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**FINANCING ENVIRONMENTAL PROTECTION IN EASTERN
EUROPE, CAUCASUS AND CENTRAL ASIA (EECCA):
BACKGROUND REPORT**

submitted by

Task Force for the Implementation of the Environmental Action Programme for
Central and Eastern Europe (EAP Task Force/
Organisation for Economic Cooperation and Development
through the Ad Hoc Working Group of Senior Officials

BACKGROUND DOCUMENT



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EXECUTIVE SUMMARY

Improve the Data and Information Base for Effective Environmental Financing

1. Policy makers in EECCA countries have much less economic and financial information to support environmental management than their counterparts in CEE or OECD countries. The investment and operational costs of meeting environmental objectives are rarely ex-ante calculated in a robust way and used in policy development. Data on environmental expenditures are not collected according to internationally acknowledged methodologies and classifications. In some countries regular reporting of environmental expenditure data has been discontinued at all, and the demonstration project implemented in Georgia, within the OECD/EAP Task Force, has shown how it could be re-established in line with international standards. It is usually not clear who spends money on environment, how much, on what purposes or who finances these expenditures. Data are not comparable between different time periods, different sectors, regions or between different countries. Even environmental expenditures by public sector are difficult to estimate. Expenditure trends are not linked to expenditure needs estimates. This makes it more difficult for the governments to tailor interventions in order to address critical financing bottlenecks and to allocate scarce public funds where they are most needed.

2. Environmental policy makers in several EECCA countries have expressed an interest in applying internationally recognised costing methodologies to prepare robust cost estimates for priority environmental programs. Necessary know-how can be developed by training local staff of environmental agencies and consultants. Dissemination of robust good practices is also needed. Recent collection and analysis of environmental expenditures data conducted within the framework of the OECD EAP task Force has identified the specific needs in different EECCA countries for a review of existing data classification and collection systems and for their revision by introducing internationally-recognised methodologies, such as those used by Eurostat and OECD.

Develop High-Quality and Realistic Environmental Programs and Associated Financial Plans

3. Most public resources in the environmental sector are spent without a clear programmatic framework and objectives to be achieved. Existing programs are not prioritised and are not result-oriented. They lack cost-effectiveness analysis, implementation instruments and realistic financial plans. Often government develop programs that involve investments by private sector and municipalities without providing effective incentives for economic actors to undertake these investments. Affordability constraints, both at a household and national level, are not analysed and mitigated. Scarce public funds are spread too thinly among too many programs and projects. Thus programs are typically under-funded and not implemented.

4. Priorities between excessive numbers of existing environmental programs should be established to identify those, which are critical from the point of view of risk management and sustainable development. Scarce public funding and other forms of government intervention should be focused on these top priority programs. The analysis of social, economic and fiscal costs and benefits can support establishing priorities. Once real priorities are re-established EECCA countries will need to redesign these

priority programs to prepare realistic, cost-effective action plans with associated investment programs and financial strategies and establish solid pipelines of projects for specific sources of public funding. Any investment program and financing strategy should include robust and realistic plans to create effective incentives for different public and private financial institutions to develop financial products tailored to meet the effective demand for financing. Ability and willingness to pay for environmental improvements need to be explicitly addressed. Project owners, in particular municipalities, municipal service providers, and small and medium size enterprises require targeted trainings in project preparation.

Use Public Financial Resources for Environmental Purposes More Efficiently

5. Because existing resources in the public sector allocated to environmental sector are very scarce they should be used with greater efficiency, transparency and accountability. Environmental authorities in EECCA are usually marginalised in the budget process and public investment programs. Often it is the result of failure of the rest of government to recognize the real economic value, and hence responsibilities for provision of environmental public goods, services and infrastructure. However, public agencies managing environmental expenditure in EECCA countries might improve their effective in attracting government resources and foreign finance if they operated according to acknowledged standards of good governance and sound public finance. Good Practices of Public Environmental Expenditure Management, developed within the OECD/EAP Task Force framework, could be used as a framework for reforming institutional framework for managing public environmental expenditures in the three dimensions: environmental effectiveness, fiscal prudence and management efficiency. This reform is urgently needed in particular for Environmental Funds because of their visibility in the policy debates. But the experience clearly shows that except Ukraine and Moldova the special, earmarked environmental funds are neither significant nor necessary elements in environmental finance systems for mainstreaming environment in public expenditure programs.

Mobilise New Resources for Public Environmental Services and Infrastructure

6. The current system of environmental charges in EECCA countries are not effective for raising revenues or for establishing disincentives to pollute. A number of steps could be taken to make the charge system more effective from a revenue-raising perspective, including: eliminating those charges, which generate negligible revenue; implementing credible but simple systems of billing and collection; eliminating off-sets and other non-monetary transactions; and reducing the discretion of the authorities in determining charge rates and bases. Eventually, following these reforms, the charge rates for carefully selected pollutants could be gradually increased towards efficient levels in order to meet the revenue targets. They should be indexed to inflation to mitigate the erosion in their real value over time.

7. Where appropriate, new environmentally-related taxes, charges and other payments for environmental services could be introduced. This may include fiscal instruments to capture rents (excess profits) that private agents earn on exploiting natural resources. Opportunities exist to introduce carefully selected new environmentally motivated taxes that would finance the general budget. Such taxes may also be introduced in a budget neutral way by reducing other taxes/charges. Experience from OECD countries suggests for example that taxes on product rather than on emissions yield higher and more predictable revenue. Communities or agencies that take care of preservation of natural ecosystems can also impose charges on the users of the useful goods and services that these ecosystems deliver. The revenue can be used to recover the cost of ensuring sustainable delivery of these environmental goods and services. Revenue for preservation of natural systems can also be generated by creating markets for environmental goods and services, that otherwise mistakenly appear to be free.

Promote Better Access to Capital and Financial Markets

8. There is a number of policy and institutional obstacles that prevent the financial sector from playing a greater role in financing environmental projects. Access by municipalities, municipal utilities and private agents to local capital and financial markets for financing environmental projects in EECCA

countries is more potential than actual. Municipalities and utilities need to take several steps to establish their creditworthiness and co-financing capacity. There is very limited and mixed experience issuing international bonds by municipalities to finance environmentally-related infrastructure, and virtually no experience with accessing local capital markets. The same is true for access to products offered by financial institutions (banks, leasing firms) for environmental and infrastructure projects.

9. EECCA countries need to identify and gradually phase-out policy instruments and practices that discourage commercial financing of environmental projects. Incentives for the public sector to effectively leverage private and foreign finance for environment should be implemented. Municipalities and enterprises require capacity building in preparation of environmental projects that can be co-financed on commercial terms. Environmental authorities need capacity to appraise such projects for co-financing from public budgets.

Utilize Opportunities for Debt for Environment Swaps

10. Foreign public debt service in many poorest indebted countries in the EECCA region, accounts for a large part of public spending, diverting resources away from social and environmental needs and encouraging unsustainable exploitation of natural resources to generate foreign exchange. Debt-for-nature/environment swaps are transactions that reduce a portion of external debt in exchange for the debtor country spending an agreed portion or the whole amount of the reduced foreign debt, on agreed conditions, on domestic environmental improvements in local currency. There is a wide international experience with different models of debt for environment swaps. Compared to alternatives (such as debt-for-equity swaps, debt-for-aid, and traditional debt-for-nature swaps) debt for environment swaps provide opportunities to exchange larger volumes of debt in a way that would not distort fiscal and monetary policies. If well designed, it can improve local governance, institutional capacity and contribute to poverty reduction, creation of local jobs and sustainable development. It can also foster peace and security in the region by alleviating regional and cross-border conflicts related to the management of shared and trans-boundary natural resources. In some countries it has helped mainstream environmental objectives in the social and economic agenda of the whole government.

11. Debt swaps should always be carefully considered, because if it is introduced in a wrong way, they can affect the country credit rating and increase costs of sovereign borrowing. Hence, such swaps are best considered back to back with an ongoing, wider debt-restructuring or debt relief scheme. So far, only Georgia and the Kyrgyz Republic have used the opportunity to include a swap clause in the framework agreement with a group of official creditors. Both countries have set up inter-ministerial working groups under the auspices of the Presidents and started co-operation in the framework of the OECD EAP Task Force to analyse options for transaction structure, institutional set-up, expenditure program and negotiations strategy. The amounts considered for swaps may not be large in absolute terms but they may almost double existing environmental expenditures. As the experience of Georgia shows, harnessing this opportunity is not easy. It requires concerted efforts of the whole government, credible fiscal capacity, very good expenditure program and very thorough preparations. A regional initiative (e.g. linked to existing initiatives for debt relief to the poorest countries of former Soviet Union) could address some of the potentially adverse consequences of debt for environment swaps and take the best advantages of synergies between environmental and poverty-reduction goals.

Enhance the Level and Effectiveness of International Co-operation

12. Commitments of environmentally-related official assistance to EECCA have been slowly but constantly increasing over the last few years. In some countries (e.g. Armenia, Georgia, Kyrgyz Republic) environmental expenditures became very dependent on foreign aid. But still, on per capita basis, environmentally related bilateral assistance remains low compared to other regions of the World. Disbursement of IFI loans remains small compared to effort and resources spent on project preparation. Absorption capacity remains limited. EECCA governments rarely identify environment as a priority in

foreign co-operation programs making it difficult for most donor agencies to allocate funds for environmental assistance in their budgets. There is a scope for refocusing of assistance programs towards environment and improving the effectiveness and efficiency of co-operation without necessarily increasing total aid budgets.

13. Donor and IFIs assistance should be better integrated vertically between policy and institutional reforms, capacity building, and investment support. Co-operation programs should evolve into more long term multiyear strategic partnerships rather than ad-hoc individual activities. Multilateral frameworks should be used more effectively to foster coherence and continuity between various donor projects aiming at environmental policy and institutional reforms in EECCA countries. In the terms of references for co-operation projects more emphasis should be put on building local capacity of experts and consultants to provide policy advice and technical assistance according to high international standards.

Strengthening Municipal Finance and Financial Sustainability of Environmentally-Related Utilities

14. EECCA countries are still in the process of delineation of governmental responsibilities, for example for environmental safety and infrastructure. Although some EECCA have prepared environmental action plans on national or regional levels even with financing strategies, the link between these plans and municipal budget planning remains weak. Local budgets in a vast majority of EECCA municipalities are very small compared to the tasks of maintaining and developing services of environmental infrastructure. Responsibility for environmental infrastructure and municipal services has been transferred to cities, towns or regional authorities and are delivered mostly through local enterprises. However current legislation in EECCA leaves lower level budgets with little autonomy to determine and execute local budgets. In addition, regional and local budgets have been extraordinarily burdened by the accumulation of numerous un-funded federal/national expenditure mandates.

15. The current system offers weak incentives to sub-national levels of government for responsible, long-term investment planning and the development of environmentally related infrastructure. The budget classification system with a standardised chart of accounts is a carryover from the Soviet administrative structure and was not designed with the particular needs of local government in mind. The budget preparation and monitoring system is focused on spending money in accordance with specified budget lines and does not correspond to the results or tasks to be achieved by municipalities. Investment planning for municipal infrastructure is discretionary and focused not only on short-term outputs, but also on priorities, that are often too numerous and too volatile. There are no clear and transparent criteria for appraising and prioritising investment projects that will be financed from municipal budgets.

16. There is an urgent need for rationalising decentralisation and improving fiscal relations between governments at different levels through consistently implemented comprehensive reform according to well established international standards. This would encourage municipalities to strengthen their financial management and capital budgeting, e.g. through preparation and implementation of multiyear investment plans for municipal infrastructure and related creditworthiness enhancement programmes. This would increase the capacity of municipalities to implement and finance investments including their borrowing capacity. By borrowing directly, and not through the central government, local governments at regional or municipal levels can reduce the costs of and accelerate project development.

17. Improving the managerial, financial and operational autonomy of local service providers is an essential condition of sustainability of local environmentally related services. Improvements in these key areas – particularly control over revenue flows – protect the utilities from undue political interference and enable them to operate in a more transparent and accountable manner. Achieving expenditure targets in particular in infrastructure, in EECC countries will require increasing tariffs for water and other environmentally-related services, with the ultimate goal of full cost recovery, including capital replacement costs. A clear, transparent and predictable mechanism for tariff setting should be established, shielded from

undue political interference. An intermediate goal could be to ensure that at least operation and maintenance costs are covered by tariffs. Measures may also be needed to ensure that the poor are not deprived of access to essential services. This implies the parallel development of more targeted assistance schemes for such groups.

1. INTRODUCTION AND ACKNOWLEDGMENTS

18. This paper focuses on the ways to establish and strengthen mechanisms for mobilising and allocating financial resources to achieve environmental objectives in the countries of Eastern Europe, Caucasus and Central Asia (EECCA)¹. This issue involves two distinct but interrelated aspects:

- i) Mobilisation of additional private and public financial resources; and,
- ii) Allocating existing public financial resources more efficiently.

19. Mobilisation of adequate financing to achieve environmental goals of EECCA is a challenging task. Environmental improvements must compete with countless other pressing claims on extremely thin capital base both in private and public sectors as EECCA are only slowly experiencing growth after several years of economic contraction. The economy of seven NIS has shrunk so severely that they are now classified internationally as low-income countries².

20. Every effort was made to support the analysis presented here with solid empirical underpinning, including practical, country specific experience accumulated through the international co-operation projects implemented within the framework of the EAP Task Force. Unique quantitative support was provided by the time series data collected recently by the EAP Task Force Secretariat. The data covers domestic environmental expenditures and international environmental assistance to Eastern Europe, Caucasus and Central Asia countries in the period 1996 – 2001. For many of the EECCA countries it was the first time that time series data were compiled using the internationally-established methodologies of the OECD and Eurostat.

21. The report was drafted by the Environmental Finance Team of the EAP Task Force Secretariat. The final draft incorporates valuable comments and suggestions provided by the EECCA Expert Group during the meeting in Tbilisi. The authors also gratefully acknowledge specific comments provided by Brendan Gillespie, Eugene Mazur, Renat Perelet, Vitalij Potapov and Victor Zubarev. None of them, however, bears any responsibility for remaining errors in the report.

22. The paper, in its current version, was also submitted to the 14th EAP Task Force meeting, held in February 2003 in Tbilisi, Georgia. Therefore, the data and information presented in the report reflect the state of affairs as of December 2002. For more updated data, please see the report on Environmental Financing in Transition Economies (KIEV.CONF/2003/INF/37) as well as Trends in Environmental Expenditure and International Commitments for the Environment in EECCA, 1996-2001 (KIEV.CONF/2003/INF/10).

1. The twelve EECCA countries, previously known as the New Independent States of the former Soviet Union, comprise: Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, the Kyrgyz Republic, Moldova, the Russian Federation, Tajikistan, Turkmenistan, Ukraine and Uzbekistan.

² According to the World Bank definition (World Bank Global Development Finance), a low-income country is a country with annual gross national product (GNP) per capita equivalent to \$760 or less in 1998. There are currently (2002) about 60 low-income countries in the world, including 8 NIS: Armenia, Azerbaijan, Georgia, the Kyrgyz Republic, Moldova, Tajikistan, Ukraine and Uzbekistan.

2. CHALLENGES IN ACHIEVING THE OBJECTIVE AND ACTIONS TAKEN TO-DATE IN EASTERN EUROPE, CAUCUSES AND CENTRAL ASIA

2.1. High Cost Burden of Environmental Improvements

23. The pragmatic approach to the issue of insufficiency of financial resources for environment is to look at the amounts of money required to achieve different environmental policy objectives. This approach implies that the specific policy objective should be first established, followed by estimating the costs and benefits of achieving this objective. As a third step, estimated costs of efficient policies (for which benefits are greater than costs) can be compared with available and predictable finance, given what people and firms can and are willing to pay.

24. To-date, no attempt has been made to estimate the overall costs of implementation of the national or regional environmental policies in EECCA. This task has been made difficult by the fact that EECCA do not have clear or realistic environmental objectives (see Chapter 2.2.). Statements of policy objectives are either too general and vague or – on the contrary – too specific and too long, randomly selected wish-lists of individual projects, with little sense of priority or implementability. Environmental policy makers usually do not formally analyse affordability and willingness to pay, when establishing policy objectives.

25. In the absence of specific objectives and targets, the discussion on costs cannot be substantial and quantitative. Nonetheless, one can get an idea of the financial resources required for environmental improvements in EECCA by looking at the state of physical assets that provide environmental services, and assessing the rehabilitation and capital investments required in order to achieve various arbitrary targets in different environmentally-related sectors.

26. Different studies, undertaken over the last years, can give an indication of the magnitude of costs of achieving selected environmental objectives. A study on costs for Ukraine has shown that in order to achieve environmental improvements equivalent to the implementation of the EU Directive on Large Combustion Plants the country would have to spend up to EURO 2 billion on capital investments in anti-pollution equipment until the year 2010. The annual cost (annualised capital cost and operation and maintenance (O&M) cost) for the country in 2010 would be about EURO 320 million (Berkelaer, Jantzen, and Peszko, 1999).

27. Other studies, focused on urban water and sanitation, have demonstrated a significant cost of just maintaining the present, very low level of infrastructure services in these sectors. Formulated in this way, the policy objective may look somewhat less ambitious but even its achievement would impose significant cost burdens on the countries. In order to fully cover just the operation and maintenance costs of the currently operating urban water infrastructure alone, Moldova, for example, would need to spend 3.2% of current GDP, Georgia - 3.0% and Kazakhstan 1.2% per year. In all cases, this would imply doubling or even more than tripling the current level of expenditure to the water sector. The cost burden on the economy appears heavy when compared with the estimates for the EU candidate countries in CEE. For example, it was estimated that Lithuania would have to spend from 1.05% of GDP in 2005 to 2.6% of the forecasted GDP in 2020 to implement the entire body of environmental laws of the European Union (DANCEE/Anderson and Semeniene, 2001). These figures include annualised investment and O&M costs

for all environmental directives including drinking water and urban wastewater directive. A similar relative cost burden has been calculated for other accession countries, such as the Czech Republic and Poland.

28. These preliminary and non-comprehensive cost estimates indicate that the cost burden of any ambitious environmental investment programs in EECCA may be much higher in EECCA than it is in the EU Candidates from CEE. This calls for a careful setting of policy objectives in order to stay realistic.

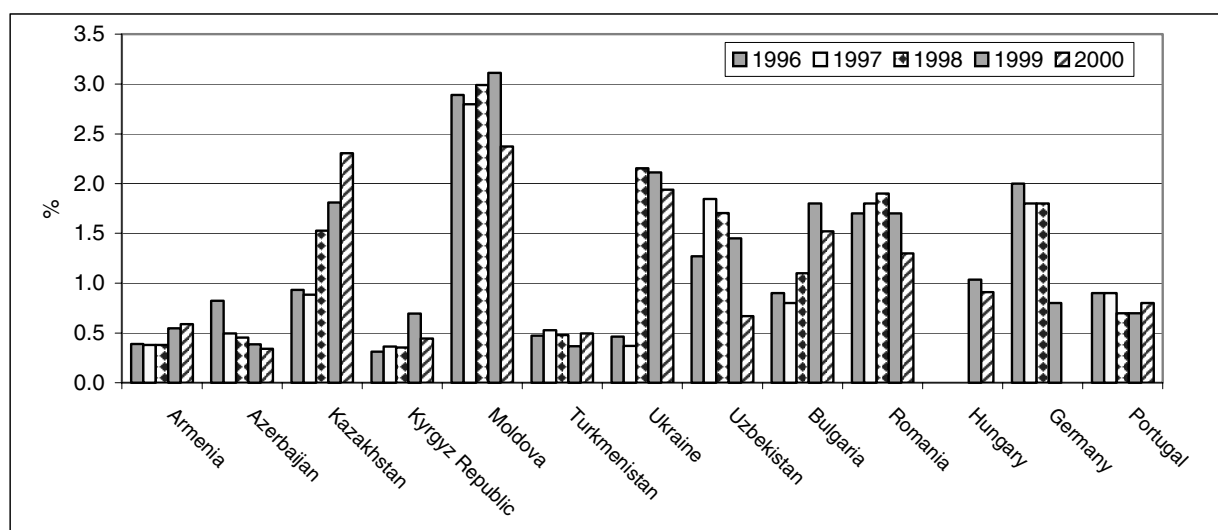
2.2. Environmentally-Related Expenditure

29. The commitment to address environmental issues can be best illustrated by analysing environmentally-related expenditure³ in EECCA and measuring their share in the total income of the economy. Over the last several years, the first environmental expenditure studies and data collections have been undertaken in selected EECCA (OECD, 2002, World Bank, 2002a). Recent data collection in the whole region, undertaken by the OECD EAP Task Force Secretariat, was for many countries the first time that data was compiled using the internationally-established methodologies of the OECD and Eurostat (OECD, 2003 forthcoming). This study covers a 1996-2001 time series of domestic environmental expenditures as well as assistance provided by donors and lending from International Financial Institutions (IFIs). Data collection revealed important methodological, accounting and definitional differences that often made it difficult to interpret the data. It underlined the need for a reform of environmental expenditure data collection in the EECCA countries. Still, it provides a sufficiently robust basis for preliminary, cautious policy analysis. This chapter will overview the main findings of this study and derive some analytical conclusions from presented data.

30. As a share of GDP, environmentally-related expenditures have either stayed constant or decreased in the period 1996-2001 (Figure 1). The share of the reported environmentally-related expenditure in GDP varies significantly across countries, from 0.4% of GDP in Azerbaijan to 2.4% of GDP in Moldova (2000) and 3.1% of GDP in Kazakhstan in 2001. Except those, which are at the low end of this spectrum, most EECCA countries seem to devote higher shares of their incomes to environmentally-related expenditures than selected CEE and EU countries. Even taking into account possible overestimates of some reported expenditure analysed in the report (e.g. Ukraine and Kazakhstan), it seems that measured by the share of income devoted to environmentally-related expenditures, most EECCA countries are more committed to improving environmental and water supply quality than is commonly thought. It is the low income rather than low willingness to pay that seems to be the binding constraint to higher environmentally-related expenditures. This hypothesis, however, needs to be carefully verified by addressing the methodological problems with data classification and collection.

³ The category “environmentally-related expenditure” includes pollution abatement and control expenditure (PAC), as defined by OECD and Eurostat, plus water supply expenditures and some natural resource management expenditures that are not covered by the OECD PAC methodology.

Figure 1. Total Environmentally- Related Expenditure as a Share of GDP, 1996-2000



Source: OECD 2003, Forthcoming

31. Domestic environmentally-related expenditures in absolute terms show no clear trends over time in the period 1996-2001 (Table 1): they have risen in some countries (Armenia, Kazakhstan and the Kyrgyz Republic) and declined in others (Azerbaijan, Ukraine and Uzbekistan). Except in Ukraine (650 million Euro/per year in 2000) and Kazakhstan (455 Euro/year in 2000), the size of the environmental market in other countries is still very small from 12 to 49 Million Euro per year⁴. With so small levels of environmental expenditures, there may be sharp discontinuities in trends due to single major projects, both domestic and foreign. Very high business expenditure data in Ukraine and Kazakhstan, as reported by these countries, however, would require further investigation. In these largest countries in the region (except for Russia), the absolute volume of environmentally-related expenditures may be similar to such poor CEE countries as Romania or such small countries as Hungary. They are about half of the volume of finance that Portugal spends on environment and water supply. The small absolute figures for most EECCA countries reflect the very small sizes of markets for environmental protection technologies and equipment. Unfortunately, this does not help EECCA decrease environmental protection costs because the competition and the “economy of scale” cannot be utilised. It also does not help attract domestic and foreign financing institutions, as the expected business size in most cases will not justify the high costs and risks of developing innovative financial products. This situation resembles a vicious circle where the small size of the market does not attract technology and finance, which – in turn – does not support the growth of the market.

⁴ Russian Federation, Belarus and Tajikistan have not provided environmental expenditure data

Table 1. Trends in Total Environmentally-Related Expenditure, 1996-2001 (€ Million, 2000)

	1996	1997	1998	1999	2000	2001
Armenia	5	6	7	12	12	4
Azerbaijan	34	22	22	20	20	19
Kazakhstan	166	159	270	326	455	365
Kyrgyz Republic	4	5	5	9	7	..
Moldova	43	42	41	42	33	50
Turkmenistan	11	14	13	9	15	11
Ukraine	147	114	649	635	617	..
Uzbekistan	80	119	114	102	49	102
Bulgaria	976	103	139	237	209	..
Romania	4 092	1 973	1 595	868	526	..
Germany	37 385	37 529	36 579	35 510
Hungary	572	527	..
Portugal	1 170	1 179	1 157	1 033	1 173	..

Source: Eurostat, OECD 2003, forthcoming (based on national statistics).

Notes: Some countries did not provide data for natural resources management expenditure, water supply expenditure may be included in WWT expenditure. Moreover, data should be compared with care as data for OECD and CEE countries exclude natural resources management expenditure. For more detailed explanations concerning definitions and data coverage, see methodological sections.

ARM) 2001: Preliminary data, including partial current expenditure.

AZR) Data refer to the public sector only.

KAZ) Excludes expenditure for natural resources management. Investments only. Break in time series: 1996-1999 data are national estimates.

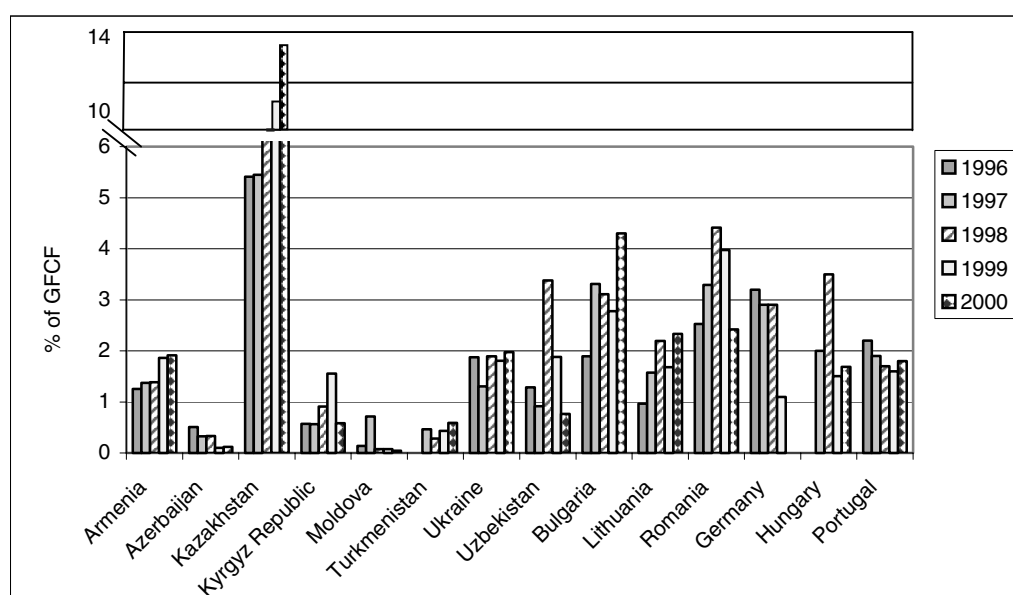
TUR) Data refer to public sector only. Excludes expenditure for natural resources management

UKR) Excludes expenditure for natural resources management.

UZB) Excludes water resources management expenditure.

32. Usually, current expenditures are the most important component of environmentally-related expenditures. However, capital expenditures appear to be more important in Armenia (70% of total environmentally-related expenditure), and Kazakhstan, which has reported only investment expenditures (in Kazakhstan, this high figure may be a methodological reporting problem). Environmentally-related investments contribute to between 0.1% and 3% of total investments in the economy. For few countries (Armenia, Ukraine) this is lower than for transition economies in CEE (which are investing under pressure to comply with EU standards) and Germany, but is comparable with e.g. Portugal. In Kazakhstan, the share is larger but data should be studied more carefully.

Figure 2. Environmental Investments as a Share of GFCF, 1996-2000



Source: Eurostat, OECD 2003 forthcoming (based on national statistics).

Notes: Data should be compared with caution as definitions vary across countries. Data for OECD and CEE countries do not include investment expenditure for water and other natural resources management activities. For more detailed explanations concerning definitions and data coverage, see methodological sections.

AZR) Data refer to the public sector only.

KAZ) Excludes expenditure for natural resources management. Break in time series: 1996-1999 data are national estimates.

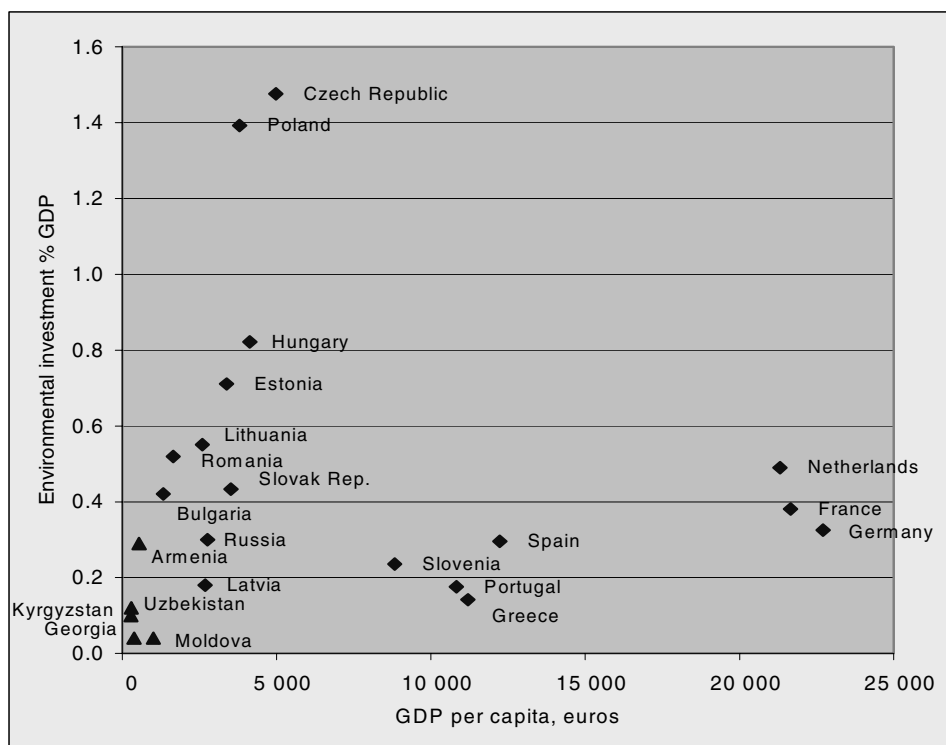
TUR) Data refer to the public sector only. Excludes natural resources management expenditure.

UKR) Excludes natural resources management expenditure.

UZB) Excludes water resources management expenditure.

33. Figure 3 below compares the environmental investment expenditure as percentage of GDP with GDP per capita for a sample of European countries and EECCA. It can be seen that EECCA are investing much smaller fractions of their income in environmental protection than the CEE and OECD countries. The low-income countries in EECCA have allocated a relatively small portion of income to environmental capital investments, in particular when contrasted with some middle-income transition economies of Central Europe (in particular, the Czech Republic and Poland). The distribution of data renders the correlation coefficient in the whole data set statistically insignificant. This “strange” behaviour of some CEE outliers can be explained by the high expenditures that these EU candidate countries make in order to meet the EU environmental standards in a very short time. Similar commitment cannot be expected from EECCA since they do not face such an externally driven, pressing and specific policy objective.

Figure 3. Correlation between GDP per Capita and Environmental Investments as Percentage of GDP for a Sample of European and EECCA



Notes:

At current prices and exchange rates.

Data refer to spending for end-of-pipe and process-integrated investments.

Data refer to: 1996 for Spain, 1997 for Germany, the Netherlands and Russian Federation;

1998 for France, Bulgaria, Hungary, Lithuania, Romania, Slovenia and the Slovak Republic;

1999 for the Czech Republic, Estonia, Georgia, Greece, Latvia, Poland and Portugal;

2000 for Armenia, Moldova, Kyrgyzstan and Uzbekistan.
Russian Federation: Data include investments for water supply and exclude process-integrated investments.
Slovenia: Data refer to business sector only.

34. Overall, preliminary empirical data seem to indicate that environmental and water supply expenditures in many (though not all) EECCA countries account for a nontrivial portion of GDP. Absolute values are often trivial, however, because their incomes are very low. In addition, the bulk of financial resources seems to be used to operate and maintain obsolete pollution abatement technologies and the shortage of funds affects mainly capital spending on overhaul of existing or investments in new fixed assets. Notwithstanding the relatively low levels of overall environmental investments, EECCA have usually been able to mobilise additional resources in the instances of environmental accidents or calamities that have threatened the health and lives of people. Unfortunately, this seems to have been the main driver for environmentally-related spending so far.

2.3. Weak Demand for Environmental Financing

Fragile incentives for domestic polluters to improve environmental performance

35. The underlying reason for this persistently low level of environmental capital investment expenditure in EECCA is the very weak effective demand for improving environmental conditions and thus, for financial means to do it. During the last decade very little progress has been made in virtually all EECCA with creating the incentives that would induce firms and municipalities to allocate more of their internal resources for environment or seek external finance for this purpose.

36. Demand for something exists if people are willing to pay for it. Demand is effective if people are both willing to pay and have money to pay. Demand for grants (money free to beneficiaries, save transaction costs) will always be almost unlimited, and thus can never be fully met even in the richest world economies. Demand for loans (and other debt instruments) in EECCA cannot be meaningfully determined because - as it will be demonstrated later - the binding constraint, limiting the access to finance, is still the low availability of domestic credit (credit rationing) rather than high interest rates. When the price of a loan is an explicit limiting factor (as in the case of foreign lenders), the effective demand (willingness to pay by borrowers) for financing of environmental investments appears to be very low. Notwithstanding more than a decade of efforts and millions of dollars put into grants for project preparation, the disbursement of IFI loans in the environmental sector in EECCA has been a small fraction of what is still claimed to be “demanded”. Commercial financing institutions also do not report that firms or municipalities in EECCA articulate any appetite for market-priced financing for environmental projects.

37. Notwithstanding the persistence of weak effective demand, most environmental policy makers continue to put a misplaced stress on developing new financial instruments (increasing supply of money), rather than on strengthening demand for money to finance environmental improvements. Demand can be strengthened by introducing result-oriented (as opposed to current effort-oriented) environmental policies and their effective implementation and enforcement. This would encourage facilities and households to take actions to protect the environment. Thus, an integrated approach to environmental financing must create demand for environmental services and then mobilise adequate financial resources to meet this demand.

38. Available data from selected EECCA imply that virtually all environmental investments, undertaken by enterprises and municipalities, were subsidised one way or another (OECD, 2002b). This indicates that polluters are not willing to pay themselves for abating their pollution. While in the short run subsidies may be an indispensable incentive for most polluters to take any action, in the medium and long

term the reliance on subsidies to improve the environment may actually worsen environmental conditions and weaken the economy. Therefore Polluter Pays Principle (PPP) became an overarching principle of environmental policies world-wide (see Box 1).

39. Environmental authorities themselves have often weakened demand for environmental financing, by continuing to create unrealistic expectations that subsidies for polluters will be available in future, even though public coffers are empty. Such expectations, inherited from the Soviet times of soft budget constraint, encourage polluters to postpone any actions until they are fully compensated by the government. Certainly, the Government does not and will never have enough money to compensate most of them, giving polluters an excellent excuse for doing nothing. Eventually polluters may also be encouraged to demand compensation even for not increasing pollution.

Box 1. The Polluter Pays Principle (PPP)

In the OECD countries, the underlying principle of environmental financing is the Polluter Pays Principle (PPP) which implies that polluters should bear the full cost of compliance with the goals established by the relevant administration *without subsidies*. Subsidies for the environment create perverse incentives because, in the long run, they tend to attract polluting industries, thus increasing rather than decreasing overall pollution. They also distort international trade and investments. Environmental subsidies also divert public sector resources away from those important social needs, which can not be financed from private sources. The PPP, as it is applied in the OECD, provides for certain well-defined exceptions to its “no subsidy” philosophy. Specifically, a subsidy may be justified if it is well-targeted (i.e. the environmental objectives to be achieved by the subsidy are clearly specified), limited in size and duration and does not introduce significant distortions in markets and trade). It can also be used where considerable external benefits or provision of public goods are involved.

The development of an effective environmental finance system, based on the Polluter Pays Principles, is constrained during the transition to a market economy. This is due to several factors, including weak environmental management and enforcement, underdeveloped capital and financial markets, scarce private financing, uncertain political and fiscal systems and weak civil society. All of these circumstances are characteristic of the EECCA economies today.

40. Other reasons that explain the very low level of demand for environmental financing by both enterprises and municipalities in EECCA include the legal framework that changes frequently and randomly and continued lax enforcement of ambiguous laws and regulations. Polluters simply do not expect that they will recover any return on their environmental investments from avoided fees and fines for non-compliance in future. The probability of having financial reward for compliance with environmental regulations is further eroded by excessive discretion of environmental inspectorates, which creates ample opportunities for corruption.

41. This notwithstanding, there is anecdotal evidence that some enterprises have actually used retained earnings for environmental improvements. Enterprises do it mainly when improving environmental performance is a side effect of increasing profits or gaining access to new markets, such as with energy efficiency, modern, cleaner technologies, resource recovery or saving processes. Anecdotal evidence also suggests that the requirements of foreign markets provide some incentives for export-oriented firms in EECCA to invest in improving environmental performance.

42. Efforts by the Ministries of Environment to increase the willingness to pay for environmental improvements will for several years, be constrained by the low ability to pay by many economic agents. Many enterprises still suffer from a chronic low liquidity and profitability and pessimistic expectations for growth in the future. Municipalities also face financial constraints. They have usually assumed responsibilities that are not matched by adequate access to finance. This adversely affects the willingness to allocate scarce internal capital to environmental investments that typically have much lower rates of financial returns than alternative investment opportunities. With respect to enterprises, environmental authorities sometimes face a tremendous task of withstanding lobbying pressures of powerful vested interest groups standing behind huge inefficient enterprises, which should be bankrupt because they are not able to pay their liabilities, including environmental liabilities owed - through government - to the whole society.

Detrimental conditions affect foreign private finance for the environment

43. Establishing incentive structures and framework conditions are also essential in attracting foreign private finance. In general, EECCA have been much slower in their transition process of putting the

macro-economic framework conditions in place, thus creating investment incentives. This is reflected, to an even larger extent, in the environmental sector where environmental legislation is often unclear on liability and permitting process is cumbersome and excessively discretionary.

44. Table 2 below confirms low level of FDI flowing into EECCA as compared to FDI flows going to selected CEE countries. This Table also shows that FDI is concentrated in the Caspian Sea countries.

45. The above-mentioned deficiencies provide difficult conditions for attracting FDI to the environmental sector in EECCA. It may even be argued that these deficiencies provide incentives for environmentally non-conscious enterprises to set up business in the EECCA countries. The 2001 EBRD Transition Report suggests that "In the Commonwealth of Independent States (CIS), FDI inflows have been concentrated in the energy-rich Caspian countries, with capital inflows increasingly causing problems of macroeconomic management. In the remainder of the CIS, low FDI inflows continue to reflect the serious flaws in the investment climate". The May 2002 EBRD Transition Report together with the World Bank study on Russian FDI (World Bank, 2001a) suggest that FDI is primarily channelled to countries or even regions where the framework conditions for investment are more favourable. These conditions, among others, include the quality of governance, legal framework, institutional arrangements and low corruption at all levels.

Table 2. FDI Comparison for EECCA and Selected CEE countries

	FDI per Capita USD		FDI-Inflows as % of GDP	
	2000	2001	2000	2001
Armenia	27	30	5.4	4.3
Azerbaijan	14	39	2.2	5.6
Belarus	9	8	0.7	0.7
Georgia	28	19	5.1	3.2
Kazakhstan	84	162	6.8	10.7
Kyrgyzstan	6	8	2.1	2.7
Moldova	23	14	7.1	3.7
Russia	-2	14	-0.1	0.6
Tajikistan	4	1	2.2	0.9
Turkmenistan	24	24	5.2	4.4
Ukraine	12	11	1.9	1.4
Uzbekistan	3	3	1.1	1.2
Weighted average for EECCA	19	28	3.3	3.3
Estonia	226	243	6.4	6.4
Poland	211	168	5.1	3.6
Albania	41	65	3.8	5.3
FYR Macedonia	88	223	4.9	12.8

Source: 2001 EBRD Transition Report

2.4. Financial Sector not Involved in Environmental Financing

46. So far, the most significant source of financing of asset purchases in EECCA enterprises have been retained earnings, followed by equity contributions. In Russia, for example, most of the growth in investment by companies was financed using retained earnings (50%); bank credits represented only 4%,

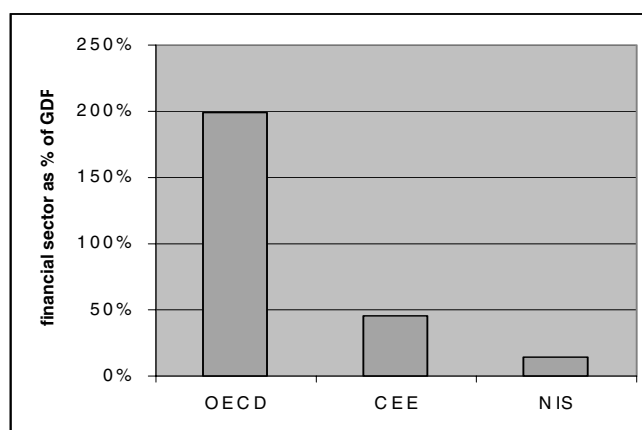
and other non-budgetary credits - 6% (IFC, CIDA, 2001). From environmental policy perspective, the high reliance on retained earnings and equity in financing investments in EECCA firms highlights the importance of policies that affect corporate internal spending decisions, such as effective permitting and enforcement of environmental standards, realistic targets and economic instruments. But it also highlights an important constraint on a company's environmental improvements because almost all companies will eventually reach the point where internal resources are insufficient to capitalise even on available commercial opportunities, let alone to finance environmental improvements, which generate lower financial internal returns. For small and medium-sized enterprises, being limited to internal equity alone, is particularly difficult. Therefore, effective environmental financing in EECCA will increasingly have to rely more on external sources: financial markets and the public sector.

47. In developed OECD market economies, the financial sector (which consists of banks, the corporate debt market, and the equity market) provides the bulk of the investment finance. During the last 10 years of transition to market economy, none of EECCA has been able to develop the financial markets to the level that would provide access to long-term debt finance at an affordable cost.

48. Available experience and empirical evidence seem to suggest that high interest rates are not the major factor limiting the access to debt finance for investments. The binding constraint seems to be rather the shortage of domestic credit because of the very small size of the deposit base of EECCA banking sectors.

49. The relative size of the financial sector in EECCA in 1998 was on average (non-weighted) only about 15% of GDP (Fig. 4)⁵. By comparison, the size of the financial sector in CEE countries was almost 50% of GDP and in the OECD economies (excluding the member countries from CEE) it averaged at almost 200% of GDP. (Kawalec, Kluza, 2001).

Figure 4. Relative Size of the Financial Sector in the OECD and Transition Economies, 1998



Notes: OECD member countries: Poland, the Czech Republic, Hungary and Slovakia are included in CEE; Figures are non-weighted averages for 1998; The size of financial sector is measured as an aggregated value of bank deposits, outstanding corporate bonds and commercial papers, and stock market capitalisation.

Source: Kawalec, Kluza, 2001

50. Albeit very small in absolute terms, banks usually dominate the financial sector in EECCA, as other segments are even less developed. Compared to more developed economies (also in CEE), stock

⁵ Uzbekistan, Belarus, Tajikistan and Turkmenistan not included.

market capitalisation in the EECCA economies is still at its infant stage. Corporate debt markets, which are important sources of liquidity for CEE enterprises, hardly exist in EECCA (Kawalec, Kluza, 2001) except where promissory notes have been used as quasi-money rather than as a debt instrument.

51. The banking sector remains extremely weak and uncertain in EECCA although the situation has been rapidly improving in some countries over the last 2 years. Most banks still suffer from major liquidity problems, and a serious term mismatch between long-term lending requirements and short-term nature of available funding. Many banks have little more than short-term or demand deposits available for lending, and little or no funds available for loans of any long-term nature. According to a recent (2001) survey of Russian banks and companies (IFC/CIDA, 2001), only 10% of bank credits in Russia were extended for periods longer than one year. The average loan term was less than six months. Longer-term lending is more often in foreign currency terms than in Rouble terms, an indication that the market is still concerned about the long-term stability of the Rouble. In Ukraine, the situation is equally bad. The share of long-term credit in the total loan portfolio of Ukrainian banks was only 17% of the total loan portfolio. (Sultan et. A., 2000).

52. Equally important for potential borrowers is the fact that the large banks in EECCA – with few exceptions - tend to be linked to large financial-industrial groups or most powerful regional governments and concentrate their lending on group members. This practice of credit rationing leaves very little credit available to other firms and municipalities even if they are willing to pay high interest rates.

53. Perhaps the most significant factor limiting supply of bank credit to investments in economy is the small number of banks with significant sums of assets to sustain serious loan portfolio. The size of the assets of the EECCA financial system as a proportion of GDP is very small by any international comparison and the system is only providing limited financing to the private sector. For example, while the Russian banking sector has many more banks than most other countries (around 1300 at the end of 2001), the great majority of these banks are tiny by international comparisons. On an international scale, even the Russian state giant Sberbank looks like a relatively small bank, although measured by the total value of assets (EUR 28.7 billion) it was still the largest bank in the CEE-EECCA region at the end of 2001. In the rest of the sector, the assets are very dispersed among a great number of small, weak units. The assets of all 1300 Russian banks in August 2001 – slightly above \$100 billion (*Ekspert*, 2001) – were roughly the same as the aggregated assets of the 10 largest banks in Poland. The top 4 Russian banks were smaller than the top 4 banks from the small Czech Republic. In Ukraine, the capacity of the banks to finance investments has been even weaker. The total assets of Ukraine 150 banks, amounted in 2000 to almost \$10 billion, which is less than two-thirds of the total assets of the single Bank Pekao S.A., not even the largest commercial Polish bank (Nunan, 2001). The largest bank in Central Asia – the National Bank of Uzbekistan – in 2001 had a total value of assets of US\$ 3.8 billion and a credit portfolio of US\$ 2.2 billion. (NBU, 2002).

54. This situation is improving, as financial and capital markets in most EECCA are settling down after the 1998 crisis. Some signs of altering the past trends can be observed. Banking supervision has become more effective, local debt got under some control, interest rates are decreasing and stabilizing and medium-term loans are slowly becoming available. In Ukraine, the overall loan portfolio of commercial banks increased cumulatively by 28.5% for the first ten months of 2001, and what is most important, long-term loans rose especially fast by cumulative 58.4 % over the same period (IERPC, 2001). In Russia, the lending market has also seen considerable growth in 1999-2001 with the bulk of lending now concentrated on lending to consumers and business as opposed to government. However, commercial bank credit outstanding to enterprises and organisations (which is more relevant for environmental investments) has grown much more slowly than consumer loans in the year 2000 – only by 3%, and in March 2001 amounted roughly to \$28 billion.

55. There are some isolated examples of near-commercial loans in the environmental and municipal infrastructure sectors, e.g. St. Petersburg, Moldova, albeit usually softened by public funds. Some local governments in Russia (e.g. Nizhny Novgorod) have placed foreign currency bonds on international markets before the Russian financial crisis in 1998. Projects have been launched, but the governments found themselves unable to service the debt undermining the market trust in municipal bonds of former Soviet Union countries. Knowledge of third party financing schemes (such as energy service companies – ESCOs) is penetrating the region although the existing regulatory framework still inhibits real market penetration. Leasing is becoming used to finance purchases of new equipment thus indirectly improving the environment. Available analysis of the leasing market, however, does not indicate that environmental protection equipment specifically is of any interest to emerging leasing companies (IFC, CIDA, 2001), except for some attempts to lease waste handling trucks (e.g. Ekaterinburg in Russia). Also, foreign export credits and donor soft loans are beginning to finance environmental investments after the 1998 crisis (RDCG, 2002).

56. The weakness of the banking system in EECCA has been mainly caused by the wrong government policies, including weak and inconsistent banking supervision and low protection of creditors' rights. Governments often disturbed financial markets by lending directly to commercial projects and by using the banks for political purposes. Above all, however, until the financial crisis of 1998, the banking sector had been flooded by government treasury bonds (GKO), which carried extremely high nominal interest rates, offering banks a tempting alternative to lending for investments in the enterprise sector. Not only had this diverted bank investments away from enterprises but it also made the banks extremely dependent on the fiscal performance of governments and thus vulnerable to financial crisis. Indeed, the reality check of the 1998 financial crisis slashed the capital base of EECCA banks almost overnight, turning the entire sector into a little more than petty cash by world standards. Households and firms still generally do not trust banks and do not feed them with deposits, which the banks could convert into loans to the economy. This is highly contrasted with the CEE countries, who were able to maintain general confidence in banks, despite the high share of bad debts and banking crises in some countries (e.g. Bulgaria, the Czech and Slovak Republics).

57. Environmental authorities have not caused the weakness of the financial sectors in EECCA and it is not their mandate to strengthen it. However, environmental administrations throughout EECCA have tended to be part of the problem rather than part of the solution to the banking crisis. Public funds have sometimes been used to finance projects that could have been commercially viable. When financing environmental investments from the budget or extra-budgetary funds, administration at the national or regional levels usually preferred to offer grants covering 100% of project costs or direct loans, rather than using banks as co-financiers or intermediaries. None of the public environmental funds in the region has been encouraged or required to co-finance projects with commercial banks (e.g. by matching grants) or to lend through them in order to increase the leverage effect of public money. Instead, when environmental authorities or even external donors develop new financial products for public environmental funds, they used to choose financing instruments, which do not facilitate bank credit to environmental sector, such as direct lending to replace matching grants.

2.5. Low Priority of Environment in Public Sector Spending

58. All EECCA have faced severe public sector budget constraints throughout the decade. These constraints resulted, among others, from the fall in national income compared to the pre-transition period and poor fiscal position of the public sector in the transition to a market economy. In addition, non-cash payments, which were until recently commonly accepted in the public sector in most EECCA, have also decreased the liquidity and predictability of public resources. These constraints reduced the availability of public finance to all socially-important purposes, including the environment. In particular little progress

has been made in most EECCA with tax reform, broadening the tax base or improving collection of government revenue (Himes, 1999). Budgets are small because governments do not collect enough tax revenue. Public sector revenue, as a percentage of the national income, remains very low by international standards, as shown in Table 3, although increased slightly in the last two years.

Table 3. Shares of General Government Tax Revenue in GDP in 1999

EECCA average	20.1%
CEE average	34.3%
OECD average	37.3%

Source: EBRD 1999, OECD data base

59. Strengthening the fiscal position of the public sector involves the need to increase budgetary revenue, but above all, it requires reductions of government spending. Environmental infrastructure will most likely suffer budgetary cuts, like many other social services, for the next several years. In different EECCA, accumulated government obligations are likely to absorb almost all, additional government revenue over the next 10 or so years, even under optimistic assumptions about economic growth and future tax collection. These obligations include backlogs of spending on health service and education, payments of accumulated government internal obligations to pensioners and budgetary institutions, service of accumulated external debt, etc. Thus, a fundamental challenge in EECCA is to mobilise a critical mass of environmental finance in a public sector, under chronic conditions of acute scarcity and extremely limited capacity for additional borrowing.

60. Environmentally-related expenditures of the public sector in EECCA have been decreasing over the past years both in absolute and relative terms, affecting mainly the spending on capital investments and regular maintenance of public environmental infrastructure services. The bulk of available public resources has been used to cover the running costs of environmental administration and public utilities. Water supply and wastewater treatment have attracted the lion share of available public environmentally-related expenditures. Notwithstanding the low priority and many pressing social needs competing for public financing, environment has been receiving some public resources and most urgent tasks have been financed out of the budgets or by environmental funds – e.g. emergencies, hotspots and the basic running costs of existing environmental infrastructure. There is some evidence that earmarked public funds have helped secure, at least, minimum funding for the staff and equipment of environmental policy and law enforcement administration. At least for some EECCA, the share of total environmentally-related expenditures in consolidated public budgets (national and local budgets and environmental funds), seems not to diverge from international standards (Table 4).

Table 4. Environmentally-Related Expenditure as Percentage of General Government Expenditure in Selected Countries - Late 1990s

Country	Percentage
Austria	2.8
Moldova	2.0
Estonia	1.7
Kyrgyzstan	1.6
France	1.5
Romania	1.4
United Kingdom	1.2
Georgia	1.2
Bulgaria	0.6
Kazakhstan	0.45
Latvia	0.2

Note: Definition of environmental expenditure may vary across countries. For EECCA, it includes water supply and other natural resource management expenditures.

Source: Eurostat, NewKrons database; OECD environmental expenditure data collection 2002. For Georgia and Kazakhstan – COWI consultants' estimates (see Box 2).

61. The low share of environmental spending in total public budgets may be attributed to the weak bargaining power of some Ministries of Environment in the budget preparation process caused by marginalisation of environment issues on Government agendas. Another reason, however, may be the low quality of environmental programs and projects submitted to the budget process, as some evidence suggests (see next chapter).

Box 2. Environmentally-Related Public Expenditure in Selected EECCA

In Georgia, experts from the Ministry of Environment estimated that in 1999 about 1.2% of the government budget was spent on environmental purposes, including water supply (COWI estimates in DANCEE/OECD, 2001a-Georgia). About 80% of the total environmental spending was related to water and wastewater infrastructure. The estimated public budget contributions to this sector amounted to somewhat more than GEL 12 million in 2000 (US\$ 6 million). These public subsidies were used primarily to compensate water utilities for the revenue foregone if the government exempted some users (e.g. pensioners) from the water charges and to cover a portion of operation costs if the government did not establish tariffs at the level that covered operation costs. A small share of government subsidies available for maintenance work and rehabilitation investments was mobilised mainly in crisis situations. (DANCEE /OECD, 2001a-Georgia).

In Kazakhstan, all environmentally-related expenditures (including water supply) in 2000 were estimated by COWI consultants to account for only 0.46% of total public expenditure (DANCEE /OECD, 2001b-Kazakhstan). Also, very few public environmental infrastructure projects are financed through the Public Investment Programme (PIP). In 1999, only 3 out of total 84 projects (3.6%), approved for financing through PIP, were submitted by the Ministry of Natural Resources and Environmental Protection, in 2000 - 5 Ministry's projects, out of total 107 (4.7%), were approved.

62. Notwithstanding the low financing levels, public funds will have an essential role to play in EECCA in the short and medium term in co-financing critical rehabilitation and capital investments, while also providing social protection and facilitating access to credit. Some countries (e.g. Kazakhstan) may need to consider increasing overall public expenditures for the environment. All countries in the region (except perhaps Moldova) should shift focus from financing operational expenditures from public money to effective financing of rehabilitation and necessary new investments in environmental infrastructure.

2. 6. Inefficient Use of Public Environmental Expenditures

63. EECCA environmental authorities have been continuously complaining about the low level of resources available for the environment but they have made little progress in improving the efficiency of the use of available resources. EECCA environmental agencies are predominantly pre-occupied with raising revenue without paying due attention to how the money are spent and what objectives they want to achieve. This chapter discusses some causes and effects of inefficient use of exiting public money for environment.

64. Environmental policies in EECCA are usually driven by wishful thinking, thus implying overly ambitious 'needs', while disregarding costs, affordability and willingness to pay of people, governments and enterprises. Thus, the stated needs for environmental expenditure are often unrealistic, hugely exaggerated and impossible to finance.

Lack of clear expenditure programs for spending public money

65. One of the fundamental problems facing EECCA in achieving more efficient allocation of public financial resources for the environment is the lack of well-developed expenditure programs for using public money. In the absence of clear programmatic framework the selection of environmental projects and beneficiaries of public budgets and extra-budgetary funds in EECCA suffers from excessive discretion, ad-hoc political influences and blurred accountability. Responsibilities for appraising and selecting projects financed from public funds are usually indistinctively assigned, what leaves a lot of room for corruption and misuse of public resources. Laws and regulations do not specify unambiguously who should be held accountable and liable for individual decisions. Eligibility criteria, procedures, priorities and targets are either not specified at all or are defined in very vague terms to include all possible environmental measures.

66. Few EECCA governments have made some efforts to introduce a more strategic and long term budget framework and investment planning. So far, Kazakhstan is the only EECCA country to have introduced a system for strategic allocation of the government budget to large infrastructure investments through its Public Investment Program (PIP). Kazakhstan's PIP is managed by the Ministry of Economy. The PIP in Kazakhstan is a rolling three-year priority investment program, renewed annually and finalised only after the given year's budget has been approved by the Parliament. The government commitments under PIPs are incorporated into the annual budgets. The major justification for projects to be included in the PIP is co-financing through loans or grants from foreign sources, although quite a solid feasibility analysis in a standard form is also required. The share of environmental projects included in the PIP over the past several years has been very low. In 1999, only 3 out of total 84 projects, approved for financing, were prepared by the Kazakh Ministry of Natural Resources and Environmental Protection. In 2000, only 5 Ministry's projects out of total 107 were approved.

67. PIPs have the potential to introduce a rational, multi-year perspective into the allocation of scarce budgetary funds to support a portfolio of long-term infrastructure investments. Although Kazakhstan experience with the PIP seems positive, caution is needed when following this example. The preparation of a PIP requires careful handling in order to avoid dual budgeting - in particular with regard to the separation of the capital budget from the regular recurrent budget. Of even greater concern is that PIPs usually encourage countries to focus mainly on projects, with policies and programs often an afterthought. The result is an expansionary thrust to spending which might lead to unsustainable over-commitment of government funds and instability in all three levels of budgeting - macro, strategic and operational. Prioritisation of projects to be included in the PIP should be based on cost-effectiveness criterion which is usually one of the weakest points of EECCA expenditure management. If these concerns are well taken

into consideration, however, the PIP can be a useful tool, providing it follows rather than drives policy and the budget (World Bank, 1999).

68. Other countries have chosen different approaches. The Russian Federation, Belarus and Ukraine have been elaborating the so-called "target-specific government programs". Environmental agencies have also prepared several such programs. The selection of projects for these programs is not based on formal and transparent rules. Neither is it conducted as a transparent political process, which could result in a multi-stakeholder consensus over priorities within the limited budget envelope. Instead, programs consist of long lists of vaguely specified project ideas, compiled by appointed "experts" through surveying the investment wishes of local authorities or big enterprises. The rough estimates of initial investment expenditure needs are attached to each item on the list. Robust financial and economic analysis of entire project portfolios and individual projects are not conducted, resulting in programs that are unrealistic and impossible to finance. Desired shares to be covered by different sources of financing are allocated by experts among the central budget, local budgets, extra-budgetary funds, enterprise earnings and foreign sources. Environmental authorities engage in lobbying to have these "programs" approved by the Government. Even if this lobbying is successful, approval does not translate into inclusion of the projects into annual budgets. Most target-specific government environmental programs remain chronically underfunded. For example, in 1996, the government of the Russian Federation approved 25 federal, targeted environmental programs but very limited financing was provided only for 11 of them (OECD, 1999). Budgetary expenditures are almost always delayed and significantly smaller than commitments. The rate of implementation of 11 programs in Russia, studied by Ministry of Natural Resources in 2000, varied between 2% and 30% (Ministry of Natural Resources of Russia, 2002). Yet, every year, the government approves several new programs, with equally unrealistic financial "needs".

69. It is also common for EECCA Governments at different levels to subsidize environmentally-related projects that could be commercially viable and could be implemented without subsidies. Such practices not only prevent environmental improvements by diverting scarce public funds away from environmental projects that truly require subsidies in order to be implemented, but they also discourage potential commercial financiers from financing environmental projects.

70. The development of financing strategies for the urban water and municipal solid waste management sectors in some EECCA indicates the willingness of EECCA Ministries of Environment to strengthen their position in the Government through using state-of-the-art tools to prepare realistic and "financeable" investment programs and projects. Those EECCA, where such strategies have been prepared, have initiated co-operation with other ministries and agencies - ministries of finance, economy, health, planning and budgeting authorities - to work together on identifying viable financing solutions and redefining and agreeing on realistic and affordable environmental targets. This work has also enabled the ministries of environment to better articulate their needs in financial terms to their finance and economy ministries. It is expected that these initiatives will increase the allocation of public financing towards the environment, will create better understanding of cost recovery needs and will help better tailor expectations to actual financial capabilities. Financing strategy studies for the water and sanitation sectors have shown, for example, that there is room for rationalizing budgetary expenditure cuts by reducing operational subsidies and releasing resources for urgent maintenance and capital investments. Another opportunity identified was to set aside some non-critical assets for strategic deterioration in order to concentrate public money on infrastructure that is essential from public health point of view. In the municipal solid waste management infrastructure, the financing strategies analysis in selected regions of the Russian Federation shows that waste management systems in large cities are already generating financial surplus even with present, affordable levels of tariffs. Access to commercial finance is, however, prevented by the fact that this surplus is used to cross-subsidise other municipal services in integrated multifunctional communal utility.

Poor Performance of Institutions Managing Public Environmental Expenditures

71. Approaches to principles of accountability, transparency and cost-effectiveness in the institutions managing public money in EECCA, are different from internationally recognized good practices (Allen, Tomassi, (2001), Sciavo-Campo, Tomassi (1999), World Bank (1998)). Accountability is typically required only with respect to the higher level of authority in the administrative hierarchy, rather than to general public. Transparency and cost-effectiveness may be declared in very abstract terms, but are rarely made operational in decision-making through concrete targets, tools and indicators.

Box 3. Internationally-Recognised Principles of Good Public Expenditure Management

Accountability⁶ means the capacity to hold public officials liable for their actions and performance. Accountability implies addressing three questions: accountability by whom, accountability for what and accountability to whom. Accountability is achieved through clear division of responsibilities and subsequent consequences for both good performance and failures to fulfil prescribed responsibilities.

Transparency entails low-cost access to relevant information. Public sector institutions should use acknowledged international standards of accounting and disclosure of fiscal and financial information to report to controlling bodies and to public. Transparency implies both good internal control (within the government) and external audits by specialised institutions, including legal, financial and performance audits.

Cost-effectiveness is a technical concept and implies achieving objectives at a minimum cost. It requires managerial autonomy from political ad-hoc pressures over appraisal and selection of specific projects. It also requires competent individuals recruited on a merit-based and performance-based promotion system.

72. In EECCA, appraisal and selection of environmental projects financed from public money is also based on discretion rather than formal decision-making rules. Criteria and procedures are rarely transparent. Cost-effectiveness criterion is not used to select environmental projects or to evaluate the performance of government institutions managing public expenditure, resulting in wasting scarce public resources. Although most EECCA claim that they base their resource allocation decisions on cost-effective solutions, the cost-effectiveness test is not routinely and properly applied. It requires resources to be allocated to those projects, for which the discounted lifetime cost of achieving a unit of environmental benefit over the lifetime of a project is the lowest. However, when EECCA governments finance environmental projects, the information on projects' lifetime costs is usually not even solicited from project owners. Proposed solutions are not compared and ranked.

73. Since the beginning of transition, the discussions about institutional arrangements for environmental expenditure management in the CEE and EECCA have traditionally focused on government-controlled Environmental Funds. This bias could be explained by the distinctive role these Funds have played in some CEE countries. Most EECCA have also established earmarked environmental funds on national, regional and/or local levels. Environmental Funds in EECCA are comprehensive domestic public entities that provide earmarked financing for a wide range of environmental improvements for both the public and private sector. They are mostly capitalised from pollution charges and fines. Nearly all countries in EECCA have at least one national environmental fund (except for Armenia, Georgia, Tajikistan, Turkmenistan and most recently Russia). Few of them (Belarus, Kyrgyzstan, Moldova, Russia⁷,

⁶ After Allen, Tomassi (2001), Sciavo-Campo, Tomassi (1999), World Bank (1998)

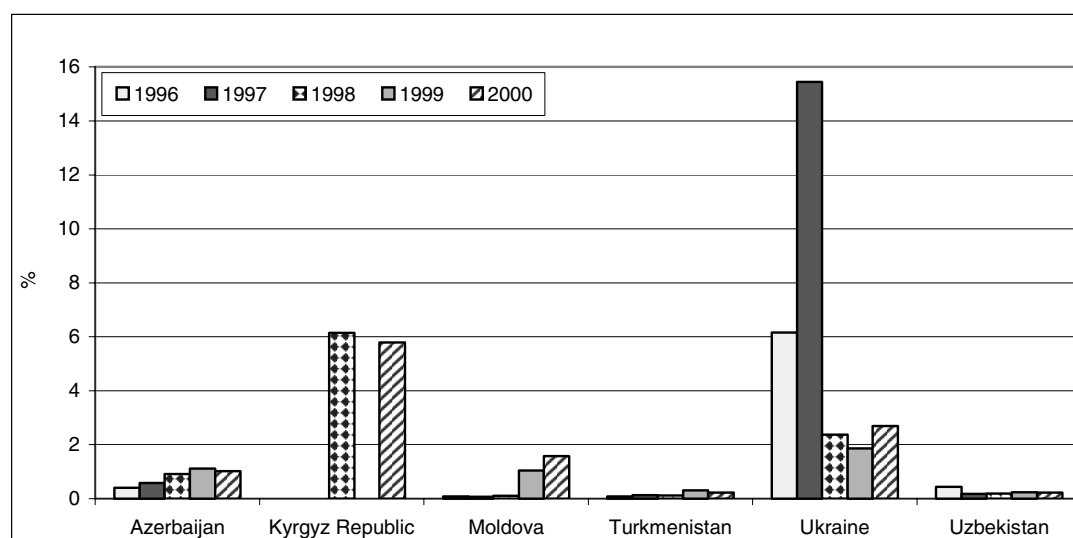
⁷ The Federal Environmental Fund of Russia was abolished as of 1 July 2002. The status of the regional and local funds at this stage is not very clear. It seems most local funds have been abolished as well while most of the regional funds have stayed as well as the environmental funds of the autonomous republics of Russia. Those that remained have been fully consolidated into the regional budgets and are now earmarked budgetary funds. As the pollution charge system in Russia has also been abolished it is not clear what exactly the revenue sources of these funds are.

Ukraine, Uzbekistan) have also regional and local funds. Many EECCA Environmental Funds started in the late 1980s as extra-budgetary institutions with a vague legal status. Nowadays, most of EECCA Funds are not legal entities and are institutionally integrated into the Ministries responsible for environment.

74. Except in Ukraine, virtually all EECCA environmental funds have remained insignificant and sometimes problematic players in financing environmental expenditure. The volume of resources available to these Funds is typically very small, ranging from about 800,000 USD in all Moldovan Environmental Funds in 2001, to about \$25 million in the Ukrainian Funds for the same year. These small resources have been spread thinly among sometimes several thousand regional and local funds (such as in Ukraine and in Russia). As a result, some funds are as small as about \$200 (some local funds in Moldova in 2001). The largest fund in the region in 2001 was the Ukrainian National Environmental Fund with the annual revenue of \$10.4 Million. This amount should justify significant strengthening of expenditure management capacity, because if efficiently used and strategically targeted – it could make an environmental difference and support at least a few significant capital investments per year. The Funds have often provided important financial support to environmental administrations affected by frequent budget cuts, but their role in financing environmental investments remained negligible. For instance, the revenue of environmental funds in Russia were equal to 6% or 17% of the value of environmental investments implemented in the country in 1997 (depending on the source of data) (OECD 1999; Goskomekologia 1997). In fact, the share of the funds in financing these investments was much smaller because typically most of the Russian funds revenue (up to 75%) was virtual and consisted of money surrogates and offsets. In Moldova, the Funds covered about 3% of total environmental expenditure in the country (DANCEE/OECD 2000c). According to the UN ECE, Funds in Ukraine accounted for less than 0.4% in 1997 (UN ECE, 2000) but since 1999 the revenue of Ukrainian funds has increased several times and has been collected in cash.

75. If compared to budgetary sources available for environmental investments/protection, EECCA Funds' contributions have also been small except in Ukraine and the Kyrgyz Republic. Some sources claim that the consolidated revenue of the Russian environmental funds were several times larger than the budget of the State Committee for Environmental Protection before it was integrated into the Ministry of Natural Resources. First, these sources usually do not specify what was the percentage of cash in total revenue. Second, it could well be that the budgets of the environmental departments of the Government were small because extra-budgetary environmental funds existed. Ministries of Finance often cut the budget of environmental agencies assuming that they have their extra-budgetary sources of revenue. Experience from other countries has shown that this is a legitimate concern. In fact, one may argue that the disproportionate attention paid to environmental funds by policy makers may have prevented the development of more effective institutional arrangements for managing public environmental expenditure (see OECD 2002b for more details).

Figure 5. Environmental Funds Share of Total Public Expenditure, 1996-2000



Source: OECD, 2003, Forthcoming (based on national statistics).

76. Public environmental funds in the region have suffered seriously from the lack of accountability, transparency and managerial efficiency. Most Funds are not financing institutions, in the internationally-understood meaning of the this term, as they are mainly focused on revenue collection from pollution charges/fines and direct public procurement on behalf of government, instead of project appraisal and financing. Virtually all Environmental Funds in EECCA have been established without clear spending programs. As a result, Funds' objectives are unclear, their mandates are all-inclusive and the Fund institutional capacity is not tailored to match the needs of environmental financing in EECCA. In most cases, Funds are just earmarked budget lines managed by the regular staff of environmental departments of governments at different levels.

77. There have been a few attempts to improve the performance of public environmental funds. In 1995, EECCA environmental ministries endorsed the St. Petersburg Guidelines on Environmental Funds in the Transition to a Market Economy which continue to set the internationally-agreed benchmark for essential good practices in programme and project cycle management in environmental funds (OECD, 1995a). Two countries (Moldova and Kazakhstan) have requested international performance reviews to identify priority areas for reform of environmental funds. A few regional funds in Ukraine and an oblast fund in Rostov (Russia) have been actively seeking international assistance to improve their project cycle management. Few funds have made some steps towards greater transparency by publishing annual reports (e.g. Ukrainian National Fund). The National and 3 regional funds in Ukraine (Donetsk, Crimea and Zaporozhie) have also made an important progress sine 1999 in focusing their expenditure on environmental investment projects and in improving performance in project appraisal through international co-operation projects. The Moldovan National Fund has introduced simple project cycle with some formal elements. With these few exceptions, however, by 2002, very little progress has been made in the region towards the implementation of the St. Petersburg Guidelines. According to some observers, few Russian Oblast environmental funds, which survived the abolition of the Federal Environmental Fund and of environmental charges, have co-financed several useful projects including large investments, such as investments in the protection of lake Baikal (personal communication with R. Perelet). Further research in this area is needed.

78. Over the past years, a group of officials and managers of environmental funds from EECCA have made another effort, to set the good performance standards for environmental financing institutions in transition economies. They have stimulated co-operation among professionals within the NIS Environmental Finance Network, operating under the umbrella of the OECD/EAP Task Force, to develop “Good Practices of Public Environmental Expenditure Management in Transition Economies”. These “Good Practices” build upon the St. Petersburg Guidelines as well as ten years of experience of the most advanced practitioners with financing environmental projects from public funds in transition economies. Following a series of multi-stakeholders’ consultations, their final version will be presented at the next "Environment for Europe" Ministerial Conference in May 2003 in Kyiv.

79. In the second decade of the 1990s, most EECCA governments consolidated their former extra-budgetary environmental funds into the government budget. This has usually increased revenue collection and improved fiscal control. However, consolidation into the budget has not, so far, resulted in improvement of management capacity. Quite contrary, the management efficiency of expenditure programs may have actually deteriorated. This has been due to excessive politicisation of investment planning in the budget process and the difficulties of keeping highly-qualified professional staff on a government payroll. Several funds are actually disappearing (e.g. Russia, Kazakhstan) or face a very uncertain future under the constant pressure by government authorities and international organizations responsible for fiscal policies. This could be viewed as a loss of established institutions which have provided at least some predictable funding to environmental projects. But it could also be viewed as an opportunity to establish new, more effective and efficient institutions to manage public environmental expenditure. Sometimes such an institutional discontinuity can be utilised to untie public funds from established vested interests and political pressure groups and to introduce more transparency, accountability and professionalism into operations. “Good Practices for PEEM”, developed within the OECD EAP Task Force, provides guidance on how to do it. This document also identifies a wide menu of diverse institutional arrangements for managing public environmental expenditure programs in market economy.

80. Any institutional reform of public environmental expenditure management would have to begin with establishing clear expenditure program to achieve priority environmental objectives. The design of institution and financial products should be secondary and adjusted to the specific needs of managing given expenditure programs. The financing mechanisms needed to support small local projects will be different from those which can co-finance large scale capital investment projects to rehabilitate and develop physical environmental infrastructure. Implementing such reforms will require a strong political will and commitment on the part of EECCA governments to have effective environmental expenditure programs rather than small subsistence funds under own control.

2.7. Perverse Incentives and Environmentally-Harmful Subsidies

81. Notwithstanding the commercialization and privatization of the resource extracting industry, the production goals and the uses of natural resources place little emphasis on efficiency and the long term, inter-generational optimisation of extraction paths. Resources, such as water for irrigation, personal consumption and industry; forests and minerals (such as gas, oil, metals, etc.) are free of charge or under-priced on domestic markets. This is especially true for the agricultural sector and large non-privatised industries where the high social and political costs prevent necessary structural pro-efficiency reforms.

82. The widespread examples of explicit and hidden subsidies for irrigation and energy sectors in EECCA not only have negative environmental effects, but also undermine long-term sustainability and competitiveness of the economy. They create perverse incentives, which induce inefficient resource management and also have adverse fiscal implications. They divert scarce public resources from financing

other social areas where they may be more urgently needed. Although progress is being made, natural resources are often traded more cheaply at domestic markets than at international markets thus encouraging excessive domestic consumption and waste of resources that alternatively could bring valuable foreign exchange revenues to the country. All these practices should be considered as indirect, hidden subsidies.

83. Some EECCA (most notably the Russian Federation) have one of the richest natural resource endowments in the world. Despite their importance in the economy, natural resources do not contribute as much as they could to public revenues. Large resource rents (excess payments, or above-normal profits generated by the difference between the market price of scarce resource and the costs of extraction) are dissipated through subsidies and waste, or appropriated by private interests and transferred abroad. Bosquet (2002) suggests that for Russian oil, gas and wood resources the estimated rents lost through under-pricing of these resources to domestic markets and to EECCA is between 42 – 66%. At current levels, natural resource taxes represent around 18% of the combined taxes in Russia, equivalent to approximately USD 9 billion but could effectively be almost twice as high. Failure to appropriately tax and reinvest this rent means that EECCA perpetuate the tradition of exporting low value-added raw materials and excessive capital outflows (Bosquet, 2002). Most EECCA have introduced some sort of taxes and excise duties, which capture some natural resource rents and are trying to strengthen the systems to prevent this revenue from fleeing the country. Some countries (e.g. Azerbaijan and Kazakhstan) attempt to reinvest at least some portion of oil tax revenue in social and environmental infrastructure and diversification of the economies in order to make them less dependent on low value added natural resource exports.

84. Removing environmentally-harmful subsidies can be very challenging as this will affect powerful vested interest groups. Governments prefer to shield local industries from international competition and avoid short-term social conflicts at home, paying less attention to the long term negative environmental, social and economic implications these might have. Notwithstanding short-term distortions, the long-term impact on employment and on international competition is, however, likely to be positive in most cases to say nothing of environmental benefits. These challenges go far beyond the responsibilities of the Ministries of Environment and Natural Resources, however, the Ministries have a key role in bringing to the attention of the Government the harmfulness of these subsidies and presenting opportunities foregone due to the present practices.

2.8. Weak Revenue Generation by Existing Environmentally-Related Charges

Poor design and performance of payments for environmental services (environmental charges)

85. In EECCA, the revenue from environmentally-related charges has traditionally been earmarked for financing environmental purposes either through general budgets or through public environmental funds (budgetary or off-budgetary), controlled by the Ministries of Environment or their equivalents. This has often driven environmental authorities into conflicts with financial authorities and their foreign advisers (such as IMF). It is widely acknowledged that earmarking limits flexibility and thus, potentially, the efficiency of allocation of resources to the most socially-needed uses. In addition, the large number of small and weak funds sets a bad example and gives other government agencies (which deal with forests, water, agriculture, education, etc.,) the right to claim the need to have their own earmarked funds. This may lead to a domino effect in budget fragmentation, making the economy impossible to manage. But, under specific conditions earmarking is often perceived (e.g. by the World Bank) as a price worth paying for having predictable financing for priority environmental measures that would otherwise fail (World Bank et al., 2002). On the other, hand empirical evidence (not only from EECCA) shows that earmarking by itself has not protected the decline of public environmental expenditure. Indeed, in some cases, earmarking may have contributed to the further marginalisation of environmental expenditure within

public budgets. Ministries of Finance tend to reduce the budget envelope of Environment Ministers because they argue that environmental agencies have their own, independent, earmarked source of revenue.

86. The system of environmental charges in EECCA extremely complicated and burdensome (OECD/EAP Task Force, 2000b). Charges levied on an excessive number of pollutants that can not be effectively monitored. For example, in Kazakhstan there are as many as 3620 air pollutants from stationary sources that are subject to charges. Also 2312 water effluents are charged. In Russia and Georgia emission of several hundred pollutants are charged but only few are being monitored or even recorded. In Georgia for example only 21 out of 200 air pollutants and 18 out of about 100 water effluents are reflected in statistical reports. Most of these charges are imposed on pollution or other environmentally-harmful activities. More recently, some EECCA have introduced charges on environmentally-harmful substances and products. Armenia has introduced taxes on a whole array of harmful products, both imported and domestic, such as asphalt, luminescent lamps, welding electrodes, detergents. In 1998, Moldova introduced an environmental levy on imported fuel.

87. The aggregated revenue-raising capacity is usually too small to create a critical mass of resources to support significant investments, perhaps except in Ukraine where aggregate revenue amounted to about \$25 million in 2001. In reality, it is usually a small number of charges that generate the bulk of total revenue. For instance, in Moldova, the single charge on imported oil generates more than 90 times more revenue than all pollution charges taken together (OECD EAP Task Force, 2002c). These best revenue-raisers thus cross-subsidise the collection of all other pollution charges for which the cost of collection is larger than the amount of revenue collected. Unfortunately, very few detailed and reliable data are available in any of the EECCA countries at the level of revenue generated by individual charge instruments. They are all bundled together by weight at the level of a plant or primary reports, with no consideration of individual hazardous properties.

88. The real value of revenue has been decreasing in most countries (except Moldova and Ukraine) due to ineffective indexing against inflation. In addition weak enforcement of revenue collection further eroded the value of generated resources. For example, the collection rate reported in Moldova is about 18%, in Kazakhstan it is about 25%⁸. Poor design and management of pollution charges has created a number of opportunities for polluters to evade payments despite the low charge rates. Often, the charge base and terms of payment are subject to ad hoc and less than transparent bargaining between polluters and environmental authorities. Pollution charge offsets and the widespread use of money surrogates (e.g. Russia, Kyrgyzstan) for years had been undermining the collection of revenue, rendering environmental authorities vulnerable to corruption. Only after the financial crisis in 1998 in most EECCA fiscal authorities have begun banning offsets of pollution charges and other non-monetary means of payment in the public sector.

89. In Russia, poor performance of environmental charges has not helped to prevent the pollution charge system to be buried in a legal dispute in 2001. A few possible replacements of old pollution charge system are being discussed including a new environmental tax, feeding the general budget.

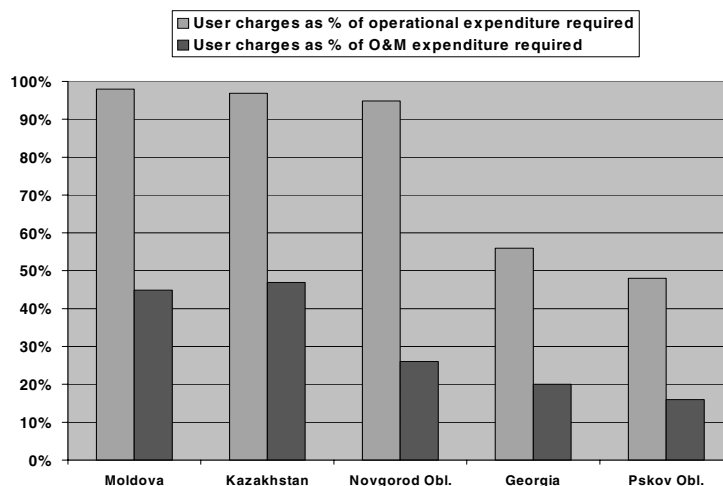
⁸ The concept of collection efficiency (or rate) can be very misleading in the NIS context. It is never clear whether the data refer to the ratio of revenue collected to revenue due or to revenue actually invoiced. The forecasts of revenue due are conducted not only on the basis of the calculations of expected pollution output multiplied by charge rates but also on the basis of subjective judgments on what enterprises will actually be willing to pay in a given budget year. The amount invoiced is often already a result of prior negotiations (often less than transparent) between environmental and enforcement services, on the one hand, and polluters, on the other. Therefore, reported collection rates are sometimes paradoxically higher than 100% and sometimes as low as 10%-20%.

90. The collection efficiency and credibility of the system usually improve when tax services are involved in collection of revenue from pollution charges compared to the case where environmental funds or environmental authorities do it alone. For example, when tax authorities in Ukraine were involved in the collection of revenue from pollution charges and fines in 2000, the value of revenue collected doubled over a year and quadrupled in two years – from about \$6 million in 1999 to \$13.6 million in 2000 and \$25 million in 2001. In Moldova, the efficiency of the levy imposed on imported fuel, collected by customs officers is almost 100%, as opposed to 18% for pollution charges, which are collected solely by environmental authorities.

Low level of recovery of costs of environmental infrastructure from users

91. Recent studies on urban water and sanitation sectors have demonstrated that the revenue from user charges barely covers the costs of just operating the presently used water and sanitation infrastructure, albeit not in all countries and regions. Unfortunately, they are just a fraction of the money required for proper maintenance of fixed assets (Fig. 6 below). This has led to a dramatic deterioration of municipal environmental infrastructure. Cash-strapped budgets cannot fully make up for the low level of cost recovery from user fees.

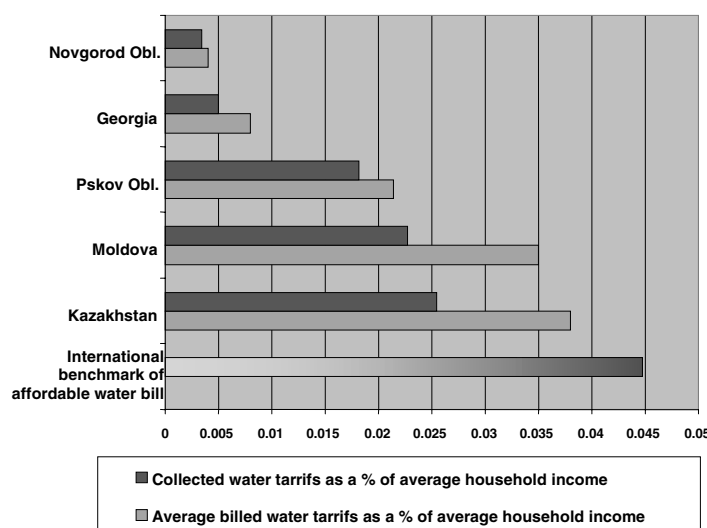
Figure 6. User Charge Revenues as Percentage of Expenditure Needed to Maintain the Present Level of Water and Sanitation Services in Selected EECCA and Regions



Source: Estimates by COWI in OECD EAP TF, 2003, Forthcoming

92. In most EECCA, user charges for environmental services are generally low and, in most cases, ineffectively collected. In countries/regions such as Georgia or Novgorod and Pskov Oblasts (Russian Federation), there is significant room for increasing the charge rates and collection efficiency within the limits of what most households could afford. However, some countries, such as Kazakhstan and Moldova, have increased their water user-charge rates to the levels that on average come close to the affordability benchmark of 4%-5% of household disposable income for countries at a similar level of income (Fig. 7). For certain poor households affordability of water has become a severe issue.

Figure 7. Household Expenditure for Water as Percentage of Disposable Income for Selected EECCA



Source: Estimates by COWI in DANCEE/OECD, 2003, Forthcoming

93. Collection efficiency can be as low as 60% (e.g. in Moldova), while in a typical OECD water utility it is usually almost 100%.

94. User charges are the critical source of revenue for utilities in EECCA. As water sector finance strategies, undertaken in some EECCA, have convincingly demonstrated, in the long-term, user charges are the only sustainable source of financing the operation and maintenance of environmental utilities in EECCA. The approaches to gradual implementation of full cost recovery in water utilities in EECCA are discussed in greater detail in the chapter on water sector.

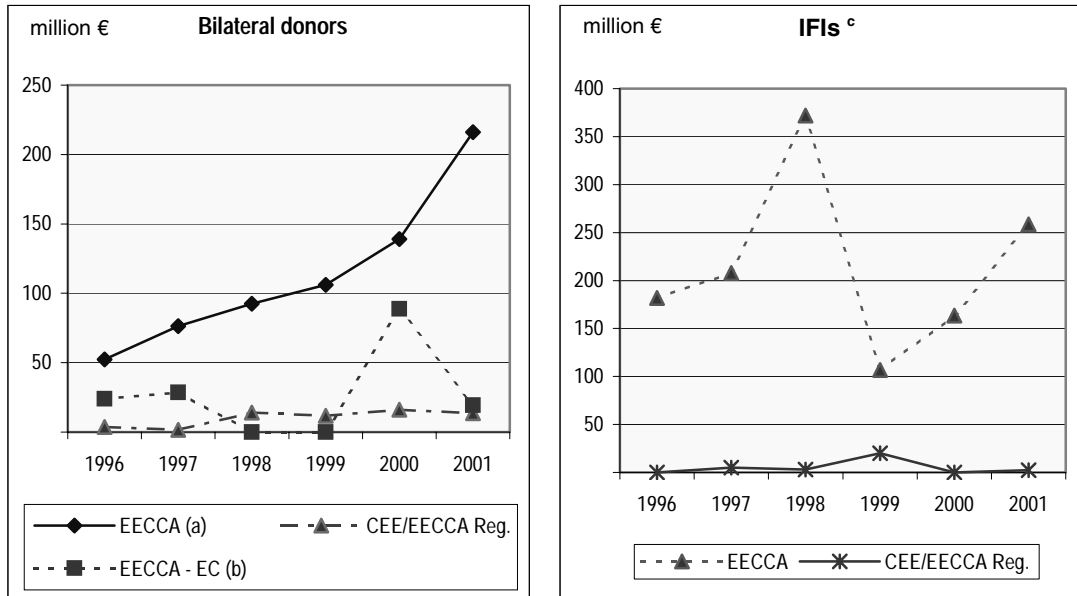
2.9. Low Levels of Environmental Foreign Official Finance to EECCA

Trends in environmentally-motivated official assistance

95. Commitments of environmental assistance from donors to the EECCA countries have increased absolutely and as a share of total Official Development Assistance (ODA) and Official Assistance (OA)⁹ in the period 1996-2000. However, environmental assistance represents a significantly smaller share of total assistance to the EECCA countries than to other regions. This suggests that there is room, on the supply side, to increase the level of environmental assistance. However, increased supply is also linked to demand, and hitherto demand for environmental assistance from the EECCA countries has been weak. For example, Kazakhstan is the only country that has prioritized environment within the TACIS programme.

⁹ ODA is defined as those flows going to developing countries. Of the NIS, Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Tajikistan, Turkmenistan and Uzbekistan are eligible for ODA. OA is made to countries and territories in transition to a market economy. Currently, Belarus, Russia and Ukraine are eligible for OA.

Figure 8. Total Environmentally- Related ODA/OA by Donor and IFIs to Regions, 1996-2001, Million EURO



Source: OECD CRS database; donors and IFIs reporting (after OECD, 2003 forthcoming)

Notes:

CEE/EECCA Reg. refer to commitments for projects involving countries from both regions.

a) Excluding EC. Austria, Italy and USA are missing 2001 data.

b) Includes data from TACIS programme. Data for 1998-1999 are not available.

c) Includes data from ADB; EBRD; EIB; NEFCO; NIB and WB.

96. Russia and Ukraine have been the largest recipients of environmentally-related assistance, together accounting for more than two-thirds of the total. Over the period 1996-2001, Russia received €332m and Ukraine - €110m. Uzbekistan, Kazakhstan, Azerbaijan and Armenia, each, received between €25-38m in the same period. Per capita, the Caucasus countries (Armenia, Azerbaijan and Georgia) received the highest commitments, respectively €1.1, €0.6 and €0.5 on average per person per year. Belarus and Turkmenistan received the least on per capita basis: only € 0.1 and € 0.04 respectively on average a year in the analysed period. As a share of GDP, Armenia ranks the highest at 0.24% and Belarus and Turkmenistan the lowest at 0.01%. The share of GDP is obviously highest for six of the seven low-income EECCA countries. The big, relatively higher income, EECCA countries (Russia, Ukraine, Uzbekistan and Kazakhstan) all received very low levels, ranging between 0.04% and 0.02% of GDP. Belarus, Turkmenistan and Tajikistan have been the least successful in attracting donor assistance to the environmental sector.

Table 5. Total Environmentally-Related Assistance by Recipient Country, 1996-2001, Thousand EURO

	1996	1997	1998	1999	2000	2001	Total
Armenia	6 160	1 410	1 666	2 562	3 297	21 414	36 508
Azerbaijan	33		1 959	579	25 300	3 449	31 320
Belarus	1 338	1 495	372	541	811	1 436	5 993
Georgia			2 988	877	5 094	33 310	42 270
Kazakhstan	449	500	1 510	2 155	11 226	26 445	42 285
Kyrgyz Republic	962	2 804	342	1 153	4 055	7 404	16 720
Moldova	517	39	3 250	211	718	10 358	15 093
Russian Federation	31 993	57 929	32 725	65 417	99 408	73 206	360 678
Tajikistan	51		27	1 206	4 042	1 219	6 546
Turkmenistan	386	434	21	144	68	23	1 077
Ukraine	6 546	9 487	22 964	13 505	37 340	29 327	119 169
Uzbekistan	1 639	449	18 474	7 360	1 895	4 896	42 536
ECCA Regional	26 376	30 360	6 282	10 474	34 603	18 492	153 623
CEE/ECCA Regional	3 686	1 572	14 053	11 785	16 037	13 701	60 834
Grand Total	80 137	106 479	106 631	117 971	243 895	244 680	899 794

Source: OECD CRS database, national data (after OECD, 2003, Forthcoming)

Notes:

Data for 2001 are preliminary.

TACIS data for 1998-99 are not available.

97. The European Commission has been the single largest donor of environmental assistance to the EECCA region in the period 1996-2000, accounting for about 20% of the total. In 2001, the EC provided €13.5m in environmentally-related assistance to the EECCA region. Denmark (13.8%) and Germany (10.7%) have also been major donors. These three, together with Sweden, US, UK, Norway, Finland, Switzerland and France account for about 70% of environmentally-related assistance. Development loans offered by IFIs for environmentally-related purposes increased in 1996-98, collapsed after the 1998 financial crises and began to recover afterwards. The overall volume of committed lending in 2001 (€212 million) was still less than 60% of the peak level of commitments in 1998 (€367 million). Russia, Ukraine and Kazakhstan accounted for more than two-thirds of environmentally-related loans. Loans for the low-income EECCA countries can entail a significant debt burden.

98. EECCA should not expect that ODA/OA would ever meet most of the environmental financing needs in the region. As has been the case in most CEE countries, domestic resources will have to carry the major burden of financing EECCA environmental policies. In countries, such as Poland, the Czech Republic and Estonia, external financing for environment contributes respectively 7%, 1% and 19% of overall environmental investment expenditures (OECD ENV/NMCD data base series).

99. EECCA governments usually do not include environment among priorities for international co-operation programs or in IFIs country assistance strategies. It seems that Kazakhstan is the only EECCA, which has placed environment as one of the three priorities in the TACIS in-country programme. In addition, Ministries of Environment often prepare unclear, incoherent and non-prioritised proposals for international co-operation and foreign financing. Ministries are unprepared for the lengthy loan negotiation procedures, which can often be unproductive because of unrealistic expectations and the lack of capacity on the part of EECCA in preparing financeable environmental projects and programs. As a result, most donor programs have only very limited focus on the environment. Other challenges in environmental co-operation with donors are discussed in chapter 4.

100. At the same time, EECCA administrations and local consultants have accumulated some experience by working together with donors and IFIs and by jointly preparing projects for international lending. This experience is increasing and is bringing some results. For example, for certain projects, several donors have grouped around banks to facilitate the lending procedures between banks and EECCA authorities. The best known cases come from the North West Russia Initiative where several donors are actively joining resources to facilitate the preparation of loans and also to help soften the lending terms of international loans, extended by the Nordic Investment Bank, the Nordic Environmental Financing Co-operation (NEFCO) and the European Bank of Reconstruction and Development (EBRD). In 1993, a special mechanism - the Project Preparation Committee - was set up, with the Secretariat at the EBRD, with the aim of further facilitating the process of match-making donor and IFI resources. After the 1998 crisis in Russia, examples are beginning to reappear - where donors together with EECCA and Oblasts - are blending domestic and foreign public money to leverage additional funds through export credits and soft loans (see Box 4 below).

Box 4. Example of Donor Co-Operation to Mobilise International Private Lending for Municipal Environmentally-Related Infrastructure in EECCA

St. Petersburg enjoys the special attention of several donors in the EECCA region. St. Petersburg is thus often used as a case study for trying out new mechanisms and instruments that may be applicable to other parts of EECCA. One of these examples is from the St. Petersburg Vodokanal, which has recently purchased imported equipment (sludge vehicles), rehabilitation of sewage mains and maintenance services through the Danish Soft Loan Programme MKØ. The project was initially developed in 1998 before the economic crisis and has only just recently been contracted (2002).

The project has a total value of Euro 5,85 million of which 95% was financed through a commercial international bank under the Danish Environmental Soft Loan Programme to Eastern Europe. The programme, which is insured through the Export Credits Agency and subsidised through Danish Official Aid contributions, provided a 25% grant of the financed project value (95% of investment). The grant is disbursed with a grant element of 25% together with each repayment and paid directly to the lending bank. The programme, in addition, covered the cost of the insurance premium for the export credit (whose value is at approximately 10% of financed value). The loan has a 5-year maturity with an 18-month grace period. The loan has been guaranteed through a municipal guarantee provided by the St. Petersburg City. Similar financing arrangements are currently being negotiated for the St. Petersburg District Heating Company and for the Kiev Vodokanal on identical conditions.

Under-utilised opportunities of debt-for-nature and for environment swaps

101. Most of EECCA began the transition period with little or no external or domestic debt, as soon after 1991, Russia, as agreed with the creditors, offered the other EECCA to take over 100% of all official foreign liabilities and assets of the former Soviet Union. Since then, EECCA have rapidly accumulated external debt and some are now facing increasingly difficult debt burden, relative to their ability to generate primary external and budget surpluses. The debt burden of these countries varies from country to country, with debt service in 1999 ranging from 5% - 37% of exports and 19% to 45% of central government revenue (IMF/World Bank, 2001). According to the World Bank indebtedness classification for 2002, Kyrgyzstan and Tajikistan are classified as “severely-indebted low-income countries (LICs)”, Moldova and Uzbekistan as moderately-indebted LIC, and Armenia, Azerbaijan, Georgia and Ukraine - as less indebted LIC. Seven of them are now eligible for debt relief as part of the debt initiative on debt relief for the poorest countries of the former Soviet Union: Armenia, Azerbaijan, Georgia, Kyrgyzstan, Moldova, Tajikistan, and Uzbekistan.

102. Debt-for-nature/environment swaps are transactions that reduce or convert external debt in exchange for the debtor country commitment to spend an agreed portion or the whole amount of the reduced foreign debt, on agreed conditions, on domestic environmental improvements in local currency.

These transactions can be bilateral (mainly between governments to swap official debt) or can be facilitated by a third party (environmental NGO or broker), when they involve mainly private debt.

103. Debt-for-nature/environment swap initiatives should always be carefully considered in the context of their impact on the costs of sovereign borrowing. Requesting any debt swap can be interpreted by the market as a signal of possible debt default and may affect the credit rating of the country. A lower credit rating implies that the cost of future borrowing of the debtor will be higher. This is less of a concern, if the country is in default anyway or when swaps are integrated into an ongoing, wider debt-restructuring package, which the debtor negotiates with its creditors anyway. The latter is the case if the debt-restructuring agreement with the Paris Club¹⁰ contains a clause that enables bilateral debt swaps. Otherwise, the rules of the Paris Club make it difficult for creditors to undertake swaps if the debt restructuring agreement between the debtor country and the Paris Club does not contain an explicit clause enabling voluntary, bilateral debt-for-nature, debt-for-environment swaps or other local currency debt swaps.

104. Because of its contentious nature, debt-for-nature/environment swap initiatives should not be announced by environmental authorities without prior consultations with the Ministry of Finance. Ministries of Environment could, however, stand prepared with convincing institutional concept and expenditure program once the opportunity arises.

105. Several EECCA, including Georgia, Kyrgyzstan, Russia and Ukraine have sought rescheduling of the repayment of their external debt with the Paris Club in the last few years. However, only Georgia and Kyrgyzstan have used the opportunity to include a swap clause in the framework agreement with the Paris Club. Georgian Ministry of Environment has made a significant progress in advancing the idea of the debt-for-environment swap in the country. Following the agreement with the creditors, the President of Georgia has set up an Inter-Ministerial working group (consisting of Ministry of Environment, Ministry of Economy, Ministry of Finance, and Ministry of Foreign Affairs) with the aim to develop a Concept on the Debt-for-Nature Swap with creditor countries. As part of this process, the Ministry of Environment with support of the OECD EAP Task Force, has prepared an institutional options paper for government consultations. Preliminary analysis suggests that if only few OECD creditors agreed on relatively modest (e.g. 15%) swap, this could effectively almost double country environmental expenditure. Kyrgyzstan has also set-up an Inter-Ministerial Committee to start in-country preparations of the process.

106. In the meantime, Russia has agreed with Finland to swap up to 50 million USD debt - 10 percent of Russia's Soviet time debt - for specific investment projects implemented by Finish firms that will reduce pollution of the Gulf of Finland and the Baltic Sea (Financial Times Article, 29 January 2002). However, as e.g. Polish experience shows, such one-off swaps can be costly for the debtor country, in particular when tied procurement is involved. They are usually considered where the creditor gets direct benefits from improving the state of environment in a debtor country. Geographical location of most of EECCA does not present many such opportunities.

107. The main challenge facing interested environmental authorities in EECCA will be to design a "win-win" package of debt-for-environment swap transactions that will be more attractive to creditors than available alternatives. These alternatives include debt-for-equity swaps or just a repayment of debt according to schedule and an increase of official aid. This would require environmental agencies to prepare expenditure programs, aimed at solving specific environmental problems, which are not only national but are above all of international priority (e.g. global or trans-boundary environmental problems). Such programs should also link environmental objectives with poverty reduction, local economic development

¹⁰ The Paris Club is an ad-hoc body of bilateral creditors (mostly OECD, although it includes Russia as well) that negotiates rescheduling agreements with debtor countries on a case-by-case basis. It was formed in 1956 and it meets on a monthly basis in Paris.

and international security goals. Another challenge will be to convince creditors that their money will not be wasted or corrupted and that the debtor country will have institutional capacity to manage foreign expenditure in a transparent, effective and efficient manner, in accordance with best international standards. For this purpose, the major condition is to design a governance and expenditure management system, which is subject to joint control of national stakeholders and creditors, as highly professional and well insulated from vested interests, political pressure groups and corruption. Georgia, in co-operation with the OECD EAP Task Force Secretariat, has begun laying foundations for such a mechanism.

2.10. Distorted Fiscal Relations between Different Government Levels and Poor Financial Management in Municipalities

108. The political product-line hierarchy under the Soviet system left little room for self-government and decentralised management in EECCA. Regional or local autonomy are relatively new ideas that challenge EECCA. All countries of the region are still in the process of delineation of governmental responsibilities, for example for environmental safety and infrastructure. Although some EECCA have prepared environmental action plans on national or regional levels even with financing strategies, the link between these plans and municipal budget planning remains weak. It is a residuum of the old system where all state revenue was first centralised and then allocated according to a national plan. The lack of tradition of decentralised environmental management challenges the public administration within autonomous, locally elected governments in EECCA.

109. Local budgets in a vast majority of EECCA municipalities are very small compared to the tasks of maintaining and developing services of environmental infrastructure. Responsibility for environmental infrastructure and municipal services has been transferred to cities, towns or regional authorities and delivered mostly through local enterprises. Current legislation in EECCA assigns expenditure responsibilities to lower budgets without any guarantee of autonomy in the determination and execution of these expenditures. In this context, environmental expenditure category in sub-national budgets is subject to rigid federal/national regulations relating to the obligatory size and exact breakdown of budgetary outlays. In addition, regional and local budgets have been extraordinarily burdened by the accumulation of numerous un-funded federal/national expenditure mandates throughout the 1990s imposed by higher levels of governments. A weak regulatory and institutional framework on both the revenue and the expenditure management side of municipal finance reflects the lack of financial autonomy at the local government level concerning not only environment responsibilities but most of the public goods provided by the governments.

110. The current system offers weak incentives to sub-national levels of government for responsible, long-term environmental management and the development of new infrastructure for the environment. All revenues and expenditures are allocated annually through year-long financial plans. Neither a long-term vision of investment needs nor a forecast of the municipality's future financial situation exist. The budget classification system with a standardised chart of accounts is a carryover from the Soviet administrative structure and was not designed with the particular needs of local government in mind. The budget preparation and monitoring system is focused on spending money in accordance with specified budget lines and does not correspond to the results or tasks to be achieved by municipalities. The expenditure classification system for current expenditures is also not relevant to the tasks performed by the administration, such as delivery of environmental infrastructure services. Investment planning for municipal infrastructure is discretionary and focused not only on short-term outputs, but also on priorities, that are often too numerous and too volatile. There are no clear and transparent criteria for appraising and prioritising investment projects that will be financed from municipal budgets.

3. FURTHER ACTIONS NEEDED TO REACH THE OBJECTIVE

111. This section describes the actions that should be taken by national governments in EECCA in order to mobilise sufficient finance required to implement realistic environmental policy goals, and - above all - to use existing financial resources more efficiently.

112. The most needed future actions are those that will stimulate demand for environmental financing by enterprises and municipalities. With respect to the enterprise sector, EECCA governments should focus their efforts on establishing a fair and consistent framework of incentives, which would induce firms to spend more of their retained earnings on improving environmental performance. Actions that improve efficiency of the use of available public resources should attract at least equal attention of governments as actions that mobilise new and additional finance from the budget and from donors. Governments should gradually decrease the present unrealistic and perverse over-reliance on subsidies and increasingly use a wide array of available instruments to promote realistic and cost-effective financial management and to stimulate a wide mix of various non-government financing sources. In particular, the role of the public sector in environmental financing needs to be reconsidered because present financing arrangements are not feasible. Governments and environmental funds (where appropriate) must regain credibility as managers of public money. Scarce public funds should increasingly be used as an environmental policy instrument of the last resort. They should serve as a catalyst of compliance with administrative instruments and as a catalyst of private and foreign finance. Due consideration should be given to what households and public budgets are able and willing to pay.

113. In financial management, realism is of utmost importance. Not everything will be possible and affordable in the near future. Key reforms of environmental financing institutions and instruments discussed so far should be implemented gradually but consistently. The roadmaps of key actions to achieve objectives are outlined below. They consist of major actions and more detailed steps that can be taken in order to meet the objectives. These steps are divided into:

- *Short-term actions (years 1-3 of the strategy implementation);*
- *Medium-term actions (years 4-10 of the strategy implementation).*

114. For each objective, progress indicators are proposed to assist with the evaluation of their implementation.

3.1. Knowing the Costs of Achieving Various Environmental Objectives

115. **Train environmental authorities in understanding the correct methodologies of calculating costs of environmental policies.** The correct costing methodologies must be robust, meaningful and produce internationally-comparable results. Costing studies should be conducted using well-tested formal models according to internationally-agreed standards (see e.g. EU, IPCC, World Bank guidelines). Environmental authorities must understand the economic implications of different cost categories (e.g. annualized cost).

116. **Prepare cost estimates (including cost effectiveness analysis) for critical environmental problems.** Focus could be on those objectives which may require heavy investments in public infrastructure.

Progress Indicators:

⇒ Number of costing studies conducted according to international methodological standards

⇒ Number of expenditure programs revised to incorporate the findings of costing studies

3.2. Understanding Trends in Environmental Expenditure

117. **Train environmental authorities and statistical services in internationally-recognised methodologies and environmental expenditure classifications.**

118. **Work with statistical services to establish a regular system for collection of environmental expenditure data (use the experience of the Georgian demonstration project implemented within the OECD EAP Task Force).**

Progress Indicators:

⇒ Regular systems for environmental expenditure data collection (according to international methodologies and definitions), established and maintained by statistical services

3.3. Creating Effective Demand for Environmental Financing

119. **Redesign policies, programs and regulations.** Establishing effective demand for environmental investments and financing will require realistic environmental policies, which are oriented towards clear environmental results and are firmly based on a set of internationally-recognised principles (e.g. subsidiarity, efficiency and polluter pays). Such policies should be supported by the regulatory framework and a mix of policy instruments that are predictable over the long period of time and consistently enforced. These policies should be implemented through a new generation of environmental programs with clear priorities, specific and realistic targets as well as robust investment and financing strategies.

120. **Set an appropriate incentive structure.** In creating credible policies, it is essential that the incentive mechanisms follow the letter of law. Creating the right incentives implies, among others, strengthening enforcement of environmental laws, reducing discretion and gradually phasing out reliance on environmentally-motivated but unnecessary subsidies to polluters in the spirit of the Polluter Pays Principle.

121. **Maintain consistency and credibility.** Effective incentives can be re-established more cheaply, if environmental authorities regain the credibility as rational and consistent regulators and environmental inspectorates – credibility as honest but ruthless and non-corrupt law enforcers. Environmental authorities should not only work on formal laws and regulations but should also promote compliance by participatory and transparent policy development and by managing expectations of polluters (see OECD/EAP Task Force, 2002b). The key to managing expectations is consistency - priorities, policies and laws should be better prepared up-front. Once announced and implemented, they should not be randomly and frequently changed.

122. **Create enabling conditions for attracting foreign private finance for the environment.** EECCA face the challenges of creating framework conditions that will enhance access of domestic private enterprises to foreign banks and capital markets. Environmental authorities cannot do much more than

creating demand for financing through credible enforcement of realistic environmental policies and standards. Ministries of Environment should be instrumental in securing and encouraging good governance, clear framework conditions, proper institutional set-ups and should discourage corruption at all levels, including in the permitting process.

Short-term practical steps towards implementing these actions (1-3 years):

- Use a consultative process, involving the public and polluters and supported by formal cost-benefit analysis, to identify a short list of priority short- and medium term objectives for national environmental policies;
- Use modern policy development techniques to support establishing specific, realistic programs and targets for different groups of polluters in order to meet the priority policy objectives; choose and implement a mix of policy instruments to modify the behaviour of polluters towards meeting their targets;
- Streamline environmentally-motivated public subsidies by linking them to the progress of compliance with the targets; apply subsidies (direct and indirect) only when polluters could not possibly afford the costs of compliance and could not go bankrupt. Establish strict deadlines and clear eligibility criteria for subsidies;
- Through a consultative process, establish credible sanctions for non-complying polluters (including municipalities and municipal utilities), including the threat of closure or bankruptcy for enterprises; minimise discretionary measures in policy implementation and enforcement, implement zero-tolerance policy against corruption.

Medium to long term steps (4 – 10 years):

- Ensure consistency of development, implementation and enforcement of environmental policies and regulations;
- Gradually decrease and eventually phase out environmentally-motivated subsidies for polluters according to established schedules or if they do not follow compliance paths;
- Gradually increase the use of sanctions and firm closures of non-compliant polluters.

Progress Indicators:

- ⇒ Total environmental expenditure / GDP (/per capita)
- ⇒ Environmental capital expenditure / total gross capital formation in the economy
- ⇒ Volume of environmental expenditure financed by retained earnings of enterprises (including strategic investors and FDI)
- ⇒ Environmental expenditure financed by retained earnings of enterprises (including strategic investors and FDI) / total environmental expenditure
- ⇒ Environmental capital expenditure in the private sector / total capital expenditure in the private sector
- ⇒ Capital environmental expenditure / total environmental expenditure

3.4. Harnessing Financial Sector for Environmental Financing

123. **Phase-out instruments and practices that discourage commercial financiers.** Environmental authorities can do very little to strengthen the financial sector in EECCA. However, environmental administrations should carefully review the way they use public money to finance environmental investments in order to phase out practices and financing instruments that discourage banks from financing environmental projects.

124. **Develop incentive instruments adapted to evolving market conditions.** Environmental authorities should carefully follow the developments on the financial markets and harness opportunities that already exist and those that will emerge, as financial markets stabilise and lending terms become more favourable to long term investments. Even very scarce funds can be used creatively to mobilise additional commercial co-financing of environmental projects. It seems, for instance, that currently the lack of access by banks to medium and long term capital, combined with rationing of credit within financial-industrial groups, is the binding constraint to financing of investments. High interest rates or specific risks of environmental projects seem to be secondary obstacles now. Therefore, public funds could be best used by providing banks with medium-long term liquidity (e.g. master loans, deposits), earmarked for environmental, commercially-viable projects. In addition to public funds, governments can also use an array of non-financial instruments to facilitate market-based financing of environmental investments, such as commercialisation of environmental infrastructure and certain environmental services, information campaigns and reducing political and regulatory risks to environmental investments.

125. **Facilitate building capacity of municipalities and enterprises in preparation of environmental commercial projects and of environmental authorities in appraising these projects.** Given the limited expertise in commercial financing of environmental projects in EECCA, a great emphasis should be put on solid market analysis, training and learning by doing things together with financial authorities and financial institutions themselves.

Short-term practical steps towards implementing these actions (1-3 years):

- Analyse trends in domestic financial markets in order to identify the key constraints to commercial financing of environmental projects;
- Review existing public expenditure programs (managed directly by governments and by special environmental funds) and other policy instruments to analyse how public intervention could be better tailored to address these key constraints; identify and phase out environmentally-motivated subsidies from those environmental activities that are commercially viable;
- Identify specific areas where co-financing by public funds with commercial banks would be feasible; wherever it proves feasible, introduce formal requirements and incentives to use public funds to mobilise bank loans e.g. through matching grants, out-sourcing risk management services or on-lending public money through commercial banks;
- Train managers of public funds in appraisal of environmental investment projects and in using public subsidies to facilitate co-operation rather than competition with the private financial sector;
- Work with donors or foreign lenders to provide domestic banks with long term capital in local currency (master loan or long term deposits) earmarked for financing environmental projects in specific areas or sectors. In so doing, develop robust business plans based on careful analysis of market conditions and past experience with similar schemes (e.g. first environmental investment loan to Russia-NPAF);

Medium to long term steps (4 – 10 years):

- As general terms of commercial lending improve, develop additional public instruments to stimulate interest of financial institutions in environmental projects – such as interest subsidies or loan guarantees;
- Promote commercial viability of environmental projects by showing the banking community a commitment to consistent implementation and enforcement of environmental policies, by commercialisation of environmental infrastructure services and by selective public support to demonstration, pilot investment projects;
- Work with the ministry of finance to enhance the access of municipalities and enterprises to capital markets for environmental projects (municipal and corporate bonds);
- Facilitate training to municipalities and utilities in preparation of environmental infrastructure projects to commercial financing (with particular emphasis on financial and risk analysis);

- Work with financial institutions to develop incentives for more specialised businesses (such as ESCOs and leasing firms) to develop financial products for environmental investors.

Progress Indicators:

- ⇒ Volume of environmental expenditure financed by the commercial financing institutions
- ⇒ Environmental expenditure financed by the commercial financing institutions / total environmental expenditure
- ⇒ Share of environmental loans in the total loan portfolio of the banking sector
- ⇒ Values of municipal bonds issued for environmental investments
- ⇒ Values of leasing transactions involving environmental equipment
- ⇒ Number of ESCOs operating in environmentally-related sectors

3.5. Increasing Environmental Spending from Public Sector

126. **Promote economic and fiscal benefits of public environmental expenditures.** Environmental expenditure should receive a fair share of domestic public budgets - proportionally to the true value of their net social/economic benefits. Environmental authorities should establish efficient priorities for environmental policies and provide the rest of the government and the public opinion with convincing arguments that it will be worth spending public money for proposed environmental purposes.

127. **Improve the quality of proposals to the budget process and public investment programs.** Environmental authorities need to prepare realistic and cost-effective action plans and public expenditure programs, supported by the analysis of social costs, benefits and financial feasibility. These programs need to be prepared in co-operation with other ministries, interested parties and NGOs. Setting realistic priorities, preparing clear financing and implementation strategies and understanding the cost of current environmental policies, including the cost of non-action, are first steps in engaging ministries that are involved in resource allocations. In order for plans to be credible they would have to include, as a minimum, analysis of investment, operation and maintenance costs, realistic financing plans, and analysis of project ownership, management and risks. Participating in the budget process, environmental authorities should respect the constraints and priorities of fiscal policy and the procedures of the budget process.

128. **Environmental administration in EECCA needs to increase its capacity in strategic investment and financial programming and in appraisal of environmental projects for public financing.** It should also facilitate building capacity of project owners (e.g. municipalities and utilities) in preparation of environmental projects and their presentation in the budget process.

Short-term practical steps towards implementing these actions (1-3 years):

- Initiate a multi-stakeholders dialogue, including polluters' groups, NGOs, ministries of finance, economy and other line ministries on priorities for public spending; support this dialogue with economic analysis of costs and benefits, including the costs of doing nothing;
- Revise existing targeted environmental programs to make them more realistic and “financeable” (see also 3.6.)
- Train project owners (e.g. municipalities and utilities) in preparation and presentation of environmental projects;

Medium to long term steps (4 – 10 years):

- Establish formal mechanisms that link long-term public environmental expenditure programs with the mid-term budget framework and annual budget process;
- Strengthen environmental institutions participating in the budget process and those managing public expenditure programs.

Progress Indicators:

- ⇒ Volume of environmental expenditure financed by general government
- ⇒ Environmental expenditure by general government (at different levels) / total environmental expenditure
- ⇒ Environmental expenditure of the public sector / total expenditure of the public sector

3.6. Allocating Public Financial Resources More Efficiently

129. **Streamline all public spending for environment under clear expenditure programs.** Unfortunately, most public resources in the environmental sector in EECCA are spent ad hoc, without clear programmatic framework and objectives to be achieved. Environmental authorities should urgently review and revise the procedures for using public money for the environment. Vague, all-inclusive eligibility statements should be translated into a narrow set of focused priorities for public expenditures, coupled with specific and realistic targets. Costs for achieving these targets should be estimated based on robust economic and social analysis supported by modern analytical tools, such as financing strategies. Targets should be linked to available sources of public and private finance. Affordability constraints, both at a household and national level, should be explicitly analysed and mitigated. This will make the planning process more realistic and will improve the feasibility of the expenditure programs. In addition, a broad participatory approach in preparing such plans and strategies, involving other parts of the government and seeking to achieve integration of environmental considerations into other sectoral policies could ensure further support for the implementation of these expenditure programs.

130. **Reform institutions managing public environmental expenditures.** This reform is urgently needed in particular for Environmental Funds because of their visibility in the policy debates. The performance of environmental funds affects the perceived credibility of the entire environmental public finance system. The number of environmental funds should be reduced, in particular in the countries that have hundreds of tiny funds at municipal levels. Their resources should be consolidated in order to achieve a critical mass of money to have significant environmental impacts. They should no longer deal with revenue collection or with direct procurement for the government. Instead, Funds should be given mandates to focus exclusively on managing public expenditure. They should be given clear and narrowly-focused expenditure programs to implement, in particular by co-financing capital investment projects. Environmental Funds should be transformed into transparent, accountable and cost-effective mechanisms that meet international standards of financing institutions. They should become operationally independent, shielded from ad hoc political influences and corruption. Those funds that resist reforms should be closed down because they will undermine the credibility of well-performing institutions.

131. **Implement good international practices in managing public environmental expenditures in the areas of environmental effectiveness, fiscal prudence and management efficiency.** Environmental authorities should ensure that all public environmental expenditure programs and institutions managing them comply with high standards of fiscal discipline and fiscal prudence in order to also avoid permanent disagreements with Finance Ministers and the IMF. Good Practices of Public Environmental Expenditure Management, developed within the OECD/EAP Task Force framework, could be used as a framework for reforming all institutions managing public environmental expenditures.

Short-term practical steps towards implementing these actions (1-3 years):

- Review existing and - when needed - develop new public environmental expenditure programs through a broad participatory process; use state-of-the-art tools for economic and financial appraisal of investment programming to ensure feasibility, affordability and cost-effectiveness; apply financial,

affordability and risk analysis of existing targeted government environmental programs; phase out existing programs that are impossible to finance;

- Initiate a process of developing a new generation of medium and long-term sector specific action plans and public expenditure programs using state-of-the-art tools of strategic investment and financial planning;
- Train government officials in using modern analytical tools to develop environmental programs and related expenditure programs. Train managers of all public environmental funds in project appraisal and financing; Provide training to environmental authorities in project appraisal and in market-friendly investment and financial programming;
- Work with the Ministry of Finance to ensure fiscal prudence and fiscal discipline of all public environmental expenditure institutions and programs. Review measures to prevent the threat to fiscal deficit (e.g. through implicit liabilities). Increase transparency by improving reporting and information disclosure requirements, strengthening internal control and external auditing;
- Develop guidelines for introducing cost-effectiveness (achieving environmental results at minimum costs) as a criterion of project and programme appraisal and of performance evaluation for all institutions managing public expenditures for the environment;

Medium to long term steps (4 – 10 years):

- Achieve political consensus on and develop the regulatory basis for reforming environmental funds, streamline their number and the range of eligible project types, give Funds a clear mandate to focus on managing public environmental expenditure; transfer the revenue collection function to tax authorities. Clearly define the structure and individual responsibilities between governing and management bodies; make Funds operationally independent while holding Fund managers accountable and liable for their decisions;
- Revise existing public environmental expenditures and introduce new public expenditure programs in line with the internationally recognised Good Practices in Public Environmental Expenditure Management (see OECD EAP Task Force, 2002b).

Progress Indicators:

- ⇒ Priorities for public environmental expenditure streamlined
- ⇒ Percentage of programs supported by rigorous costing, financial planning and affordability analysis formally adopted for implementation by the authorities
- ⇒ Rate of implementation of these programs
- ⇒ Rate of compliance of domestic public institutions managing environmental expenditure with the good practices in public environmental expenditure management

3.7. Removing Environmentally-Harmful Incentives and Subsidies

132. **Build awareness and political support for the reform of environmentally-perverse incentives.** Ministers of Environment alone will not be able to remove environmentally-harmful subsidies. Environmental authorities, however, may play an important role in monitoring and advocating removal of these subsidies by analysing and disclosing their environmental, social, and fiscal consequences. These actions require long-term efforts from ministries of environment who will be up against strong interest groups from the private sector as well as from other areas of the government. It is recommended that Ministries of Environment focus their short term actions on targeting those subsidies that provide perverse incentives and building strategic partnerships with ministries of finance and economy as well as with various lobbying groups, representing environmentally-clean, high technology businesses.

133. **Strengthen taxation of natural resource rents.** Taxes on rents (windfall profits), earned on extraction of natural resources, can be very efficient fiscal instruments to generate general government

revenue. They also create incentives for a long-term resource conservation and substitution from non-renewable to renewable resources. Increasing taxation of natural resource rent should be relatively straightforward since the system already exists in many EECCA.

Short-term practical steps towards implementing these actions (1-3 years):

- Prepare analytical reports about the most important environmentally-harmful subsidies and their environmental, social, and fiscal consequences;
- Initiate special roundtable discussions or task forces with interested government and private sector partners in order to elaborate strategies for the gradual removal of environmentally-harmful subsidies;
- Review the present system of taxation of natural resource rents, analysing its environmental, economic and fiscal consequences, including budget revenue foregone

Medium to long term steps (4 – 10 years):

- Assist ministries of finance and economy in developing action plans and regulatory reforms for phasing out environmentally-harmful subsidies;
- Prepare credible programs for an alternative, environmentally-friendly allocation of subsidies and agree them with affected line ministries (e.g. promotion of organic agriculture, renewable energy sources, material recycling and recovery, energy efficiency or modern, cleaner technologies);
- Develop and implement subsidy programs targeted to ease the transition period for economic agents most severely affected by the removal of environmentally-harmful subsidies;
- Differentiate natural resource tax rates to reflect objective rent-generating conditions by imposing higher taxes on most profitable resource deposits;
- Prepare and implement credible programs for reinvestment of the revenues from taxation of resource rents in more efficient use of non-renewable natural resource stocks, enhancing the use of renewable natural resources and development of environmental infrastructure.

Progress Indicators:

- ⇒ Coverage and revenue of natural resource extraction taxes
- ⇒ Annual value of environmentally perverse subsidies
- ⇒ Number of perverse subsidies phased-out

3.8. Increasing Revenues from Existing and New Environmentally-Related Taxes and Charges

134. **Maximise the revenue-raising potential of existing environmental charges.** The poor performance of existing environmental charges undermines their revenue-raising potential and discourages from increasing their rates or introducing new instruments. The main actions to be taken include decreasing the number of charge instruments used for revenue generation, frequent and random changes, burden and discretion, inconsistent and non-credible enforcement of collection, charge offsets and other non-monetary transactions. It can be safely said that at least 80% of pollution charges in most EECCA could be given up immediately with only a negligible impact on the total amount of revenue collected. For the remaining charges, the collection system should be improved by eliminating existing loopholes that allow charge evasion, by reducing discretion in calculating the charge base (emissions) and by preventing local authorities from lowering charge rates. The complexity and costs of collection, both to administration and polluters, should be reduced by simplifying the collection, billing and checking systems. Only when the new system proves to work effectively and efficiently, charge rates can be gradually increased to increase revenue flows.

135. **Introduce new environmentally-related taxes and charges.** New environmentally-motivated taxes (with revenues going to general budget) or charges (revenues can be earmarked) should focus on products rather than emissions, if their main purpose will be revenue generation. Product taxes/charges

typically have higher ratio of revenue to costs of collection and better predictability of revenue flow. The experience of the OECD countries in introducing new environmental taxes in a way which is neutral to the budget (with corresponding offsets in a tax wedge on labour) could be considered to achieve joint environmental and employment benefits.

136. **Support gradual increase of user charges for environmental infrastructure to the cost-recovery level.** Environmental authorities could add environmental arguments to overcome political resistance to tariff reform in municipal environmental services to ensure financial sustainability of municipal environmental infrastructure.

Short-term practical steps towards implementing these actions (1-3 years):

- Introduce an information system to monitor and collect data on revenue collection by individual charges;
- Identify environmental charges that generate negligible revenue and prepare regulatory proposals to phase them out;
- Agree with the rest of the Government, Parliament and the President which remaining environmentally-related charges will be earmarked for environmental subsidy programs, controlled by environmental authorities, and which will generate general budget revenue (e.g. in a revenue neutral way);

Medium to long term steps (4 – 10 years):

- Reform remaining earmarked charges to optimise their revenue-raising capacity, administrative costs and distortionary impacts;
- Establish inter-ministerial and multi-stakeholders working groups to introduce new environmentally-related taxes and charges and to develop an environmental tax reform, where environmentally-related taxes would be used to decrease income taxes or social security contributions.

Progress Indicators:

- ⇒ Conducted reform to streamline existing environmental charges
- ⇒ Volume of annual revenue from environmentally-related taxes and charges
- ⇒ Volume of annual revenue from environmentally-related taxes and charges/cost of collection
- ⇒ Volatility of annual revenue from environmentally-related taxes and charges
- ⇒ Annual revenue from environmentally-related taxes and charges / total annual tax revenue

3.9. Attracting More Foreign Official Financing – Refocusing on EECCA

137. **Ensure consensus within the Government for environment to be a priority in foreign co-operation programs.** This is a precondition for most donors to allocate funds for environmental assistance in their ODA/OA budgets.

138. **Ensure effective and efficient implementation of foreign assistance and IFI projects.** Environmental authorities have important roles in creating a stable legal and institutional framework for environmental policies, consistent priorities, realistic and financeable investment programs and “bankable” project portfolios. Procedures for project selection should be transparent and professional. Strengthened institutional capacity to manage foreign cooperation programs should attract donors and IFIs to the environmental sector.

139. **Consider a debt-for-environment swap clause every time the government is negotiating debt restructuring with the Paris Club.** Environment authorities, in close co-operation with and only

through the Ministry of Finance, can initiate the introduction of this clause into any on-going negotiations in order to harness opportunities for swapping a portion of the external debt for domestic environmental expenditures.

140. Analyse up-front an institutional set-up for managing domestic expenditure from the swap.

It will be necessary for an interested debtor country to put a lot of effort up-front in designing an institutional set up for managing the swapped resources in order to enjoy the highest international credibility. Environmental authorities need to consider a whole menu of possible options and design a swap package in a way that meets both debtor country's preferences as well as convinces creditors to engage in a swap for the environment. Experience of Poland and Bulgaria and selected other transition economies (including Russia) should be carefully studied. The options considered should include swaps on a project-by-project basis or swaps through a specially - established financing institution (e.g. a Fund), which would select projects on a competitive basis. Different types of funds should be considered - endowment, sinking or revolving funds¹¹ with different legal statuses. Various options for ensuring accountability, transparency and efficiency, and the choice of spending priorities, project pipelines and disbursement mechanisms should be analysed as well.

Short-term practical steps towards implementing these actions (1-3 years):

- Work with the rest of the government to ensure that environment is included as a priority in foreign cooperation programs;
- Strengthen programming procedures and institutional capacity to manage investment components in foreign cooperation programs;
- Prepare institutional set-up for debt for environment swap when opportunity arises:
 - Raise awareness among all major stakeholders in the country, and primarily the Ministry of Finance, of the potential benefits of debt-for-environment swaps;
 - Achieve consensus and political support of all major stakeholders in pursuing the swap for environment, should the opportunity arises;
 - Once the opportunity arises, introduce an explicit clause as part of the restructuring terms during the negotiations with the Paris Club creditors;
 - Analyse institutional options for implementing the debt swap transaction;
 - Launch informal talks with potential creditors to solicit their interest in engaging in a debt-for-environment swap;
 - Apply for technical assistance to donors or international institutions (World Bank, OECD, UNEP) to facilitate the dialogue with creditors and establish an appropriate mechanism for implementing the debt-for-environment swap;
 - Identify the sources of fiscal revenue that would finance the swap;
 - Prepare a feasibility study with business plan, detailed institutional design and investment opportunity analysis;
 - Launch formal negotiations with selected creditors;

¹¹. Endowment funds are created with single, discrete transfers of assets and designed to disburse only net income earned on these assets. Sinking funds are created with single, discrete transfers but designed to disburse also their entire principal over a fixed period of time. Revolving funds are designed to be replenishable. They receive regular additions of new resources to their assets in order to replace the funds that have been spent.

Medium to long term steps (4 – 10 years):

- Stabilise the legal and institutional framework;
- Prepare realistic and financeable investment programs and “bankable” project portfolios for co-financing from foreign sources.
- Use opportunity of the debt-for environment swap if it arises and establish credible institution for managing expenditure program: establish an institution and recruit staff; develop a project cycle and project portfolio.

Progress Indicators:

- ⇒ Volume of environmentally-related ODA, IFIs
- ⇒ Environmentally-related ODA and IFIs / total environmental expenditure
- ⇒ Value of resources generated through debt-for-environment and debt for nature swaps

3.10. Strengthening Decentralisation and Resource Allocation at a Local Level

141. **Establish a clear framework for inter-budgetary fiscal relations where responsibilities are matched by access to resources to fulfil them.** The current system of fiscal relations in EECCA should be replaced by a clear assignment of every tax to one particular budget. In addition, sub-national administrations should be given more flexibility in the choice of taxes and their respective rates. Only under such conditions can regional and local officials reasonably be held responsible for the state of their budgets and economies. In the area of inter-governmental fiscal relations and fiscal federalism, a follow-up concept on the reform should be implemented by some medium term actions. This includes progressive implementation of treasury execution of sub-national budgets, further clarification of expenditure assignments among budgetary levels, transparent rule-based procedures for disbursement of all inter-budgetary transfers from the federal/national budget, gradual change in tax assignments in accordance with the 'one tax - one budget' principle and increased responsibility of local and regional governments for their budgets. Developing transparent fiscal relations between various government levels is not a responsibility of environmental ministers from EECCA but executive authorities. However, ministers of environment should support such reforms as they could contribute to the sustainable development of their countries and stronger capacity of the public sector to support infrastructure investments, including environmental infrastructure.

142. **Introduce a multi-year budget framework at all levels of government and medium term investment programs in local governments.** Gradually introduce elements of task-based budgeting at municipal level. At a sub-national level, through a reform of financial management systems, municipalities in EECCA could provide better and more extensive services to their citizens with the same amount of money in the budget. Improving budget preparation and monitoring processes may result in significant savings through subsidy reform and better prioritisation. Better investment planning and budget management could enhance creditworthiness of municipalities. It helps control municipal debt and makes it easier for municipalities to raise external finance from domestic and foreign financing sources, where they have rights to do so. A sound financial management system facilitates the communication of financial information to interested parties, enhancing access to credit and other outside resources through its demonstrated conformity with the principles of accountability and transparency. A multi-year investment plan, by organising and rationalising the municipal investment process, often decreases losses during the planning and implementation period. The task-based budgeting improves planning quality and efficiency. The task-based budgeting is a procedure in which the local administration staff develops detailed plans to be accomplished. The basic structure of this plan consists of programs and tasks. Then the administration can introduce performance monitoring of planned activities, including environmental responsibilities. Such monitoring is impossible when the traditional budget preparation process is used, because only expenditures are known, without any connection to the results to be achieved.

Short-term practical steps towards implementing these actions (1-3 years):

- Develop a policy statement on inter-budgetary transfer policies to make them more transparent, simple, and independent of current or past budgetary performance;
- Remove the burden of unfunded federal/national mandates from local governments according to the European Charter for Self-Local Government;
- Prioritise public investment spending at the level of central budget and initiate a multi-year budget framework for all sectors (functions), including the environment;
- Implement joint demonstration projects for multi-year comprehensive investment programs in pilot municipalities and oblasts with environmental priority;

Medium to long term steps (4 – 10 years):

- Strengthen the legal system and institutional framework for municipalities and regions in terms of financial autonomy and fiscal decentralisation;
- Establish genuine regional and local autonomy within clear defined bounds, supported by the separation of tax and expenditure functions;
- Develop uniform procedures for environmental management and consolidation of municipal investment programs with the budget policies.

Progress Indicators:

⇒ Number (share of total) of municipalities which have legally adopted and routinely use formal current expenditure budget and multi-year investment plans.

4. THE ROLE OF INTERNATIONAL CO-OPERATION IN REACHING THE OBJECTIVE

143. Given the low level of domestic finance available for environmental improvements in EECCA, the role of international co-operation in this region in mobilising additional private and public resources for the environmental sector as well as allocating public financial resources more efficiently is crucial. If well-targeted, donors' and IFIs' resources could be an important catalyst in policy reform and institutional development and in leveraging scarce public resources in EECCA. The response to the call of Environmental Ministers of the UNECE region in Aarhus for "re-focusing" on EECCA, has yet to come. However, the effectiveness and the impact of donor assistance programs on policy reforms in the area of environment have been low.

4.1. Lessons Learnt from International Co-operation

144. The aggregated inflows of environmentally related ODA/OA to the EECCA region has been increasing between 1996 – 1998 and have hereafter started to fluctuate at lower levels due to fluctuations in IFI lending. The share of environmentally related assistance of overall assistance has increased from 2% in 1996 to 5,6% in 2000, however some of this is due to a decline of overall assistance since 1998. On a per capita basis, EECCA have received less environmental assistance than other regions of the world. EECCA have received only 0.8 USD per capita in 2000 where as countries in Africa South of Sahara and South America have received over 2 USD per capita. In addition to the low levels of environmentally related assistance the assistance has also been allocated very unevenly among different EECCA with Armenia and

Azerbaijan receiving around 4 USD per person and Belarus and Turkmenistan receiving 0.1 USD or less in average from 1996 – 2000.

145. International financing provided by the IFIs towards the environment has also been low. Although certain mechanisms for consultations between donors and IFIs have been put in place (the Project Preparation Committee (PPC), only few loans have been committed so far and even fewer disbursed. Given the period of 10 years since the break-up of the Soviet Union and the great deal of resources spent on preparation of environmental projects for IFI financing, actual loan disbursements have been negligible. The costly project preparation process and the softening of IFI loans for the environment absorb valuable donor resources. However, these do not always lead to project implementation.

146. While it is true that in the early years of transition, both donors and IFIs had to take some risks and commit resources even if projects were not well-developed, later experience shows that there are a number of issues that are often overlooked by both EECCA and donors. Generally, EECCA lack skills and expertise for preparing such projects. EECCA also lack good knowledge and understanding of the IFIs' lending procedures and requirements. This often leads them to underestimating the level of effort and resources that need to be invested up-front, such as providing institutional support, implementing respective policy reforms and providing state guarantees to cover for the loans. On the other hand, donors do not always conduct their own thorough analysis of the framework conditions in the country in which a loan will be effectuated. They do not always evaluate the risks of non-successful awards of loans, either. Sometimes donors are not aware as to which stage of the banks' project cycle their resources will contribute to. Clarifying such issues up-front, could significantly improve the effectiveness of donors' support for the project preparation process. Well-prepared investment projects are crucial for attracting external resources.

147. While external finance is crucial in triggering important environmental investments in EECCA, its main function lies in leveraging additional resources in the recipient countries. To this end, EECCA should be fully aware that the bulk of finance needs to come from domestic sources. With ever-decreasing budgets for environment and, general lack of liquidity of enterprises, putting in place the right policies and incentive structures is all the more important. In this context, economic instruments (including user charges for environmental services) are a good candidate for donors to focus their assistance on. However, improving the system of EIs has so far received only limited attention in donor assistance programs (e.g. USAID in Ukraine, Tacis in Georgia). Even where such programs exist, they are often not tailored to the recipient country conditions. Donors tend to transpose their own experience directly to the EECCA context proposing approaches and solutions which might not always be compatible with the country's policy and institutional capacity.

148. The same observation holds for donor assistance programs targeted at improving public environmental expenditure management in EECCA. There are very few donors' technical assistance programs for institutional and capacity-building in this area in EECCA in the first place. Secondly, these programs rarely involve stakeholders other than Ministries of Environment, such as Ministries of Finance and Economy. Therefore, such programs usually fail to achieve their objectives, as it is difficult to influence the broader framework that governs public environmental expenditure management without the support of the major government agencies.

149. On the other hand, the recipient countries' capacity to absorb external assistance is often limited. Sometimes IFIs and donors (including among themselves) compete with governments for human resources, creating over-stressed personnel, low quality of inputs and distorting real prices of domestic inputs. For institutional strengthening projects, donors rarely require that institutions/Funds managing public environmental expenditure should use good practices in public expenditure management. Instead,

they often by-pass existing institutions and create their own isolated units to implement individual projects, thereby foregoing opportunities for reforming existing institutions.

150. In addition, donor assistance programs on enhancing environmental financing, where they exist, are usually one-off attempts. Assistance provided in analysing problems is not followed up by assistance for implementation of institutional reforms and for capacity-building and is not linked to investment "rewards" for reform-minded EECCA. Although not completely successful, Denmark is among the very few donors that has tried to follow this path (in Ukraine). However, such examples are extremely rare and they usually fall short in their initial good intentions due to the lack of general longer-term strategic vision and commitment.

151. The lack of co-ordination between different donors and international organisations creates other problems. Sometimes donor programs propose solutions that are not coherent with each other and are not realistic given institutional and market conditions in EECCA (e.g. proposal for establishment of a credit enhancement fund in Russia to guarantee bank loans for environmental investments while Russian banks have too tiny deposit base to offer significant investment loans). Conflicting policy options proposed by donors often leave EECCA confused as to the best policy choice and bring in additional distortions in EECCA policy development and reform.

152. Very few donors and IFIs have been willing to implement comprehensive projects on capacity-building that help EECCA better formulate policies and develop more realistic investment planning for their environmental programs as well as set the right incentive structures for mobilising additional resources for the environment. Denmark again is a notable exception, where the Danish Government supported the development of municipal water sector finance strategies in several countries in the region (Georgia, Moldova, Kazakhstan, Ukraine, several regions in Russia). Unfortunately, well-targeted, step-by-step capacity-building projects tailored to a specific country's conditions usually attract less donors' interest. Donor assistance programs are usually made to fit specific donor budget levels and timeframes for their project cycles, and are often without a holistic view of the overall needs. Specific issues are being addressed isolated from the big picture. Projects of these types are often left hanging with severe capacity-building lacks and follow-up adjustment processes badly needed.

4.2. Forms and Areas for Future Co-operation

153. If real "refocusing on EECCA" is to happen, as called upon by Environment Ministers in Aarhus in 1998, it is obvious that environmental assistance to EECCA needs to increase and be diversified among EECCA regions and countries. Donors should spend more time in designing their assistance programs taking into consideration local specific conditions. They should carefully assess the value-added of their own programs vis-à-vis other international initiatives. They should ensure local support and ownership of these programs.

154. There is a particular need to ensure that project preparation is not an isolated process but is synchronised with policy and institutional strengthening measures. Donors need to make necessary provisions in their assistance programs to bring these elements together and further link them to investment opportunities. Taking into consideration the long timeframe and amount of resources required to prepare good projects for financing by IFIs, donor assistance programs should aim to adjust the preparation and implementation phases to the level of commitment needed.

155. Many lessons can be learnt from managing the transition period in the more advanced CEE countries. Therefore, donors should pay increased attention to undertaking, disseminating and implementing demonstration projects based on best practices, tools and know-how not only from western

OECD countries but from more advanced transition economies as well. Rather than disseminating "ideal" solutions, technical assistance in managing the transition period in EECCA would be further strengthened, if it took into account the practical solutions implemented in the CEE transition economies.

156. To further enhance the assistance provided by donors with the aim of making their programs more effective, donors may want to consider the areas listed below for future co-operation. Financial assistance and small-scale pilot and demonstration projects would be most helpful, if provided for:

- Reforming the revenue-raising potential of environmentally-related charges and taxes;
- Developing models and methods for priority-setting and more realistic investment and financial planning of environmental programs;
- Strengthening long-term investment planning and project preparation by municipalities and public utilities;
- Designing optimal institutional set-ups for debt-for-environmental swap schemes;
- Developing models and tools for harnessing and leveraging private finance for environmental projects in a competitive, market-friendly manner;
- Designing technical assistance on public governance with special emphasis on public expenditure management and decentralisation - with special application to the environment;
- Reforming existing public environmental expenditure management institutions in line with international good practices;
- Training of environmental administration in appraisal of environmental investments for financing from public funds;
- Developing and disseminating methods and tools to assist in prioritisation, economic and financial appraisal of environmental projects and programs, in management and decentralisation processes;
- Strengthening mechanisms for public-private co-financing of environmental infrastructure investments;
- Working with EECCA public expenditure management institutions on a "learning by doing basis".

157. At the same time, regional bodies (such as the OECD EAP Task Force) and other international organisations could be most effective in assisting donors and IFIs through:

- Providing a forum for exchange of ideas and lessons learnt from donor and IFIs projects;
- Mobilising, channelling and co-ordinating donor efforts;
- Brokering between EECCA and donors/IFIs by helping EECCA better formulate their needs in discussions with donors;
- Assisting EECCA in quality control and assurance of donor consultants;
- Developing best practices and new tools for mobilising additional and managing public financial resources;
- Monitoring the implementation of the actions identified in this Strategy and evaluating progress achieved.

158. Such initiatives would most likely increase EECCA ownership and increase the chances and levels of success of donor projects.

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