

**WORLD BANK
ORGANIZATION OF ECONOMIC COOPERATION AND DEVELOPMENT**

**PRIVATE SECTOR PARTICIPATION
IN THE WATER SECTOR IN THE ECA REGION:
EMERGING LESSONS**

Final Report

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Table of Contents

<i>Acronyms</i>	4
<i>Acknowledgements</i>	5
EXECUTIVE SUMMARY	6
1. INTRODUCTION	9
1.1. <i>The study</i>	9
1.2. <i>Report roadmap</i>	9
2. METHODOLOGY	11
2.1. <i>The desk study</i>	11
2.2. <i>The fieldwork</i>	11
2.3. <i>Limitations of the work</i>	11
3. REVIEW OF THE STATUS AND TRENDS OF PSP IN THE WATER SECTOR IN THE ECA REGION	13
3.1. <i>Status and trends of PSP in ECA</i>	13
3.2. <i>Impacts of PSP on financial performance and levels of service</i>	25
3.3. <i>Public and/ or political perceptions of PSP in the region</i>	26
4. SITUATIONAL ANALYSIS TO ASSESS THE LEVELS AND IMPACTS OF PSP IN FOUR COUNTRIES IN THE REGION	29
4.1. <i>Differences between the focus countries</i>	30
4.2. <i>Models of PSP in water and sanitation</i>	33
4.2.1. <i>CZECH MODEL</i>	33
4.2.2. <i>HUNGARIAN MODEL</i>	37
4.2.3. <i>POLISH MODEL</i>	39
4.3.4. <i>ESTONIAN MODEL</i>	42
5. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS	45

List of Annexes

ANNEX 1 FOCUS COUNTRIES' PROFILES	
ANNEX 2 PRIVATE SECTOR PARTICIPATION IN WATER PROJECTS IN THE ECA REGION	
ANNEX 3 WATER PROJECTS FINANCED BY EXTERNAL SOURCES	
ANNEX 4 ECONOMIC INDICES	
4.1 ECA REGION POPULATION BY COUNTRY	
4.2 GDP PER CAPITA 2000	
4.4 PRIVATE SECTOR SHARE IN GDP, 2000	
4.4 FOREIGN DIRECT INVESTMENT PER CAPITA	
4.5 FOREIGN DIRECT INVESTMENT IN 1995-2000	
4.6 ECONOMICAL LIBERALIZATION	
4.7 DEMOCRATIZATION	
4.8 GROUPING OF THE ECA COUNTRIES BY ECONOMIC LIBERALIZATION AND DEMOCRATIZATION	
4.9 CORRUPTION PERCEPTION INDEX, 2000	

List of Graphs

GRAPH 1: CUMULATIVE FOREIGN DIRECT INVESTMENT IN 1995–2000 IN ECA REGION	14
GRAPH 2: NUMBER OF PSP PROJECTS IN WATER IN THE ECA REGION BY COUNTRY GROUPINGS, 2002	18
GRAPH 3 NUMBER OF PSP PROJECTS IN WATER IN THE ECA REGION, BY COUNTRY, MAY 2003	19
GRAPH 4. PERCENTAGE OF POPULATION IN THE REGION SERVED BY PRIVATE SECTOR BY GROUPINGS	21
GRAPH 5. TOTAL WATER PROJECT COSTS AND IFI/DONOR FUNDING (MILLION DOLLARS)	22
GRAPH 6. WATER PROJECTS EXTERNAL FUNDING BY PSP GROUPS OF COUNTRIES	23
GRAPH 7 EXTERNAL FINANCING OF WATER PROJECTS IN ECA REGION BY DIFFERENT IFI/DONOR BY COUNTRY GROUPING	23
GRAPH 8. WATER PROJECT COST FUNDED FROM EXTERNAL SOURCES WITH AND WITHOUT PSP	24
GRAPH 9. NUMBER OF PSP PROJECTS IN WATER IN THE ECA REGION, 1992-2002.....	25

List of Tables

TABLE 1: PROPOSED DIVISION OF THE COUNTRIES OF THE ECA REGION INTO GROUPS ACCORDING TO THE ATTRACTIVENESS OF PSP	17
TABLE 2: TYPES OF PSP OPTIONS PRESENT IN THE ECA REGION BY COUNTRY	21
TABLE 3: FOCUS COUNTRIES: BACKGROUND INFORMATION	29
TABLE 4: POPULATION AND NUMBER OF MUNICIPALITIES IN FOCUS COUNTRIES	31

List of Boxes

BOX 1: ACEA & COMPANY: AN ARMENIAN WATER UTILITY.....	19
BOX 2: ALMATY SUI, KAZAKHSTAN: THE FIRST MANAGEMENT PROJECT IN THE FSU	20
BOX 3 MOSCOW BOOT MODELS: WASTEWATER TREATMENT PLANTS IN SOUTH BUTOWO AND ZELENOGRAD	20
BOX 4: PUBLIC PERCEPTIONS: AN ILLUSTRATION FROM RUSSIA.....	28

Acronyms

ADB	Asian Development Bank
CSE	Central and South East Europe
DANCEE	Danish environmental assistance to Eastern Europe
EBRD	European Bank of Reconstruction and Development
ECA	Central and Eastern Europe and Central Asia
EECCA	Eastern Europe, the Caucasus and Central Asia
EIB	European Investment Bank
EU	European Union
FSU	Former Soviet Union
IFI	International Finance Institutions
ISPA	European Union's Instrument for Structural Policies for pre-Accession facility
OECD	Organization of Economic Cooperation and Development
PHARE	Originally created to assist Poland and Hungary in 1989, today the PHARE programme encompasses the 10 candidate countries of central and eastern Europe
PHARE CBC	PHARE Cross-Border Co-operation Programme
PSP	Private Sector Participation
SAPARD	Special Accession Programme for Agriculture and Rural Development
STAN	Countries of the Former Soviet Union having ending –stan: e.g. Uzbekistan
WB	World Bank

Country Abbreviations

AL	Albania	LT	Latvia
AM	Armenia	LV	Lithuania
AZ	Azerbaijan	MD	Moldova
BH	Bosnia-Herzegovina	MK	Macedonia
BU	Bulgaria	PL	Poland
BY	Belarus	RO	Romania
CR	Croatia	RU	Russia
CZ	Czech Republic	SK	Slovakia
EE	Estonia	SL	Slovenia
FYR	FR Yugoslavia	TJ	Tajikistan
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Executive Summary

The Eastern and Central Europe and Central Asia (ECA) region has a population of 480 million, of which 66.5 per cent lives in urban settings. Presently private operators serve only 30 million, or 6 per cent of inhabitants. Moreover, these 30 million people live predominantly in capitals or large cities.

The ECA region is unique when compared to other regions as it has highly developed urban systems and relatively high service coverage. However, the service infrastructure is on the verge of collapse being over 40 years old and having received poor maintenance for the last 10 years.

A trend in the region towards the decentralization of water and sanitation services, which started in the mid-1990s with major responsibility being transferred to the municipalities, continues with an increase in foreign private sector involvement. Since 1992 private sector involvement in the water and sanitation sector in the region has increased at a steady pace; however, private sector operators still serve only 6 per cent of inhabitants.

Several factors contribute to this trend towards decentralization. On the one hand, pitiful underinvestment and an urgent need for upgraded and expanded infrastructure pressurize the search for alternatives to public sources of funding. On the other, inefficiencies, lack of modern operating and managerial techniques and limited access to technologies encourage partnerships with those who do have this expertise.

The current status of private sector participation (PSP) in the water sector differs among countries in the region. A number of factors account for these differences; these include: the institutional capacity; regulatory changes; the state of the sector before the transition from a planned to a market economy; the extent of reforms undertaken so far; the macro-economic performance of the countries concerned; levels of household income; and the availability of external assistance.

The Eastern Europe, the Caucuses and Central Asian (EECCA) and Central and South East Europe (CSE) countries are two broad groups that divide the region by the level of interest shown in them by international private water companies. Within each of the two groups, two more subgroups were identified based on the progress made after the socialist system's collapse. Within the CSE countries the level of the EU integration serves as a boundary line. Meanwhile, among the EECCA countries an important role is played by levels of political reform and economic liberalization.

European Union accession has become one of the important external factors affecting private sector involvement. For the accession countries the cost of compliance with EU standards can be measured in billions of US dollars, amounts that could not be provided by the governments alone. The pre-accession funds, such as ISPA and PHARE, have been designed to provide some of the investment necessary for compliance with EU standards; however, even this funding is not sufficient. The gap between the required investments into infrastructure rehabilitation and expansion and the available internal and external funding is still significant. The private sector has been called in to bridge this gap.

However, the private sector in the ECA region fails to play its role as a provider of capital. A regional trend shows a tendency to separate infrastructure asset ownership from operations. The large proportion of lease and management contracts is an indication of this. The first reason for such a trend is the legal limitation that is often placed on the share of infrastructure utilities that a private company is allowed to own; this limitation strengthens the role of the national monopoly committees that regulate natural monopolies such as the water sector. In addition, private water companies are interested primarily in providing operating experience, rather than investing in infrastructure. This is because of the huge need for investment in the region's infrastructure and the private operators' fears of not being able to recover such investments. Thus, most of the infrastructure development in the region is being financed by the public sector and external finances rather than by private money.

This brings the authors to the conclusion that if the goal of PSP is private investment, then there should be no separation of operational and infrastructure assets. However, if improvement of management and technology transfer is the goal, then lease and O&M contracts are well suited for the ECA region.

At this stage, international private water operators are showing an increased interest only in first-tier EU accession countries, which have already undertaken significant sector reforms and have created working legislative frameworks. A vivid example is the Czech Republic, where three-quarters of the water sector has PSP. However, it is worth pointing out that the private sector in this country, as well as in the entire region, is interested only in operating assets rather than becoming involved in infrastructure capital investments.

Thus, an enabling legal environment, which allows different PSP options and clearly specifies the rules of play, needs to be put in place before launching PSP. In fact, PSP is only possible/useful to the degree that it is supported by the local framework.

The Former Soviet Union (FSU) region's water sector is not yet attractive for substantial private sector participation. Reforms are required before most of the water utilities will be able to generate internal cash for operations. There are only a very few examples of PSP in the FSU so far: Yerevan in Armenia and Almaty, Moscow.

The major benefits from private sector involvement in water and sanitation in the region are manifest in the transformation of old water companies into more dynamic businesses. Involvement of private partners has helped to rationalize water companies, increasing efficiency and decreasing the unit cost of services. Moreover, there has been increased focus on customers, improved customer relations and increased billing and collection rates. Leakages were also reported to be declining, while in a few cases the quality of water has also increased. However, earlier reports that have been conducted conclude that publicly and privately operated utilities did not differ much in terms of operational performance.

In order to further encourage the private sector to increase its involvement, external support is needed for almost all countries in the region. Such support ranges from sector reform and putting in place institutional and legal frameworks (EECCA and partially CSE countries) to infrastructure rehabilitation and expansion of financing. However, applying subsidies should also be considered, along with the realistic pricing of water, depending on the affordability of water by an average household.

Municipalities need to have a greater technical and legal capacity to negotiate contracts with international private companies. It is important to explain to these decision-makers the consequences of, and parties' responsibilities to, each type of contractual agreement. If this is not feasible, advisory regulators should be established to consult with municipalities on their partnerships with the private sector. The small scale of many municipalities exacerbates this problem. Thus the amalgamation of small municipalities into associations will not only improve public management, but will also encourage the private sector to bid for projects that would otherwise be too small to attract its interest.

The Czech Republic, Hungary, Poland and Estonia all had similar starting positions at the beginning of their transformation from planned to market economies; they also all currently enjoy high economic development. Despite these similarities, the four countries have ended up with different degrees of PSP, with the Czech Republic being a clear leader, followed by Hungary and Poland. Estonia, a newcomer to the PSP scene, is forming a different model of PSP in small countries, having water utilities run by both the international private sector and its domestic private sector.

Models of PSP in the water sector could be used by the EECCA countries. Certainly, conditions in each country differ; however, predictions for the most suitable model could be made depending on a particular country's chosen pace and type of private sector participation that it wishes for its water sector

For instance, a country following the Czech model will end up with a significant number of PSP projects. Such a model is recommended for a country willing to move as quickly as possible to private sector involvement. The model includes decentralization and corporatization of the water utilities with maximum rights allocated to the municipalities and minimum control from the governmental side. The Czech model can also be used by authorities that wish to maintain asset ownership in the public sector, while using the private sector for operation of services. This approach not only brings in private operators' experience and management practices, but also helps to generate finance for the municipal budget.

The Hungarian model of PSP in water and sanitation is recommended for a country that would like to see its water utilities moving away from public sector control altogether. This model is also an illustration of strategic investors considering each privatization project on a case-by-case basis within the water sector. Such a model is especially viable in a situation where there exist strong trade unions and a strong NGO sector. This model does not lead to rapid private sector involvement; in part this is due to its slowing down the process due to high transaction costs. However, the Hungarian model will ensure a high degree of quality in each of the successful projects, and it is a model that takes account of the voice of the public.

The Polish model of PSP in water and sanitation resembles the Hungarian one. However, here a special emphasis is put upon partnerships between the public and the private sector. A high 'mortality' of such projects (up to 50 per cent) is expected. However, the quality of the PSPs that do work can be seen to be models of public-private partnerships.

Because Estonia has only one very recent PSP project, it is difficult to derive a specific model. However, this experience will be very useful for small countries with one or two large cities that are of interest to the private sector. It demonstrates that the role of domestic private companies could be invaluable for the EECCA region.

1. Introduction

1.1. The study

The report represents the findings of a study conducted between 1 April and 30 June 2003 on private sector participation (PSP) in the water sector in Central and Eastern Europe and Central Asia (ECA). The study seeks to identify the status and trends in PSP involving international water operators in the region; these trends include the number of transactions, affected populations, types of contracts and amounts of investment. In addition, the study investigates the transactions financed and sponsored by International Finance Institutions (IFIs) and donor countries.

The study puts specific emphasis on four countries; each of the following is analyzed in detail: the Czech Republic, Estonia, Hungary and Poland. The purpose was to identify the factors that have caused these similar (in terms of economic development) countries to end up with different levels of PSP in their water sectors.

In addition, the study aims to identify key issues with regard to PSP in water in the region, including levels of satisfaction and perceptions about private sector participation; it also recommends measures for correction of the failures and replication of the positive lessons.

The study required the collection of a substantial amount of data on the 28 countries of the region. The final output is represented in the final report and in a presentation that was given to the World Bank/ OECD conference in Vienna on 2–3 July, 2003.

1.2. Report roadmap

The current chapter 1 describes the purpose and the scope of the study.

Chapter 2 briefly describes the study methodology.

Chapter 3 reviews the status and trends of PSP in the water sector in the ECA region. It divides the region into four groups of countries, categorized by private operator involvement and levels of private sector interest and risks in the water sector. It analyses geopolitical, economic, social and historic factors, all of which have caused and currently illustrate the divergence among the 28 countries.

Chapter 4 provides a situational analysis to assess the levels and impacts of PSP in the four selected countries: the Czech Republic, Estonia, Hungary and Poland. In particular this section provides a detailed analysis of the different approaches taken by the four governments of these countries in terms of PSP in their water sectors; it includes policies, as well as social and political aspects. This chapter also looks in detail at public perceptions, corporate governance and the corporate social responsibility of the international private water operators in the four countries.

Chapter 5 contains conclusions and recommendations derived from the study; these include recommendations for the World Bank's client governments on how to improve the environment for PSP in the region. It also describes: the suitability of the different PSP models for different conditions; maximization of the benefits of private sector participation; improvements in public

perceptions of PSP in water; and enhancing corporate responsibility. This section highlights lessons learned from the experience in the four focus countries; these can be used to help provide a guide to governments in the Former Soviet Union (FSU).

The report is illustrated by case studies of PSP in the region.

Annex 1 provides a list of PSP projects in the water sector in the region, with information about the name of the project, private operator, percentage of ownership, amount of the transaction, the amount financed by the IFIs and donor countries, year of the project launch, type, duration of the project and population affected.

Annex 2 presents a database of projects financed by the IFIs and donor countries, with information on the project amount, IFI/ donor contribution, and population affected. In addition, the database marks the projects that have private sector participation, highlighting the private partner.

Annex 3 provides economic indices, while Annex 4 gives background analytical information on each country in the region.

2. Methodology

The methodology of the study consisted of two parts: the desk study and the fieldwork.

2.1. The desk study

The desk study method was used for investigating the status and trends of PSP in the region, as well as to provide background research for the four focus countries.

The consultants carried out a detailed analysis of PSP in the water sector in ECA, utilizing previously conducted studies financed by different institutions including the World Bank Group, OECD, EBRD and DANCEE. In addition, available reports, research papers and literature were analyzed using online publications and printed materials originating from the websites of the studied and donor countries' governmental offices, international private water companies, IFIs and research centers. Where data for a particular project differed, preference was given to those that had originated from the funding agency source. Interviews with relevant experts were conducted by telephone and email.

Altogether more than 90 documents were studied and analyzed. A list of the most important of these works can be found in the list of references.

2.2. The fieldwork

The fieldwork was conducted in order to provide a detailed analysis of the four focus countries (the Czech Republic, Estonia, Hungary and Poland). Prior to going to the countries, a list of relevant institutions and people was drawn up by identifying the key players of the regulating bodies, private operators, professional associations and unions, journalists, researchers and NGOs. Appointments were then made using email and the phone. As a result, a contact database was created with over 50 entries.

In addition to attending the prearranged meetings, the consultants also worked in the libraries of the respective countries so that they could track news articles on local perceptions of PSP in the water sector. A few informal interviews were carried out with citizens of the cities visited.

2.3. Limitations of the work

The work has limitations; these were incurred during the course of the study for a number of reasons. As a result, the conclusions presented in the report have some degree of approximation.

First and foremost, the report was generated in a relatively short period of time. The first draft was written three and a half months after the task was originally formulated.

The second factor that has led to these limitations involves inconsistency in project information provided by different sources of information, even within the same institutions: for instance, the online database of World Bank projects, Project Preparation Committee reports and World Bank printed materials. In such cases the sources that were the most

credible were selected, and these selections were later updated or revised in accordance with the consultants' opinions.

Situational analysis of the focus countries was limited due to the lack of a centralized source of data. There is no a particular governmental agency that deals specifically with the issues studied: different offices deal with different aspects, providing bits and pieces of the required data. Hence, comparative information of water utility performance was often unavailable for analysis.

3. Review of the status and trends of PSP in the water sector in the ECA region

3.1. Status and trends of PSP in ECA

The study collected data on the experience of the 28 ECA countries with regards to PSP involving international water operators. The consultants compiled a comprehensive list of water projects that have involved transnational private water utility operators in the region (Annex 1). The list contains data on the name of the project, private operator, percentage of ownership, amount of the transaction, the amount financed by the IFIs and donor countries, year of the project launch, type, duration of the project and population affected.

3.1.1. Status of PSP in the ECA region

The ECA region is unique compared to other regions as it has highly developed urban systems and relatively high service coverage. However, the infrastructure is on the verge of collapse being that it is over 40 years old and has suffered poor maintenance during the last 10 years.

The status of private sector participation (PSP) in the water sector differs among countries in the region. A number of factors account for these differences. These include: the institutional capacity; regulatory changes; the state of the sector before the transition from a planned to a market economy; the extent of reforms undertaken so far; the macro-economic performance of the countries concerned; levels of household income; and the availability of external assistance. While some countries seem to have experienced considerable success in their utilities' institutional and financial performances, in other countries water services are still in the midst of a severe crisis.

In order to draw lessons on the existing PSP experience in the ECA region, the research consultants divided the region into two broad groups of countries based on the degree and duration of Soviet economic and political influence: 15 countries of the Former Soviet Union (FSU) (12 of Eastern Europe, the Caucuses and Central Asia (EECCA) and 3 the Baltic states) and 13 countries of Central and South East Europe (CSE).¹ This historical background also appears to serve as a basic criterion for explaining the different levels of PSP in the region. Each of the two groups was further split into subgroups according to the level of PSP interest: the EU accession tier became a dividing line for the CSE countries; FSU countries were analyzed according to the current level of PSP and potential interest of the private operators² and also according to the countries' development indices, such as GDP per capita, private sector share in GDP, foreign direct investment, as well as indices of economic liberalization, democratization and corruption perception (Annex 3).

There are a number of reasons for the differences in performance between the Central and South East Europe countries and the FSU countries. First and foremost, the FSU has a longer history of tight political control, thus there was a need for new political and sovereign institutions. Second, the FSU used to rely on a more rigid form of central planning and at the time of transition had no recent history with a market system.

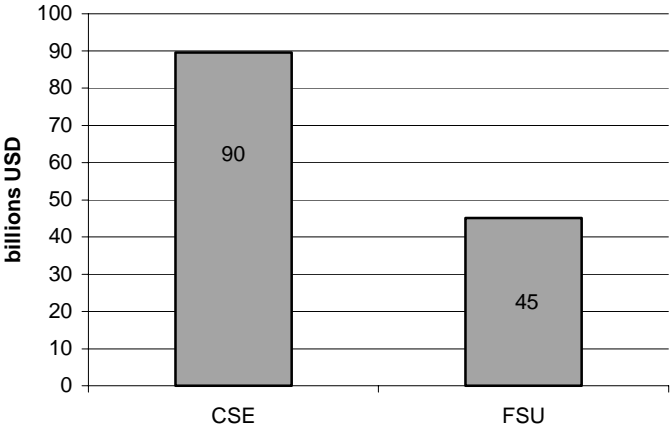
¹ Turkey does not fall into either of these categories.

² Data of the poll of Posh&Partner in World Bank (2002). *Private Sector Participation in the Municipal Services in Central And Eastern Europe and Central Asia*. Conference Write-up, Paris, France, 10-11 April, 2002.

By contrast, Central and South East Europe, while also negatively affected during the first stage of the Soviet Union’s economic disintegration in early 1990s, had fewer close economic links within the Soviet system while it was in place. The CSE countries also had looser form of central planning, have a more recent history with a market system, have ready access to Western trade and capital, and of course have the prospect of the EU integration.

In CSE, the transition recession from planned to market economies during the first half of 1990s was short and relatively shallow, lasting only 2–3 years, with a loss of 10–20 per cent of GDP. It was followed by a steady recovery, and current GDPs are now about 20 per cent above those of 1990. In the FSU, the initial decline lasted much longer (on average 7 years) and produced GDP losses of about 50 per cent on average (or more in some specific countries; 66 per cent in Georgia, for example).³

The CSE countries generally managed to establish a better investment climate and were able to create a more disciplined and supportive environment for enterprises. They quickly reduced subsidies, such as privileged taxation of enterprises, various non-payments by enterprises to the budget, non-monetary transactions between the enterprises (e.g. barter), including those in the water sector. Hence, the CSE countries were able to attract more foreign direct investment (graph 1).



Graph 1: Cumulative foreign direct investment in 1995–2000 in ECA region

Source: UNCTAD Handbook of Statistics On-line <www.unctad.org>

Below there is a short description of the country groupings, similar by their geopolitical location and economic development.

A. Central and South East Europe (CSE)

First tier EU accession countries: Poland, Hungary, Czech Republic, Slovenia and Slovakia. These countries have undergone a significant reform of the sector. Water tariffs are sufficient to operate and maintain existing systems. There are also inflows of capital available from domestic and foreign sources for expansion and renewal of the

³ Linn, Johannes (2003). *Transition in Central and South East Europe and the CIS: The Energy Dimension*. Speech at Conference on Restructuring the Energy Sector in Transition Countries: Lessons Learned and Challenges Ahead. Leipzig, Germany, 28–30 April 2003.

system. These investment funds are available due to the countries' macroeconomic performance, availability of accession funds, efficiency of the utilities concerned and the countries' regulatory and policy environments. The main challenge for these countries is to continue improvements in their institutions and to mobilize the enormous resources needed to meet stringent EU standards, particularly those for wastewater treatment. The market is also quite attractive to PSP because of political stability, stable currencies and skilled workforces.⁴ However, support is still being provided by IFIs to the water sectors for capital renovation and expansion in the form of grants and soft loans; this is because of the lack of investment commitment to infrastructure from the private operators.

Options being used for PSP in these countries include pure management contracts, outsourcing of operations, concessions and acquisitions. However, the choice of option varies depending on the policy of a country's authorities and its legislative base; for example, the existence of concession law and divestiture permits. The detailed analysis of the experiences in Poland, Hungary, the Czech Republic and Estonia, which is provided in the following chapter, elaborates on the differences within this group.

Second tier EU accession countries: Romania, Bulgaria, Croatia and Turkey. Tariffs in these countries cover operation and maintenance costs, but capital for renewal and expansion of the system for water supply provision is inadequate. Sector reform and the investment environment in these countries are not yet favorable to large inflows of foreign or domestic capital. In some countries, rural connections are seriously underdeveloped, as their construction requires additional capital that governments cannot fiscally afford.

This group of countries is not likely to attract private sector investment without the cushion provided by the IFIs, whose role is expected to be in catalyzing investment through demonstration projects. Development assistance is still needed to achieve serious reforms within the sector and to create an enabling environment in these countries.

The post conflict countries of the Balkans: Albania, Bosnia and Herzegovina, Macedonia, and the Federal Republic of Yugoslavia (Serbia, Kosovo and the Republic of Montenegro). War and ethnic divisions have hindered sector reform in these countries. Although the countries have competent workforces (human resources), they require policy reform, institutional reorganization, the adoption of modern methods of management and capacity building to catch up for lost time. No private sector will be interested in risking its capital working in this region. However, recent commitments of the international donor community to help the countries to resurrect from the war can encourage PSP.

B. Former Soviet Union

The Baltic States (Estonia, Latvia and Lithuania) reintegrated with the rest of Europe after a half a decade spent as satellites of the FSU. Unlike other Central European countries, the Baltic States had to re-create nearly every institution—ranging from the military to tax and customs authorities—instead of just reforming them. Unlike a Newly Independent State, however, the Baltic States were able to return to the institutions and

⁴Hill, Brian (2003). *Development and Financing Options For the Privatized European Water Markets*. European Water Market Conference presentation, May 3-5, 2003.

links forged when they were independent states before the Second World War⁵. These three countries are first (Estonia) and second tier (Latvia and Lithuania) EU accession countries. The level of water sector development is influenced in such cases by EU regulations. An additional driving force in the improvement of water provision and sanitation is the influence of the Scandinavian countries. These countries not only possess rich experience in water management, but also allocate funding for system upgrades and extensions to the Baltic States. Since the Nordic countries have a successful public management of their water sectors, this model is widely applied to the Baltic States through the so-called ‘twinning projects’ or Public-Public Partnerships (PUPs).

Russia and Ukraine are of interest to private sector water utilities because of their market size. However, modern methods of management have not yet been adopted. Sector reform and a better investment environment could bring significant financing from the private sector. The water and sanitation infrastructure in the capitals and large cities of the two countries is in relatively good condition. Nevertheless, there is a need for the two governments to consider aggressive sector reforms to enable utilities to generate internal cash for renewal. The severely deteriorating systems in secondary cities and rural communities are not likely to attract private investors.

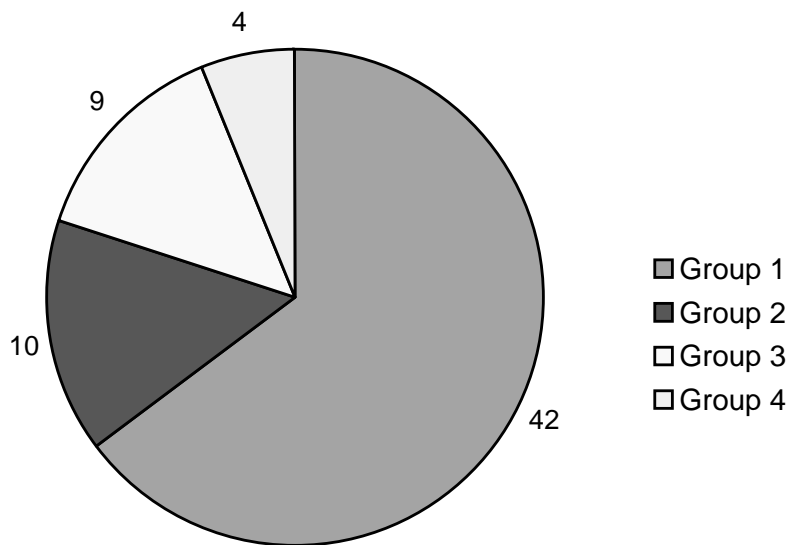
The Caucasus (Armenia, Azerbaijan and Georgia) faces a dramatic decline in water services outside the capital cities; in many smaller cities and rural areas services are on the verge of collapse. The private sector is not likely to be interested beyond the large cities. These countries’ ability to mobilize resources for the sector is severely limited as government budgets are constrained and the ability of people to pay is low. Economic reforms are taking place very slowly.

Central Asia (Kazakhstan, Kyrgyz Republic, Tajikistan, Turkmenistan and Uzbekistan). The situation in Central Asia in terms of water infrastructure deterioration repeats the one in the Caucasus. However, the situation here is exacerbated by the fact that the Central Asian countries also face a scarcity of water as a natural resource. Economic reforms are the slowest in the region (Annex 3.6.). Kazakhstan and the Kyrgyz Republic are the only countries in the group that are of interest to investors and IFIs; this is due to size (Kazakhstan) or to higher GDP per capita (in the case of the Kyrgyz Republic).

Belarus and Moldova fall into the ‘no interest to the private sector’ category because they both have a low level of water sector reform. Belarus has the slowest pace of transformation because of its political regime. As a result, the private sector is not welcome in these countries, be it in the water sector or any other sector of the economy. Moldova is a small country with a very low GDP per capita. Thus, these two countries, although geopolitically close to Russia and Ukraine, should be regarded separately where PSP in the water sector is concerned.

Based on the above considerations, and also on the survey conducted by Posch and Partner, which identified perceived risks in PSP in the water sectors in the countries of the region and

⁵ Huang, Me (2001). *From Monopolies to Markets. Privatizing Public Utilities in the Baltic States*. Local Government Brief. Open Society Institute, Budapest, 2001.



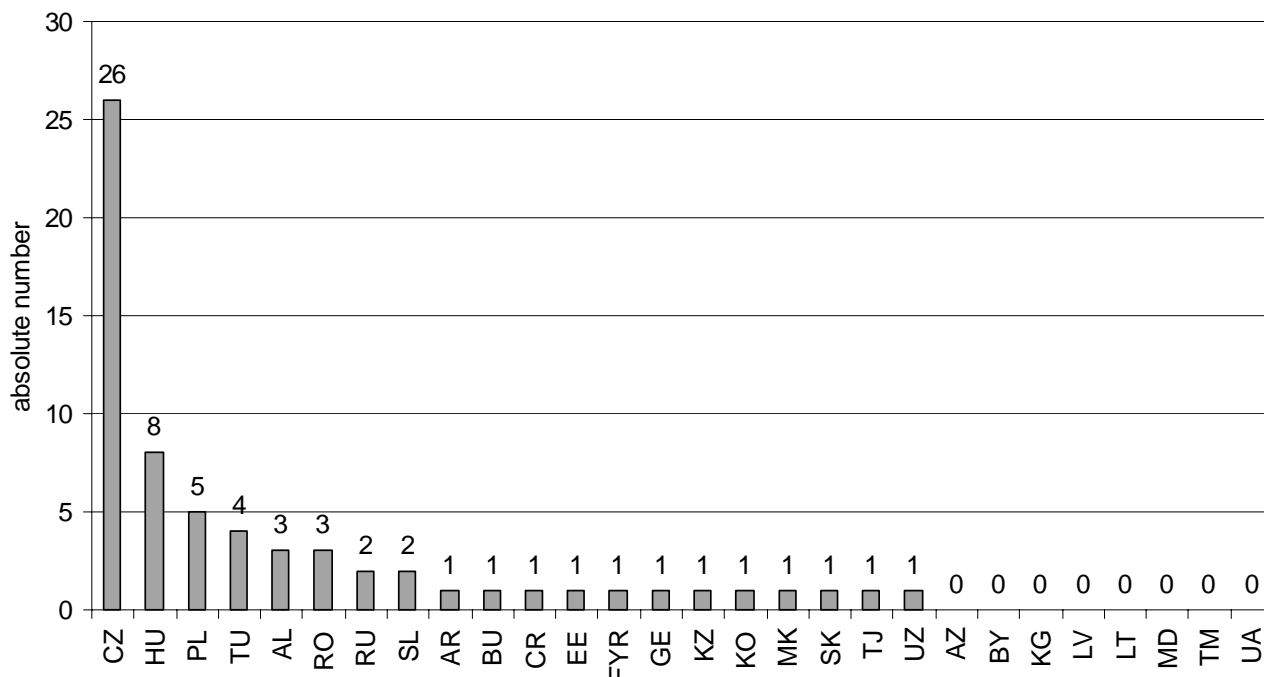
Graph 2: Number of PSP projects in water in the ECA region by country groupings, 2002

Graphs 2 and 3 illustrate the number of PSP projects in the region – by country groupings and by country.

General trend over the last ten years shows that private operators focused their attention on mostly capitals and large cities.

To sum up, only first tier EU accession countries, which have already undertaken significant sector reforms and have created working legislative frameworks, are currently of an increased interest to international private water operators. A vivid example is the Czech Republic, where three quarters of the water sector has PSP, but where not much IFI or donor support has been allocated. Even so, in some of these countries IFI assistance is still needed to facilitate PSP. The reason for this is the lack of interest that private companies have in investments that require long-term commitments. Below we argue that regional trends favor the separation of operational from infrastructure assets; it would then be in the interests of the private sector operators to own a share of operations but not of infrastructure. However, there are evidences that the private operators are willing to risk their capital in the first tier accession countries.

The Former Soviet Union (FSU) region’s water sector is not yet attractive for substantial private sector participation. There are only a very few examples of PSP in FSU so far. The most prominent is probably the management contract in Yerevan Armenia within the framework of a World Bank project (box 1). Several other projects involving the private sector are in difficulties or have been cancelled.



Graph 3 Number of PSP projects in water in the ECA region, by country, May 2003

Box 1: Acea & Company: an Armenian water utility

In May 2000, A.Utility, a Rome-based company comprising of Acea, C. Lotti & Associates and WRc, commenced operating the Yerevan Water & Sewerage Company (YWSC) in Armenia under a 4-year World Bank performance management contract. The total value of the project is US\$32.8 million with the World Bank support of US\$30 million. The key project objectives include: strengthening the management of the YWSC using a private operator, improving collection, reducing energy consumption and increasing the average hours of water supply.

Under the management contract there are 92 targets to be achieved over 4-year period. Incentive payments are paid to the operator on successful completion of key targets. The operator takes responsibility for administration, prioritization and overseeing the \$8 million operating investment fund; it is also responsible for introduction of international best practice in the operation and management of the water company, this best practice being adapted for the conditions that exist in Armenia. As of today, the financial situation of the YWSC was reported to improve due to improvements in tariff collection and reduced energy usage. A few weaknesses have been identified in the assumptions made in the management contract, the poor legal framework being the major obstacle on the way to successful implementation of the project.*

In July 2001, Yerevan’s mayor criticized Acea’s poor performance in that it caused the water supply situation to chronically deteriorate during the summer. The audits carried out by the city prosecutor’s office showed that water losses were mainly recorded in the internal network of Yerevan’s water company Yervodokanal “*which is essentially due to the unsatisfactory volume of investment in this sphere*”.**

The company is working with the Government of Armenia to correct the challenges it faces; these include reform of some laws, which could lead towards increased penalties for illegally connecting to the YWSC network, and improved definition of the responsibilities of both consumers and the YWSC. By the new legislation amendments individual consumers should have a legal obligation to form water user associations in order to collect YWSC revenues and to rectify leakage in their apartment blocks. Billing is no longer based on the number of registered persons, but the number of actual residents.

Sources: Holland, Andrew (2002) ‘Private Sector Participation in the Water Sector in Yerevan’, Presentation, 14 June 2002.

*Smith, Brian (2002) ‘Armenia Municipal Development Project’. Presentation/ *Private Sector Participation in the Municipal Services in Central And Eastern Europe and Central Asia*. Conference Write-up. Paris, France, 10-11 April 2002.

** BBC Worldwide Monitoring, 3 July 2001, *Armenian capital’s mayor blames Italian company for poor water supply*. Online database of international news collected from the mass media around the world..

For instance, currently Almaty in Kazakhstan is the only city in FSU to have introduced a concession following four years of a management arrangement between Vivendi and the GKP Vodokanal (box 2). The final agreement has not been reached yet due to the refusal of the State Anti-monopoly Committee to approve the concession contract. This makes it increasingly difficult for the private operator to maintain its involvement. The only known BOT in FSU was implemented in Moscow (box 3).

Box 2: Almaty Sui, Kazakhstan: the first management project in the FSU

In December of 1999, Vivendi Water of France signed a 30-year drinking water provision and water purification contract with the Almaty city government in Kazakhstan. This was the first time a private company had been contracted to supply drinking water in one of the FSU countries. The project aims at improving the water supply and sanitation services to the city of Almaty. It will be implemented through a joint venture called Almaty Sui created by GKP Vodokanal (with a 45 per cent share) and Vivendi Water (with a 55 per cent share). Tariffs are predetermined as cost plus a fee.

The project provides for a major reconstruction programme financed through low-cost loans and a transfer of Vivendi Water's technologies and know-how to the Almaty water company. Investment is expected to reach \$100 million over the life of the contract, with \$30 million to be invested in the first three years, and then this investment to be recovered—whilst a further \$70 million is also invested—from revenues generated over the next 27 years. Vivendi has also secured a \$90 million contract to build a new water pipeline to Astana, which expects its population to grow from 300,000 to 500,000 people within the next 10 years.

Presently, no investments came to the Almaty water system neither from the IBRD nor from the French government, which has promised a 6-year 24 mln Euro soft loan. The reason for this is the fact that the Kazakh Natural Monopoly Agency still has not signed a business plan, as well as did not approve the tariff calculation methodology.

Source: Fedotova, O., Water 2000.(Almaty, Kazakhstan, April 4-7, 2000).

<<http://www.bisnis.doc.gov/bisnis/country/000223water.htm>>

Box 3 Moscow BOOT models: wastewater treatment plants in South Butowo and Zelenograd

A German water company, WTE Wassertechnik GmbH, launched the first two BOOT projects in the ECA region.

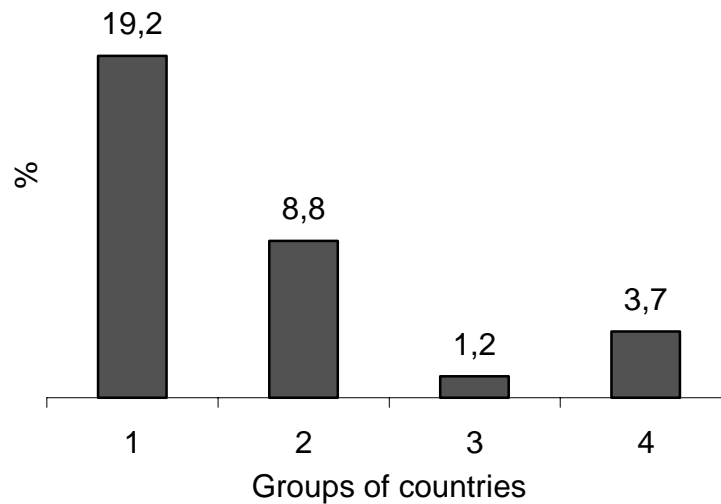
a) South Butowo

Since the newly built housing estates south of Moscow led to extremely high demands on wastewater treatment, it was necessary to build a new wastewater treatment plant in the district of South Butowo. WTE Wassertechnik GmbH was awarded the contract for the design, finance, construction and operation of the sewage treatment plant. The plant, which started operation at the end of 1998, was designed to cope with a population of 250,000 and is capable of handling 80,000 m³ of wastewater per day. The contract's special features include: design, detailed engineering, construction, commissioning/ start-up, financing and operation of the wastewater treatment plant. WTE Wassertechnik GmbH will be managing the plant until 2011.

b) Zelenograd

Wastewater produced in the area of Zelenograd was formerly treated in a non-central treatment plant northwest of the city of Moscow. As the treatment capacity of this plant was exceeded and the discharge quality no longer complied with the required purification standards, German WTE was commissioned to design, finance, build and operate the wastewater treatment plant. The expanded treatment plant started operation at the end of 2000. With an average capacity of 140,000 m³ of wastewater per day it has the potential to serve approximately 400,000 connected inhabitants. WTE Wassertechnik GmbH will be managing the plant until 2013.

Source: WTE Betriebsgesellschaft mbH Gänsefurth <<http://www.wteb.de>>



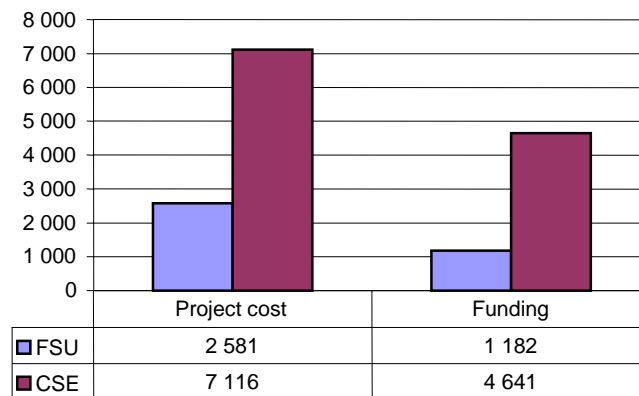
Graph 4. Percentage of population in the region served by private sector by groupings

PSP in the region is increasing at a steady pace. Currently private sector serves around 30 million or just 6%. Graph 4 shows the percentage of total population served in each group.

No dominant type of contract in the region was observed (table 2).

Table 2: Types of PSP options present in the ECA region by country

Country	Management contract	O&M	Lease	Concession	BOT, ROT	Divestiture
Albania						
Armenia						
Bulgaria						
Croatia						
Czech Republic						
Estonia						
Georgia						
Hungary						
Kazakhstan						
Kosovo						
Macedonia						
Poland						
Romania						
Russia						
Slovakia						
Slovenia						
Tajikistan						
Turkey						
Uzbekistan						



Graph 5. Total water project costs and IFI/donor funding (million dollars)

3.1.2. External fund flows

Consultants have developed a database of IFI and donor funded water projects, which is presented in Annex 2. It contains data on the funding side private sector involvement, project cost, funding, date, and population affected.

EU accession countries have tapped into the pre-accession funds (ISPA PHARE) that provide these countries with the investment necessary for compliance with EU standards. The gap between the required investments into infrastructure rehabilitation and expansion and the available internal and external funding is still significant, yet these countries enjoy much deeper interest from the IFIs than the countries of Eastern Europe Caucasus and Central Asia (EECCA) (graph 4).

The Baltic States are benefiting greatly from Finland, Switzerland, Sweden, Denmark and Norway under the framework of the Baltic Sea protection. Investment in the water sector has remained at a very low level in most of the EECCA region largely due to the difficult revenue situation faced by utilities and the scarcity of public funds.⁷

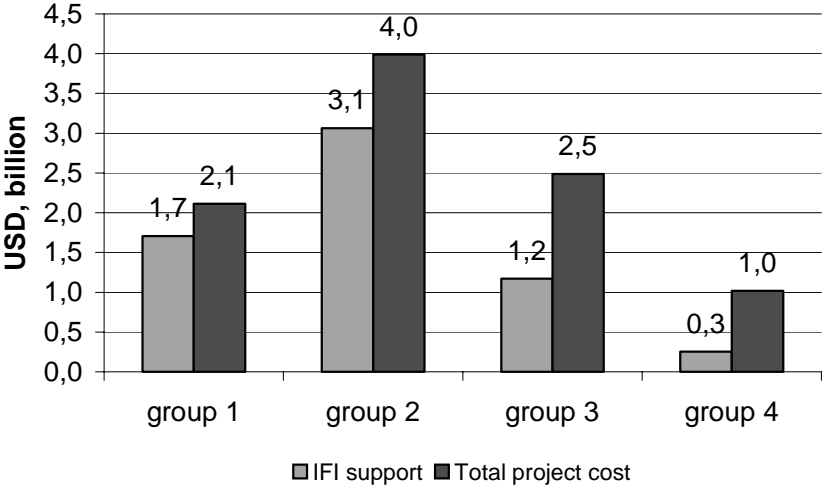
Graph 5 illustrates the fact that the second group of countries, has the most of funding available. However, the analyses of the donor show that a significant portion of money come from the EU accession funds (graph 6). An unusual for the region player is Asian Development Bank working in the STAN countries.

External fund inflows are hindered by country-specific legislation. As a consequence, official development assistance has been also slow to come to EECCA. While most donors regard water supply and wastewater treatment as priority areas for their environmental co-operation activities, in the EECCA⁸ region bilateral environmental assistance is still limited when

⁷ OECD (2003). Urban Water Reform in Eastern Europe, Caucasus and Central Asia: Progress since the Almaty Ministerial Conference // *Report of the EAP Task Force*, p. 43.

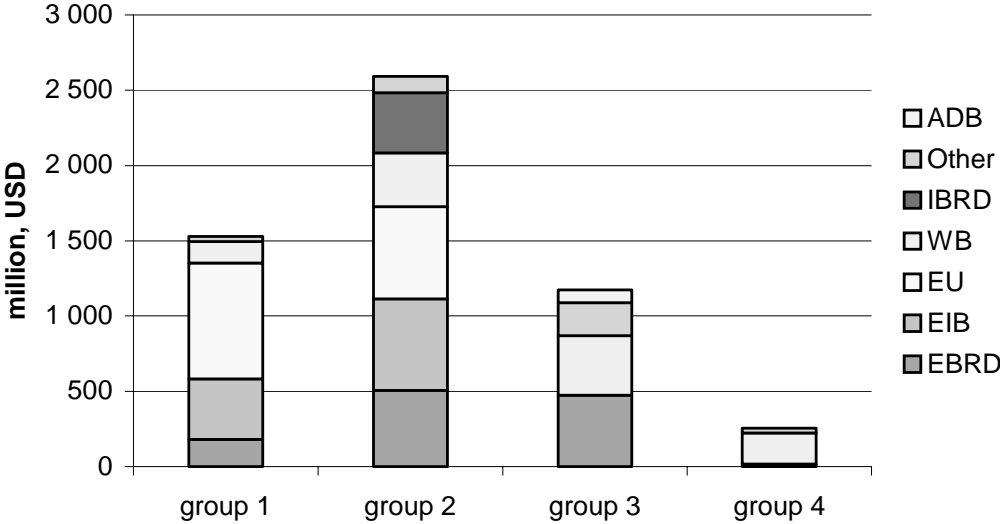
⁸ OECD (2002). *Compilation of PPC Donor Profiles: A survey of donor funding for environmental assistance to Central and Eastern Europe and the NIS*. The Project Preparation Committee, June 2002.

compared to other regions⁹. Also few IFI-funded water projects have been implemented in EECCA. Many of the previously planned projects have been cancelled and only a few currently remain in the pipeline.¹⁰



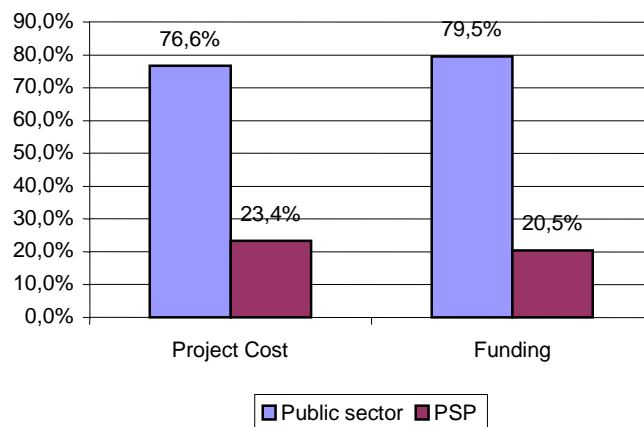
Graph 6. Water projects external funding by PSP groups of countries

IFIs’ participation in water sector development is limited to a number of projects primarily in capital cities and a few secondary cities (see annex 2). This includes most capital cities (Chishinau – EBRD; Yerevan, Tbilissi, Baku, Dushanbe – World Bank; Bishkek – ADB) and a few secondary cities (Zaporizhyya, Lviv – EBRD; St. Petersburg, Samarkand, Bukhara, Karaganda, Atyrau and some others – World Bank). Several bilateral investment projects were implemented in the region, primarily with Danish and Dutch support.



Graph 7 External financing of water projects in ECA region by different IFI/donor by country grouping

⁹ OECD. (2002). *Trends in environmental expenditure and international commitments for the environment in Eastern Europe, Caucasus and Central Asia 1996-2001*. Report of the EAP Task Force. p. 45.
¹⁰ OECD (2003). *Urban Water Reform in Eastern Europe, Caucasus and Central Asia: Progress since the Almaty Ministerial Conference*. Report of the EAP Task Force. p. 45.



Graph 8. Water project cost funded from external sources with and without PSP

IFIs and donors continue their efforts to develop more projects for the region and the World Bank recently decided to focus its attention on small and medium sized cities. The fact that several water projects in the region were recently cancelled at the preparation stage or immediately before negotiations shows, however, that there are some serious obstacles to greater flows of Overseas Development Assistance and Foreign Direct Investment into the water sector. Some of the reasons for this difficult situation are:

- a lack of project preparation capacity at the municipal level;
- legal obstacles to information disclosure to foreign consultants on municipal water systems; and
- a perception in EECCA countries that foreign investment is not needed or is too expensive.

According to the data collected, about 20 per cent of funds that the IFIs and donors are allocating to the region are being used for projects, which involve private sector (graph 7).

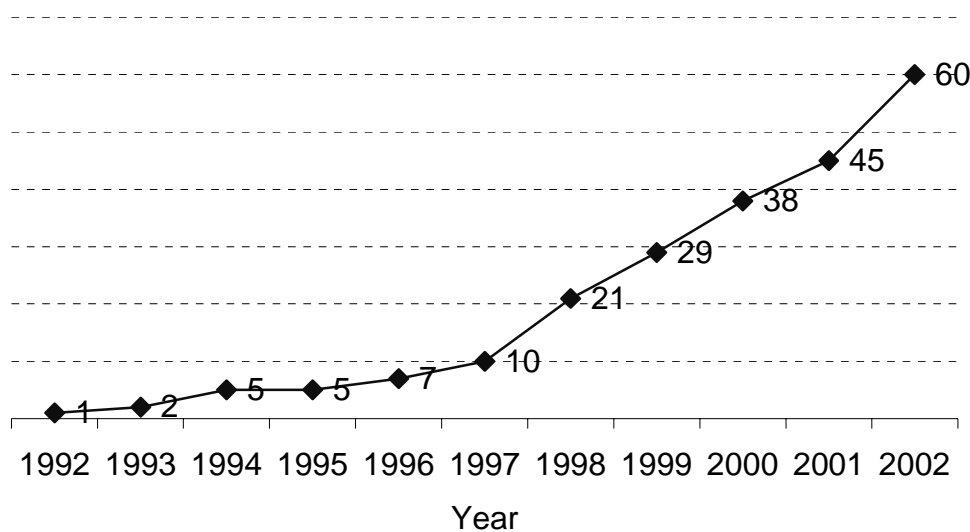
3.1.3. Recent trends with PSP in the region

PSP in the region as a whole is increasing at a steady pace, but with major differences among countries (graph 8).

Increase since 1997 is attributed to a significant number of PSP projects in Czech Republic (6), also Hungary (2), Russia (1), Slovenia (1), Turkey (1). Second wave of privatization coupled with favorable macroeconomic indicators during 1995-1997 resulted in attractiveness of the Czech water market to foreign operators.

In 1999 Czech Republic was also a leader in PSP with 4 projects out of 8 that year. In 2000 Romania was leading with 3 projects, followed by Armenia, Bulgaria, Croatia, Albania, Kazakhstan, Czech Republic with 1 project in each country.

Year 2002 was the leading year in PSP in the region with 15 new projects: Czech Republic (7), Poland (2), Slovenia Tajikistan, Uzbekistan, and the Balkans(3): Albania, Kosovo, Montenegro.



Graph 9. Number of PSP projects in water in the ECA region, 1992-2002

The trend is likely to slow down since the Czech market gets saturated. However, some increase is expected in the next 2 years due to the privatization of the remaining 40% of the Czech water market. The major international players of the Czech market have indicated interest in increasing their presence in Poland, Hungary and Slovakia.

Local authorities are becoming more experienced and educated in practising PSP in some countries, as some of them have five to ten years experience of private sector involvement. Thus, they consider a wider variety of available PSP options including IFI assistance; authorities sometimes prefer public ownership to private (for example, in Hungary and Poland; see boxes 5 and 6).

The regional trends show a tendency to separate asset ownership from operations. The large proportion of lease and management contracts is an indication of this. The first reason for such trend is the legal limitation on the share of infrastructure utilities that a private company is allowed to; this strengthens the role of the national monopoly committees regulating natural monopolies such as the water sector. In addition, private water companies are interested primarily in providing operating experience, rather than investing in infrastructure; this is because of the huge need for investment in the region's infrastructure and the fears of not being able to recover such investments. Thus, most of the infrastructure development in the region is being financed by the public sector and external finances.

3.2. Impacts of PSP on financial performance and levels of service

The impact of PSP on financial performance and levels of service in the water sector has been mixed, varying from country to country. International private operators were able to transform water utilities from inert Soviet-type organizations into more dynamic enterprises through increased managerial efficiency, personnel training, in some cases technology transfer and by fostering effective relationships with the suppliers.

However, according to the recent study no significant variation in efficiency was observed between the public and private operations in the Czech Republic, Poland and Estonia.¹¹ In fact, many of the government representatives in first tier EU accession countries, whom the consultants interviewed believe that the same levels of operating efficiency can be achieved without private sector participation. The high initial level of existing infrastructure in the focused countries could explain this perception. In the countries of the EECCA region, where PSP could bring about significant improvements in efficiencies, there is an absence of the necessary enabling environment, accompanied by a lack of transparency; this situation is further exacerbated by corruption.

An improvement in customer relations has been the most noticeable change in the focus countries. In addition, a decrease in water leakages was reported in almost all cases, coupled with an increased percentage of billed customers and collected fees.

3.3. Public and/ or political perceptions of PSP in the region

Perception in humans is the process whereby sensory stimulation is translated into organized experience. That experience, or percept, is the joint product of the stimulation and of the process itself.
~Encyclopædia Britannica

Public perception of PSP in the region is generally favorable or indifferent. There is a lack of available information on public surveys which that could manifest have enquired specifically about people's perceptions of PSP in water sector.

The available survey by the International Finance Corporation found that 80% of respondents in Budapest said that private sector involvement was the solution to the problems posed by their water supply and expressed a wiliness to pay for better water services.¹²

Economic survey of the Central European Opinion Research Group (CEORG) show a generally positive attitude of the public in the Czech Republic, Slovenia and Hungary towards the foreign private sector. The study revealed that more then half respondents (55%) in Hungary think that the foreign direct investment will improve the national economy; 46% prefer to see foreign private companies to own the minority stake in the domestic companies and 8.5% considering that the majority share will improve the local economy. The Czech respondents would rather see a foreign company to establish a new business (27%), 23% agree that the minority stake and 13,4% that the majority stake will benefit the country.¹³ The majority (36,5%) did not have any opinion on the impact of the foreign direct investment on the economy.

Beyond these two studies the consultants' conclusions are made through an overview of local newspaper articles.

The press paid close attention to the water privatisation in the focus countries, forming the public perception on this matter. Although the articles were not explicitly accusatory, the concerns they raised build the following trend of the potential issues:

¹¹ OECD/DANCEE (2003). *Models of Water Utilities reform in the Central and Eastern European Countries*. Lessons to be learned for Reforms in the NIS. Final Report.

¹² Making Waves in eastern Europe, by Julian Woodford. Reed Business Information Ltd. April 13, 1999. p. 14.

¹³ CEORG October/November 2001 Economic survey. <www.ceorg-europe.org>

1. Lack of transparency during contract tenders and negotiations. For instance, the fact that Vivendi Water (presently Veolia Water) paid an amount three times more of that offered by other bidders raised media attention and suspicion.

The complicated nature of deals makes the transactions look even more mistrustful to the public. In certain countries (i.e. Czech Republic) PSP became a fruitful topic for rumors about corruption of the local municipal officials “selling off” the utilities. In addition, some private companies have been complaining about the lack of competitive bidding procedures and closed-door deals.¹⁴

2. Labor issues related to the water utility privatization raised the biggest observed public concern (i.e. Budapest). In the cases when the private operators were able to negotiate with the trade unions the labor reduction schemes (through compensation packages or retirement) negative media commentaries were absent.
3. Election campaigns a potential cause of raising the level of public sensitivity to the water sector. For instance, in Estonia the Tallinn ex-City Council Chairman Edgar Savisaar lowered water tariffs in the city as an obvious election ploy just before the 1999 local election.¹⁵ Thus, it is expected a specifically close attention to the sector during the election races.
4. Quality of services is a factor influencing the public attention to the working PSPs. The deterioration of services will instantly highlight the fact that the water is supplied by a private operator.

No other specific factors have been observed to cause negative public perception the focused countries. The tariff increase was either gradual (Hungary) or was not associated with a private sector involvement as the increase in prices for water occurred before the private sector involvement, together with other changes in the society (Czech Republic). Thus, no riots against the tariff increase were reported either.

The *price for services*, however, could become the most sensitive issue for the EECCA countries. With the exception of a few these countries are keeping water prices low. Thus, private operator involvement accompanied by the tariff increase could raise public protests as people are not willing to pay more for public goods like water. For instance, the recent study in Armenia shows, that 32.5% of the Yerevan citizens are not willing to pay more for water; 47% are willing to pay maximum 10% more for the unchanged quality of services.¹⁶ Meanwhile, over 40% of the Yerevan population in 2002 had to spend over 4% of the household income for water services.

The fact that the focus countries are characterized by a high share of private sector involvement in GDP (Annex 4) explains the public acceptance of private sector in the water sector. Thus, the authors came to the conclusion that previous successful involvement of the private sector in any particular country's economy influence the perception of the PSP in the water sector.

¹⁴ Personal interview, Czech Republic.

¹⁵ Local Government Brief, *From Monopolies to Markets. Privatizing Local Utilities* by Mel Huang, 2001, OSI Budapest.

¹⁶ OECD (2003). *Consumer protection in the course of reforming the water sector in Armenia*. Preliminary report of the Demonstrational Project

The *CSE countries* traditionally had a higher percentage of successful private sector activity in their economies before the World War II and presently have the highest rates of private sector activity as a percentage of GDP. In these cases the public perception of the private company in water and sanitation sector was also found to be positive. In addition, the privatization was regarded as a way to speed up the break up of the socialist system.

By contrast, the *EECCA countries* did not experience anywhere near as much involvement by the formal private sector during the 70 years of communist rule and the transition period that followed. Before the transition, water and sanitation services were provided by state-owned, centrally managed public utilities. The combination of little private involvement and central state supply, along with the many instances of corruption and closed-door transactions in the transition period, makes privatization of public services a confusing and often misunderstood conception in these countries. However, because of the historical suppression of public opinion, the public voice is weak in the EECCA and massive demonstrations and riots are unlikely unless political forces drive anti-PSP campaigns (box 4).

The Baltic States (Latvia, Lithuania and Estonia), although being part of the EECCA, have always been more westernized than the other 15 republics. After gaining independence these countries came under the influence of Scandinavian countries. Although committed to the reforms, they are cautious about PSP, especially after the mismanaged privatization of state utilities and enterprises in Latvia.

Political perceptions differ from country to country depending on the ruling party. Hungary provides a good example (boxes 7 and 8). Communist-influenced Belarus and Moldova, meanwhile, do not favor private sector involvement in the water sector. Thus, protests against PSP are to be expected in these countries where the image the private sector is not positive.

Box 4: Public perceptions: an illustration from Russia

Mosvodokanal (Moscow Water Company) claimed in 2002 that it was owed RUB30 million (965,000 EURO) in unpaid bills. At the beginning of 2002, Mosvodokanal cut the supply of drinking water to several towns in the Moscow region. 'Used to such things,' consumers remained complacent and there was no public protest.

Source: Water Utility in Financial Difficulties, *Pravda*, 11 Sep 2002.

4. Situational analysis to assess the levels and impacts of PSP in four countries in the region

The PSP in the water and sanitation sector was examined in four focus countries: the Czech Republic (CZ), Estonia (E), Hungary (HU) and Poland (PL). Table 3 illustrates the background information.

The focus countries contribute two-thirds of the region's PSP projects, where 40 projects serve 14.5 million people. Despite similar initiatives early on in the transition period, these four countries ended up with different levels of PSP. The Czech Republic is the leader in PSP in water in the entire ECA region. Here the private sector serves 25 per cent of the entire CEA region's population (graph 3).

	Czech Republic	Hungary	Poland	Estonia
Number of PSP projects	24	8	5	1

Analyzing the historic patterns of PSP in water, as well as legal and institutional developments in each country, the consultants identified four different models of PSP in countries with very similar levels of economics development. This approach could be of assistance when recommending PSP options to the other EECCA countries.

Table 3: Focus countries: background information

	Czech Republic	Estonia	Hungary	Poland
Population [in thousands]	10,263	1,446	10,075	38,741
Urban Population [in thousands]	7,700	1,000	6,500	25,500
GNP per capita in 2000 [US\$]	4,797	3,409	4,734	4,108
Private Share of GDP [%]	80	75	80	70
Inflation rate, 2000 [%]	3.9	4.0	9.8	10.1
Dwellings supplied with water pipe network [%]	96.9	77	84.6	89.8
Population connected to public sewerage network [%]	59.2	58	22.0	46.6

SOURCES: World Statistics Pocketbook, 2000.

Nemzetközi Statisztikai Zsebkönyv, 1999.

Transition report, 2000, EBRD.

Magyar Statisztikai Zsebkönyv, 1999.

Slovak data: Statistical Yearbook, 2000; Annual Bulletin EC, 1996.

OECD/DANCEE (2001) *Programme Models of Water Utility Reform in the Central and Eastern European Countries*. Short Country Report.

4.1. Differences between the focus countries

The varying degree of private sector involvement in water provision in the four focus countries could be explained by a number of factors. Such factors include the differences in:

- a) chosen models of privatization;
- b) regulation;
- c) size of individual water company;
- d) tariff levels;
- e) state of infrastructure before the transition period; and
- f) the role of the consumers and trade unions.

Bellow there is an elaboration on the abovementioned factors followed by the focus countries' water PSP models.

a) Difference in models of privatization

The privatization process in the four countries followed different models; these were reflected in PSP in the countries' respective water sectors.

The **Czech Republic (CZ)** used a rapid and mass voucher model of privatization. The National Property Fund allocated some shares to towns and municipalities, some to the public and some to other relative parties. The first wave of privatization was expressed in the five rounds of voucher auctions, when every adult citizen could bid for companies with voucher coupons. During the second wave of privatization, major investors bought up public shares. As soon as they became owners of the water companies, three-quarters of municipalities separated the infrastructure from operations and, following the French model, sold the latter.

Estonia, Hungary and Poland chose the direct privatization method and applied the case-by-case water company sale approach.

Seeking real owners was the strategic goal of the general privatization model that was primarily followed by **Hungary and Poland**. While basing their overall privatization on sales to strategic investors and opening up the process of privatization to foreign investors¹⁷, these two countries seemed to be very considerate and scrupulous in deciding whether or not to privatize their water companies.

A vivid example of this is the fact that the most quoted cases of rejection of privatization options in the water sector can be found in the Hungarian city *Debrecen* and the Polish city of *Lodz* (see boxes 5 and 6). As a result of the case-by-case privatization of the water companies, in Poland the success rate of PSP involvement is roughly 50 per cent; high transaction costs and the legal framework are the main causes for the failed PSP projects here.

In **Estonia** the privatization of the only PSP water company, Tallinna Vesi (Tallinn Water Company), served more as a demonstration of the country's adherence to the democratic reforms, which implied private sector involvement in all sectors of economy, rather than being carried out for reasons of necessity. Based on the interviews with the Estonian governmental and municipal officials, it was found that there was no real need either for increased efficiency or additional investment, as Tallinna Vesi was a stable profitable company, one of the best in the country.

¹⁷ The World Bank (2002). *Analysis and Lessons for Eastern Europe and the Former Soviet Union, Transition: The First Ten Years*. The International Bank for Reconstruction and Development/The World Bank.

b) Regulation

The regulating framework is another important differentiating factor among the focus countries in their approaches towards PSP. It is also considered as one of the main obstacles to deeper PSP.

There is no concession law in **the Czech Republic**, thus current PSP is based on leasing contracts, with private companies owning a share in operations solely (as in Prague) or together with municipalities. The share holding of both the multinationals and the municipalities is changing over time, with the multinationals increasing their share of the market as shares become available.

Under **Hungarian law**, local governments are not permitted to sell the physical infrastructure of the water sector.¹⁸ The law insists that a local council must own a majority of shares if it participates in any joint venture, and this constrains the percentage that can be owned by the multinationals. In Szeged and Pecs, the level of shares owned by the multinational operators is fixed in the contract at 49 per cent and 48 per cent respectively. In Budapest private ownership is at present limited by the decision of the local authority to sell just 25 per cent of the shares of Budapest Waterworks Company.

Polish water legislation is characterized by controversy with respect to private companies' involvement into water supply and sanitation. There is no specific law regulating the questions of ownership of water infrastructure. As a result, there is still uncertainty whether the private operator can own the infrastructure or whether it should still be owned by the municipality. Such issues work as the mechanisms limiting private sector participation in the water sector.

c) Size of an individual water company

In the **Czech Republic, Estonia and Hungary** decentralization ended up with a large number of small municipalities being responsible for the water supply and wastewater treatment (table 4). Three-quarters of localities are below the population size 2,000. Twenty to twenty five per cent of these countries' populations live in these small towns and villages.

Thus, most of the companies are too small to attract the foreign private investor considering the scale of profitability. In each country the majority of the population is served by about 30 per cent of the country's water companies. The most crucial situation has developed in Estonia, where the average number of employees in water companies is 20 to 30¹⁹.

Table 4: Population and number of municipalities in focus countries²⁰

Country	Number of Municipalities	Mean Population of Municipalities
Czech Republic	6,230	1,659
Estonia	254	5,713
Hungary	3,131	3,242
Poland	2,483	15,561

¹⁹ Kruusmagi K. (2002). *State of the Water Supply and Wastewater Sector in Estonia, Water Sector Development in the Baltic States*. Conference materials: Palanga, 2002.

²⁰ OSI/LGI (2000). *Local Government and Public Service Reform Initiative*, Hungary, Budapest.

In the **Czech Republic** the trend exists towards takeovers of the smaller companies by the three major foreign owners.

Poland chose the integrated model, where the lowest level of elected government consists of several geographical units. Here, the amalgamation of small municipalities and the creation of intermediary local governments were implemented. As a result, only one-quarter of the population lives in villages with a population under 2,000. However, even here 75 per cent of utilities are too small to attract foreign investments by themselves.

This excessive decentralization has resulted in the slowdown of the pace of PSP in the region. Integration by mandatory amalgamation and assignment of regional service competencies to intermediary level of government are typical solutions.

The other option is a voluntary co-operation, encouraged by legal and financial incentives. In CZ, the small municipalities usually establish ad hoc associations designed to accomplish costly development projects with complex logistics. In addition to improved solutions to the local affairs, this co-operation also brings about better chances of accessing financial sources; in some cases these financial sources are derived from the European Union.

The common provision of services can be a good opportunity for the municipalities with small capacities. It would be especially important in these countries, where local governments have quite limited capacities (the Czech Republic and Hungary). However, here municipalities are reluctant to co-operate with each other.

d) Tariff

In the Czech republic the water prices went up steeply in the early 1990s. By 1993, all subsidies had been removed since water tariffs reached the cost recovery levels. Thus, private operators could come and work. By contrast, in Poland and Hungary the prices, although they have been increasing significantly, still did not reach the cost recovery levels.

e) State of infrastructure before the transition period

Historically, in the Czech Republic there was a well-developed water infrastructure, while in Estonia, Hungary and Poland the coverage of the sewage network in particular was significantly less (table 3). The maintenance of this infrastructure was also much better in the Czech Republic; thus, the state of the assets was in a much better shape, so attracting more bids.

f) Role of the customers and trade unions

Polish and Hungarian trade unions have been traditionally strong and influential. Hungarian government officials favor the unions as they are said to 'help to fight corruption'.²¹ Thus, during the water sector privatization in these two countries the unions played an important role in monitoring the decision-making process. Some of the PSPs did not take place because of the particular attention that was paid to the trade unions in Poland.

²¹ Personal Interview, Hungary

4.2. Models of PSP in water and sanitation

4.2.1. CZECH MODEL

CZECH MODEL SUMMARY: LET THE MARKET DECIDE

1. The Czech model of PSP in water and sanitation is recommended for a country that is willing to move as quickly as possible to involvement of the private sector. It is a model that includes decentralization and corporatization of the country's water utilities, with maximum rights allocated to the municipalities and minimum control from the governmental side.

Potential pitfalls:

- Over-fragmentation.
- The benefits might not be realized if the private involvement is not commercially viable.
- Lack of capacity by the municipalities to bargain with more professional and experienced private experts. A national expert advisory group could be created in such cases in order to advise and consult with the municipalities.
- Loss of control over the privatized water industry when there is no one national body regulating the water sector specifically.
- A wide variety of utility forms may be created, which may not be in accordance with national preferences.

2. The Czech model can be used by authorities who wish to maintain asset ownership in the public sector, while using the private sector for operations. This approach not only brings in the private operators' experience and management practices, but also fulfills the requirements of the municipal budget.

Potential pitfalls:

- Lack of the necessary and expected capital investments.
- Separation of the investment and operations functions results in some discontinuities in the overall asset management.
- Short-term gains by elected officials could become more important than long-term strategic decisions.

A. Current status

Currently, the Czech Republic (CZ) is an example of an atomized and largely privatized market. About 80 per cent of water companies' operations have PSP. Although after decentralization the Czech Republic found itself with about 800 water operators, 126 of which were responsible for 96 per cent of the water service provision, the water market is clearly divided among three international water companies: Veolia Water (before 1 May 2003, Vivendi Water), Anglian Water, and Ondeo (formerly Lyonnaise des Eaux).

After a rapid private sector involvement in late 1990s, the PSP slowed down its pace due to the limited supply of operational contracts. The big operators are now buying smaller companies around the area of their service activities and even from each other.²²

After privatization, the CZ statistics reported a steady decrease in water leaks and losses. Moreover, as a result of private sector participation, the *efficiency* of the privatized companies slightly increased through:

- control of operating costs;
- negotiations with the suppliers;
- increased output per person employed; and
- billing and payment improvements.

The non-payment level constitutes about 5–7 per cent. On average the water bills are 1 per cent of the household income. No technology transfer was reported.

Before privatization, the *quality of drinking water* was compliant with the highest EU standards. With private sector involvement, water quality became even better because the new operators started using new chemicals to treat water. In addition, because of the tariff increases, the demand for water decreased; this also had an impact on water quality.

Customer service was witnessed to have improved; however, an average Czech is unlikely to be aware that the water he/ she is using is provided by a private company.

Public perceptions of PSP in CZ are not well developed. Although during the process of privatization the press paid close attention to the fact that private operators were entering the market, most of ordinary Czechs are not aware or are unconcerned about the fact that their water is provided by the international operators.

Labor issues did not lead to any unrest as the workforce reductions that have taken place at the waterworks with PSP have been occurring gradually with the targeted groups being people of pensionable age. Since 1993 about one third of the employees of privatized organizations have been made redundant.

Corporate social responsibility varies across municipalities. Overall, standardized rules applied from the Western European experience is the most common change reported. Box 5 in annex 1 provides an illustration of the Vivendi Water involvement in the Prague water supply and sewerage company PVK.

B. Process of getting there

Reforms in the water sector in Czech Republic have been initiated from the top down. Water sector privatization followed the overall Czech mass and rapid voucher privatization model.

The principal change effected over the past ten years has been the decentralization of the water supply sector, which transferred the responsibility for and ownership of the public water supply from the central government to municipalities. The assets were transferred ‘free-of-charge.’ There was no standard form of transfer, and this led to fragmentation.

²² “Anglian weighs bids for Czech regional water assets”, *Prague Business Journal*, December 2-8, 2002.
“Vivendi eyes Anglian Czech assets,” *Prague Business Journal*, April 14-20, 2003.

Water tariffs traditionally were too low and did not cover operating costs. Thus, the Czech government decided to bring tariffs up to cost recovery levels. By May 15, 1993 the reform was completed and since then the operations of water supply and sewerage have not been subsidized. At the local level there are only a few examples where services are provided to individual or corporate consumers at a reduced price as a result of city or community subsidy.

Two basic types of water utilities have been created:

1. Mixed utilities – the utility is the owner and concurrently also the operator of the assets.
2. Operating utility. The municipality is the owner of the assets; it leases those assets to the operating utility, which is then responsible for operation and maintenance. Municipalities remain responsible for investment and ownership is vested in various forms from individual municipalities through municipal associations to joint stock companies owned by municipalities.

As soon as the municipalities became owners of the water companies, more than two-thirds of them decided to separate the infrastructure from the operational assets, which have values corresponding to about 95–97 per cent and 3–5 per cent respectively. This separation enabled the municipalities to encourage private companies to bid on the operations contracts. As a result, as of now, all those water companies that separated their operations from their infrastructure assets have private companies managing the water utilities under predominantly lease contracts. The other third of municipalities (primarily those in Eastern Bohemia) decided not to separate the infrastructure assets from operations, and there is no private sector involvement so far in this region.

Although the Czech water market has the most of private sector involvement, its weak regulatory basis has created a situation in which the national government does not possess any mechanisms or tools to regulate the market effectively.

Presently there is no **concession law** in the Czech Republic, thus the majority of private sector projects are based on primarily leasing.

Investments are not coming from the private sector. Under the lease contract, the operators are responsible for renovation of the water supply system; however, the level of financial responsibility is negotiated on a case-by-case basis. Since the infrastructure assets are owned by the municipalities, the latter are responsible for all major investments. There are subsidies available from the State Environmental Fund and through the EU for infrastructure development. However, only companies that have less than 10 per cent private involvement are eligible for this support. That is why neither the private operator, nor the municipalities are interested in private infrastructure ownership and thus private investments, as this would drive the water tariffs up and deprive the utilities of state subsidies.

In financing the public sector in the Czech Republic, the subsidy system has a relatively rich tradition. In recent times, funds from the European Union are becoming the trend. An additional source of funding is access to credits from domestic and foreign banks.

C. Obstacles for deeper PSP

There is a extreme competition among the three private players. Besides this competition, the private operators view the following obstacles as hindering their further involvement in the Czech Republic water sector:

1. Absence of the public tenders on operations.
2. Lack of transparency at tenders.
3. Capacity of local management. The lack of necessary technical and administrative capacity has been proven to slow down the work of the private companies.

4.2.2. HUNGARIAN MODEL

HUNGARIAN MODEL SUMMARY: SLOW BUT STEADY

The Hungarian model of PSP in water and sanitation is recommended for a country that would like to see its water utilities moving away from public control. It is also an illustration of strategic investors' consideration of each privatization on a case-by-case basis. Such a model is especially viable in any situation where there exist strong trade unions and a strong NGO sector.

Necessary steps in this model include decentralization and corporatization of the water utilities and control of any excessive fragmentation that may result.

This model will not lead to rapid private sector involvement; rather, it will slow down the process due to the high transaction costs. However, it will ensure a high degree of quality in the projects, and it is a model that takes into account voice of the public.

A. Current situation

Presently there are seven PSP projects working in the county; in none of these is the private partner the owner of the company, due to legal constraints. The private water market is dominated by foreign operators, such as Veolia (formerly Vevendi), ONDEO Services (formerly known as Lyonnaise des Eaux), RWE, Berliner Wasser and Gelsenwasser.

Hungary provides a case study of different models of ownership of services within the same country and in the same industry, namely water and sewerage. The three contrasting cases of Budapest, Szeged and Debrecen illustrate these different models (boxes 6, 7 and 8) in annex 1.2.

100 per cent of customers were satisfied with general water services, and 60–80 per cent were satisfied with additional services, which are also provided by the Budapest Water Company.

No protests against privatization of the water sector were detected. However, soon after the beginning of changes in the Budapest Water Company, as well as in some other companies, social concerns arose over the fact of workers' dismissals. However, most of the dismissed people were elderly and received good compensation packages, or a sum of money to cover several years of pension.

Significant attention is being paid to *corporate social responsibility* issues. Companies are serving their employees, and also providing efficient managerial development.

B. Process of getting there

Following the political changes at the end of the 1980s, the Hungarian water and sewerage services were municipalized having previously been owned and run by the state. The consequence of this municipalization was the fracturing of the industry; 400 companies replaced 28 of the original 33 (there are still five state-run regional companies). Out of the new companies, 90 cover more than 90 per cent of the service area. Some of these new

companies employ only one or two people and supply water for single agglomerations. There are also regional companies that supply several counties.

According to the legislation currently in place, utilities cannot be sold. Although the local government must retain majority ownership, the utilities can be leased. Investment is allowed under the following categories:

- an institution of the local government;
- a company with majority ownership by the local government or state; and
- a concession company, where majority private ownership is permitted.

Each municipality sets *water and sewage tariffs*. Although the tariffs have grown significantly over the last five years, the private providers emphasize that the current water and wastewater treatment price is still well below the cost recovery amount. As a result of this, the whole sector is suffering from massive under-investment.

The government provides subsidies to the enterprises in the sector, but the current laws limit access to these state subsidies to the state companies alone. Thus, there is a limited interest on the part of municipalities in private involvement. Nor is the private sector eager to get a stake in capital assets, as this would imply substantial investments into the sector.

Intensive state subsidies are not expected to disappear in the future, because such investments are needed to meet the EU regulations and these cannot be financed by fee increases.

C. Three illustrations

Analysis of the Budapest, Szeged and Debrecen case studies (see annex 1.2) reveals that the greater degree of public scrutiny of the Szeged and Debrecen agreements led eventually to better outcomes than the more secretive Budapest agreement.

In both the cases of Szeged and Debrecen the public debate and exposure increased transparency, and this proved to be beneficial to both the workforce and to consumers. In this respect, job losses have been restrained by agreements with the unions, price increases have been moderate (at or slightly above inflation) and the more contentious elements of the privatization plans have been either abandoned (Debrecen) or substantially modified (Szeged).

4.2.3. POLISH MODEL

POLISH MODEL SUMMARY: EMPHESIS OF PARTNERSHIPS

The Polish model of PSP in water and sanitation resembles the Hungarian one. However, here a special emphasis of partnership between the public and the private sector has been made. A high 'mortality' of the projects (up to 50 per cent) is expected with this model. However, the quality of the working PSPs can be seen to be models of such partnerships.

Water companies are in municipal ownership in Poland. A municipality has the right to privatize a water company as well as to change the price charged for water services.

PSP is considered to be one of the options for the development of water utilities in Poland. There are only five examples of PSP in Poland; however, they cover different scales of projects (box 9). Although these projects can be considered to be successful, the level of PSP in the country is relatively small considering its size and population. The reasons for this can be found among the legal and financial restrictions that are present, as well as the unwillingness of municipalities to participate in partnerships with the private sector.

There is a high 'mortality rate' among the PSP projects in Poland; about 50 per cent (by the transaction amount) of the planned activities have actually been realized into a partnership. However, the surviving projects demonstrate the viability of such partnerships and different scales of improvements that are possible in all spheres of activities.

In all five cases the selling process has taken place through negotiations (usually these took several years, which increased the transaction costs of the projects). The negotiation period was increased partially due to the lack of developed legislation on the selling process. This could be explained by the overall approach towards privatization chosen by Poland, namely a search for strategic investors.

Private companies' involvement in Poland has improved the managerial *efficiency* and *profitability* of companies, as well as the quality of water, water treatment and services. The activities of companies have been transformed according to the private company functioning scheme. A constructive dialogue with the local population is believed to have helped to establish a balance between water prices and water consumption, the latter of which has decreased significantly.

According to the data provided by both company and municipal control departments, the *quality of water* drastically improved following private sector involvement. However, objectively it is difficult to identify whether these improvements were due to the presence of a private operator or could have also emerged under the municipal ownership. In most of the PSP companies a Client Services Department was created to ensure that adequate communication takes place between the provider and consumers.

Most of privatized water companies are certified according the ISO 9001 and ISO 14001 standards. The issues are new to local Polish companies, thus the foreign managers are way

ahead in terms of implementation of these principles, which have already been developed in the 'mother' companies.

Due to the limited number of PSP in water utilities, the *public perception* in Poland is difficult to evaluate. However, the example of the energy sector, where several state companies were privatized, shows to some extent negative attitudes towards PSP. In Gdansk at the beginning of the company's activities there were some public complaints concerning privatization issues (box 10). However, nowadays, after the utility has been operating for almost 10 years, it is rather the deterioration of services that will bring public attention to the fact that water is supplied by a private operator and not the private provision of services in itself.

Most of the water companies, including those with private involvement, have *social commitments* to the municipality, guaranteeing working places and social care to employees. Dismissed employees are provided with compensation packages. Thus, the researchers found no massive displeasure on labor and social matters.

In addition, all companies showed a substantial level of *corporate social responsibility*. PSP companies participate in charity projects, develop the social structure of the organization, build schools and sports grounds and provide recreation for employees.

B. The process of getting there

After decentralization, the municipality, which is responsible for water provision and sanitation services in the country, makes all final decisions. Partially this responsibility is shared by *poviety*s, which participate in the process of selling the companies.

The calculation of *tariffs*, as well as the technical and financial development plan of a water company, is developed by the company that is actually operating the utility. After development, the plan is given to the municipality for passing the resolution. The lack of legal regulation on this point creates an uncertainty for the municipality. This is because whether or not to accept a plan of price increases may be a political rather than an economic issue, especially in view of forthcoming elections.

There is a continuing lack of a PSP legal framework in the country that would regulate specific activities of public-private partnerships and conditions of their operation. The legislation on the regulation of the bidding process also needs to be developed to find a way of minimizing the transaction costs, which are now quite substantial.

The investment opportunities for a municipal water company are limited in Poland. The private sector is not investing in infrastructure. Thus, a municipal company can tap into the ISPA or cohesion EU Funds, as part of the water sector; these investments can be supported by the budget funds thereafter. So far these EU investments are set to cover up to 75 per cent of the project that any particular water utility is developing. However, usually a municipality doesn't even have the 25 per cent necessary to cover the remaining cost of the project.

C. Obstacles to further PSP

Regulation of the water sector is the major obstacle for further PSP involvement in Poland. However, as the market in the Czech Republic is becoming saturated, the private companies are now looking towards expanding their activities in Poland.

The small scale of the majority of Polish water companies is an obstacle in the way of further private involvement. There were 4,700 water and wastewater companies in Poland in 2002²³. About 75 per cent of these companies are too small to attract foreign investment by themselves. Amalgamation of these water companies is a political question and can not be resolved easily.

²³ Roman M., Kloss-Tribaczekwicz H. Wskazniki charakteryzujace wodociagi i kanalizacje w polskich miastach w latach 1992-2000 // Samorzad terytorialny. – nr.11. – 2002. – stor. 55

4.3.4. ESTONIAN MODEL

ESTONIAN MODEL SUMMARY: OPPORTUNITIES FOR THE DOMESTIC PRIVATE SECTOR?

Because Estonia has only one very recent PSP project, it is difficult to derive a specific model. However, this experience will be very useful for small countries with one or two large cities that are of interest to the private sector. The Estonian project also demonstrates how the role of domestic private companies could be invaluable in the EECCA region.

Most of water utilities in Estonia are too small to attract foreign investors by themselves. Also, because of the small scale of operations, there is no money for effective operations; nor is there money for further development or investments. Moreover, there is a constant lack of able and experienced water experts. To resolve this problem, the authorities are considering either a continuous reliance on international credits or/ and donor grants, or the amalgamation of several neighboring towns' water companies into one project in order to increase the level of operating and maintenance of the water utility. The second idea is not even close to implementation, because the main decision that has to be made to move further with this is of a political nature.

The only water company with PSP is Tallinna Vesi (Tallinn Water Company). Its privatization is believed to serve as a demonstration of the country's adherence to democratic reforms, which implied private sector involvement in all sectors of economy, rather than being a necessity. The decision on privatization was made by the city council and served as a search for a de-politicizing factor.

In Tallinna Vesi the initial level of infrastructure and equipment development was higher than the average in the country. Following private sector involvement, there were no significant improvements noticed in the company's operations, nor was any substantial technology transfer witnessed. In addition, although after privatization the company became certified according to the ISO 14001 (Environmental Management Standard), the laboratories and most of the equipment required for this certification were designed and acquired before the privatization took place.

A few utilities have been privatized by the local companies often employing 5-10 people. However inability to provide the system's upgrade and renovations made some of them to take back on their ownership.

There was no clear correlation noticed between the change in ownership rights and improvements or otherwise in the quality of water or services.²⁴ No significant differences have been reported in operations between companies with municipal and private ownership of water companies. The difference appears to be in the initial conditions inherited by a particular municipality (e.g. the amount of connections, prior efficiency of operations, natural conditions of water availability, etc.).

²⁴ Personal interviews with Mr. Jaan Maanas, Main Specialist of Water Management, Tallinn Municipal Engineering Services Department.

Public opinion has always been important for the Estonian government. Before the 1994 privatization of the Tallinn Water Company, a public opinion poll revealed a favorable attitude of the people in the city to private sector involvement in operations of such a strategically important resource as water. Another poll was planned for the end of 2003.

About a quarter of employees were dismissed from Tallinna Vesi after International Water acquired 51 per cent of the company's operations in 2001. These people received a compensation package and were able to find another job in the public sector. The press reacted to the dismissal of employees with a number of articles²⁵ and continued with revealing financial speculation about Tallinna Vesi.

A **client services department** responsible for the positive image of the company was created after the privatization of Tallinn Water. Currently the **client services department** is working effectively, answering the complaints of the citizens and providing a full range of services.

B. The process of getting there

Public administration reform, started at the beginning of the 1990s, has essentially influenced the development of the water supply and wastewater management. The two state enterprises in Estonia have been decentralized and transferred to municipalities by the Ministry of Environment. Water utilities have been established in practically all municipalities. During the course of reform, several water enterprises were formed into public limited companies, where all shares belong to the municipalities, while a few were privatized by the domestic operators or, in the case of Tallinn, by the foreign consortium.²⁶

After Estonia gained complete political independence in 1990–1993, the fall in the amount of water used in industry was mainly attributable to decreased production capacities²⁷. The high price set for water has encouraged consumers to save water. The numerous water meters installed in flats and households make the saving efforts highly evident and worthwhile. Renovation of water works has also made a notable contribution, as at the moment of transferring the water supply and wastewater treatment from the state to municipalities the existing facilities were old and in poor condition.

One of the conditions for the private operator candidacy for Tallinna Vesi AS (Tallinn Water) was that it must demonstrate proven successful operations of water utilities in four different countries in Europe. Such moves were viewed as furthering the integration of the country's economy with that of the EU and other western partners on a microeconomic scale and, consequently, importing the western management system into the utility sector²⁸ (box 13 in annex 1.4).

The legislation regulating the private participation in Estonia has been underdeveloped and a concession law does not exist.

²⁵ Financial manipulations of Tallinn water by International Water, University of Greenwich, 2001 // <<http://www.psir.u.org/corruption/newsitem.asp?newsid=4495>>

²⁶ Kruusimägi, Kristjan (2002) State of Water Supply and Wastewater Sector in Estonia // Water Sector Development in the Baltic States, Material of the conference, Palanga, 24-25 January 2002.

²⁷ Since the economy of Estonia was still dependant on the centralized economics formed in the Former Soviet Union (FSU).

²⁸ Local Government Brief, *From Monopolies to Markets. Privatizing Local Utilities* by Mel Huang, 2001, OSI Budapest

Municipalities set *water tariffs* at the local level; water pricing can be changed only after the negotiations and agreement with the local authorities. This mechanism is creating a basis for using water tariffs in politics, for instance, as an election ploy (this has taken place in Tallinn). In Tallinn ex-City Council Chairman Edgar Savisaar lowered water tariffs in the city as an obvious election ploy just before the 1999 local election.

The Tallinn Water privatization helped to improve the city budget significantly and will raise investments in the future. However, up to this moment no capital inflows have been recorded, although the private owner still promises to fulfill its investment plan by the end of the 5-year investment period.

There is a major need for additional financing for the sector, which is likely to be searched for among the ISPA Funds, NIB or EIB loans, as well as inner sources of financing.

Cost covering *water tariffs* are rather high in Estonia (1 Euro/per m³), putting a significant burden on part of the population, especially in impoverished regions. As a result, in some municipalities prices for water supply and sanitation are kept at a low level (which is also more of a political than an economic step) via subsidies to the activities of some water companies.

C. Major obstacles to PSP

Setting up proper regulation is regarded by the authors as an essential prerequisite to private sector involvement.

In the rest of the country where there is no PSP, the level of technical maintenance is low and there is a strong need for knowledge and technical know-how.

The experience of the small-scale water companies in Estonia shows that the water sector can bring about only modest revenues for the private sector. This, coupled with a weak regulative framework and the small-scale of operations, scares away both foreign and domestic private companies. For instance, municipalities applying for the EU grant should contribute 25 per cent of the project costs. In the case of PSP, the partners are able to divide this amount by half; however, even this 12.5 per cent of the project costs appears to be a substantial disincentive for the small domestic private companies.

5. Summary, conclusions and recommendations

While there is a general agreement that private sector participation can bring about improvements in the water sector, such an approach would need to be introduced gradually and take into account the wide disparities within the region. Private sector participation is one of the policy options available and is not inevitable.

5.1. Status of PSP in the ECA region

The ECA region has a population of 480 million, of which only 30 million (6 per cent of inhabitants) are currently served by the private operators.

The trend in the region towards the decentralization of the water and sanitation services, started in the mid-1990 with major responsibility being transferred to municipalities, continues with an increase of foreign private sector involvement. PSP in the region is **increasing** at a steady pace with a peak in 2002 in number of transactions of this kind.

Although there is no domination of a particular type of contract in the region, service contracts (lease and O&M) are standing out as the most used framework for PSP.

The region requires significant infrastructure investment; however, only five out of the 63 projects recorded in the region are aimed at private capital investments. Due to a small number of such projects and the relatively short time of the projects' duration, it is difficult to draw lessons from this type of project.

The regional trend shows a tendency to separate asset ownership from operations. International private operators prefer to minimize their risks and thus limit themselves only to ownership of operational assets. This tendency slows down the pace of investments in the water sector in the region. Thus, the role of private operators in the ECA region shifts from investment provision to investment management and optimization, as well as improvement in operations. Hence the public sector, both domestic and external, is the main investor in infrastructure in the sector.

The trend over the last ten years shows that private operators focused their attention mostly on capitals and large cities. Consequently, the market in the large cities is becoming saturated.

5.2. Region's division according to the interest to the private sector

The EECCA and CSE countries are two broad groups that divide the region by the level of interest shown in them by international private water companies. The major reasons for this can be found in the historical background and the level and duration of the Soviet system's influence on all aspects of a particular country's development. The EECCA has been under this influence for over 70 years, whereas the CSE countries in general experienced Soviet influence for around 30 years; this draws the line defining a country's progress in all aspects of the development as it moves away from economic stagnation.

Within each of the two groups, two more subgroups were identified based on the progress made after the socialist system's collapse. Within the CSE, the level of EU integration serves as a boundary line. At the same time, close consideration should be given to the current levels

of political reform, economic liberalization and the value of development indices among the EECCA countries.

Thus, the region can be divided into four groups according to potential for PSP involvement:

1. 1st tier EU accession countries;
2. 2nd tier EU accession countries;
3. EECCA countries, with PSP possibility; and
4. EECCA countries, where PSP is not currently attractive.

In order to attract the private sector to expand its involvement in the region, external support is needed for almost all countries in the region. For group 1, this support manifests in infrastructure rehabilitation and expansion of financing, and in finding some way of partially covering the transaction costs. For group 2, this support needs to aid regulatory and tariff reform. For groups 3 and 4, only the international community can facilitate private sector involvement; first and foremost in these countries, there is a need for reform in the sector, as well as reform in the institutional and legal frameworks.

5.4. Lessons from the focus countries

The focus countries have shown different levels of private sector involvement in water and sanitation. Differences among the countries, which were in a similar position at the start of their transformation from a planned to a market economy and which have similar current levels of economic development, include the following:

- Chosen models of privatization:
 - CZ used a rapid and mass voucher model of privatization;
 - EE, HU and PL chose a case-by-case sale approach;
- Size of individual water company/ municipality:
 - Excessive fragmentation in CZ, EE and HU;
- Regulatory structures;
- Tariff levels;
- Infrastructure conditions before the transition period; and
- Role of trade unions.

Local authorities are becoming the leaders in PSP projects where they are considering/ implementing a wide variety of options (Hungary and Poland). An important role in this respect has been played by trade unions and non-governmental organizations.

In the Czech Republic, despite a record number of PSP projects implemented, municipalities lack the capacity for negotiating contracts with professionals from the private sector. The high number of projects in this country is a factor of the privatization model chosen, adequate tariff size and the condition of infrastructure.

The overall level of interest in the sector depends upon its ability to provide a commercial return to the private sector (Czech Republic).

5.5. Impact of PSP on efficiency

The experience of the focus countries shows that the PSP transformed water utilities into more dynamic businesses. Involvement of the private partners helped to rationalize water companies, increasing efficiency and decreasing the unit cost of service through:

- increased managerial efficiency and personnel training (Gdansk, Budapest, Szeged, Prague, Tallinn);
- technology transfer (Gdansk, Budapest); and
- re-negotiation with suppliers (Czech water companies).

Moreover, an increased focus on customers improved customer relations and increased billing and collection rates (in all studied PSP cases). Leakages were reported to have declined (water provision in Prague is an example). In a few cases the quality of water also increased (Poland). However, earlier conducted reports conclude that publicly and privately operated utilities did not differ much in operation performances.²⁹

Technology transfer was positive in some cases (Hungary and Poland) and negligible in others (Czech Republic and Estonia), depending on the initial physical condition of the country's infrastructure.

5.6. Public perception

The following factors were found to contribute to the sensitivity of the public towards PSP in the focus countries.

1. Lack of transparency during contract tenders and negotiations.
2. Labor issues related to the water utility privatization.
3. Political cycle, i.e. election campaigns.
4. Quality of services.

Water tariffs is an additional factor that influences public perception in the EECCA countries.

5.7. Failures

Among things that were expected to improve with private sector involvement, there are a few expectations that have not been met. These include a lack of infrastructure investments commitment on the side of the private partners, sanitation being the most neglected area in this respect.

While in Poland and Hungary there is a clear idea of partnership between the municipalities and the private operators, in the Czech Republic there is not much emphasis on partnership, but rather on the privatization per se.

Thus, taking into account the above experiences, in order to form a positive perception of PSP in water in the region, the following should be taken into account:

- *Transparency* is needed in tendering to help avoid a negative public perception of PSP (Czech Republic);
- Increased quality of water and services is the strongest factor influencing the public's perception.
- *A planned employee reduction strategy* helps to avoid labor union problems (Budapest, Tallinn).
- Companies that *participate in community life* have a better image (Gdansk, Budapest)
- It is important to be aware of the political cycles (Tallinn).

²⁹ OECD/DANCEE (2003). *Models of water utility reform in the Central and Eastern European countries: Lessons to be learned for reform in the NIS*. January 2003.

5.9. Obstacles to PSP involvement

A restrictive *legal framework*, which does not allow for majority private ownership or particular types of contracts (such as concessions), is one of the major obstacles for PSP in the region. Existing PSP (for example, that in Yerevan) shows that an imbalanced legal base can create problems with the signed contract.

For the majority, and even for the most advanced countries such as Poland, high *transaction costs* could limit the number of PSP projects. Lengthy preparation times were found to be one of the major obstacles in the course of developing PSP projects, due to the lack of experience of the governmental sector in tendering and dealing with water sector contracts.

Current obstacles for PSP involvement also include *EU grants requirements*, which demand no more than a certain percentage of private ownership for a municipality to be eligible for the EU accession funds. The same requirements exist for the government *subsidies*, thus implicitly discouraging municipalities from selling their assets.

While considering a privatization option, municipalities have increasingly started to look at other alternatives besides PSP, basing their decisions on a case-by-case basis. Thus, *competition exists* not only among the international water companies; there is also a trend emerging that reflects growing competition between the public and private sectors.

5.10. Lessons learned

The following lessons were drawn from the study:

1. Private sector participation is only one option for dealing with the water sector where the goal is to improve service efficiency and access to investment funds. Corporatization is another option, which seems to work in some countries in the region.
2. If the goal of PSP is private investment, then there should be no separation of operational and infrastructure assets. However, if improvement of management and technology transfer is the goal, then lease and O&M contracts are well suited for the ECA region.
3. An enabling legal environment needs to be put in place before launching PSP in order to avoid complications later in the process. In fact, is PSP only possible/ useful to the degree that it is supported by the local framework. A good legal framework, allowing different PSP options and clearly specifying the rules of play, improves opportunities for investment.
4. Reforms are required for most of the water utilities in order to generate internal cash for operations. Funding from the central government and/ or donors/ IFIs is required for rehabilitation of the system.
5. Municipalities need to have a greater technical and legal capacity to negotiate contracts with international private companies. It is important to explain to the decision-makers the consequences of, and parties' responsibilities to, each type of contractual agreement. If this is not feasible, advisory regulators need to be established to consult with and advise municipalities on partnerships with the private sector.

6. Governmental control should be improved, specifically in order to foresee the consequences a particular contractual arrangement. This is especially the case if the Czech model of water sector privatization is chosen.
7. Applying subsidies should be considered, along with setting realistic prices for water, depending on the affordability of water by an average household in the country concerned.
8. The condition of infrastructure is an important factor in terms of encouraging the interest of the private sector. Thus, a municipality that invests in the rehabilitation of its water system can attract a better strategic investor to expand coverage of water and sanitation services.
9. The amalgamation of small municipalities into associations will foster PSP in the countries of groups 1 and 2. This will not only allow economies of scale, but will also ensure efficient and effective management.
10. Over-fragmentation during decentralization should be accounted for when considering the PSP that is expected to follow that decentralization. This can help avoid the need for amalgamation later on.
11. Creation of a single national water and sanitation sector regulating body could resolve many problems further down on the road.

Finally, each EECCA country individually can follow one of the models that is already working in the ECA region. Following the *Czech model* will result in a significant number of PSP projects. This model is recommended for a country willing to move rapidly towards involvement of the private sector. The model involves decentralization and corporatization of the water utilities with maximum rights allocated to the municipalities and minimum control from the governmental side.

The Czech model can also be used by authorities that wish to maintain asset ownership in the public sector, while using the private sector for operations. This approach not only brings in the private operators' experience and management practices, but also provides finance towards the municipal budget.

The Hungarian model of PSP in water and sanitation is recommended for a country that would like to see its water utilities moving away from public control. It is also an illustration of a model where strategic investors consider privatization of projects on a case-by-case basis within the water sector. Such model is especially viable in the situation with strong trade unions and a strong NGO sector. This model will not lead to rapid private sector involvement; indeed, it will actually slow down the process due to the high transaction costs. However, it will ensure a high degree of quality in each of the successful projects, and is a model that takes into account the voice of the public.

The Polish model of PSP in water and sanitation resembles the Hungarian one. However, here a special emphasis is made on partnerships between the public and the private sectors. A high 'mortality' of the projects (up to 50 per cent) is expected. However, the quality of the working PSPs can be seen to be models of public-private partnerships.

Because **Estonia** has only one, very recent PSP project, it is difficult to derive a specific model. However, this experience will be very useful for small countries with one or two large cities that are of interest to the private sector. It demonstrates that the role of domestic private companies could be invaluable for the EECCA region.

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