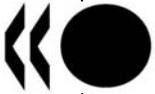


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**ENVIRONMENT DIRECTORATE
ENVIRONMENT POLICY COMMITTEE
TASK FORCE FOR THE IMPLEMENTATION OF THE ENVIRONMENTAL ACTION
PROGRAMME FOR CENTRAL AND EASTERN EUROPE, CAUCASUS AND CENTRAL ASIA**

Reform of Water Supply and Sanitation in EECCA at the Municipal Level

**Financing water supply and sanitation in EECCA
Conference of EECCA Ministers of Economy/Finance, Environment and Water and their partners from
the OECD**

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1. EXECUTIVE SUMMARY

In Almaty in 2000, economy/finance and environment ministers of EECCA called for the development of a new institutional framework for the water sector in their countries. *Decentralisation* was acknowledged as an important means for fostering improved performance in the provision of water and sanitation in EECCA. This entailed devolving responsibility for water service provision from national to local level and strengthening the related capacity of local authorities - in particular locally-elected governments - in order to assume their new responsibilities. While responsibilities for the sector now have been devolved to municipalities in most EECCA countries, this has still not generated the expected benefits for the population.

This paper identifies some of the reasons why this is the case and proposes remedies for addressing this situation. Specifically, it stresses that *decentralisation is a process*, and that transition involves a number of dimensions that have to be carefully coordinated. Central governments, local authorities, and utilities would benefit from adopting more comprehensive and coherent strategies that address the sequencing of actions.

Decentralisation should be organized on an appropriate scale, in order to capture the potential efficiency gain associated with it, while avoiding the consequences of excessive fragmentation. When local jurisdictions are too small to properly operate the water supply or a sanitation infrastructure, incentives should be provided to either amalgamate municipalities into larger units or to develop inter-municipal co-operation. This might be appropriate to remedy the recent, and not necessarily effective, dynamics towards smaller jurisdictions in Russia, and the existence of poor rural areas in the region.

Municipalities must develop a greater sense of ownership of the policies they implement at their level. This is a key condition for the success of reform, and relates to the broader issue of governance of the water supply and sanitation sector, in particular public control. In many cases, overlapping objectives and unrealistic plans have weakened local authorities. Good planning is a key factor – but planning that emphasizes the achievement of results rather than the long, unstructured, and volatile wish-lists that characterize planning in many EECCA municipalities today.

Effective planning is particularly important for water supply and sanitation (WSS) reform as it entails infrastructure development, heavy investment costs, a long payback and low return on equity. Accordingly, local authorities in EECCA should commit to, and receive support in order to:

- Set consistent, long-lasting objectives for WSS (demand management, quality of service, infrastructure rehabilitation and development), which should form part of a city or regional master plan. This would benefit from a dialogue with the public;
- Elaborate realistic financing strategies over the medium term. Such strategies should rely on a thorough analysis of expenditures (based on a reliable estimate of the state of the infrastructure), and an in-depth analysis of various sources of finance (tariff levels and collection rates, intergovernmental transfers, debt). Such an endeavour would benefit from the methodological and practical experience of financial strategies carried out at national or regional levels of government. The work of the EAP Task Force to support various EECCA countries and regions has generated important lessons in this regard (these issues are discussed further in document ENV/EPOC/EAP/MIN(2005)6);

- Articulate these strategies to medium-term investment planning, conceived as a tool to anticipate treasury gaps, and to inform the eventual revision of action plans. In EECCA, very few local governments plan their budget and investments over more than one year, while doing so would help them to take action on an informed basis and to attract more finance.

Again, smaller municipalities, particularly in rural areas, will find each of these steps more difficult due to the specific capacity constraints that they face and the more serious deterioration of infrastructure (these issues are discussed further in document ENV/EPOC/EAP/MIN(2005)4), but the questions that need to be answered remain the same: what kind of infrastructure? How to finance it and to attract resources?

The relationship between local authorities and utilities in charge of the provision of the WSS services should be built on a structure of incentives that reward good performance. A performance-based contract between municipalities and the utilities is a potentially important tool in this perspective. However, performance contracts are still rare in EECCA, and only a few municipalities have implemented such contracts, mostly in the framework of arrangements with private sector participation. While the intention with these contracts is positive, many of them contain important deficiencies. These include a lack of definition of the scope of the contract, of investment and financing plans, targets for service provision, or clear performance targets. The EAP Task Force has elaborated and started to disseminate “Guidelines for performance-based contracts between municipalities and utilities”, which could provide guidance on this issue (see Annex 2).

Utilities should strengthen their efficiency by building and bringing in management expertise, including, as appropriate, from the private sector. Expectations were very high that utilities would be agents of change. In particular, in 2000, it was anticipated that private service providers would invest their own money, and disseminate modern forms of management of water and sanitation services. These expectations have not been realized. Experience shows that private investment is not a serious option in EECCA, apart from in selected capitals and big cities. International firms have proved to be more risk averse than in the past and have applied particular caution in the EECCA region. Most private operators now favour management contracts as a first step in potentially greater involvement in the EECCA water sector, rather than more ambitious contractual arrangements where their risk would be greater (*e.g.* leasing and concession contracts).

The Russian Federation and Kazakhstan are exceptions with regard to private sector participation. In Kazakhstan, there is significant domestic private sector participation in the water utilities serving small and medium-sized towns. Nearly 40 per cent of water utilities serving such towns are privately operated. Most of these arrangements involve the full transfer of physical assets into private ownership. Usually, private investors are local entrepreneurs. In Russia, following political signals that private sector participation in the communal services sector was welcome, domestic companies established contracts in more than 20 large cities, representing about eleven per cent of the urban population. However, most of these contracts are short-term leases and it is uncertain how many of them will be converted into longer term arrangements. If domestic private sector operators manage to stay on the market and to deliver improved water services to the population, they could be considered as an appropriate alternative to existing arrangements.

The involvement of the private sector is just one among several options to help improve the efficiency of water utility operations. Alternatively, utilities could seek to improve their staffing by hiring managers from other sectors, or they could seek to build capacity into their own staff, *e.g.* through twinning arrangements with well-managed utilities in OECD countries that would provide the necessary experience.

In conclusion, decentralisation must be a balanced process, where the three main types of institutions involved (the central government, municipalities, and utilities) develop complementary capacities in a coordinated manner. The quality of the relationships between the state and the municipalities, on the one hand, and between the municipalities and utilities on the other hand, is a condition for successful decentralisation. This is a process that will take many years, if not decades, in EECCA countries.

INTRODUCTION

The Almaty Guiding Principles suggested that responsibility for providing water supply and sanitation services should be transferred to municipalities. They also recommended that the roles of local governments and water utilities be clarified, and that utilities be established as autonomous, commercially-run entities.

The joint conclusions of the Almaty Ministerial Consultation, in October 2000, stated that the reform of the water supply and sanitation sector should include:

- Decentralising responsibility for water service provision from national to local level, and strengthening the related capacity of local authorities, in particular locally-elected governments;
- Transforming water utilities into autonomous, commercially-run institutions under strict supervision of public authorities;
- Promoting a more balanced development of urban waste water treatment relative to water supply, particularly in small and medium-sized towns;
- Engaging the public directly in the reform process and making adequate provision for consumer protection;
- Establishing the sector on a financially sustainable basis, while addressing the needs of poor and vulnerable households;
- Creating incentive to substantially increase efficiency in the use of water by consumers and in the operation of *vodokanals*;
- Creating conditions for private sector participation within an appropriate regulatory framework.

While most EECCA countries devolved responsibilities for water supply and sanitation services and infrastructure to municipalities early on in the reform process, this was frequently done without appropriate changes to the institutional set-up, organisational structure, and management of the sector.

This paper focuses on this aspect of the reform of WSS in EECCA at the municipal level. It makes the case for a renewed and optimised dialogue between the municipality and the utility, informed by adequate data and supported by appropriate tools. The rationale for this dialogue is as follows:

- Municipalities have to make choices as to what level of service they want to deliver to their citizens. This requires strategic and financial planning, which is best obtained by setting clear responsibilities, having an understanding of the needs of the beneficiaries, reliable data on the state of the infrastructure, and sound assessment of the financial resources available (section 2);
- The relationship between the municipality and the service provider should be organised in a way that promotes performance and the efficient use of available resources. Conditions of access to assets, and the responsibilities for investment should also be clear (section 3);

- This in turn requires that the utility improves its capacity to enter into a constructive dialogue with the municipality and strengthens its management skills (section 4). Private sector participation might be considered in this perspective.

This paper is based on a thorough understanding of the reforms implemented and of the current state of the institutional, contractual, and managerial dimensions of the sector. While it acknowledges positive dynamics and progress, it highlights key problems and suggests ways and tools to tackle them.

2. WATER SUPPLY AND SANITATION AS A MUNICIPAL POLICY

The first consequence of the devolution of responsibility for WSS to subnational levels of government is that municipalities have to make choices about the level of service to deliver to citizens. This requires informed decision-making based on:

- An appropriate understanding of the needs of and demand for service by the population;
- A reliable evaluation of the current quality of the service and of the state of the infrastructure;
- A realistic assessment of what can be achieved, in a given time horizon, based on available resources.

The policy dimension of WSS at the local level includes the establishment of minimum standards regarding the quality of services, and establishing who gets access to the services and under what conditions. A key issue should be that moves towards cost recovery do not unduly penalise the poor.

Strategic and financial planning is a way to articulate this information into a coherent decision-making process.

2.1 The need for strategic planning

In most EECCA countries, the level of service does not meet the needs of the population. Existing infrastructure is inefficient, non-optimal, and often oversized. The reasons for this are mostly historical (see Box 1).

Box 1. Historical reasons for oversized and inefficient infrastructure in EECCA

1. Mistakes in forecasts produced by Soviet central planning bodies and systemic weaknesses of soviet master planning

Many City Master Plans approved in Soviet time were based on a quick growth of demand for water and other communal services from the economic agents and a growing population. While the infrastructure (or some parts of it) was built to meet anticipated future demand, the population did not meet the forecasted level. Examples of such failure to anticipate demand for services are numerous.

In Surgut City, Russia, some parts of the water and sanitation infrastructure were built anticipating population growth to above 500 000 people by 2005, while in fact the population of the city is only around 282 000;

In Armenia, the wastewater collector on the Sevan lake shore and the wastewater treatment plant (WWTP) at Kahsi village were built anticipating a boom of tourism and recreation business in the area that has never materialised. The WWTP was found to be oversized by factor 3-4.

In some territories, the structural change induced by the transition to market economies has resulted in major geographical shifts of economic activity and population. Some cities, which grew fast over the 1960-1980 period, stopped growing or even lost a substantial portion of their population (e.g. cities built around large defence industry enterprises), while the municipal infrastructure that they inherited was designed on the basis that the original trend would continue.

Many cities that emerged following fast industrial growth in 1950-1980 were developed under the supervision of several central ministries (so called, *vedomstvennoye zhilje*). Also, different parts of cities and their infrastructure were built and operated without any city master plan or even proper co-ordination between the organisations involved in the city development (so called, *vedomstvennaya razobschennost'*). Infrastructure was often operated by different entities, and in the 1990s, when those infrastructures were transferred to municipalities, the new owners found that the infrastructures were inefficient.

- Again, **Surgut City** illustrates this situation. The city was developed by almost 80 ministries and agencies; some of them had built inefficient boilers, burning crude oil, which had to be closed down by the municipality as soon as it became the owner of the infrastructure.

2. Forecasts of demand based on inflated consumption norms

Consumption norms often were at 300-600 litres per consumer per day (lcd), that is at least twice the actual consumption in the EU. The rise in tariffs and the development of metering contributed to a decrease in actual consumption, which was not reflected in the forecasted demand for water and sanitation when the systems were designed.

3. Poor construction standards

Poor design, based on inefficient technical solutions that generate high unit energy consumption, short lifetime of the assets, high labour intensity, and high maintenance cost, resulted in inefficient and inappropriate infrastructure. Again, in many countries, the energy crisis in the 1990s that followed the collapse of the Soviet Union, revealed the impossibility of sustaining operations of the inefficient infrastructure.

4. Rigid environmental standards

Environmental standards were (and often still are) excessively stringent compared to international standards. They added to the cost of investment and operation.

The cost of operating and maintaining the existing (and often oversized) infrastructure is very high, and can not be met by local and regional budgets, nor by the resources of the utilities. Moreover, merely replacing outdated, inefficient equipment (*e.g.* pumps, boilers) will not necessarily support efficiency.

Optimising and rehabilitating the infrastructure requires a huge amount of resources, which should be used most effectively and cost efficiently. Strategic and financial planning is required:

- For infrastructure optimisation (integrating different parts into a unified system and re-designing the system; adjusting the present oversized infrastructure to actual demand for service), modernisation (improving the technical status, energy and labour efficiency, hydraulic regulation; reducing leaks and losses), and development (increasing coverage to meet social targets, including the Millennium development goals, the MDGs);
- To integrate capital investment plans into the short and medium-term public budget, in line with public finance reform; and to switch from a single-year budget to a medium-term expenditure framework (MTEF) programme, and result-oriented budgeting.

2.2 Perspective for strategic planning for the WSS in EECCA

Status of, and obstacles to strategic planning in EECCA

Recent studies show that the state of strategic planning in EECCA countries is far from ideal.

Only a few municipalities in EECCA have updated existing (from the Soviet era), or have developed new city master plans, including infrastructure development. Few cities have either set goals for the quantity and quality of communal services that they want to attain, or have developed a demand management plan. This situation results from the following:

- Lack of reliable data on the state of infrastructure, due to weaknesses in the information management, reporting, and monitoring systems. Water, energy, and technical audits are undertaken irregularly and seldom, if at all. The old data (from the Soviet past) is often misleading, as the infrastructure substantially deteriorated over the 1990s due to lack of financing for maintenance, repair, or replacement of worn-out assets. Some assets registered in accounting books are not operational or even do not exist any more;
- Lack of reliable forecasts for demand for water and sanitation, due to lacking or inaccurate demographic and socio-economic forecasts. International migrations (*e.g.* from Armenia, Azerbaijan, Moldova, Tadjikistan, and the Ukraine to Russia) and migrations from rural to urban areas (*e.g.* to Almaty, Astana, Usk-Kamenogorsk, and oil provinces in Kazakhstan to Bishkek City in the Kyrgyz Republic, etc.) are not properly accounted for in city master plans. In addition, EECCA municipalities are seldom informed about strategic plans of private businesses (*e.g.* plans of industrial companies to build new/extend existing facilities, which could attract labour and generate additional demand for water and sanitation);
- Lack of planning capacity.

Articulating planning and public finance

Strategic investment plans have to be translated into local budgets. This requires both an adequate accounting system in municipalities, and a capacity to plan investment over a period of three to five years.

Some EECCA countries still apply a post-Soviet system of costing investment projects on the basis of base year 1984 prices, applying superficial indices reflecting inflation accumulated since 1991. This often results in highly inflated estimates that do not reflect market prices for construction. This costing method is a serious obstacle for effective and cost-efficient use of public funds for infrastructure development.

To date, the budget preparation and monitoring system is neither task nor result-oriented; rather, it is focused on spending money in accordance with specified budget lines.

In addition, the current accounting system offers weak incentives to sub-national levels of government for responsible, long-term management of financial resources. All revenues and expenditures are allocated annually. Neither a long-term vision of investment needs, nor a forecast of the municipality's future financial situation exist. Investment planning for municipal infrastructure is discretionary, and focused not only on short-term outputs, but also on priorities that are often too numerous and too volatile. There are no clear and transparent criteria for appraising and prioritising investment projects that will be financed from municipal budgets.

There is also a need to develop capacity in the use of local expenditure management and investment planning tools, such as mid-term budget framework (three to five years) for preparing transparent and task-oriented annual budgets and capital improvement plans. EAP Task Force experience confirms that very few municipalities in EECCA currently use multi-year investment planning.

The advantages of multi-year investment planning are manifold:

- It helps to ensure that investment plans are supported by the appropriate financial resources, thus providing for a realistic programme;
- It strengthens consistency in yearly budgetary decision-making;
- It helps attract additional finance (both domestic and donors funding), and leverage domestic and foreign finance to municipal investments.

The EAP Task Force has developed a tool to support such an endeavour (see Annex 1). The tool was pilot tested in municipalities in the Russian Federation and the Ukraine, and adapted to local institutional and accounting standards. Over 40 experts have been trained in using this tool, in coordination with international financial institutions (IFIs), with a view to disseminate it over the region. Additional effort is needed in this dissemination process.

Note that, in EECCA, municipalities are still largely dependent on fiscal transfers from central or regional budgets to finance investment in WSS. They often have to co-ordinate their infrastructure development plans and capital expenditure budgets with national/regional plans and budgets. This makes the strategic planning and investments at local level dependent on the politics at the national/regional level, and generates a risk that local investment plans will not be implemented due to budget constraints. This requires that transfers between levels of government are designed in such a way that they do not impair the municipalities' capacity to implement the plans that were negotiated with the national/regional authorities. This issue are discussed further in document ENV/EPOC/EAP/MIN(2005)6.

3. DEFINING THE ROLES OF LOCAL GOVERNMENTS AND WATER UTILITIES THROUGH PERFORMANCE CONTRACTS

The relationship between the municipality and the service provider is the second dimension of the reform of the WSS sector that is addressed in this paper. Compared to central governments, local authorities are, in principle, better attuned to local demand and better placed to identify local solutions and to organize their implementation. As a result, they have generally developed close working relations with utilities.

In some countries water utilities are part of local government. However, the close linkages between local authorities and utilities can involve conflicts of interest, blur responsibilities, and impede the effective delivery of water services. For example, local politicians in EECCA are often reluctant to raise tariffs to levels that would guarantee the financial autonomy of utilities, as this might erode their electoral support. Also, municipal authorities are often concerned about the new constraints and the loss of discretion that more transparency in their relationship with utilities would bring about. Blockages of this type undermine the operational autonomy of utilities and create confusion over the roles that local government and utilities should play.

3.1 Contracting to manage performance

It is now widely recognized that a fundamental element of a viable water governance system is to clarify the relative roles and responsibilities of central and local governments as well as utilities. More specifically, as derives from above, local governments should be responsible for planning, as well as for many aspects of policy and regulation, including the involvement of the public. Utilities should have sufficient operational autonomy and resources to deliver agreed services on a sustainable basis. They should also be held strictly accountable for how they exercise their discretion and for how they have used their resources. In an increasing number of countries, the relative roles and responsibilities between local governments and utilities is being clarified through “performance contracts”. Ultimately, performance-based contracts, if developed properly, can help to lay the basis for the long-term sustainability of water utilities, increasing efficiency, and creating conditions where investment capital can be attracted.

This is also the case in EECCA, even though the number of cases is still very small compared to the total number of water utilities in the region – Russia alone has more than 6 000 utilities, but only about twenty municipalities have chosen to develop contracts with their water utilities. Many of these contracts have been developed in the framework of private sector participation projects. While these efforts are a step in the right direction, they have suffered from a lack of experience of those involved in developing such contracts.

An analysis of contracts in the Russian Federation and the Ukraine revealed a number of important weaknesses in these contracts, including:

- Contracts do not provide a description of the properties transferred from the municipality to the operator;
- Contracts do not provide technical parameters for service provision;
- Contracts do not have investment and financing plans for the operation and maintenance costs;

- Contracts do not give deadlines for performance targets to be achieved by the operator;
- Municipalities do not fully exercise their responsibility to control and assess the quality of the operation and maintenance of utilities.

3.2 Guidelines for Performance-based Contracts

To support local authorities that are willing to contractualise their relationship with their water utility, the EAP Task Force has developed “Guidelines for performance-based contracts” between municipalities and water utilities, which address and analyse the key elements that need to be considered in connection with the preparation, negotiation, implementation, and periodic revision of a successful performance-based contracting mechanism. Some of these key elements are described in annex 2.

The requirements for performance-based contracts, as contemplated in these Guidelines, are provided as a starting point for the development of improved contractual arrangements in the water sector in EECCA. These Guidelines are relevant for municipalities wishing to establish a contractual relationship with a public or a private utility.

It is important to remember that drafting contracts is not an exact science and needs to be adapted in light of the specific local circumstances. This usually requires the assistance of experienced and qualified professionals in the water sector who can draw from international best practices in the process of contract development. There is therefore an important need for the provision of technical assistance and capacity strengthening from donors and IFIs in this area.

4. IMPROVING THE MANAGERIAL CAPACITY OF SERVICE PROVIDERS

After nearly fifteen years of low investment and poor maintenance, the condition of the municipal water and sanitation sector in the EECCA region has become critical, with most water utilities working under emergency conditions. While the acuteness of the crisis is recognised by the majority of EECCA governments, the reform process remains slow, and financial and operational sustainability of water utilities, key to the rehabilitation of water supply and sanitation infrastructure, is still far from being achieved.

This is due to a number of reasons:

- Water utilities tend not to properly estimate their needs in terms of capital expenditures or maintenance, let alone on a multi-annual basis;
- Investments, if any, are usually decided upon and financed by local authorities: (a) with water utilities conducting prioritisation analysis only in a limited number of cases and conducting no cost/benefit analysis; and (b) with little consideration given to tariff level implications, thereby leading to an inefficient use of scarce resources;
- Central or local authorities tend to set tariffs irrespective of the planned level of O&M costs and capital investments, and usually revise them at irregular intervals;
- Water utility staff lack both financial planning tools and training to generate and analyse relevant information that could feed and help rationalize the decision-making process at the municipality level; as a result, water utilities are not in a position to exert influence over their future development;
- This situation derives from, and is fuelled by, weak management capacities in many utilities in the region.

In light of the above, it is useful to try and identify some tools or contractual arrangements that could be put in place to contribute to the improvement of management of the water and sanitation sector. This paper focuses on selected issues:

- Financial planning at the utility level; this goes hand in hand with planning in the municipalities. Financial planning should inform the dialogue between the municipality and the utility, and is likely to help substantially improve the performance of the service provider;
- Management capacity building. This can be done in a number of ways. Consideration is given to private sector participation (PSP), as a means towards this end. Whether or not private operators invest their own money in the infrastructure, they are likely to bring in expertise in the management of the service and the relationship with the beneficiaries.

4.1 Financial planning at the utility level

One of the main obstacles to the financial and operational sustainability of the sector in EECCA is the absence of proper financial planning by water utilities.

Water utilities have to control costs and generate revenues in order to provide services in a sustainable manner. Accurate financial planning and forecasting form an integral part of effective management of utilities' finances. Such an issue can in fact be remedied: a financial model, linked to engineering and cost estimates, is usually considered as the preferred tool for analysis and decision making (see Annex 3). If properly used, it can have far reaching implications, by providing water utilities with a financial planning methodology that helps them rationalise their capital investment decision-making process, monitor their overall performance, and enhances both communication level and quality with the municipality, especially as far as tariff levels, capital investments, and financing needs are concerned.

Financial planning, if implemented, gives utilities the opportunity:

- To rationalise the way their capital expenditure programme is established;
- To determine the conditions for the balancing of their sources and uses of funds;
- To improve the monitoring of their overall performance by analysing performance indicators produced by the tool; and
- In the long run, to eventually raise finance on their own books.

While requiring some efforts from the part of the utility when initially put in place, and training of utility and local authority staff in order for both entities to make the best use of them, financial planning tools could significantly contribute to breaking the vicious circle prevailing in the EECCA water and sanitation sector and to paving the way for its financial sustainability.

4.2 Managerial capacity building in water utilities

Currently many EECCA water utilities suffer from weak management and therefore the resulting inefficient operational performance. It is now widely recognised that the corporatisation of utility management (along with granting utilities more independence in their decision making) is a key step in overcoming this weakness.

Corporatisation involves performance-oriented management on the basis of financial and technical indicators and the translation of these objectives into the organisation through staff performance objectives and performance-oriented remuneration. Corporatisation also involves a stronger focus on client and supplier relationships.

To implement such changes, EECCA utilities will need to bring in and draw upon external management capacity. They can either hire business managers from other sectors or seek to build capacity in their own staff using technical assistance, *i.e.* through twinning arrangements with well-managed OECD utilities.

Another option is to involve the private sector in the management and operation of utilities. This issue was a subject of intensive discussion at the ministers' conference in Almaty in 2000, generating a lot of hopes, but also a lot of scepticism. The prospects for PSP in the EECCA water sector are analysed below.

4.3 PSP as a means to improve performance of utilities in EECCA

At their consultations in Almaty in 2000, ministers recommended that municipalities and utilities should consider inviting private operators to participate in the provision of water supply and sanitation services when they develop their strategy for water sector reform. Similarly, the Camdessus report emphasizes the relevance of private sector participation as an important source of finance for the development of water supply and sanitation services to achieve the internationally agreed water targets. However, for various reasons, the involvement of the private sector in EECCA has remained at very low levels and hopes that the private sector would play an important role in supporting the reform process have not been fulfilled so far.

Current PSP in EECCA, including obstacles and bottlenecks

Various PSP forms co-exist in the water supply and sanitation sector, depending on the level of responsibility entrusted by the public sector, be it a government or more often a local authority, to the private party. But in all PSP forms, the authorities retain a supervisory role and see to it that customers are satisfied. A wide range of approaches for involving the private sector in improving the performance of water and sanitation systems exists (Table 1). Some options keep the operations (and ownership) in public hands, but involve the private sector in the design and construction of the infrastructure. Other options involve private actors in the management, operation, and/or the financing of assets. Hence, they involve different degrees of private and public sector responsibilities for service delivery.

Table 1. Matrix 1: Allocation of Public/Private Responsibilities Across Different Forms of Private Involvement in Water Services

	Setting Performance Standards	Asset Ownership	Capital Investment	Design & Build	Operation	User Fee Collection	Oversight of Performance and Fees
Fully Public Provision	Dark Red	Dark Red	Dark Red	Dark Red	Dark Red	Dark Red	Dark Red
Passive Private Investment	Dark Red	Dark Red	Light Red	Dark Red	Dark Red	Dark Red	Dark Red
Design and Construct Contracts	Dark Red	Dark Red	Dark Red	White	Dark Red	Dark Red	Dark Red
Service Contracts	Dark Red	Dark Red	Dark Red	Dark Red	White	Dark Red	Dark Red
Joint Ventures	Dark Red	Light Red	Light Red	Light Red	Light Red	Light Red	Dark Red
Build, Operate, Transfer	Dark Red	Dark Red	White	White	White	Dark Red	Dark Red
Concession Contracts	Dark Red	Dark Red	White	White	White	White	Dark Red
Passive Public Investment	Dark Red	White	Light Red	White	White	White	Dark Red
Fully Private Provision	Dark Red	White	White	White	White	White	Dark Red

Key: Dark Red: public responsibility - Light red: shared public/private responsibility - White: private responsibility

Source: Yale-UNDP Partnerships Program 1998

Source: OECD, (2000), Global Trends in Urban Water Supply and Waste Water Financing and Management: Changing Roles for the Public and Private Sector, Paris

Private sector participation, both with international and domestic operators, remains at very low levels in the EECCA region, both in terms of the number of municipalities concerned by such arrangements, and by their level of ambition (focusing on inputs of know-how rather than private finance). The Russian Federation and Kazakhstan are exceptions where domestic private operators are now playing an increasingly important role.

In Russia, domestic private operators have been taking increasing market share over the last 18 months. They are currently serving about eleven per cent of the urban population, which will possibly increase to 16 per cent in a few years time. The trend was initiated by a political statement from the President welcoming PSP in the communal and housing sector. Whether this trend is sustainable in the long term remains to be seen, since most contracts are 11-month leases and it is hard to foresee how many of them are going to be converted into longer-term contracts.

In Kazakhstan, there is significant domestic private sector participation in the water utilities serving small and medium towns. Nearly 40 per cent of water utilities serving such towns are privately operated. Most of these arrangements involve the full transfer of physical assets into private ownership, although there is also one leasing contract. Usually, private investors are local entrepreneurs. Many privatisations arose in connection with – or to forestall – insolvency proceedings, where an important goal was to wipe out the large debts to tax authorities. The prices paid for the assets were frequently very low. Due to the difficult financial situation that most water utilities in Kazakhstan are facing, some disengagement of the private sector has been observed recently, and it remains to be seen whether this trend will continue.

Experience accumulated so far suggests that domestic and international operators are encountering very similar obstacles and limitations to their activities in the water supply and sanitation sector in EECCA. Regulatory and legal uncertainty, lack of rules of the game, limited capacity in domestic private operators, and lack of capacity at the municipal and utility level are only some of the issues that were raised by participants to a series of private sector roundtables that the EAP Task Force and the World Bank co-organised¹. When private sector operators engage in partnership arrangements despite these risks, as has happened in a few large EECCA cities, contract negotiations are often excessively long, with direct impact on the transaction cost, while the data underlying the negotiation often turns out to be unreliable. In some cases that involved mostly domestic private operators, contracts were often very incomplete and competitive procedures for the selection of the operator not applied.

To overcome these obstacles and problems, several approaches that could be used by stakeholders have been suggested:

- The systematic usage of performance contracts, allocated in the framework of competitive tenders, could help to dissipate public mistrust of PSP and to force municipalities and utilities to agree upon objectives and means to achieve them;
- Concession and lease contracts could be preceded by management contracts so as to reveal the true state and extent of the infrastructure and reduce the risk of conflict when concession and lease contracts are implemented;
- IFIs and donors could play a more active role in mediating between parties when conflict arises;
- Tariff-setting needs to become more transparent and predictable, which involves shielding of the tariff-setting process from excessive political interference;

¹ See proceedings at www.oecd.org/env/water

- The use of franchising or other forms of business-to-business co-operation to combine the strengths of domestic operators (local knowledge) with the strengths of international operators (operational know-how).

Future prospects of PSP in the EECCA water sector

While there are numerous obstacles and risks that explain the modest levels of private sector involvement in the region, there are also a number of changes to business strategies that help to explain this situation.

The international private sector is currently attempting to restructure, shed global portfolios, and reduce project debt, in response to the growing risk aversion of their shareholders following 9/11, the Argentina crises, and corporate bankruptcies. However, the question of how revenue cycles are to be closed has not been answered so far.

Furthermore, the “easy” investment opportunities are already being supported, and the private sector seems to be running out of markets with a tolerable level of risk. During the past few years, the market has focused on the large cities. Private investors consider smaller cities and rural areas less attractive for investment; and are instead focusing on operations, while depending on donors and IFIs to provide financing. However, only limited funding for developing the sector is available from the World Bank (USD 960 million over in the next three years from IBRD² and IDA³) and other donors. This will require a much more selective and stringent targeting of the funding, and far better co-ordination between the major donors and IFIs.

The private sector considers concessions in EECCA highly unlikely, and there is a very limited appetite even for lease (*Affermage*) contracts. In its 2003 annual report, Véolia Water is one of the rare private operators to mention leases as the privileged contractual arrangement in Eastern Europe. Management contracts are now considered the safest way of entering into new markets.

Service and management contracts, whereby a private company operates assets on behalf of the local authority that owns them, range from the treatment and distribution of water to the planning and rehabilitation of assets and services to customers. The private sector therefore takes full responsibility - under a short-term agreement - for a specific task, for instance installing meters, repairing pipes, or collecting bills for a fixed or per unit fee. Service contracts involve no risk sharing between the private and the public sectors, even if the private sector remuneration can be performance-based.

This form of PSP seems particularly well-suited in cases where the private sector does not intend to take any risk and tariffs do not cover operations and maintenance costs, as the private sector remuneration is precisely disconnected from tariffs. Local authorities benefit from the technical and operational expertise of the private sector without having to engage in a long-term relationship or giving away the ownership of the assets.

² International Bank for Reconstruction and Development (IBRD)

³ International Development Association (IDA).

ANNEX 1. MULTI-YEAR INVESTMENT PLANNING (MYIP), A TOOL DESIGNED FOR MUNICIPALITIES

Multi-year investment plans for municipal infrastructure are designed to enhance the financial strength and creditworthiness of municipalities by more rational and long-term management of local capital and operational budgets. The experience and know-how gained from the pilot projects conducted within the 2001-2003 EAP Task Force Programme in Municipal Finance with the support of Denmark, the UK, and Norway, are now being disseminated throughout Russia and the Ukraine, using local experts and consulting institutes.

MYIP is a rational, rule-based approach to investment planning by local governments, supported by financial planning software and integrated into national budget codes.

Based on the results of these demonstration projects, a toolkit has been developed for multi-year investment planning in municipalities, which consists of guidelines, instructions, software applications, model documents, and administrative procedures. Through the dissemination activities, the know-how has been transferred to a broader audience in Russia and the Ukraine, where regional and local governments are interested in sound management and investment planning for better services, including water and environmental infrastructure.

Broader dissemination of the tools, including a MIP (Multi-year Investment Plan) model will help regional governments to manage intergovernmental transfers needed for capital investment, operation and maintenance, as well as for environmental protection purposes.

In overview, the typical training programme includes focused presentations and discussions on a multi-year investment plan conceptual model and methodology, reasons for its introduction, benefits from introduction, and examples from the Russian Federation, the Ukraine, Poland, and the United States.

ANNEX 2. GUIDELINES TO ESTABLISH PERFORMANCE-BASED CONTRACTS

Project scope

- Definition of clear contractual objectives and responsibilities following and pursuant to: (i) a dialogue process to be put in place between the contractor and the contracting authority; and (ii) the conduct of an appropriate and adequate due diligence process, so as to allow the parties to be aware of any detail or information that might influence or affect the efficient development of the water utility; clear identification of the service area to be covered by the contractor in order to strike an appropriate balance between the revenues of the contractor and the overall quality of the services provided to the population within such a service area;
- The duration of a performance-based contract shall not be considered as a strict condition thereof but rather as a result of the objectives of the contractual arrangement to be entered into; and
- Early termination provisions are to be included in a performance-based contract in order to ensure the timely and efficient development of the utility.

Legal and institutional framework

- Examination of the legal framework currently in place with regard to the operation of a water utility in order to implement a contractual mechanism that is appropriate in relation therewith or, alternatively, proceed to the modification of such a legal framework in order to allow for the implementation of the desired contractual mechanism; and
- Analysis and possible modification of the institutional framework as the role of the contracting authority will no longer be one of a direct service provider but rather one of a monitoring entity for which sufficient and efficient regulating and monitoring capabilities will need to be set forth.

Performance indicators

- Performance indicators to take account of the current condition of the water utility in order to set performance levels that are feasible, and performance indicators that focus on the aspects that are the most essential to the utility's development and improvement;
- Other elements to be considered in connection with performance indicators, such as the importance of an appropriate and efficient monitoring system, the inclusion of a revision mechanism in relation with such performance indicators, and the modification or suspension of the required levels of performance.

Tariffs and financial obligations of the contracting authority

- The tariff-setting mechanism should be established with great care as, in the vast majority of cases, tariffs constitute the most important source of revenue for the water utility. Tariff setting is a delicate and complicated operation due to the fact that several issues are to be considered, such as the financial viability of the utility, social objectives of the utility, and economic efficiency, that have to be balanced against the fact that tariffs to be received by the contractor should at least cover all operational and maintenance costs of the utility in order to ensure that services are efficiently and adequately provided and that the value of fixed assets of the infrastructure is preserved;
- With regard to water utilities for which tariff systems are based on a cross-subsidy mechanism (allowing certain customers to pay well below the average tariff while other consumers pay above this average tariff in order to balance the total tariffs to be perceived by the utility), it will prove fundamental to consider such a mechanism when negotiating and establishing a performance-based contractual arrangement;
- The party bearing the risk of tariff collection should be allowed to adopt appropriate measures in order to obtain payment from consumers;
- As for the performance levels to be achieved by the contractor, the contractual provisions of a performance-based contract that relate to tariffs should be subject to a revision mechanism in order to ensure that the utility at all times benefits from a level of tariffs that permits its adequate development; and
- The contracting authority is sometimes responsible for the whole or part of the financing of capital investments relating to a water utility, and clear contractual provisions should establish the contracting authority's obligations in relation therewith.

Financial penalties, bonuses and incentives

- Financial penalties in a performance-based agreement constitute an insurance policy regarding the satisfaction of the level of services to be achieved by the contractor, but should be prudently used in connection with an agreement entered into in connection with an EECCA country water utility, since such penalties risk directly affecting the general financial condition of the utility, and consequently the operational conditions thereof, which are most probably already in a precarious state;
- Bonuses and incentives in a performance-based contract are complementary to penalties as they also aim to influence the performance of the contractor. However, one should be very careful when setting forth bonuses and incentives as, if the utility is operated by a publicly-owned contractor, such financial incentives should only be tied to the performance of the individuals exercising the management and operation of the utility.

Monitoring

- Monitoring is an essential element of performance-based contracting as it will allow the parties to determine whether their respective obligations are fulfilled and evaluate their performance in achieving such obligations, allowing the parties to establish whether or not the performance-based contractual arrangement benefits to both of them as well as to the development of the utility.

Contract enforcement/conflict resolution mechanisms

- Dispute resolution procedures should be included in the contractual arrangement as they entail a more efficient and cost effective determination of contractual disputes as an alternative to legal procedures. Whichever mechanism is chosen by the parties in order to resolve potential conflicts, such a mechanism should always aim at resolving any conflict promptly, efficiently, and impartially so as to create minimal interference with the operations of the utility, which needs to carry on ensuring the provision of water supply to the population;
- The Guidelines discuss the judicial, quasi-judicial or administrative, arbitral, and non-binding dispute settlement mechanisms available to the parties of a performance-based contract for dispute settlement.

Risks

- Risk allocation is a major component of any contract in the water sector: who will assume risks in the delivery of the service or in the construction/rehabilitation, and operation and maintenance of water facilities is often a central question in a performance-based contract in the water sector, especially where the contracting authority is a public entity and thus subject to public scrutiny;
- The Guidelines analyse the following main risks to be considered in regard to performance-based contracts: operation and maintenance risks, political risks, regulatory risks, and revenue risks;
- Logically, as the level of risk that is transferred from the contracting authority to the contractor increases, the more financial reward the contractor will demand.

Costs

- During the negotiation and drafting stage, the parties should always consider the actual and potential costs inherently and indirectly associated to performance contracting in the water sector as such costs are often unavoidable and various;
- A government considering the reform of a water utility and wishing to implement performance-based contracting as a means of achieving an improved and more efficient water network should consider hiring qualified technical, financial, and legal consultants in order to conduct a thorough analysis of the network to reduce future costs, and carefully assess costs and risks.

ANNEX 3. FINANCIAL PLANNING TOOL FOR WATER UTILITIES (FPTWU) AND DECISION-MAKING IN WATER UTILITIES

The FPTWU's purpose is to have water utilities adopt a financial planning methodology that should accelerate the pace of their progress towards operational and financial sustainability, helping them rationalise their capital investment decision-making process, monitor their overall performance, and enhance both communication level and quality with the municipality, especially as far as tariff level, capital investments, and financing needs are concerned.

The rationale for the use of such a tool can be summarised as follows:

- In the EECCA countries, water utilities tend not to properly estimate their needs in terms of capital expenditures or maintenance, let alone on a multi-annual basis;
- Investments, if any, are usually decided upon and financed by local authorities: (i) with water utilities conducting prioritisation analysis only in a limited number of cases and conducting no cost/benefit analysis; and (ii) with little consideration given to tariff level implications, thereby leading to an inefficient use of scarce resources;
- Central or local authorities in the region tend to set tariffs irrespective of the planned level of O&M costs and capital investments, and usually revise them at irregular intervals;
- Water utility staff lack both financial planning tools and training to generate and analyse relevant information that could feed and help rationalize the decision-making process at the municipality level; as a result, water utilities are not in a position to exert influence over their future development;
- In this context, the operational and financial sustainability of water utilities in the EECCA countries cannot be ensured, and water infrastructure continues to deteriorate badly with potentially massive environmental, health, and welfare consequences.

The FPTWU Project, part of the Urban Water Sector Reform component of the EAP Task Force Programme of Work, will contribute to “improving the management of municipal water supply and sanitation infrastructure” and to “ensuring the financial viability of utilities”, in accordance with the objectives defined in the Environment Strategy for EECCA countries during the fifth “Environment for Europe” Ministerial Conference that took place in Kiev in 2003.

Overall goal and specific objectives

The ultimate goal of the FPTWU is to help water utilities in the EECCA region reach operational and financial sustainability, by providing them with the opportunity: (i) to rationalise the way their capital expenditure programme is established; (ii) to determine the conditions for the balancing of their sources and uses of funds; (iii) to improve the monitoring of their overall performance by analysing performance indicators output produced by the tool; and (iv) in the long run, eventually raise finance on their own books.

The FPTWU Project's specific objectives are listed below:

1. Assist water utilities in improving their financial status through the implementation of sound medium-term financial planning;
2. Improve their investment decision-making process by enabling them to assess the relative merits of each proposed investment or project using a number of criteria (operational, financial, environmental, social, level of customer service, etc.);
3. Contribute to the improvement of their operational performance through: (i) a systematic tracking down of potential sources of savings (for instance more energy efficient equipment); (ii) a more realistic assessment of the water demand (anticipated growth of the customer base, water consumption forecast based on the number of meters in operation, leak reduction target through planned investments/repairs, etc.); and (iii) a better understanding of collection rate levels;
4. Enhance - and contribute to a more systematized - communication between water utilities and municipalities through the use of the tool's outputs to help establish: (i) medium-term capital expenditure and maintenance and repair programmes, most often to be financed by the municipality; (ii) tariff levels over a short to medium-term period; (iii) the level of operational subsidies (aimed for instance at compensating water utilities for financially adverse decisions imposed by municipalities); and (iv) the amount of finance to be raised from municipalities based on the capital expenditure programme under discussion.

The FPTWU, which is currently being pilot tested at the Bishkek Vodokanal will, once developed, be public domain, *i.e.* freely available to EECCA municipalities and donor agencies.