks generate significant problems. Poor priority and target-setting contribute to public financial resources being too thinly spread. Ineffective enforcement

and low rates of pollution charges lower the incentive for the private sector to invest in pollution abatement. Limited rights of municipalities to incur debt prevent the financial sector from playing a greater role in financing environmental infrastructure.

Key skill gaps include the ability to “make the case” for environmental expenditures, operate in a MTEF framework and coordinate environmental assistance. Local actors in charge of delivering environmental services and managing infrastructure (such as municipalities and utilities) often lack experience in identifying and preparing environmental investment opportunities and find it difficult to follow the procedures and requirements of IFIs.

“Unreformed” donor behaviour is also a problem. Donors have their own agendas, are reluctant to change their procedures, and have not developed a basic “infrastructure” for donor coordination at the country level. They still provide limited co-financing grants – this is important as a narrow fiscal space (often IMF-imposed) combined with the limited ability of the population to pay for environmental services (i.e. through tariffs) means that IFI loans must often be blended with donor grants in order to be in concessional terms and therefore affordable.

## ***WAYS FORWARD***

Richer countries, like the Russian Federation, should focus on making optimal use of domestic resources, including tapping local capital markets. Lower-income countries should include environmental investments in national programmes/actions plans to attract donor resources. All countries should work on increasing the participation of users in financing environmental infrastructure (through higher tariffs) and attracting carbon finance.

Make inter-governmental flows stable – consider providing targeted support rather than block grants, to ensure that resources are not diverted from original goals.

Higher-income countries should develop a legal framework (compatible with financial

regulations) to enable local capital and financial markets to finance environmental investments and introduce mechanisms to reduce risk to lenders.

Work towards building trust with the Ministry of Finance and operating according to acknowledged standards of good governance and public finance. Base environmental investment decisions on medium-term expenditure frameworks and coordinate them between municipalities and upper-level jurisdictions. Take advantage of existing modelling approaches to define management and investment programmes for environmental infrastructure.

Build own capacity to identify priority environmental investments and prepare viable environmental investment projects. Governments, IFIs and donors can contribute towards this by supporting appropriate institutional reforms and helping to support the development of capacity for project preparation.

Aim at leveraging other sources of finance when allocating environmental expenditure budgets – do not crowd out private financing that is commercially viable and encourage public environmental funds to co-finance projects with commercial banks.

Donors should consider making more grant co-finance available (ensuring that grants are targeted at the poorer EECCA countries), making support more stable, and improving donor coordination at the country level around country priorities.

## ***FURTHER INFORMATION***

OECD. 2006. Recommendation of the Council on Good Practices for Public Environmental Expenditure Management.

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