

Unclassified

ENV/EPOC/EAP/WATER(2010)5

Organisation de Coopération et de Développement Économiques  
Organisation for Economic Co-operation and Development

19-Oct-2010

English - Or. English

ENVIRONMENT DIRECTORATE  
ENVIRONMENT POLICY COMMITTEE

**Task Force for the Implementation of the Environmental Action Programme for Central and Eastern Europe, Caucasus and Central Asia  
Group of Senior Officials on Urban Water Sector Reform**

**PRIVATE SECTOR PARTICIPATION IN WATER SUPPLY AND SANITATION  
IN EASTERN EUROPE, CAUCASUS, AND CENTRAL ASIA: STATUS PAPER**

**14th meeting of EUWI EECCA Working Group**

**27-28 October 2010, Brussels, Belgium**

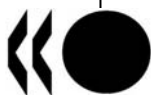
*The current paper examines whether the existing practices in EECCA countries comply with the "OECD Principles for Private Sector Participation in Water Infrastructure" and analyses the needs and opportunities for their improvement.*

*ACTION REQUIRED: For information.*

Please contact Alexandre MARTOUSSEVITCH at e-mail: [alexandre.martousseitch@oecd.org](mailto:alexandre.martousseitch@oecd.org) or phone: + 33 1 45 24 13 84 for any additional information.

**JT03290674**

Document complet disponible sur OLIS dans son format d'origine  
Complete document available on OLIS in its original format



ENV/EPOC/EAP/WATER(2010)5  
Unclassified

English - Or. English



## FOREWARD

The majority of countries of Eastern Europe, Caucasus, and Central Asia (EECCA) have sought the involvement of the private sector to upgrade and develop their water and sanitation infrastructure and improve the effectiveness and efficiency of the water sector. Unfortunately, some of the sector particularities, such as high capital intensity, large initial outlays, long payback periods, immobility and invisibility of assets, and low rates of return generate considerable risks for private sector actors. These particularities constitute important constraints on private sector participation in the water sector, especially when combined with poor information base for decision-making and unsupportive investment environment.

Recognising these challenges, the OECD has developed practical guidance to help governments and other stakeholders to assess and manage the implications of involving private actors in the development and management of water and sanitation infrastructure. The resulting *OECD Principles for Private Sector Participation in Water Infrastructure: Checklist for Public Actions* build on the *OECD Principles for Private Sector Participation in Infrastructure*. They provide a coherent catalogue of policy directions for consideration by governments. The Checklist addresses the double challenge of enhancing the enabling regulatory environment for water infrastructure investment, and making public-private co-operation work.

Proceeding from the above-mentioned Principles and the Checklist, the current overview aims to reveal the major trends, bottlenecks and opportunities for private sector participation in operating and developing water supply and sanitation systems in EECCA. The focus is on countries with a practical experience of private sector participation.

The overview was prepared as part of the work programme of the OECD/EAP Task Force (the Task Force for the Implementation of the Environmental Action Programme) by experts from the Institute for Urban Economics, Moscow. It served as a background document for, and was discussed at, a regional meeting on public sector participation issues, held in Moscow in January 2010. Subsequently, the document was improved based on feedback received during the meeting and comments provided by officials and (or) experts from several countries, including Armenia, Georgia, Kazakhstan, Russia and Ukraine. This document is also a contribution to the implementation of the OECD's Horizontal Programme on Water.

Funding was provided by the European Commission/Aidco and Germany.

The opinions expressed in the overview are those of the authors and not necessarily those of EECCA governments or the OECD. The authors bear full responsibility for possible inaccuracies.

## TABLE OF CONTENTS

EXECUTIVE SUMMARY .....	6
INTRODUCTION .....	11
COUNTRIES WITH SUPPORTIVE INSTITUTIONS, VAST AND POSITIVE PRACTICAL EXPERIENCE.....	14
Armenia.....	14
Russian Federation.....	20
COUNTRIES WITH SUPPORTIVE INSTITUTIONS BUT UNEVEN OR VERY RECENT AND LIMITED PRACTICAL EXPERIENCE .....	28
Georgia.....	28
Kazakhstan.....	33
Ukraine.....	38
COUNTRIES WITH CERTAIN PRE-REQUISITES FOR PRIVATE SECTOR PARTICIPATION.....	43
Kyrgyz Republic .....	43
Moldova .....	45
Tajikistan.....	47
Uzbekistan.....	49
COUNTRIES WITH POOR CONDITIONS FOR PRIVATE SECTOR PARTICIPATION.....	51
Azerbaijan .....	51
Belarus.....	52
Turkmenistan.....	53
CONCLUSIONS AND RECOMMENDATIONS .....	55
REFERENCES .....	61
ANNEX 1. OECD PRINCIPLES FOR PRIVATE SECTOR PARTICIPATION IN WATER INFRASTRUCTURE.....	68
ANNEX 2. PPP PROJECTS IN THE WSS SECTOR IN THE EECCA COUNTRIES.....	71

## LIST OF FIGURES AND TABLES

Figure 1. Rate of compliance of the national institutional and regulatory frameworks in selected EECCA countries with the OECD Principles for Private Sector Participation in Water infrastructure.....	7
Table 1. Armenian Water and Sewerage company's performance in 2004-2008.....	19
Table 2. Comparison of performance of Russian water supply enterprises of various ownership forms .....	25
Table 3. Duration of lease agreements with RCS affiliated companies.....	26
Table 4. Assessment of the institutional and regulatory framework compliance with the OECD Principles for Private Sector Participation in Water Infrastructure, in Selected EECCA Countries.....	58
Table 5. Attributes of the WSS Sector in the EECCA countries .....	71
Table 6. PPP projects in the WSS sector in the EECCA countries.....	73

**LIST OF ABBREVIATIONS**

ADB	Asian Development Bank
CIS	Commonwealth of Independent States
CJSC	Closed joint stock company
EAP Task Force	Task Force for the implementation of the Environmental Action Programme for Central and Eastern Europe
EBRD	European Bank for Reconstruction and Development
EECCA	Eastern Europe, Caucasus and Central Asia
EUR	Euro (the currency of the European Monetary Union)
FS	Financing strategy
GC	Group of companies
HUS	Housing and utility services
IBRD	International Bank for Reconstruction and Development
IDA	International Development Association
IES	Integrated energy systems
IFI	International financial institution
JSC	Joint stock company
JV	Joint venture
KfW	Kreditanstalt für Wiederaufbau (German government-owned development bank)
LCC	Life Cycle Contracts
LLC	Limited liability company
LLP	Limited liability partnership
MC	Management company
MDGs	Millennium Development Goals
NIS	Newly Independent States
OECD	Organization for Economic Cooperation and Development
OJSC	Opened joint stock company
O&M	Operation and Maintenance
PEO	Public enterprise (for operational management of public property)
PPP	Public-private partnership
PSP	Private Sector Participation
PUC	Public utility company
RAB	Regulatory asset base
RCS	Russian communal systems
RK ARNM	Agency of the Republic of Kazakhstan on Regulation of Natural Monopolies
RPUC	Regional public utility company
SCWS	State Committee of Water System (Armenia)
SECO	State Secretariat for Economic Affairs of Switzerland
SEK	Swedish kroner
STF	Sewage treatment facilities
SUE	State unitary enterprise (for economic management of public property)
UAH	Ukrainian hryvna (national currency)
UNDP	United Nations Development Program
USAID	United States Agency for International Development
USD	United States dollar
USSR	Union of the Soviet Socialist Republics
WB	World Bank
WSS	Water supply and sanitation
WWTP	Wastewater treatment plant

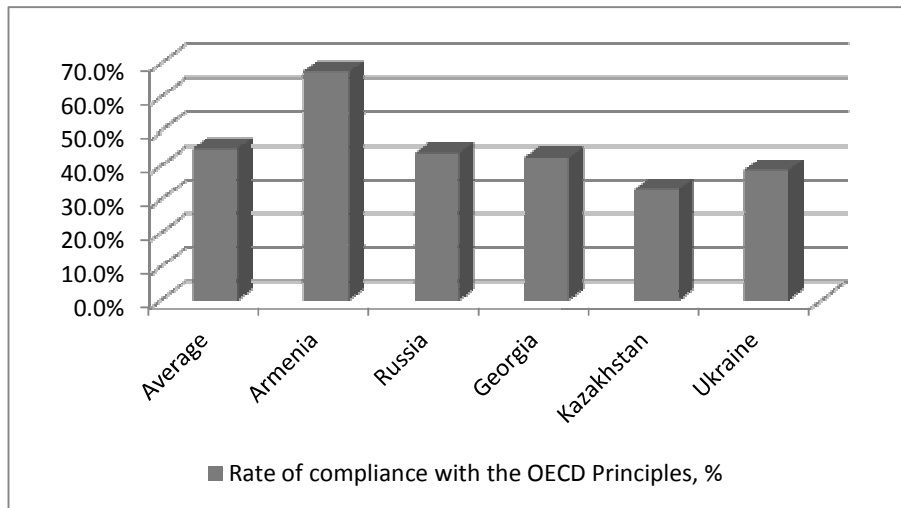
## EXECUTIVE SUMMARY

1. The present overview analyzes current trends, and assesses risks and opportunities associated with private sector participation in water supply and sanitation (WSS) in EECCA countries. The results and policy recommendations can help EECCA governments to enhance the quality of the institutional and investment climate for private sector participation in the water sector, should this be considered as a policy option.
2. In 2000, Ministers of Finance, Economy and Environment from EECCA countries met in Almaty to discuss the critical situation in the WSS sector. They adopted the *Guiding Principles for Reform of the Urban Water Supply and Sanitation Sector in the NIS* to guide the reform efforts that were urgently needed. The *Guiding Principles* did not advocate either publicly- or privately-operated utilities, but rather stressed the importance of establishing an effective, efficient and transparent institutional framework. Since the Almaty Conference, the WSS infrastructure in most EECCA countries has deteriorated considerably. At the same time, enhanced public administration, improved regulatory frameworks, and improved revenue collection have created conditions that could allow a more effective management of the water sector.
3. A rapidly growing involvement of the private sector is among the most visible trends in reforming the WSS sector in EECCA. This overview shows that throughout the region, the population serviced by private operators more than doubled during 2004–2008: from 24 million up to 50 million people. As of 2008, private operators delivered water supply and sanitation services to 20.5% of residents of these countries.
4. This trend is contrasted among EECCA countries. The share of the water supply market serviced by private operators is highest in Armenia. In 2008, the private sector provided water services to 53% of the total population, a 50% growth compared to the 2004 level. In 2008, private operators in Kazakhstan provided services to almost 41% of population; in Russia and Georgia – to more than 25% of population; and in Ukraine and Kyrgyzstan to not more than 5% of the population. The fastest rate of growth of private operators' share of the WSS market was registered in Russia: from 12% in 2004 to 27% in 2008.
5. To qualify this trend, thirty contracts with private sector operators in the water and sanitation sector have been reviewed. Desk research was complemented by a series of interviews with government officials, experts, and operators active in the region. The analysis focuses on the nature of the contracts, the process of contract awarding, and the institutional context which facilitates or hinders private sector participation in water supply and sanitation in EECCA, using the *OECD Principles for Private Sector Participation in Water Infrastructure: Checklist for Public Action* as a reference document.
6. In spite of promotion of, and high *a priori* expectations regarding water concessions, in practice more simple forms of public-private partnerships (PPPs) prevail in EECCA: two-thirds of contracts with private operators analyzed in this present paper are lease agreements (66% of the total number of contracts); nearly one seventh of contracts are management contracts; while only three contracts are effectively concession agreements; two contracts are based on privatization (full divestiture) of water supply facilities and networks; and one contract is effectively a trust management agreement. Only lease agreements were signed with private operators in Russia and Kyrgyzstan, only management contracts in Uzbekistan, whereas Kazakhstan, Armenia, Georgia and Ukraine used various types of contracts. Kazakhstan was the only country that used trust management agreements.
7. Concerns have been raised about transparency involved in awarding contracts to private operators, and the level of competition for contracts. A review of 30 contracts paints a controversial picture: about 60% were signed directly with private operators without any competition procedures. In contrast, Armenia, Georgia and Uzbekistan relied exclusively on competitive selection of private operators. In Armenia, Georgia and Uzbekistan contracts were signed only with international private water supply operators; in

Russia and Kyrgyzstan – only with domestic private operators, whereas in Kazakhstan and Ukraine both of these options were used. Specific expertise and substantial resources are required to prepare a successful tendering process. Experience in Armenia shows that international donors and consultants can effectively help to devise open public tenders.

8. None of EECCA countries has so far created the institutional environment and regulatory framework fully meeting the OECD Principles for Private Sector Participation in Water Infrastructure. On average, in the countries covered, the institutional environment and regulatory frameworks are less than 50% in compliance with the Principles. Armenia has the highest level of conformity: close to 68%.

**Figure 1. Rate of compliance of the national institutional and regulatory frameworks in selected EECCA countries with the OECD Principles for Private Sector Participation in Water infrastructure**



Source: authors' assessment

9. While data on the performance of private operators in Russia do not show a superior performance by private operators *vis-à-vis* municipal water utilities, private operators have in many cases been “agents of positive change” in the sector. Across EECCA, where an adequate enabling environment has been created, involvement of private operators has helped to substantially improve the performance of water utilities; for example: in Kyrgyzstan, a small domestic private operator in Kant city managed to transform the local water utility (vodokanal) from a chronic loss-maker into a profitable entity; and in Armenia, the international private operator (SAUR) substantially improved the performance of the Armenian Water and Sewerage company (see table 1). Similar results were achieved by the PPP in Yerevan.

10. This evidence suggests that attracting private business into the WSS sector can be an important way to enhance efficiency, and to improve the quality and reliability of WSS services.

11. EECCA countries may be divided into four groups in terms of their experience with PSP in WSS:

- **Countries with supportive institutions and vast positive practical experience (Armenia and Russia).** Private sector participation in the WSS sector has become large-scale, and a well-established practice. Various approaches have been tried and the experience is considered positive.

- **Countries with supportive institutions but uneven or very recent and limited practical experience (Georgia<sup>1</sup>, Kazakhstan and Ukraine).** Important efforts have been made to create conditions for attracting private business to the WSS sector. However experience with PSP is mixed: it is highly controversial (Kazakhstan) and shows limited success in individual cases (Georgia, Ukraine). PSP is at an early and uncertain stage.
- **Countries with certain pre-requisites for private sector participation (Kyrgyzstan, Moldova, Tajikistan and Uzbekistan).** In these countries, some prerequisites for attracting private operators in the WSS sector have been met, but there is no, or very little, practical experience of privately managed water utilities yet. Progress is mainly linked to decentralization of WSS organizations' management and the transfer of management functions to regional and municipal levels.
- **Countries with poor conditions for private sector participation (Azerbaijan, Belarus and Turkmenistan).** The national government is fully responsible for managing and/or regulating the sector. In such a context, there is little chance of PSP without radical institutional changes in the sector.

12. Specific problems and challenges faced by EECCA countries are outlined below, with suggestions on how to address them:

- Nearly every country where PPP projects have been launched, with the exception of Armenia, had unreasonably high expectations regarding PSP. This led to disappointments and failed projects. EECCA governments continue to view private participation in the WSS sector as a source of capital for infrastructure investment, often setting unrealistic tasks regarding investments. To improve the situation, public authorities should, primarily, define realistic targets and tasks to be performed by the private sector. For instance, in most cases, it is advisable to separate investment risks (associated with extensions of existing WSS system and construction of new systems) from operational risks (associated with efficiency of utilities).
- Political risks for PSP remain significant. In fact, this is common not only in countries with strong centralized governance systems in WSS. For instance, in Russia some PPP contracts were canceled after municipal elections. Clearly defined contractual relations between public authorities and the private sector, with contracts granted in a transparent way, can help mitigate this risk. The Guidelines on performance-based contracts developed by the European Bank for Reconstruction and Development (EBRD, 2009) and the OECD (2010) might be useful in this regard.
- Some countries lack a clear vision of the role of PSP: is it a step towards full privatization of the WSS sector (that is, divestiture of communal infrastructure and utility systems)? A clear answer by public authorities is especially crucial in Georgia, Kazakhstan, and Russia, where full privatization of water supply and sanitation networks is already taking place. Considering international practice, it looks reasonable to impose legal restraints on privatization (full divestiture) of physical assets in the WSS sector in EECCA countries. Experience in the region suggests that, in the context of poorly balanced legislation, unadjusted procedures of utility tariff regulation, and inefficient judicial system, full privatization can lead to unjustified high political risks.
- The public mostly continues to view private companies as a driver for increased user charges, with only stagnant quality and sustainability of service provision. This perception calls for exchange of information and dialogue between key stakeholders to explore opportunities of PSP on case by case basis. Similarly, encouraging private operators to ensure the transparency of their activities can help. This can be done via a clause in the contract, or at a more general level, by a law on business information disclosure standards for enterprises operating in natural monopoly industries.

---

<sup>1</sup> In 2009-2010 Georgia has been progressing very fast towards full divestiture (privatization of fixed assets) of WSS infrastructure. However, the outcomes of the process in terms of improving performance of the sector while maintaining WSS bill affordable for the population has yet to be seen.

- The laws regulating concession contracts in the countries of EECCA proved to be ineffective. In most cases, this is because they are incomplete and because the economic environment is inadequate.
- In addition, some issues regarding the property of fixed assets are not settled. Ownership rights must be registered.
- Reliable information about the status of fixed assets is needed to develop balanced and tailored PPP contracts. This implies that utility systems must have design and technical documentation, and engineering certificates. This information is usually missing in EECCA countries.
- Private operators cannot operate without a sound tariff policy that makes tariffs and revenues from user charges predictable in the medium to long term. The contractual obligations and the preferred model of PPP directly depend on tariff setting mechanisms and on what costs are covered by tariffs. Where revenues from user charges are not sufficient to fully cover operation and maintenance costs borne by water utilities, it is unreasonable to discuss lease contracts, let alone concessions. Before moving to more advanced forms of PPPs, it is advisable to start with operation (management, service) contracts which mitigate the financial risks borne by a private operator. That route was followed by Armenia.
- Tariff policy can be used to drive the performance of the operator. Well designed tariff structures can stimulate costs reductions and resources savings, while encouraging full cost-recovery. Long-term utility tariffs are needed. In Armenia, they have been set on a competitive basis, as an outcome of tenders. Experience shows that tariff setting procedures work best if the authority in charge is part of the PPP contract (as it is involved in assigning tasks and responsibilities). In this perspective, the intention of Ukraine to establish a national regulatory body should be carefully assessed.
- Too small and fragmented settlements and services (a situation encountered for rural areas, small and medium-size urban settlements) are not attractive for private sector operators. Some countries (e.g. Ukraine) have gained experience in addressing this institutional issue. Possible options include (i) pooling several bids; the preferred bidder would conclude contracts with each municipality participating in the pool; or (ii) the establishment of one utility company which covers several municipalities; the utility may operate on the basis of a PPP model, and may be leased by a private operator; only one PPP contract will be concluded as only one utility company is established.

13. Enabling true long-term partnerships between public authorities and private companies within the framework of PPP contracts is a comprehensive, complex issue. The responsibility for tackling the issue lies in the domain of municipal or regional authorities. Public authorities are to provide substantial methodological assistance to local governments who play the role of a contracting authority. This would help boost a successful development of PPP. The creation of Centers for PPPs may become an important and helpful instrument to this end. Russia, Kazakhstan and other countries have already gained experience in establishing such centers. One of the tasks of PPP Centers is raising public awareness. Primary objectives to be achieved through the implementation of PPP contracts, management performance indicators and monitoring of those indicators must become accessible to the public.

14. Based on the review, future work on PSP in WSS in EECCA could focus on addressing key existing gaps, including the following:

- Assistance to interested EECCA countries in developing WSS Sector Policy documents and/or Road Maps to PSP in WSS, based on the *OECD Principles for Private Sector Participation in Water Infrastructure* and good practices from EECCA, OECD and world-wide.
- Assistance to interested EECCA countries in improving their economic and environmental regulation of the WSS sector, as well as the sector performance monitoring system;

- Identification of good practices and development of recommendations on viable PPP models involving several small and medium-size settlements in urban and/or rural areas, as well as assistance to interested EECCA countries in pilot testing/implementing appropriate arrangements;
- Development of WSS sector governance and management capacity in EECCA: activities towards closing the aforementioned capacity gaps could be implemented jointly with international organisations, such as UNDP and UNECE, multi-lateral and national development banks, such as the World Bank, EBRD and Russian Development Bank (*Vnesheconombank*), other interested donors, national and international water organizations. Establishment of an EECCA Water Academy would create an important mechanism for capacity development and a tool for improving knowledge base for decision-making. Support to the establishment of PPP centers could also be considered.

## INTRODUCTION

### *Purpose of the Overview*

15. The paper analyses the development of private sector participation in selected EECCA countries. In particular, it examines whether both the existing practice of PPP and the institutional environment comply with the *Almaty Guiding Principles for Reform of the Urban Water Supply and Sanitation Sector in the NIS* and the *OECD Principles for Private Sector Participation in Water Infrastructure*. It identifies challenges that need to be tackled in order to achieve successful involvement of private business in the water sector on a larger scale. It should be clear that the paper does not advocate for private sector participation in the water sector in EECCA countries. However, as a number of governments are considering this route, the paper reviews experience in this area and highlights policy options to make the best use of private sector participation.

### *Evolution of the WSS sector in EECCA*

16. The water supply and sanitation networks are fairly extensive in countries of Eastern Europe, Caucasus and Central Asia (EECCA). The availability of massive public funding during the Soviet period ensured the development and maintenance of utilities infrastructure in human settlements at a reasonably high level, which is comparable to that achieved by developed countries in terms of a share of population with access to centralized (piped) water supply and sanitation services. The infrastructure built in the past was relatively reliable, albeit capital intensive, which can be explained by the fact that at the time when facilities were designed and built the benchmark water consumption (consumption norms), as well as the spare capacity in the event that water consumption grows in the long-term, were set at an excessively high level (frugal water consumption was not anyhow encouraged at that time). Budgetary financing of capital expenditures helped to keep household utility bills down.

17. The breakdown of the Soviet Union triggered numerous changes in EECCA countries. In the 1990s, almost in every country water supply and sanitation sector performed the function of an institution used by the state to provide social assistance to the population. In most countries utility payments were not sufficient even to cover operational costs borne by water supply and sanitation organisations. Operating costs were largely financed at the expense of increased utility tariffs for industrial consumers (in the form of cross subsidies). The economic distress led to huge financial gaps when allocated budgetary funds have been scarce to adequately maintain, let alone develop, water supply and sanitation networks. This caused sharply deteriorated performance of water supply and sanitation services and increased breakdown rate of occasionally maintained and renovated facilities. In many places the access to water supply services was unsustainable, while wastewater treatment facilities stopped to operate.

18. Similarly, most developing countries also faced serious problems with water supply and sanitation. To address the challenge, the international community adopted the Millennium Development Goals (MDGs) setting the sustainable access of population to safe drinking water and basic sanitation as a priority task for humanity. Inter alia, the goals aim to ***halve, by 2015, the proportion of population without sustainable access to safe drinking water and basic sanitation***. In recent years the countries of EECCA have been exerting considerable efforts to that end. Though radical improvements have not been achieved so far, almost every country succeeded in stopping the decline of the 1990s. However, a substantial renovation of water supply and sanitation networks, introduction of advanced technologies, and environment protection measures have acquired primary importance today. Huge financial resources are needed to meet the challenge at a time when low tariffs and low collection rates persist.

***Methodology***

19. The project was initially based on desk research, with systematic use of data from open sources, including Internet (the sources of each country chapter are presented in References). However, the data from various sources were often missing or contradictory, so the authors had to fill in some missing data by expert judgments and/or make an expert evaluation of the data authenticity. The desk study has also been complemented by a number of interviews with EECCA government officials, experts and private operators working in the region.

20. The quantitative evaluation of the level of conformity of the institutional environment and regulatory framework of the EECCA countries to the OECD Principles relies on the estimates made by experts from these countries who responded to the questions based on the OECD Checklist for Public Actions. The Checklist contains 24 principles (see Annex 1), and the following procedure was applied to quantify the level of conformity of actual conditions for attracting private businesses with the principles formulated in the Checklist: for each of the 24 principles a score evaluation was made, as follows: a full score (1.0) was assigned in the event that the existing practice fully conforms to a particular principle; a 0.6 score – if the practice generally conforms; a 0.3 score – if the practice conforms only partially; and a 0 score – if the practice does not conform to a particular principle at all. Then the scores for all 24 principles were summed up and divided by the number of principles for which information was available for the given country (i.e. the maximum possible number of scores is 24).

21. The paper reviews 30 contracts concluded by private operators with owners of water supply and sanitation facilities and networks. Out of this number, 16 contracts were signed by private operators that worked or continue to work in Russia; 4 contracts – by private operators in Ukraine, 3 contracts – by private operators in Armenia; 2 contracts – in each of the three countries (Georgia, Kazakhstan and Uzbekistan); and 1 contract was signed by a small private operator working in Kyrgyzstan.

***Report structure***

22. The report describes the situation (as of mid-2009) and major PSP projects in the water supply and sanitation sectors of EECCA countries. These countries are divided into 4 groups according to the level of private businesses' engagement in the WSS sector. The situation with PSP in WSS in each group of countries is presented in respective chapter. Country profiles summarize information on the WSS sector, goals and dimensions of reforms in this sector, as well as the analysis of practices of private businesses' engagement. Information about the general situation and PSP projects in the WSS sector in all EECCA countries is summarized in Tables 5 and 6 in Annex 2, respectively.

- Chapter 1 presents a thorough analysis of the situation in the countries that have significant positive experience of engaging private businesses in tackling the problems faced by the WSS sector (Armenia and the Russian Federation);
- Chapter 2 focuses on countries with an uneven (Kazakhstan) or very recent and limited experience with PSP in WSS (Georgia and Ukraine);
- Chapters 3 and 4 contain a brief overview of the situation in Kyrgyzstan, Moldova, Tajikistan, Uzbekistan, Azerbaijan, Belarus and Turkmenistan – the countries where public-private partnerships in the WSS sector have not developed so far.
- Chapter 5 presents main conclusions and sums up key recommendations for improving the framework for the engagement of private businesses in the WSS sector in EECCA.

***Authors and contributors***

23. The overview has been prepared for the OECD / EAP Task Force by experts of the Institute for Urban Economics (IUE) under the direction of Sivaev S.B., Director of Municipal Economy branch of IUE, with financial support from the EC/Aidco and Germany.

24. Valuable input to the overview was provided by USAID, EBRD, and UNDP through their reports and other sources. The draft report was commented by government officials, experts and private operators working in the region, including Gagik Khachatryan (SCWS, Armenia), Zapatrina I.V. (Ministry of Housing and Utility Services, Ukraine), Kakauridze G. (Ministry of Economic Development, Georgia), Nikolskiy M.E. (Rosvodokanal, OJSC), Puzanov D.V. (Evraziyskiy, OJSC), Syundyukov V. (Association of Water Supply and Sanitation Companies of the Republic of Kazakhstan), Shekhovtsov A.T. (Kyrgyzstan). The authors of the report are grateful to all of them.

25. Comments on respective country chapters were also provided by Isabelle Steimer (KfW) and Zh. Samat (Center for Managing and Coordinating Projects of Akimat of Mangistauskaya Oblast). At the OECD, the draft report was reviewed by Alexander Martusevich, Céline Kauffmann, Peter Borkey and Xavier Leflaive. All these contributions are gratefully acknowledged.

## **COUNTRIES WITH SUPPORTIVE INSTITUTIONS, VAST AND POSITIVE PRACTICAL EXPERIENCE**

### **Armenia**

#### **Brief characterization of PSP in WSS in Armenia:**

- 100% of urban population is served by private operators (POs);
- All contracts were granted through competitive tenders;
- Capital investments financed mostly from sovereign borrowings from IFIs and international grants, but investment programmes are implemented by POs;
- Substantially improved performance of the WSS sector, though non-revenue water (NRW) has grown;
- Step-by-step approach to involving POs (from more simple arrangements like management contracts to arrangements that levy more risks on them, e.g. lease agreements) with focus on international private operators;
- Comprehensive WSS sector reforms have created favorable environment for PSP.

#### ***Short Description of the WSS sector in Armenia***

26. Ground water is a major water source in Armenia. Nearly 96% of drinking water is taken from subsurface sources. At source, most water is of high quality and does not need intensive treatment. Yet disinfection is needed to prevent the contamination of water inside water distribution systems. Uneven distribution of potable water resources causes water shortages in some regions of Armenia.

27. In Armenia, 60% of water supply networks and sewage collectors were built more than 35 years ago. In the late 1990s – early 2000s, water was supplied only 4-6 hours per day, and not every day in some areas.

28. Now almost 80% of all end-users (clients) have individual water meters installed. In apartment buildings, for example, individual (apartment) water meters prevail while meters at inlets to the apartment buildings are often not available. After the installation of metering devices, per capita water consumption amounted to 80-100 liters per day, and in rural areas this indicator is even lower. Water consumption norm was previously set at 250 liters per day.

29. All cities and towns, and up to 20% of rural settlements are connected to sanitation networks. There are twenty wastewater treatment plants (WWTPs), which have been constructed in Soviet times. They are mostly crumbling and shut down. It is necessary to construct 10 additional wastewater treatment plants.

30. Five water operators deliver water supply and sanitation services to some 80% of population in Armenia. Yerevan Water, CJSC, is a private company owned by Veolia Water. The ownership of Armenian Water and Sewerage, CJSC, is held by the state. The state is a major shareholder (51%) of Shirak Water Sewerage, CJSC, Lori Water Sewerage, CJSC, and Nor Akunq, CJSC. The remaining 49% of shares are held by municipalities. All these water supply and sanitation companies operate both in municipalities and regions, for the exception of Yerevan Water, CJSC, which operates at the municipal level and provides services for the capital and suburbs.

31. The water supply networks in 580 rural settlements where about 18% of population lives, are owned and maintained by local self-governments. Many of those networks are inadequate due to under-financing and poor maintenance.

32. Average water tariff set in the Republic of Armenia in 2009 is €0.35 per m<sup>3</sup>. Water supply and sanitation payments do not exceed 3-4% of the income of poor households.

### ***Key Objectives and Main Directions of Reforms in WSS***

33. After Armenia gained political independence, its WSS sector has been controlled by a number of state ministries and governmental agencies. However, instead of improving, the situation continued to show the signs of worsening. The reforms also allowed for private companies to be involved in improving water supply and sanitation networks in the republic.

34. Since 2000 the Government of Armenia (GoA) has been reforming water supply and sanitation sector, taking into consideration the poor state of water supply networks and urged by the necessity to introduce market economy in the country. Early in 2000 the State Committee of Water System (SCWS) was established to manage the infrastructure in the WSS sector.

35. Subsequent institutional reforms included the reallocation of responsibilities and distribution of functions of regulation, including setting tariffs and service standards, and water resources control between different agencies<sup>2</sup>. This stimulated the establishment of new agencies: National Water Council, Water Agency within the Ministry for Environment Protection, the Public Services Regulatory Commission and the Dispute Resolution Commission.

36. Some water supply companies with heavy debts were dissolved and replaced by new companies established with a clean ‘opening balance sheets’ and clear of debt.

37. In accordance with law, the state authorities and authorities of a community bear the responsibility for water supply and sanitation. In practice, communities delegated these powers back to the national government. It follows that the communities cooperate locally with water operators and relevant public authorities to address the issues of water supply and sanitation.

### *Tariff Regulation*

38. The Public Services Regulatory Commission, an independent agency subordinated only to the parliament and the president of the republic, conducts national tariff policy. The Commission is entitled to support the balance of interests between water supply companies and water users.

39. According to the Poverty Reduction Strategy, up to now utility rates are not sufficient to cover operation and maintenance utility costs, and do not include a “profit margin” for an operator. Depreciation has been understated because of low book value of fixed assets commissioned before 1992<sup>3</sup>. The Government allocated budgetary funds and borrowings to cover the capital costs associated with renovation and extension of water supply and sanitation networks. Alternately, the tariff rates set in the city of Yerevan consider debt service expenses, including loan principle and interest. In this way, water tariff rates in Yerevan City in part cover capital costs.

40. Under the Government’s plan all budget-financed WSS subsidies are consistently reduced. The subsidies will be completely phased-out after 2010. In terms of social policy, subsidizing of WSS companies is ineffective because these subsidies are indirectly enjoyed, without any distinction, by both vulnerable groups and groups who have sufficient income to afford WSS services.

<sup>2</sup> Gagik Khachatryan (2009). Overview of the private sector participation in the water supply and sanitation sector in Armenia. Draft.

<sup>3</sup> Ibid.

41. Though water utility tariff rates vary for WSS operators, still the same utility tariff is set for all users in servicing area of every WSS company. The transition to full O&M costs-covering water tariffs is one of the government's primary objectives.
42. The government occasionally reconsiders and approves utility tariffs. In Armenia utility tariffs are set either upon an application submitted by a water operator according to an established procedure, or following the results of a tender for public-private partnership.
43. Under management contracts utility rates take into account production costs (depreciation excluding) and debt service expenses. Under lease contracts utility rates take into account production costs (depreciation excluding), debt service expenses, management expenses, technical and financial audit, and rate of profitability (profit margin).
44. Under the law the representatives of NGOs/non-profit organizations and mass media may participate in relevant discussions organized prior to establishing new utility tariffs.
45. Water tariffs have been occasionally revised over the past years. The major increase of the tariffs has been stimulated by installation of water meters. Notwithstanding rising tariff rates the user charges have not grew sharply. This may be accounted for by the fact that the increase of tariff rates has been accompanied by simultaneous reduction of *registered* water use.<sup>4</sup>
46. When sharp increase of utility tariffs is expected towards full coverage of O&M costs, the utility tariffs should be raised gradually, prior to implementing a PPP project. This would help to avoid any negative attitude towards private operators and public-private partnership on the part of population. For example, 39% surge of water tariffs in the city of Yerevan, and 29% increase of utility water tariffs by Armenian Water and Sewerage Company, preceded the launch of PPP projects.
47. The affordability of water tariffs is assessed in Armenia. A number of socioeconomic analyses and surveys on water services affordability have been conducted to assess the demand for and the affordability of improved water supply services from the viewpoint of domestic water users (e.g. under the OECD projects "*Consumer Protection in Urban Water Sector Reforms in Armenia: Ability to Pay and Social Protection of Low Income Households*", and "*Implementation of a National Financing Strategy for the Water Supply and Sanitation Sector in Armenia*"<sup>5</sup>, and others). The surveys also assessed the demand of vulnerable groups of population for targeted social assistance because of growing payments for WSS services.
48. Armenia makes efforts to improve water use metering. To that end, a water use metering strategy was designed and implemented. This helped to reduce water consumption, water leaks, production costs, and increase collection rate. Yet the problem of how to meter water use in multifamily houses /apartment blocks persists. While metering domestic (indoors) water use has been in the center of attention, unaccounted-for water related to the water supplies to apartment blocks has grown and brought significant losses to water supply companies.

---

<sup>4</sup> The term "registered" is of major importance, as due to poor quality of water-meters installed in many cities in EECCA, that - in the absence of their regular verification, repair and replacement - work with great measurement errors and often register no more than 60-70% of water passed through them, there is a great difference between "**registered**" (metered) and **actual** consumption, if it is metered accurately (see OECD/EAP Task Force (2007), volume 2). If to compare the situation in WSS with trading on the market, then previously when "norms of water consumption" were in use, vodokanals were often like sellers who used inaccurate "scales" that considerably overstate the "weight", i.e. the volume of water supplied to consumers (as inflated norms commonly exceeded the actual consumption), while now they are like sellers equipped with new "scales", which are inaccurate just as well, but now highly understate the "weight" for the detriment of the seller (vodokanal). However, it is evident that neither sound planning, especially of capital investments, nor sound tariff policy is feasible when the "scales" considerably and systematically either overstate the actual "weight" for an unknown value, or understate it.

<sup>5</sup> OECD/EAP Task Force (2007). Implementation of the National Financial Strategy for the Water Supply and Sanitation Sector in Armenia. Paris.

49. Low quality of water meters installed and inadequate maintenance of customer databases by water operators also create problems<sup>6</sup>:

- In many multifamily houses/ apartment buildings water meters have not been examined at scheduled maintenance intervals (gradually, the accuracy of metering devices degrades if they are not regularly examined);
- Some water meters do not operate or operate with a big negative measurement error;
- Examination reveals unauthorized manipulations with water meters.

#### *Investment Policy*

50. Being short of budgetary funds the government of Armenia turned to international financial institutions (IFI) to finance improved water supply and sanitation projects. To that end, the government of Armenia adopted laws and other legal acts regulating the participation of private companies and ensuring better investment climate for foreign investors.

51. WSS sector reforms in Armenia are conducted under the investment projects financed by the World Bank, KfW, EBRD, ADB, USAID, the Government of France and others. All PPP projects are implemented through international loans and grants (for more detail see Gagik Khachatryan (2009)).

#### *Status of PSP in WSS in Armenia*

52. Most private companies get involved in water supply and sanitation sector on the basis of management contracts or lease contracts. Privatization (full divestiture) of water supply and sanitation networks in Armenia is forbidden by law.

53. From August 2009 all comparatively large water supply and sanitation networks in Armenia are operated by international water companies<sup>7</sup>:

- Yerevan Water Company – under a lease contract with Veolia Water (France);
- Armenian Water and Sewerage Company – under a management contract with SAUR (France);
- Lori Water & Sewerage, Shirak Water & Sewerage, and Nor Akunq – under a management contract with a consortium of MVV decon, MVV Energie (Germany) and AEG Service (Armenia).

#### *Yerevan Water Supply and Sanitation Systems<sup>8</sup>*

54. Water supply and sanitation networks in the city of Yerevan and its suburbs are operated by Yerevan Water Company, a private company. The company delivers water services to up to 38% of the country's population, and is the largest water company in Armenia. Before reforms Yerevan water supply and sanitation networks were in the same unsatisfactory state as many others countrywide.

55. In 2000 as a result of a competitive bidding process a five-year management contract was signed with an Italian company A-Utility. Though the contract has been completed with certain difficulties, the experience gained in the course of its implementation was taken into account. The government of Armenia determined to involve private companies on a larger scale in order to extend and secure the improvements achieved under the first project.

<sup>6</sup> Ibid.

<sup>7</sup> Gagik Khachatryan (2009). Overview of the private sector participation in the water supply and sanitation sector in Armenia. Draft.

<sup>8</sup> OECD (2008c). Promoting the Use of Performance-Based Contracts between Water Utilities and Municipalities in EECCA. Case study no. 1: Yerevan Water Supply Company. Lease Contract.

56. A tender for lease of Yerevan water infrastructure was held. Initially seven water operators from Germany, France, Great Britain, and Italy expressed interest. Two of them, Veolia Water and SAUR bided. Finally, in June 2006 a lease contract was concluded between the State Committee of Water System, specially established company Yerevan Water Company, and Veolia Water.

57. Yerevan water supply and sanitation networks are leased under the conditions below:

- Operator is to establish a special-purpose private company to lease water supply and sanitation networks for 10 years;
- Leasing company is entitled to use leased property and is responsible for management, operation, and maintenance of all water supply and sanitation networks in servicing area which covers the city of Yerevan and 32 neighboring rural settlements;
- Leasing company incurs full financial liability for collection of user charges and bears all related expenses;
- Operator is entitled to implement donors-financed investment program.

58. Veolia Water intends to invest €9.1 million of its capital to finance the purchase of cars, computers, the examination of geographical data, etc. Over 10 years €17.6 million of collected user charges should go to finance the improvement, renovation and maintenance of WSS networks under the project. The company is expected to provide additional funds in the amount of €2.8 million in case it raises any 'excess revenue'.

59. The participation of private companies has markedly improved water supply and sanitation services in Yerevan. Up to 95% of water users have water meters installed. As a result, from 2004 water supply became more sustainable and *registered* per capita water consumption reduced, though unaccounted-for-water (non-revenue water) has grown, most likely due to growing commercial losses.

60. In the period from 2000 through 2009, the duration of Yerevan water supply had been increased 3–4-fold reaching the average of 18-19 hours per day, electricity consumption reduced by more than a half, while the tariff collection rates had been increased 4–5-fold (from 20% to 85-95%).<sup>9</sup>

*Armenian Water and Sewerage Company*<sup>10</sup>

61. Armenian Water and Sewerage Company is the second largest water operator in terms of population coverage in Armenia. The ownership of the company is held by the state. The water operator delivers water supply and sanitation services in 37 towns and 280 rural settlements, and makes water services accessible to 619 000 people.

62. The State Committee of Water System represents the interests of the owner of leased fixed assets in the board of directors of the company.

63. The company owns inter-regional water mains and water supply networks and main hydraulic engineering structures of the republic. Some water supply networks are owned by settlements but managed by the company.

64. In the end of 2003 a tender for management of Armenian Water and Sewerage Company was issued. The company SAUR won the tender and signed a four-year management contract with a two-year contract extension option. The management contract was extended for 2 years till 2010. A subsequent lease contract is being prepared.

---

<sup>9</sup> Gagik Khachatryan (2009). Overview of the private sector participation in the water supply and sanitation sector in Armenia. Draft.

<sup>10</sup> OECD (2008d). Promoting the Use of Performance-Based Contracts between Water Utilities and Municipalities in EECCA. Case study no. 2: Armenian Water and Wastewater Company. SAUR Management Contract.

65. Primary contractual obligations include:

- Improving water supply and sanitation services;
- Encouraging population to pay for water supply and sanitation services;
- Improving financial position of the company;
- Training company staff and developing capacity;
- Designing and implementing investment projects during the period of the contract, and assessing long-term investment needs of the company.

66. Among positive results achieved by the company SAUR are<sup>11</sup> (See Table 1):

- Increased duration of water supply (2-3-fold). The water services are now accessible up to 12 hours per day;
- Reduced electricity consumption (by 10%);
- Increased payments collection rate (by 28 percentage points);
- Increased number of consumers with individual water meters (up to 65% of all water consumers);
- Increased staff salaries (have been increased 4-5-fold, but continue to be unattractive).

**Table 1. Armenian Water and Sewerage company's performance in 2004-2008**

	2004	2005	2006	2007	2008	2008 / 2004
Duration of water supply, hours per day	6,04	7,39	9,62	10,98	12,10	200,3%
Share of water samples meeting the criteria set for bacteriological safety, %	93,8%	93,8%	93,9%	96,2%	96,6%	103,0%
Share of subscribers who are billed in accordance with the readings of water consumption metering devices, %	40,2%	53,6%	57,3%	62,5%	64,6%	160,7%
Share of apartment buildings equipped with individual or collective water consumption metering devices	38,6%	56,3%	61,6%	67,5%	70,6%	182,9%
Expenditures to revenues ratio, %	194,9%	176,4%	138,8%	133,8%	133,7%	68,6%
Tariff collection rate (excluding budget-supported organizations), %	47,9%	36,2%	62,6%	72,3%	75,9%	158,5%
Water utility staff per 1,000 subscribers, persons	9,45	8,34	7,15	6,87	6,85	72,5%
Electric power consumption per 1 m <sup>3</sup> , kWt*hour	0,43	0,38	0,31	0,30	0,29	67,4%

Source: Gagik Khachatryan (2009).

#### *Shirak Water Sewerage, Lori Water Sewerage, Nor Akunq Companies*

67. The state holds 51% of shares of Shirak Water Sewerage, Lori Water Sewerage, and Nor Akunq Companies. Forty-nine percent of the companies' shares are municipal property. The companies are

<sup>11</sup> Gagik Khachatryan (2009). Overview of the private sector participation in the water supply and sanitation sector in Armenia. Draft.

managed by a consortium of MVV decon, MVV Energie AG and AEG Service. The servicing area covers 5 towns and 61 rural settlements. The total number of consumers served is estimated at 375 000 people.

68. In terms of population coverage Shirak Water Sewerage Company is the third largest water operator in Armenia. The water operator supplies water to Gyumri, the second largest city of the republic. Nor Akunq Company is the smallest water supply company in Armenia. In the company's servicing area all supplied water is entirely pumped out of ground water sources. Water systems located in the servicing area are the company's property.

69. Private operator is already involved in operation of the 3 regional water supply companies, through management contract. Five international water operators (3 German companies and 2 French companies) competed for the management contract. In July 2009 a three-year management contract, with a one-year contract extension option, was concluded between the State Committee of Water System and a consortium of MVV decon, MVV Energie AG and AEG Service.

## Russian Federation

### Brief characterization of PSP in WSS in Russia:

- More than 20% of urban population served by domestic private operators;
- Most contracts were granted directly, without any competition; duration of some lease contracts (e.g. 49 years) is very long;
- Lease agreements with investment obligations prevail for institutional reasons;
- Performance of the WSS sector is improving, but there is no evidence that private operators perform systemically better than the market as a whole;
- Institutional and legal framework for organizations' activities is improving but not yet sufficiently developed for implementing concession agreements;
- Relatively high entry barriers remain for international operators.

### *Short Description of the WSS sector*

70. For the beginning of 2009, centralized water supply and sanitation services covered 79% and 73% of Russia's population respectively. Centralized water supply systems are in place in 100% of cities and towns, in 96% of urban settlements and 31% of rural settlements. The services of public sanitation are rendered in 100% of cities and towns, 82% of urban settlements and 6% of rural settlements.

71. Based on 2008 data, the average water consumption by population amounted to 196 litres per capita per day.

72. The Russia water supply and sanitation sector is characterized by aggravating condition of infrastructure facilities: according to the 2008 performance data, some 40% out of 532,000 km of water supply lines and 35% of 179,000 km of sewerage networks are in need of replacement. The number of breakdowns in water supply networks reaches 35-38 failures per 100 km of networks a year, while the similar index for sewerage networks grew over the last 5 years up to 25 failures/100 km of networks. The share of leaks and unregistered water consumption in 2004-2008 amounted to 18-20% of water production without any signs of decreasing.

73. The quality of rendered water supply and sanitation services is still not high: only 55-60% of supplied water undergoes water treatment and 85-90% of wastewater is treated, while less than half of wastewater is treated up to the standard condition.

74. Over the last 5 years the problem of cross-subsidisation of population through higher tariffs for commercial consumers remains. Irrespectively of the fact that tariffs for the WSS services were affordable

for most of population (the share of aggregate payments for both services reached 0.75% of per capita income in 2008), the level of cost recovery by tariffs for population was 93% for water supply services and 90% for water sanitation. The average tariff rate for population was € 0.25 for each service (water supply and sanitation) in 2008. More than half of consumers pay for water supply services based on consumption norms.

75. Keeping tariffs on the level that makes water supply and sanitation services affordable for consumers predetermined the acceptable level of tariff collection from residents (94%) and further reduction of the payment collection period (the turnover of receivables was on average 68 days).

76. The main volume of production and rendering of water supply and sanitation services in Russia falls on municipal and public enterprises. Enterprises of other forms of ownership account for 26.6% of the total volume of water supplied to population, more than two thirds of which are provided by private water companies. The fifth part of water supply and sanitation facilities and networks are either in lease or concession (19.4% in lease and just 0.6% in concession).

### ***Key Objectives and Main Directions of Reforms in WSS***

77. As a result of local self-government reforms in Russia, the arrangement of water supply and sanitation was assigned to the responsibility of local authorities.

78. The state policy in the Russia's utility sector was recently focused on formation of enabling business environment in this sector by development of privatization and public private partnerships. On the other hand, the federal authorities handled tariff regulation of the sector, which is one of the risks for attracting investment resources into the utility sector.

79. Federal laws "*On the Fundamentals of Tariff Regulation in the Utility Sector*" (210FZ) and "*On Concession Agreements*" (115FZ) had the objective of considerable improvement of investment climate in the utility sector, and in particular in the water supply and sanitation sector.

### *Tariff Policy*

80. The enactment of the federal law "*On the Fundamentals of Tariff Regulation in the Utility Sector*" (210-FZ) was the first stage in the creation of a new system of regulation promoting the inflow of private investments for development and modernization of infrastructure and reduction of production costs. However, marginal indices of maximum and minimum levels of tariffs for goods and services of the utility complex introduced on the federal level in 2005 to curb the growth of tariffs for utility services sharply worsen the investment climate in the utility sector.

81. Irrespectively of the fact that Russia has made a lot in development of the regulatory framework for tariff regulation, the still present legislatively formed three-level system of tariff regulation (the Federal Tariff Service – tariff regulation agencies of subjects of federation/RF constituent entities – local governments) dilutes the responsibility for making decisions on tariffs, which does not contribute to establishing well-balanced relations between private operators and municipal, regional or federal authorities.

82. "Norms of consumption for utility services" have a serious impact on tariff policy. They serve as the basis for planning revenues of water supply and sanitation companies, determining aggregated payments of population, volumes of rendered services, paid privileges and subsidies and also resolution of resource saving issues. Almost in all regions of Russia, excessive norms of water consumption including excessive water uses, some losses and leaks, are accepted. However, laws of the Russia Federation do not envisage the responsibility either for consumers or WSS companies for the installation of water meters.

### *Legislation on Public Private Partnerships*

83. Another federal law targeted at attracting private business and investments into the public sector was the federal law "*On Concession Agreements*" (115-FZ), which was adopted in July 2005 to build good relations between public entities and private business in the use of federal or municipal property. The practical application of the law required the adjustment and amendments of other legal acts, for example, the

Tax Code. In 2007-2009, the improvement of the said laws with the view to promote the conclusion of concession agreements in the water supply and sanitation sector was underway.

84. The application of the mechanism of investing into a facility by a concession grantor (*concedent*) brings the Russian model of a concession agreement closer to the globally accepted “Life Cycle Contracts” (LCC) scheme and also removes risks of uncoordinated investments into the infrastructure. It is also planned to fix the opportunity of conversion of earlier concluded long-term lease agreements into concession agreements.

85. However, so far the lease model has been the most popular model of public private partnership in the Russia’s water supply and sanitation sector. This may derive from the possibility of prompt and tender-free contract conclusion due to the lack of legislative procedures of the conclusion of lease agreements for federal and municipal property. The legal requirements to conduct tenders for conclusion of lease and other agreements envisaging the transfer of the title and/or the right to use federal or municipal property was set only in spring 2008. Thus, the lease model lost its major advantage and it is very likely that other forms of public private partnerships will be more widely used in Russia to attract private business for management of water supply and sanitation systems.

86. **Quasi-concessional contracts**, i.e. long-term lease agreements with investment commitments became the most widely spread form of private sector participation in Russia. In future, in line with developing legislation, concession contracts may also become widely spread.

87. At the same time the process of privatization of main assets of water supply and sanitation systems and their inclusion into the charter capital of joint stock companies is very active. This process in its scale and pace surpasses the development of public private partnerships. Thus, the share of private companies in total water supply to consumers according to state statistic monitoring as per Form “1-water pipeline” increased from 20.3% in 2000 up to 27.7% in 2008.

88. The question about the need to develop a separate law governing public private partnerships is periodically raised on the federal level. For today, special laws on public private partnerships were adopted in several subjects of the Russian Federation such as: Republics of Altai, Dagestan, Kalmykia, Tomsk Oblast and city of St.-Petersburg. In particular, the St.-Petersburg law “*On Participation of St.-Petersburg in Public Private Partnerships*” forms the legal basis for implementation of public private partnership projects in various legal forms without limiting them to concession agreements.

#### *State Investment Policy*

89. To promote the refurbishment of the utility infrastructure the government has recently taken several measures to create mechanisms for financing some projects in the utility sector. Inter alia, the RF Government approved the sub-program “Upgrade of Utility Infrastructure Facilities” of the 2002-2010 federal targeted program “*Zhlishche*” (Housing). The main objectives of this sub-program were the following: refurbishment of utility infrastructure facilities, enhancement of efficiency of utility infrastructure management, mobilization of funds from non-budget sources to finance utility infrastructure projects. For the implementation of the 2006-2010 sub-program it is planned to allocate from the federal budget RUR 28.14 billion (about € 800 million), including RUR 4.8 billion in 2006, RUR 6. billion in 2007, RUR 7.5 billion in 2008, RUR 6 billion in 2009 and RUR 3.74 billion in 2010.

90. The RF Investment Fund was established (initially, it amounted to RUR 69.741 billion or € 2 billion).<sup>12</sup> On competitive basis the funds are allocated for implementation of investment projects of federal and regional importance on the conditions of public private partnerships.

91. For today out of all large-scale private operators in the water supply and sanitation sector only the Evraziyskiy, OJSC, managed to get financing from the RF Investment Fund: for its projects in Rostov oblast.

<sup>12</sup> Article 120, Federal Law No. 189-FZ dated 26 December 2005 “On Federal Budget for 2006”.

92. Only very large projects (total project costs should be no less than RUR 5 billion and RUR 500 million for the whole period of implementation of federal and regional project, respectively) may apply for financing from the Investment Fund. The procedure for project preparation for review by the Investment Fund is very costly and time consuming.

93. Having restructured *Vnesheconombank* into the state corporation - “Development and Foreign Economic Activity Bank”, the government created opportunities for giving long-term loans for the implementation of infrastructure projects. In the water supply and sanitation sector for today only Water of Rostov, OJSC, reorganized by the merger with Rostov Water Supply Company, OJSC, signed a loan agreement with the bank to finance the complex program of construction and refurbishment of water supply and sanitation facilities in the city of Rostov-on-the Don and in the south-west of Rostov Oblast in the amount of RUR 4,500 million for 14 years.

94. Currently Russia is implementing a considerable number of water supply and sanitation projects financed by the EBRD. Most of companies-lenders are state or municipal unitary enterprises. At the same the EBRD typically includes into mandatory requirements of project implementation the need to sign a service contract between the city (region) and the unitary enterprise operating the WSS system. This measure helps to make relations between the agreement parties more stable.

### ***Status of PSP in WSS***

95. Active penetration of private business into the Russia’s utility sector dates back to 2003 when the government took unprecedented steps in opening the utility sector for private business. It had serious political causes. But the most important thing is that large business saw a new potential market with enormous financial flows but with limited possibilities of competition-based squeeze. Therefore, quick and decisive actions were taken to penetrate this market.<sup>13</sup>

96. This period lasted until mid 2004. Over this period a large number of companies positioning themselves as national operators on the market of utility services appeared (Russian Communal Systems (RCS), OJSC, Integrated Energy Systems (IES), CJSC, Novogor, LLC, Regional Utility Investments, OJSC, Rosvodokanal, LLC). Under active expansion in regions such companies concluded a lot of short-term lease agreements for utility systems (up to 1 year, without investment commitments) that helped to identify some objective and subjective obstacles in private business penetration into the utility sector (see OECD, 2004).

97. Companies concluded short-term lease agreements as it was the only way to form contractual relations in the format of public private partnerships<sup>14</sup>. Long-term lease agreements are subject to mandatory registration. In addition, leased immovable property (fixed assets) should be registered and evaluated.

98. But most municipal authorities in Russia had no documents confirming the title to (their ownership rights) the utility infrastructure facilities that were operated by municipal unitary enterprises. Registration of such ownership rights was time and money consuming.

99. Therefore, a short-term lease agreement served as a mechanism for a quick transition to private management of utility infrastructure facilities and provided enough time for a private operator to properly register the leased property.

100. In 2004, RCS that established its affiliates in 24 regions of the Russian Federation dominated the market. But then RCS left some regions and as of the end of 2006 it rendered water supply services only in 7 regions.

<sup>13</sup> Sivaev S.B. (2008). Private Business in the Utility Sector: the practice of the development. Moscow: the Institute for Urban Economics.

<sup>14</sup> OECD (2004). Overview of Domestic and International Private Companies Operating in the Water Utilities Sector in Russian Federation. – Paris: OECD.

101. Later on considerable changes in the structure and order of interaction of authorities and business in the utility sector took place. The legislative framework changed substantially. It was assumed that new legal acts would promote the improvement of investment climate in the utility sector; however, the actual outcome was controversial.

102. There was a gradual transfer from short-term lease agreements to long-term ones with investment commitments for the period from 5 to 49 years. In the water supply and sanitation sector more than 20 agreements like that covering 15% of population of the country or 20% of the total urban population were concluded.

103. First tenders for management of utility infrastructure municipal systems (based on lease) took place. There is information about results of three tenders – in Omsk (tender winner – Eurasia Water Partnership, LLC, affiliated with Evraziyskiy, OJSC), Berezniki (tender winner –Novogor-Prikamie, LLC) and Volgograd (tender winner – Utility Technologies of Volgograd affiliated with Russian Communal Systems, OJSC). The winner of the first tender in Omsk has already sold its business to the Rosvodokanal, LLC. Tenders in Berezniki and Volgograd were disputed in court. No violation related to the tender held in Berezniki has been found by the court, while the tender in Volgograd was cancelled.

104. At the same time regional private companies, affiliated either to the regional energy business or political leaders (Krasnoyarsk is an example), emerged.<sup>15</sup>

105. Foreign companies working as operators in the utility sector worldwide not only failed to achieve considerable business success in Russia but in some cases even reduced their activity. For instance, French company Veolia Water made several attempts to lease water supply systems in some cities and towns of Central Russia but, after unsuccessful termination of these projects, almost suspended its operations in Russia.

106. Analysis of the performance of public and private operators suggests that:

- As of today, there is no evidence of superiority of public private partnership mechanisms over other models of water supply and sanitation management: private companies tend to invest a bit more (than non-private companies), but at the same time they report a lower level of payments collection and a higher level of unit-specific consumption of electric power than municipal and state-owned enterprises in the WSS sector (See Table 2);
- A clear-cut government policy targeted at making the sector attractive for private business is missing; in particular, main financial risks in the sector, as well as risks related to tariff regulation, have increased recently;
- Local authorities are not interested in losing the administrative control of the sector and have no serious political pressure to change such situation. But even in rare cases when they have interest, there are serious problems with preparation and formation of tender terms and conditions for conclusion of long-term contracts on public private partnerships;
- Private operators working in the sector are rather secretive about their activities and prefer not to demonstrate their advantages and they are not inclined to consolidate their efforts in lobbying for the development of public private partnership mechanisms.

---

<sup>15</sup> Sivaev S.B. (2008). Private Business in the Utility Sector: the practice of the development. Moscow: the Institute for Urban Economics.

Table 2. Comparison of performance of Russian water supply enterprises of various ownership forms

	Overall performance of enterprises of all forms of ownership	State or municipally owned enterprises	Enterprises of other forms of ownership	
			Totally	- including privately owned enterprises
<b>Share of the total water supply to consumers, %</b>				
- 2006	100,0%	80,7%	19,3%	14,8%
- 2007	100,0%	79,6%	20,4%	15,7%
- 2008	100,0%	76,8%	23,2%	15,9%
<b>Share of the total population serviced, %</b>				
- 2006	100,0%	80,6%	19,4%	15,9%
- 2007	100,0%	79,5%	20,5%	16,8%
- 2008	100,0%	73,2%	26,8%	19,9%
<b>Revenues from production and delivery of water supply services, Rubles/m<sup>3</sup></b>				
- 2006	7,14	7,38	6,17	6,37
- 2007	8,41	8,52	7,94	8,19
- 2008	9,83	9,92	9,52	9,89
<b>Unit costs of production and delivery of water supply services, Rubles/m<sup>3</sup></b>				
- 2006	7,41	7,55	6,80	6,85
- 2007	8,66	8,69	8,54	8,69
- 2008	10,16	10,13	10,27	10,57
<b>Expenditures to revenues ratio, %</b>				
- 2006	103,6%	102,3%	110,2%	107,5%
- 2007	103,1%	102,0%	107,6%	106,1%
- 2008	103,4%	102,1%	107,9%	106,8%
<b>Domestic tariffs collection rate, %</b>				
- 2006	93,5%	94,7%	86,9%	85,8%
- 2007	93,7%	95,0%	88,8%	89,7%
- 2008	93,8%	94,5%	91,7%	91,4%
<b>Investment expenditures as a proportion of total expenditures of water supply enterprises, %</b>				
- 2006	19,1%	18,5%	21,8%	20,9%
- 2007	18,2%	17,8%	19,9%	18,8%
- 2008	17,2%	16,9%	18,3%	17,4%
<b>Accounts receivable to revenues ratio, %</b>				
- 2006	29,8%	30,9%	23,9%	20,6%
- 2007	27,0%	27,6%	24,6%	25,8%
- 2008	27,1%	27,7%	25,0%	25,4%
<b>Specific electric power consumption, kWt*hour/ m<sup>3</sup></b>				
- 2006	0,94	0,89	1,13	1,10
- 2007	0,99	0,93	1,24	1,22
- 2008	1,06	0,95	1,44	1,56

Source: State statistical review, forms: 1-vodoprovod, 1-kanalizaciia, 22-ZHKH (aggregated), 22-ZHKH (reform), data-base of RAWW

### ***Largest Private Operators of the Water Supply and Sanitation Sector***

#### *Russian Communal Systems, OJSC<sup>16</sup>*

107. The RCS is the largest private company operating in the utility sector. It was founded in May 2003. Currently 100% of the company stock is owned by "Renova" - one of the largest private financial industrial group of Russia. The declared objective of the company is the development of utility infrastructure of Russian cities and towns and provision of high-quality services to consumers.

<sup>16</sup> This section is based mainly on information available on the company's web-site at [www.roscomsys.ru](http://www.roscomsys.ru).

108. As of mid 2009 the company operates in 9 regions of Russia. The long-term strategy of the company's development envisages business expansion by starting working in new regions and by expanding the territory of its operations and spectrum of services rendered in the regions of RCS presence.

109. The RCS is a single Russian operator working on the multi-product model and rendering not only water supply and sanitation services, but also district heating and power supply. Water supply and sanitation services generate some 20% of aggregated company's revenues. The RCS provides water supply and sanitation services in five regions of Russia for more than 2 million consumers in Amur, Kirov and Tambov oblasts, Perm Kari and the Republic of Karelia.

110. In each region, it has created daughter companies operating under water infrastructure long-term lease agreements. All agreements, except for the lease agreement in Berezniki, were signed without any tender. The duration of agreements is given in Table 3.

**Table 3. Duration of lease agreements with RCS affiliated companies**

Municipality	Agreement term
Berezniki	30 years
Blagoveshchensk	10 years
Kirov	15 years
Perm	49 years
Petrozavodsk	20 years
Tambov	25 years

Source: interviews with private operators, lease contracts.

#### *Rosvodokanal, LLC<sup>17</sup>*

111. The Rosvodokanal, LLC, is the largest private operator in the Russia's water supply and sanitation sector. Since 2003, Rosvodokanal is a part of Group of Companies "Alfa-Group". The use of Alfa-Group investment resources together with high technical competence allowed the company within a short period to occupy the leading position in Russia in management of WSS sector assets. Starting from 2007, the Rosvodokanal, LLC, is owned by Alfa-Bank consortium (90%) and Deutsche Bank (10%).

112. Under the Rosvodokanal management, water companies operate in eight regions of Russia, and also in Lugansk region of Ukraine, providing WSS services to the population exceeding 7.5 million people:

113. Agreements under which Rosvodokanal affiliates operate in Russia are long-term lease agreements concluded without tenders. The said agreements did not contain requirements to a private operator regarding the quality of rendered services. International financial organizations and in particular the EBRD played an important role in transformation of existing long-term lease agreements into performance-based contracts. The presence of the so-called well balanced contract between municipality and private operator is one of mandatory lending conditions set by the EBRD. Well-balanced contracts are characterized by the fact that they equally reflect the rights and obligations of private operators in respect to municipalities and *vice versa* and also clearly define the scope of services to be rendered by the private sector during the implementation of respective contracts.

114. The Rosvodokanal, LLC, committed to review its existing contracts with Russian cities and towns and Kaluga Oblast and include into them performance targets and penalties for their non-observance (non-compliance) and also requirements about information disclosure. Independent agencies will monitor performance of these contracts. As a result of such decision the EBRD signed with Rosvodokanal a loan agreement for the amount of RUR 1.5 billion (equal to € 42 million) for 13 years.

<sup>17</sup> Web-site of Rosvodokanal: [www.rosvodokanal.ru](http://www.rosvodokanal.ru)

*Evraziyskiy, OJSC*<sup>18</sup>

115. The Evraziyskiy, OJSC, is one of the first financial companies operating on the investments market in Russia. It was registered in 1994 in Moscow. In 2003, upon improvement of the legislative framework and reinforcement of the Government's initiatives targeted at restructuring of the utility sector and attracting private investments, the Evraziyskiy, OJSC, focused on management and financing of projects in the water supply and sanitation sector.

116. The Evraziyskiy, OJSC, is currently implementing 3 large projects in the water supply and sanitation sector in Rostov-on-Don City, Rostov oblast and in Krasnodarskiy Krai. In 2006, *Vnesheconombank* became a shareholder of the Evraziyskiy, OJSC. Russian and international private investors are other shareholders of this company.

117. Out of all EECCA countries Russia has the most extensive experience of involving domestic private sector in the water supply and sanitation sector. In general, in Russia recently the scope of activities based on public private partnerships stabilized: if in 2003 contracts were concluded in 7 cities and towns then in 2008 there was only one significant contract signed of the public private partnership in Volgograd.

118. In 2009, there was almost no information about new public private partnership contracts in the water supply sector, with few exceptions: in May 2009 the Krasnodarskiy Krai Administration announced a bid for the concession of the transboundary water supply networks of the region, and in September 2009 the Samara Water Supply Municipal Enterprise announced a competition for a long-term lease contract.

---

<sup>18</sup> Web-site of Evraziyskiy JSC [ОАО «Евразийский»]: [www.evraziyskiy.ru](http://www.evraziyskiy.ru)

**COUNTRIES WITH SUPPORTIVE INSTITUTIONS  
BUT UNEVEN OR VERY RECENT AND LIMITED PRACTICAL EXPERIENCE**

**Georgia**

**Brief characterization of PSP in WSS in Georgia:**

- Only one private operator works in this sector: it services the capital city and a few neighboring settlements (nearly 25% of the total population of Georgia reside in the area);
- After quite a few years of (failed) attempts to develop a PPP under a management or lease contract, the government has decided to go for the full divestiture of the WSS system in Tbilisi area;
- Contract was granted to an international company through a competitive tender;
- The new private owner has made substantial investment commitments, but it is too early to talk about the successful fulfillment of these obligations.

***Short Description of the WSS sector in Georgia***

119. Georgia enjoys considerable water resources. Subsurface water is, mainly, used for drinking water supply. Subsurface water makes up 80% of all water supplied to centralized water networks with either sustainable or unsustainable access to water supply services.

120. All 85 Georgian towns have centralized water supply systems. Total length of water pipelines and water distribution networks in 85 cities and towns of Georgia is 9 500 km. As of 2006 total length of water supply networks in urban and rural areas was about 38 000 km.

121. On the whole, sanitary and technical state of water intake structures of most water supply networks is substandard due to deferred maintenance and absent renovation of most water supply networks. The operating life of 60% of water supply networks has expired. This led to a sharp increase of breakdowns of water supply and sanitation networks. The breakdowns resulted in drinking water leaks, and contamination of water flows and underground water. On average, leaks make up 30-50% of all water supplied to water networks countrywide. The population of most Georgian settlements has unsustainable access to water supply services.

122. Up to 30% of rural users are connected to centralized water supply networks, mostly of gravity-flow type. Where pumping stations are used, water is supplied only 3-4 hours per day. Other water sources used by rural population include wells, boreholes with manually operated pumps, and protected springs.

123. Sanitation networks operate in 41 towns and 1 regional center. Of them, 30 have wastewater treatment facilities with total design capacity of 1.6 million cubic meters per day (including the regional WWTP in Gardabani district with capacity of 1.0 million cubic metres per day, which treats wastewater from the cities of Tbilisi and Rustavi). Today treatment facilities operate only in Gardabani district.

124. Total length of sanitation networks and sewerage collectors in 41 towns is 4 000 km, and up to 18 000 km countrywide. Most of them do not operate. The operating life of 50% of sanitation networks and sewerage collectors has expired. Most wastewater treatment facilities are not functioning and wastewater is discharged into water bodies without any treatment or after only primary treatment. This leads to

contamination of rivers, and Black and Caspian seas.<sup>19</sup> The contamination of water sources is a major contributor to gastrointestinal diseases in Georgia.

125. Rural settlements have no centralized sewer systems, and the most frequently used sanitation systems are simple pit latrines or, less often, improved (ventilated, slab-covered) pit latrines.

126. The ownership of most water supply and sanitation networks in Georgia is held by the state.

### ***Key Objectives and Main Directions of Reforms in WSS***

127. For many years the renovation of the water supply and sanitation sector has not been considered a priority of economic and social policy, as evidenced by budgetary under-financing of capital investments. The absence of a consistent policy on water supply and sanitation sector management, the lack of institutional structures and regulatory mechanisms are to blame for technical and financial problems facing the WSS sector in Georgia<sup>20</sup>. Until recently the country had no governmental agencies responsible for WSS sector reform, designing and implementing a WSS sector policy and regulation programs, designing investment programs and mobilizing financial resources (budgetary financing or foreign borrowings) needed to implement the programs.

128. To change the situation, in 2008 Georgia established a Ministry for Regional Development and Infrastructure, which assumed the responsibility for designing and implementing public policy in the water supply sector, as well as an Agency for Regional Water Supply Development (subordinate to the Ministry), which is fully responsible for the reforms in this sector.

129. Before 1990s all water companies (individual water supply companies in large and medium-size cities, diversified utility companies in other residential settlements) were under double subordination. Diversified utility companies were controlled by the Ministry of Housing and Utility Sector of Georgia and local self-governments, water supply and sanitation companies were subordinated to Gruzvodokanal<sup>21</sup> and local self-governments. The principle of double subordination was canceled during the administrative reform and after the liquidation of the Ministry of Housing and Utility Sector. The law ‘*On Local Self-Governments*’ adopted in 2007 stripped local self-governments of responsibilities for providing water supply and sanitation services.

130. The facilities of communal infrastructure and other fixed assets of urban and rural water supply and sanitation networks in Georgia were owned by the state, represented by the Regional Development Agency for Water Services. Most water companies were limited liability companies. Minor part of water operators comprises joint stock companies.

131. The Georgian WSS Sector Reform Strategy recently designed with USAID support envisages that regional water companies should be established in order to overcome the present excessive fragmentation of WSS. This would also help to achieve ‘the economy of scale’ and soften some resource limitations (including staff shortage).

132. Within the framework of the Strategy implementation, in the beginning of 2009, almost 60 municipal water supply and sanitation enterprises were merged, and on their base two legal entities were created: “Agmosavletis Tskhali” Ltd. (Eastern Water) and “Dasavletis Tskali” Ltd. (Western Water). This integration pursued the goal of improving the technical condition and financial standing of enterprises and their subsequent privatization.

<sup>19</sup> OECD (2008b). Financial Strategy for the Urban Water Supply and Sanitation Sector in Georgia. Document 2.

<sup>20</sup> USAID (2009). Georgia Water Utility Sector Reform Program. Final Report.

<sup>21</sup> Starting from late 1960s the Department of Water Supply and Sanitation, subordinated to the Ministry of Housing and Public Utilities, operated in Georgia. In 1988 the department was reorganized into Gruzvodokanal LLC. The company’s activities focus on addressing water supply and sanitation challenges in Georgia, and designing methodological guidelines on how water companies should apply new techniques.

133. In the end of 2009, “Agmosavletis Tskhali” Ltd. and “Dasavletis Tskali” Ltd. were subjected to reorganization. For example, the outstanding water tax debts were rescheduled. As a result, one new integrated company appears in place of the above-mentioned two companies, and all assets of the latter two companies will be transferred to the new one.

134. Since 2006, “Batumi Tskali” Ltd has been operating in Adjara, which is owned by the municipality of the city of Batumi and provides WSS services to the residents of Batumi and neighboring residential settlements. This company, as well as “Georgian Water and Power” company, which provides water supply services to the residents of Tbilisi and Mtskheta, will remain independent and will not be integrated in the new national water supply company to be created within the framework of the Georgian WSS Sector Reform Strategy.

#### *Tariff Policy*

135. Prior to the recent reform in the WSS sector of Georgia, tariffs of WSS enterprises had to be approved by local government bodies. The latter, taking into account the implications of the difficult economic situation of the population, in most cases set tariffs that did not cover the expenditures incurred by enterprises in the process of providing utility resources and services.

136. In 2007, some amendments to the national Law “On Energy and Natural Gas” were approved, on the basis of which the National Commission for Regulating Energy and Water Supply in Georgia (headed by the Georgian Prime Minister) assumed the mandate for setting tariffs for the drinking water.

137. At present, tariffs are developed by WSS organizations in accordance with the methods of tariff regulation designed by the National Commission for Regulating Energy and Water Supply in Georgia in 2008. One of the key provisions of the foregoing methods is a requirement that justifiable expenditures incurred by a WSS enterprise (including operational expenditures, as well as expenditures on upgrading and development) should be compensated.

#### *Law on Public-Private Partnership*

138. Georgian legislation does not envisage any restrictions for the transfer of WSS facilities and networks into private ownership. Moreover, it contains no references to any form of ownership per se, and, instead, it applies a single term “owner”, similar to the legislative practices of a number of European countries. As a result, WSS facilities and networks can belong to the state, or a municipality, or private owners (legal entities or physical persons).

139. In 1994 Georgia adopted the Law ‘*On the Procedure for Granting Concessions to Foreign Countries and Companies*’. The law specifies the special conditions for concessions for foreign investors. The law defines concession as a long-term lease agreement for promotion of foreign investments.

140. The law neither defines a concessionaire qualification procedures, nor dispute resolution procedures. The essence of agreement is absent from the law. The list of objects, that can or cannot be the subjects to concessions, is not adopted. According to an assessment conducted by the European Bank for Reconstruction and Development, the law ‘*On the Procedure for Granting Concessions to Foreign Countries and Companies*’ does not comply with international standards developed in the concession field. The law is among the weakest in EECCA countries and should be fully revised.<sup>22</sup>

141. The transfer of utility infrastructure for the lease is regulated by the law ‘*On Leasing Activity*’ and the *Civil Code of Georgia*.

---

<sup>22</sup> EBRD (2006). Commercial Laws of Georgia. An Assessment by the EBRD.

*Investment Policy*

142. For a long time the government of Georgia has not been designing any investment program on water supply and sanitation development. However, Municipal Development Fund, operating in Georgia, encourages the implementation of a few investment projects in WSS financed through foreign borrowings.

143. International financial institutions are very active in the water supply and sanitation sector in Georgia. The list of the largest projects financed by international financial organizations includes the following:

1. First, projects implemented by the EBRD, including the following:
  - Poti Water Supply Improvement Project financed through a loan in the amount of €3.5 million is extended to a water company to transit to a more reliable source of water supply. The objective of the project is to ensure 24-hour water supply services to Poti inhabitants. To finance the project the government of the city of Poti will allocate about €1 million of budgetary funds; additional €3.5 million will be granted;
  - Kutaisi Water Supply Improvement Project under which the bank offered €3.5 million as a loan to renovate water supply networks and install water meters to all domestic users of the city. EBRD is considering to allocate an extra €1.5 million to implement a second stage of the project;
  - Kobuleti Water Supply Improvement Project within the framework of which a financial aid is provided in the form of a loan of €3 million provided to a water company to renovate water supply and sanitation networks, install water meters and build up sewerage treatment facilities;
  - Borjomi Water Supply Improvement Project financed through a loan of €1.5 million allocated to an urban water company to renovate water supply and sanitation networks.
2. Second, the World Bank implements the project “Development of Regional and Municipal Infrastructure”. The project’s total amount is \$65.4 million (International Development Association will provide \$40 million, other funds will come from various financial sources in Georgia). The project aims at improved quality of some municipal services, including water supply and sanitation services.
3. Third, project “Water Supply to the City of Batumi” has been implemented by the KfW – the German Development Bank - since 2005 until now, and within its framework financing worth €65.5 million has been provided to rehabilitate and upgrade WSS facilities and networks in the city of Batumi.

144. Millennium Fund is yet another active player in the water supply sector, and ADB is engaged in the development of a major project in this sector.

*Budgetary Financing*

145. According to the Presidential Decree # 531 enacted in 1998, local self-governments and some bodies of state administration were entitled to provide budget-funded subsidies to finance the operating costs borne by water supply companies only before the end of 2005. Yet some cities continue to support water supply companies (for example, in 2008 the municipal administration of the town of Gori subsidized cost recovery of a local water company from budgetary funds).

***Status of PSP in WSS in Georgia***

146. Before 2007 Georgia had made one serious attempt to implement a public-private partnership project in Tbilisi that failed and finally led to the privatization of the water supply and sanitation system: the Tbilisi Water Supply and Sanitation Company was sold to a private investor in the package together with company supplying water to the cities of Mtskheta and Rustavi, ZhinvalGES (hydro-power station) and the WWTP in Rustavi-Gardabani. The deal was made by the Ministry of Economic Development of Georgia jointly with the Tbilisi City Hall.

147. The divestiture process started in summer of 2007. At the initial stage there were 10 tender bidders including 9 foreign ones. Multiplex Solutions (Switzerland) won the tender.

148. According to the Ministry of Economic Development of Georgia, this contract was awarded to Multiplex Solutions because its bid had the best correlation of the facilities' price and consumer tariffs<sup>23</sup>. The Swiss company undertook to pay \$ 85,662 thousand for facilities and also promised to invest \$ 350 million in total into their rehabilitation and further development of their operations. Multiplex Solutions committed not to raise the 2008-2009 water supply tariff for residents that was GEL 2.4 (about € 1) per month for a household member with keeping it at the level of GEL 2.95 (about € 1.23) in 2010-2013. The company also obliged to provide a 24/7 water supply to residents, high quality of drinking water, etc.

149. The change of the owner has brought some positive changes to the quality of services. For instance, the "Georgian Water and Power" established as the WSS system operator has ensured the 24/7 supply of drinking water to some districts in Tbilisi.

150. Besides, in May 20, 2009, Georgian Water and Power commenced the preferential restructuring of the debt accumulated due to non-payments for consumed water<sup>24</sup>. Any customer who has certain debt due to some reasons can participate in the non-recurrent debt restructuring program.

151. The analysis of the project implementation in Tbilisi showed that the lease agreement with a private operator with a world-wide reputation and considerable practical experience turned to be less acceptable for authorities and population that complete privatization (full divestiture) of all utility systems in the capital of Georgia.

152. However, as a result of the Tbilisi Water Supply and Sanitation Company privatization, the opportunity of using advantages of "competition for the field" associated with public private partnership, has been lost.

153. It should be noted that Georgia still has rather good prerequisites for development of public private partnerships in the water supply and sanitation sector. Active work of international organizations forms the ground for the transfer to services contracts to be concluded with water supply and sanitation companies that should contain certain performance targets. For some cities it is appropriate to consider the feasibility of concluding management contacts.

---

<sup>23</sup> "Tbilisi vodokanal and ZhinvalGES are transferred to the possession of Swiss company "Multiplex Solutions" ["Тбильводоканал" и "ЖинвалГЭС" переходят во владение швейцарской "Multiplex Solutions"], web-site of information agency REGNUM: <http://www.regnum.ru/news/906122.html#ixzz0yWTfnFHs>

<sup>24</sup> ""Georgian water and power" company is undertaking an unprecedented action" [Компания "Georgian water and power" проводит беспрецедентную акцию], web-site of Tbilisi City: [http://www.tbilisi.gov.ge/index.php?lang\\_id=RUS&sec\\_id=23](http://www.tbilisi.gov.ge/index.php?lang_id=RUS&sec_id=23)

**Kazakhstan****Brief characterization of PSP in WSS in Kazakhstan:**

- Plenty of domestic private operators, operating in both urban and rural areas;
- Controversial experience with PSP so far: some success stories (e.g. in Shimkent) neighbor with failures, while the financial health of many existing POs is very poor, not least due to the over-fragmentation of the WSS sector;
- Legal and institutional framework is developing but not yet optimal for sustainable PSP;
- Substantial contribution of the public budget to capital improvements in the WSS sector, private investments are still marginal.

***Short Description of the WSS sector in Kazakhstan***

154. Problems of drinking water supply are very acute for all cities, towns and settlements in the Republic of Kazakhstan. The insufficient budget financing of the WSS sector in the initial period after gaining the independence negatively affected the general condition of this sector and its management.

155. The share of urban population of the Republic of Kazakhstan that nowadays has a permanent access to the piped water supply systems reaches 79.4%, while 14.3% of urban residents use water from decentralized water supply sources. For drinking water supply and domestic needs 6.3% of urban population use water from yard and public water wells, boreholes and surface water sources, and also use water delivered by tankers/trucks. According to official statistics, 57.2% of rural residents have drinking water supply from centralized (piped) water supply systems. This figure seems to be overestimated as the research conducted within the UNDP framework showed that only 36.1% of rural residents have access to piped water supply. A relatively low level of access to drinking water from piped water supply systems in general is aggravated by poor technical conditions of water supply systems.

156. The total length of water supply networks in cities, towns and settlements reaches 24,000 km. In many urban settlements of the Republic pipelines and equipment have been totally worn out.

157. Consequently the number of breakdowns/failures is growing. Most of water supply lines were commissioned and overhauled more than 30 years ago. High failure rate contributes to secondary contamination, lengthy interruptions/outages of water supply, great leaks in networks reaching in some cases 40% and more, excessive water losses leading to excessive consumption of electricity and finally to additional incremental cost of water. Consequently, a large number of rural areas rejected services of centralized water systems. Many settlements are disconnected from centralized water supply by operators due to chronic non-payments. Nowadays only 513 rural settlements are fed from centralized inter-municipal water mains and 2,100 settlements from local water supply systems.

158. Sewerage networks are available in 201 settlements, while 101 of them are located in rural areas. The length of main collectors and outdoor sewerage network is 10,500 km. 63.1% of urban population have access to the public sewerage system in cities, towns and settlements. The condition of sewerage networks and most of treatment facilities is unsatisfactory. Thus, 2,200 km of sewerage lines should be replaced. Nine cities and towns have no sewerage system.

159. In general for the Republic of Kazakhstan the physical wear of utility water supply networks reaches 71.3%, sewerage networks – 68%, water supply pump stations – 58%, sewerage pump stations – 62%, water supply treatment facilities – 70.8% and wastewater treatment facilities – 74.2%.

160. Rural population having considerably lower incomes on average pays for water consumption twice as much as urban residents. The highest price for 1 cubic meter of water is charged for the water transported in barrels to households. Within the servicing area of each WSS companies for all categories of consumers a single tariff is applied. The average tariff for drinking water for urban residents as of 1 July 2009 is € 0.13

per cubic meter, the highest rate is in Aktau (€ 0.84 per cubic meter) and the lowest in Ust-Kamenogorsk (€ 0.07 per cubic meter).<sup>25</sup>

161. As of 1 January 2009, there were 289,000 individual hot water meters and 310,500 cold/drinking water meters, as well as 8,700 block-meters for cold water installed.

162. According to the Agency of the Republic of Kazakhstan on Regulation of Natural Monopolies (RK ARNM), as of 1 July 2009, 413 enterprises of various forms of ownership operate in the water supply and sanitation sector: 272 of them supply water and 141 provide sanitation services; 19 companies supply water via trunk water supply lines, while 122 companies handle water supply via distribution networks; 66 companies provide wastewater services, 7 companies provide wastewater treatment, and 99 companies supply water via canals.

163. Approximately 48% of companies rendering water supply and sanitation services are private ones.

### ***Key Objectives and Main Directions of Reforms in WSS***

164. In the Republic of Kazakhstan (RK) the responsibility for water supply and sanitation services provision was decentralized in accordance with recommendations of the Almaty Guiding Principles. In accordance with the law “*On local government regulation in the Republic of Kazakhstan*” the *akimat* (government) of the region (this includes also the capital city, and Almaty – “the city of republican importance”) and district *akimats* arrange the construction and operation of water lines and treatment facilities in community ownership, while the *akims* (mayors) of cities, towns, settlements, villages and urban areas arrange the water supply of settlements, within his/her/their competence.

165. *Akimats* regulate the water consumption of whose consumers who do not have individual water meters. They appoint directors of utility companies, approve investment plans and tariff increase prior to their submission to the Agency for Regulation of Natural Monopolies (ARNM) of RK.

166. However, the decentralization of responsibility for water supply and sewerage services in Kazakhstan was not supported by respective regulatory and legal frameworks. That entailed a lot of problems and questions during operation of water supply and sanitation systems.

167. Lately in Kazakhstan some measures of both regulatory and institutional nature were undertaken targeted at WSS sector improvements and opening opportunities for private investors and the development of public private partnership mechanisms.

168. Only recently the Republic of Kazakhstan started allocating funds from national and regional budgets for rehabilitation of drinking water supply systems. This is related to the adoption of the sector program called “*Drinking Water*”, a state program for development of rural areas, a concept of development of the water supply policy of the Republic of Kazakhstan up to 2010, and some other documents. For example, in 2008, 16% of investment financed from the republican budget was allocated to the development of rural drinking water supply.

169. It is a common practice in Kazakhstan to use such mechanisms of public private partnership as concessions and trust management of facilities owned by the state. Operations of public private partnerships are regulated both by general law – Civil Code, Budget Code, the law “*On Government Procurement*”, the law “*On Natural Monopolies and Regulated Markets*”, e.g. and special law – “*On Concessions*”. The Water Code that was adopted in July 2003 also promotes the attraction of private investors into the water supply and sanitation sector through provisions stating that drinking water systems may be owned also by legal entities and even individuals. The Water Code directly provides for the establishment of private water companies.

---

<sup>25</sup> As of 7 August 2009, the exchange rate established by the National Bank of Kazakhstan at 217.20 Kazakh tenge for 1 Euro.

170. Positive trends in the development of the legal and institutional framework in the water supply and sanitation sector continue. For example, the Kazakhstan President's Decree of 24 June 2009 appointed the Agency of the Republic of Kazakhstan for Construction and Housing and Utility Sector, an authorized agency for the development of the government policy of water supply and sanitation regulation in settlements.

171. The adoption of the Rules of wastewater collection into settlement sanitation systems and the Rules of the use of settlement water supply and sanitation systems in May and June of 2009 became also an important milestone in the sector governance.

172. The Republic of Kazakhstan took certain measures improving tariff regulation of water supply companies that belong to natural monopolies and which tariffs for goods and services are regulated by the RK ARNM.

173. In December 2004, amendments and addenda to the law "*On Natural Monopolies and Regulated Markets*" were adopted that envisaged the possibility of approval of the "investment tariff" and the maximum tariff level by an authorized body. For calculation and approval of tariffs for water supply and sewerage companies, the method of calculation of a rate of return on the regulated asset base (similar to RAB – regulatory asset base method) was used.

174. Introduction of the mid-term tariff-setting is an important factor for investments attraction. The introduction of mid-term stable tariffs envisages the setting of tariff range, within which natural monopolies may operate. Tariffs are set for a midterm provided that a natural monopoly entity undertakes to implement an approved mid-term investment program. However, the effective criteria of compliance for approval of a 5-year tariff plan are so stringent that not every company may meet them<sup>26</sup>.

175. As Kazakhstan has limited water resources and to incentivize the drinking water savings, a systematic policy of installation water meters is pursued. Water supply companies are responsible to install meters for regulated utility services. Consumers of services of natural monopoly companies shall pay for purchase and installation of meters on time and in full in accordance with the terms and conditions of concluded agreements. The law "*On Natural Monopolies and Regulated Markets*" obliged entities of natural monopolies rendering regulated utility services to provide consumers that have no meters with individual meters prior to January 1, 2009 in accordance with concluded agreements. The RK ARNM, in its turn, realizing that a one-time payment for "an instrument" (water-meter) will be a serious financial burden for many families in Kazakhstan, envisaged differentiated approach and payment in installments for several years.

176. The adoption of the law "*On Concessions*" on July 7, 2006 became an important milestone. In accordance with this law, concession is a transfer of facilities owned by government for temporary possession and use for the purposes of improving their operation and making it more efficient, and also rights to creation (construction) of new facilities at the expense of the concessionaire or on the conditions of co-financing by the concessor (*concedent*) with further transfer of such facilities to the state with granting the rights of possession and use for further operation to the concessionaire, with government support or without it. Facilities in all sectors of economy may be transferred for concession, except for the facilities, which list is determined by the President of the Republic of Kazakhstan. Concession agreements have so far been concluded only in transport and energy sectors. However, taking into account the country's need to develop its infrastructure, a set of measures attracting private capital into other branches of economy, including the water supply and sanitation sector, are planned.

---

<sup>26</sup> Main compliance criteria for approval of a 5-year tariff plan are the following: fixed assets shall be owned by the company, finance performance shall be positive over the two years preceding the application filing, the payment collections should be at minimum 97%, the water supply and sanitation company shall have no loans taken without prior approval by the NMRA, the compensation tariff earlier set by the NMRA shall not be applied for the company, the water demand should be stable for 2 years preceding the application filing as well as a forecasted demand, the company shall keep separate accounting for its main operations: for water supply, for sanitation and for auxiliary operations.

177. In order to improve the mechanism of public private partnerships and attractiveness of concession project the law “*On Making Amendments and Addenda in Some Legal Acts on Concession Issues*” was adopted on 5 July 2008. In particular, new ways of state support were introduced in the form of co-financing of concession projects at the stage of facilities’ construction through budget investments, provision of guarantees that the state will consume a certain amount of goods (work, services), compensation of a certain party of concessionaire’s investments. It was also determined that not RK ARNM but the Kazakhstan Government will set prices or their maximum levels (price ceilings) for concessionaries’ services being the subject of natural monopolies.

178. In July 2008, the Government of Kazakhstan by its resolution established specialized organization, the Kazakhstan Center of Public Private Partnerships, JSC, with the view to provide assistance and methodological support for concession projects. By the end of the first quarter of 2009, the Kazakhstan Center of Public Private Partnership, JSC, had received 42 projects for economic review.

179. Irrespective of considerable legislative breakthrough in attraction of investments into the utility sector, the Republic of Kazakhstan still has both economic (population low income, forex risks) and legal features that hind the development of mechanisms of public private partnerships. This results in insufficiently transparent regulation of relations of the state and business when implementing public private partnerships in the water sector. The possible use of existing measures of state support only for one form of public private partnerships – a concession is an important hindrance in development of public private partnerships.

### ***Status of PSP in WSS***

180. In Kazakhstan the domestic private sector is widely represented in the WSS sector, providing services in small and medium towns. Almost 40% of all water supply and sanitation systems in such towns are transferred to private ownership and, consequently, they are operated by private business. In such cases local entrepreneurs are as a rule owners of such systems. Many cases of privatization were linked to bankruptcy procedures. Prices paid for such assets were rather low.

181. In rural areas, the prevailing type of private sector participation in water supply and sanitation is farms undertaking functions of operation and maintenance of rural water supply systems.

182. Privatization (full divestiture) of water supply and sanitation systems and first experience with public private partnerships have brought controversial results. For instance, in Eastern Kazakhstan region where a lot of regional and inter-regional group water pipelines existed, there were cases of privatization in segments, when one segment of the (inter-municipal) water system servicing one settlement or district was sold to one private owner, while another segment of the same water pipeline in another settlement or district was sold to another private person, etc. At first private owners tried to run the water supply business but soon some of them lost interest as they were hopeless loss-makers due to arisen sharp decrease in industrial production and population income, fall of sales (in m3) and poor collection of tariffs. In such cases, de-privatization took place where previously privatized systems were returned to public ownership.

183. On the other side, the “Water Resources – Marketing”, LLP, (Shymkent) may be given as an example of an efficient private company. The company established on the basis of municipal water supply company, has operated for 11 years. Its first task was to implement the program of resources savings, under which the metering was improved by installation of meters both in the housing sector and in organizations and at enterprises. As a result the registered metered water consumption reduced by some 75%.

184. Water supply lines were repaired, found leaks were eliminated, the production of polyethylene pipes started – they are widely used nowadays for construction of new pipelines and replacement of old ones. The computer control system for water supply to the city and automatic pressure monitoring were introduced. The water company pays special attention to communications with consumers; meetings with condominiums, motivation of accurately paying consumers, provision of benefits for veterans, sponsor aid, information about the company operations became customary for residents. “Water Resources – Marketing, LLP is studying the opportunity of attracting a long-term loan to implement its investment programme.

185. On the opposite side, the transfer of the water supply company in Ust-Kamenogorsk for trust management is a negative example of public private partnerships. In 2004, public enterprise “Oskemen-Vodokanal” was transferred to trust management for 25 years to Almaty company IR-Group, LLP. Even during the tendering process rules of transfer of water supply facilities for lease and trust management were violated. However, government expectations about enhancement of efficiency and reliability of Ust-Kamenogorsk water supply and sewerage networks failed, and in 2007 the regional administration terminated the contract with IR-Group, LLP, and Oskemen-Vodokanal was returned for public management. KZT 10 million (equal to € 26,000) were allocated from the budget to repay the company’s debt for electric power that amounted to KZT 28 million (€ 129,000). In addition to the debt, the company had a lot of other problems – almost 100% wear of main assets, personnel turnover and understaffing, and low salaries. Nowadays, the program of Oskemen-Vodokanal rehabilitation is under development.

186. The World Bank attempted to attract to Kazakhstan the international private sector via management contracts for water companies in Karaganda, Temirtau and Kokshetau; however, they were not supported by the Government and municipal authorities at the stage of their implementation.

187. Similarly, in early 2000ies, an attempt to implement a concession project in WSS in Almaty also failed. The city has 1.2 million of residents, 100% of population are connected to the public water supply system. The perfect quality of drinking water and a good level of wastewater treatment has been peculiarities of WSS in the city. But in 90ies the city faced problems which brought the Almaty Water Company on the verge of bankruptcy: high technical losses, high water consumption – 600 litres per day per capita, very low tariffs (2-3 times lower than the cost of production) and lack of investments. In fact, tariffs for WSS services of the Almaty Water Company were among the lowest in the republic: the average tariff for water supply was \$ 0.065/m<sup>3</sup> and for sanitation services - \$ 0.044/m<sup>3</sup>. For comparison: tariffs for drinking water and sanitation in Karaganda amounted to \$ 0.25/m<sup>3</sup> and \$ 0.13/m<sup>3</sup>, respectively, while tariffs in Astana - \$ 0.12/m<sup>3</sup> for drinking water and \$ 0.089/m<sup>3</sup> for sanitation.

188. After long negotiations, an agreement on gradual tariff increase was reached and Vivendi Water (France) was about to enter into a concession project in Almaty, but in the end the deal did not materialise - foremost because in practice city administration was not ready to increase tariffs, as agreed. Another major reason was probably that after local elections, new city administration lost interest to the project. That is, both tariff and political risks materialized.

189. The unsuccessful experience with the implementation of first public private partnerships, recently made government authorities to focus on the development of enabling regulatory framework for PPPs and creation of state support mechanisms for their development. Taking into consideration this new state policy, perspectives for public private partnerships in the Kazakhstan WSS sector seem quite optimistic, irrespective of the failures in the past.

## Ukraine

### Brief characterization of PSP in WSS in Ukraine:

- Limited experience with PSP in WSS so far: a few domestic private operators, operating in urban areas and servicing less than 5% of urban population;
- Some contracts were granted through competitive tenders (e.g. Odessa and Lugansk), however, criteria for selecting the winner were not always appropriate or transparent;
- Unjustified duration of some lease contracts (e.g. 49 years);
- So far POs have generally failed to fulfill their investment obligations, while public investments in WSS are not sufficient, though had been increasing before the present financial and economic crisis emerged.

### Short Description of the WSS sector

190. The percentage of urban population in Ukraine covered by centralized (piped) water supply services is rather high - 99.1%. In some settlements there are temporary restrictions for water supply: 20% of water supply companies recently supply water to population as per schedules. In general, households that receive water based on schedules do not have water at night. 4.2 million people (about 9% of the population) reside on the territories where water is supplied based on schedules. 77.8% of rural settlements and 13.4% of urban settlements have no piped water supply, considerable share of rural areas use drinking water brought by cistern trucks.

191. Some 12.6% of water supplied to population via centralized water supply systems do not meet standards (the worst situation with the water quality is in Donetsk, Zaporozhie, Lugansk, Odessa and Kherson *oblasts/regions*).

192. The total length of water supply lines in Ukraine in 2008 was 182,626.3 km; 66,462.5 km, or 36.4% of which require immediate repair. The wear of equipment in public water supply and sanitation systems reaches 63%. In general, the water losses in Ukraine in public water supply networks amount to 40.4% with great diversity by region from 16% to 82%.

193. The percentage of sanitation services coverage in Ukraine amounts to 66.7% or less than 50% for towns and more than 75% for large cities. All components of the system, including pipes, collectors and treatment facilities, are in poor condition and badly need rehabilitation. Most of treatment facilities were constructed in 1960-1980.

194. Total length of sanitation networks in 2008 for the country on the whole reached 50,756.5 km, 17,269.2 km or 34% of which should be immediately replaced. In cities and towns with the population exceeding 100,000 persons approximately 80% of collected wastewater is subjected to mechanical and biological treatment. In small towns only, some 45% of general amount of collected wastewater is treated.

195. In the 1st half-year of 2009, the tariff for water supply for population was UAH 2.03 per m<sup>3</sup> (€ 0.17) and for water discharge - UAH 1.73 per m<sup>3</sup> (€ 0.15). The level of cost recovery by water supply tariffs for population is some 79.6%, and some 80.9% for water sanitation. Tariffs for water supply and sanitation services for commercial customers on average are 1.9-fold higher than tariffs for population. In Ukraine, no more than 1/3 of water sold to consumers is metered.

196. Payment collections for water supply and sanitation services in Ukraine considerably improved in 2003–2009. Thus, the period of payment collection reduced from 399 to 210 days, while the tariff collection rate increased from 74.8% to 92.2%.

197. WSS sector fixed assets are owned by municipalities. Utility companies that operate water supply systems by the right of economic management mostly assure water supply to consumers.

### ***Key Objectives and Main Directions of Reforms in WSS***

198. In Ukraine local governments are responsible for provision of utility services of proper quality.

199. For the last years the Cabinet of Ministers of Ukraine and the *Verhovnaya Rada* (parliament) of Ukraine have been setting the legal framework for tariff regulation of companies providing water supply and sanitation services and improving the laws governing the implementation of public private partnership projects.

### ***Tariff Regulation***

200. The duties of local governments pursuant to the Law of Ukraine dated 24 June 2004 "*On Utility Services*" include price and tariff setting for utility services. Regional authorities are responsible for interaction of the central government with local governments in provision of utility services and regulation of prices; and control of prices and tariffs for utility services and monitoring of their calculation. Public authorities are responsible to form regulatory framework necessary for local administrations to control prices and tariffs on utility services as well as to license the activities of legal entities related to the delivery of water supply and sanitation services to cities and towns where population exceeds 100,000 residents.

201. To establish the procedure and methods of tariff calculation for water supply and sanitation services the resolution of the Cabinet of Ministers of Ukraine dated 12 July 2006 "*On Approval of the Procedure for Tariff-Setting for Public Water Supply and Sanitation Services*" was adopted. The effective method of tariff regulation bans to include into tariffs all costs required to perform work on upgrading water supply and sanitation systems, including the investment expenditures necessary for the development of WSS systems, and does not provide any energy saving mechanism. Thus, the existing tariff regulation: a) does not completely meet interests of water supply and sanitation operators and b) does not provide favorable conditions neither for development of an appropriate infrastructure nor for energy saving.

202. The concept for development of state regulation of natural monopoly entities on the market of utility services, approved by the resolution of the Cabinet of Ministers of Ukraine dated 9 July, 2008 plans the establishment of an independent regulating commission in the water supply and sanitation sector. In accordance with the Concept, the responsibility to regulate activities of legal entities delivering water supply and sanitation services to cities and towns, with population over 100,000 residents, and of vodokanals (WSS companies) belonging to different territorial entities, will be delegated to the national level (to the national Regulatory commission).

203. The regulation functions should be understood as licensing, setting tariffs, and providing a non-discriminatory access to utility services.

204. The tariffs of other water suppliers shall be regulated by local governments on the basis of methodological recommendations developed by the central regulator. The Cabinet of Ministers believes that the creation of such a Regulatory commission at the national level will make the tariff regulation more transparent, professional, and non-sensitive to local politics and political changes.

205. The Ukraine legislation does not force consumers to install meters. In accordance with the law of Ukraine dated 24 June 2004 "*On Utility Services*" utility charges are calculated based on approved prices and tariffs and meter readings or based on norms approved in accordance with the law. The same law provides that if a local government sets tariffs on utility services below their actual costs, it should reimburse the respective difference to the utility company. However, in real life this provision does not work, but very few water suppliers would appeal to court for that reason. In the case when local governments appoint heads of utility companies it is naive to expect that these companies will sue local governments.

*Public Private Partnership Laws*

206. In accordance with the law all main forms of public private partnerships may be implemented in Ukraine. It should be noted that the privatization of utility infrastructure (full divestiture of fixed assets) is banned by law.

207. The Ukrainian law “*On Concessions*” was adopted in 1999, and has been revised several times since. The last revision was in 2009. It provides that local governments and the Ministry of Housing and Utility Sector should agree on competitive terms and conditions of transferring a utility facility to concession. This law was targeted at establishment of concepts and legal conditions of regulation of concessions for public and communal property and also conditions and procedure for its use with the view to enhance the efficiency of management of state and municipal property. The EBRD assessment of the legislation on concessions showed that the foregoing law is only partially in line with respective international standards.

208. The law “*On Lease of Public and Communal Property*” is targeted at improvements of the use of public and communal property by its transfer to individuals and legal entities. Meanwhile, this law does not contain any specifics of transfer of utility facilities for lease and only to some extent regulates the relationship in the housing and utility sector.

209. The Cabinet of Ministers of Ukraine adopted the Concept of the Development of Public Private Partnerships in the utility sector, aimed at development of economic, legal and organizational principles of implementation of public private partnerships in the utility sector, adaptation of utility systems to market conditions of business operations, support of high-priority directions of development (energy savings, enhancement of drinking water quality, etc.).

210. The Verhovnaya Rada (Parliament) of Ukraine reviews the draft law “On Legislative Fundamentals of Public Private Partnership” targeted at formation of the state policy in the area of public private partnerships and main principles of interaction of the state and the private sector.

*Investment Policy*

211. At the time of drafting this report, the Ukraine Ministry of Housing and Utility sector is trying to attract loans of international financial institutions and to receive technical assistance for preparation of investment projects in the water supply and sanitation sector.

212. The World Bank and the EBRD are implementing projects on the development of urban infrastructure in Ukraine: the focus is on the rehabilitation and extension of WSS infrastructure, energy saving and improving environmental performance of water utilities.

213. To support the WB project, the Swedish Agency for International Development (SIDA) has provided a grant in the amount of SEK 35.8 million to give an institutional support to utility companies and the Ministry of Housing and Utility Sector of Ukraine. The WB project is implemented in several cities, including Chernigov, Odessa, and Ivano-Frankovsk.

***Status of PSP in WSS***

214. For today the development of public private partnerships on the water supply and sanitation sector of Ukraine is at the initial stage. There is some experience of working under lease agreements in the cities of Odessa and Kirovograd and under a concession agreement in Lugansk region (Oblast) and in the city of Berdyansk.

*Odessa*

215. In Odessa, a whole property complex of the Odesvodokanal utility company was transferred for a 49-lease starting from January 1, 2004 to the Infox, LLC, with establishment of its branch called “Infoxvodokanal”. The Infox, LLC, is a large holding controlling such joint stock companies as

Khersonnefeteprodukt, Kremenchug Oil Company, Ilichevsk Fuel Terminal and some other Ukrainian companies.

216. At the moment of transfer of facilities and equipment, their condition was almost critical: the wear of main assets reached 55%, losses in water supply networks and commercial losses were at 42%, accumulated debt for consumed electric power amounted to UAH 25 million (about € 2.2 million).

217. In accordance with the agreement, the Infox, LLC, had to pay to the city annually over seven years a rent amounting to 1% of the book value of main assets of the Odesvodokanal integral property complex (leased fixed assets). After a 7-year period the rent will increase up to 3% of the same base. The operator was planning to invest into the water treatment facilities UAH 500 million (about €44 million) over the seven years. It should also rehabilitate and construct new sewerage systems in the Odessa southern part, complete the construction of some facilities at the Severnaya biological treatment station (WWTP), etc.

218. In 2008, deputies of the Odessa City Council proposed to cancel the decision of the previous Council members on transferring the integral property complex for lease to the Infox, LLC. It was caused by the private operator's non-fulfillment of its commitments under the investment agreement, despite drastic increase of tariff rates: since spring 2007 tariff rates for water supply and sanitation services in the city of Odessa has increased by 100%, while the inflation rate reached only 30%.

219. At the same time the city budget has also failed to fulfill its financial commitments in co-financing the rehabilitation of fixed assets.

220. Recently the Infox vodokanal has achieved some good results. It focused on reduction of water losses as the main factor reducing energy consumption and the total costs of services (the cost of electric power amounts to some 50% in the water tariff). Improved tariff collection rate (up to 96%) helped to pay back bad debts for electricity consumed by the vodokanal in the past, staff was optimized and salaries increased, etc.<sup>27</sup>

221. The experience of private sector involvement in Odessa shows that thanks to more efficient management and change in the company's technical policy certain improvements took place. But technical refurbishment, upgrade and development of the city utility sector at the expense of a private operator is impossible now. It should be noted that the lease agreement in its traditional form does not envisage the transfer of an investment risk to the tenant: this risk stays with the lessor.

### *Kirovograd*

222. In 2006, in Kirovograd the 49-year lease agreement was concluded for the integral property complex of Kirovograd vodokanal utility company with the Water Services, LLC.

223. The main argument for taking decision on the water company lease was that the local government had no fund to ensure continuous and proper water supply to local residents and for repair and upgrade of water supply networks. However, tenants failed to improve the situation: the company's financial and economic status was aggravating from year to year. As a result, a great debt for power supply and for purchased water, tax arrears and other payables (about UAH 8 million or € 700 thousand) had been accumulated. Due to financial insolvency of the Water Services, LLC, the duration of water supply changed from the 24/7 to scheduled supply.

224. The non-efficient use of funds by the tenant and incomplete cost compensation by tariff was one of the reasons. Thus, in 2008, the average coverage of costs for water supply services by user charge revenues was 73%, and for sanitation services – 85%. Because of poor quality of services consumers refused to pay in full for water consumption. The tariff collection rate was at 86%, and user charge revenues covered just 40% of water production costs.

---

<sup>27</sup> Ministry of Housing and Utility Sector of Ukraine (2009). Public Private Partnership in the Water Supply and Sanitation Sector. Analysis of the first steps and perspectives of the future development. Kiev.

225. For two years the Kirovograd City Council Executive Committee failed to review tariffs or grant subsidies and disallowed the Water Services, LLC, to use national government subsidies to cover the difference in tariffs. Tariffs were increased only in April 1, 2008. The tariff for population was set at UAH 4.66 per m<sup>3</sup> of water (before it used to be UAH 2.94), for public organizations – UAH 5.93 per m<sup>3</sup>, while for others – UAH 8.61 per m<sup>3</sup>.

226. The tenant did not either take efforts to improve the company's operations, decrease the power and resource consumption. At the same time the lease agreement did not contain requirements to invest into the development of utility infrastructure facilities.

227. In February 2008, the court decision terminated the lease agreement.<sup>28</sup> The operator filed an appeal to the Supreme Business Court of Ukraine. The termination of the lease agreement and return of the property to the new utility company "Kirovograd Water and Sanitation Sector of the Kirovograd City Council" established in July 2008 is still pending.

228. This example illustrates the negative experience of involvement of a private operator in management of utility infrastructure facilities in the lack of transparent and efficient system of selection of a private operator through competitive bidding and monitoring of its operations. It also resulted from the fact that the public partner failed to fulfill its commitments regarding investments and tariffs.

#### *Lugansk Region*

229. In Lugansk region, starting from 2004, public water supply and sanitation services for 85% of residents were provided by the Lugansk Water Company. At the same time technical and financial performance of the company was one of the worst in this sector. The number of failures at trunk and distribution networks exceeded 50,000 a year, water losses – 62%, annual financial losses – about UAH 70 million (about € 6 million).

230. In October 2006, to improve the company's operations the Lugansk Region Council decided to transfer the integral property complex of the Luganskvoda Company to concession, through a tender.

231. Seven companies from Ukraine, Russia, France and Cyprus expressed their interest to the tender. But only the Lugansk Water Company, LLC, the affiliate of the Russian private operator Rosvodokanal, bided.

232. In late 2007, the tender was challenged in the court on the ground that the qualification terms of the concession tender might deliberately limited the number of potential bidders. For instance, one of the requirements to bidders was the availability of at least a 3-year experience in the WSS sector in the CIS, in cities with the population of at least 3 million residents (in Ukraine only one city – Kiev has such population). The court initially decided to ban the tender; however, in March 2008 this ban was removed and from August 1, 2008, the water supply and sanitation sector of Lugansk region, except for water companies of Alchevsk, Severodonetsk, Lisichansk, Krasnodon, and Petrovsk, was transferred to concession to the Lugansk Water Company for 25 years. Simultaneously it was decided to increase tariffs for water supply and sanitation services 2.3-fold, from UAH 2.85 to UAH 6.66 per m<sup>3</sup>.

233. In 2008, the concessionaire failed to improve the company's performance: irrespective of the 2-fold tariff increase there were considerable financial losses (UAH 12.5 million or about € 1.1 million) and increasing wear of fixed assets. The current debt for power supply increased up to UAH 67 million (about EUR 5.8 million). The Lugansk Water Company was constantly disconnected from power supply. Nowadays, the company and the power supplier have written agreements in place regulating the debt restructuring that are mostly met. Both the Lugansk Water Company owners and the Lugansk oblast administration actively participate in resolution of this problem. The example of concession in Lugansk region is taken differently by stakeholders but it is probably too soon to assess the performance of the private operator.

---

<sup>28</sup> "New water supplier in Kirovograd" [В Кировограде - новый поставщик воды], web-site of Kirovograd City (4 July, 2008): <http://kirovograd.rks.kr.ua/daily/kirovograd/2008/7/4/water/>

**COUNTRIES WITH CERTAIN PRE-REQUISITES  
FOR PRIVATE SECTOR PARTICIPATION**

**Kyrgyz Republic**

**Brief characterization of PSP in WSS in Kyrgyzstan:**

- The only private operator so far (in Kant city) operates under a short-term (3-year) lease contract;
- The private operator has demonstrated a good performance, but a too short duration of the contract does not allow to attract loans for investment, as there is not enough time to pay the loan back;
- Legal and institutional framework is unfavorable for PSP, but there is political will to improve the situation in the framework of the planned major administrative reform in the country.

234. Kyrgyzstan enjoys substantial water resources which are mostly surface water from lakes and mountain rivers fed by melting glaciers. Yet, traditionally, ground water sources are used by 85% of existing water supply networks. High electricity costs due to the use of pumps, often inefficient, for ground water supply have driven a growing number of water supply networks to take water from less safe open water sources.

235. Inadequate access to drinking water is a major problem in Kyrgyzstan, especially for poor people and rural residents. In 2006, 81.9% of rural population (and 98.6% of urban inhabitants) had access to 'improved sources of drinking water'. The 'improved' water supply is understood as piped water supply, either through in-house or yard taps, or through standpipes (street posts) or water kiosks. Nevertheless, even with 'improved' water supply the quality of water does not always correspond to set standards. Many households are supplied with limited quantities of water or suffer from interrupted water supplies.

236. The access to improved sanitation facilities (piped sewerage, septic tanks or clean slab-covered pit latrines) is also somewhat low – up to 75% of urban population and 51% of rural inhabitants. After 1990 the figures varied only slightly. According to national statistics, 21% of population uses centralized (piped) sewerage. In the city of Bishkek, 78% of residents are connected to sewerage networks, while in regions this service is available only to 10% of inhabitants. Inadequate sanitary conditions and low quality of drinking water are major contributors to high incidence of enteric infections, typhoid fever, dysentery, viral hepatitis and parasitic diseases, particularly in the southern part of the country.

237. Due to under-financing of the sector, many water supply and sanitation networks have deteriorated and are now non-operational as most of them were constructed more than 50 years ago. Low efficiency of operating networks leads to increasing electricity costs which occasionally reach 80% of operating costs. In many cases sewerage treatment facilities either provide only partial treatment or do not operate at all.

238. In Kyrgyzstan, urban water supply services are delivered by WSS companies. The Department of Rural Water Supplies (DRWS) coordinates the activities of water suppliers in rural areas. The Department used to be an integral part the Ministry of Agriculture, Water Economy and Processing Industry of the Kyrgyz Republic, and later was assigned to the Agency of Local Self-Governance of the Kyrgyz Republic. At the end of 2009 it was transferred to the Ministry of Natural Resources of the Kyrgyz Republic.

239. Municipal or republican governments own most urban water supply systems and companies. In those rural areas where water supply networks have been newly built or renovated under the projects financed by the World Bank or the Asian Development Bank, the operation and maintenance of water supply networks is supervised by the Rural Public Associations of Drinking Water Users (an elective community association with several employees who are paid to from water tariffs). The rural water supply networks are now owned by those associations. In other cases, water supply companies are municipal or communal property.

240. In Kyrgyzstan, local self-governments are responsible for delivery of water supply and sanitation services. The water supply companies, after consultations with regional antimonopoly body, file an application to local self-governments who set drinking water tariffs for urban population and inhabitants of regional centers and urban settlements. Household water bill on average amounts to less than 1% of their total disposable income.

241. The Government of the Republic of Kyrgyzstan attracts international loans and grants. Major projects on improved rural water supply and sanitation were completed in 2007-2008. The World Bank is implementing its second project on rural water supply and sanitation. The overall cost of the project is estimated at \$ 20 million. The European Bank for Reconstruction and Development considers the possibility of allocating a loan of €5.4 million to a water supply company in the city of Bishkek to finance the replacement of the facility's equipment.

242. There is an example of first public-private partnership in the WSS sector in Kyrgyzstan. Water system lease contract was signed in the city of Kant (23 000 residents). In 2005, the WSS system of the city of Kant was leased out to a limited liability company operating on the basis of three-year lease contracts (as of late 2009, the ongoing lease contract was the contract signed in 2007). Lease payments help to invest the renovation of operating water supply network.

243. The company has stable financial position. The water operator uses its annual profits to purchase equipment and improve water supply network services. The company also paid back the debt of a previous operator (a municipal water supply company) amounting to 5 million soms (equals to € 80 000). The collection rate of domestic user charges reached 80%. Commercial and state-financed users pay utility charges according to water meters. The company applies penal sanctions for late utility bills to all groups of users.

244. The positive experience gained by the company in the field of improved water network management in the city of Kant aroused the interest on the part of other water supply and sanitation companies in Kyrgyzstan.

245. At present, private participation in Kyrgyzstan's water supply and sanitation sector would most likely be on the basis of management contracts. Yet lease contracts may also be concluded in some cities with satisfactory water supply and sanitation networks and reasonably high collection rates.

**Moldova****Brief characterization of PSP in WSS in Moldova:**

- Very limited experience with PSP: a few small private operators operate in rural areas.
- Favorable framework for PSP is still to be developed.

246. In Moldova, most surface water is concentrated in the rivers of Dniester and Prut. However, ground water is a basic source of drinking water supplied to 65% of the republic's population.

247. The centralized water supply services are accessible to 66% of settlements. Among those residents who have access to piped water supply 49% live in areas without sewerage network.

248. Almost 44% of the population has no reliable access to safe sources of drinking water. In rural areas the diseases caused by water of low quality constitute the most urgent problem. According to the Government Strategy for Water Supply and Sanitation in Settlements in the Republic of Moldova, only 17% of rural settlements have centralized water supply and sanitation networks.

249. Physicochemical and microbiological properties of drinking water do not conform with national standards. This is accounted for by the deterioration of treatment facilities or occasional cessation of their operation in rural areas. According to the Strategy, 41% of water supply networks and 81% of pump stations are in poor state, which causes a growing number of breakdowns (4.9 breakdowns per 100 km of water supply networks per annum). Almost 80% of wastewater is not treated, thus causing further deterioration of surface water quality. Of more than 750 sewage treatment facilities built up in rural Moldova before the disintegration of the Soviet Union, now there is no single operating facility.

250. Moldova has been among the first republics of the former Soviet Union to use water meters. Countrywide installation of water meters, and specifically individual water meters in multifamily housing, brought controversial results when WSS companies began to incur losses due to unaccounted-for water used by a multifamily house. Indeed, the installation of water meters led to significant reduction in user charges revenue because of differences between earlier applied housing water consumption norms and the amounts of water consumed according to readings of water meters. Besides, cross-subsidizing of domestic water tariffs at the expense of commercial and industrial users prompted many of them to drill their own boreholes instead of using water supply services. This reduced user charge revenues of water utilities (apa-canal) even more.

251. Eventually, the financial position of WSS companies worsened dramatically. The government's practice of keeping water charges down until recently in view of low household income, along with minor budgetary allocations to the water supply and sanitation sector, contribute, among other factors, to a crisis suffered by the water supply sector.

252. Being short of adequate financial resources needed to change the situation for the better, the government tries to tackle the problem by attracting foreign loans and grants. To that end, in 2006 Kuwait extended a loan for renovation of water supply networks in 6 settlements in Moldova. In 2008 the World Bank launched a project entitled National Strategy of Water Supply and Sanitation. Under the project, the Republic will be granted a credit estimated at \$ 14 million to finance the renovation of water supply and sanitation networks in order to improve the quality of WSS services and resume the delivery of water supply and sanitation services in rural areas. Austria, Sweden, Switzerland, Turkey, and the European Union provided grants for the implementation of water supply and sanitation projects in Moldova's settlements.

253. The Government of the Republic of Moldova shows its readiness to attract private sector to the WSS sector. The laws '*On Concessions*' (1995) and '*On Public-Private Partnerships*' (2008) were passed in the Republic of Moldova. Still those measures are not enough to ensure favorable investment climate for private sector.

254. Insufficiency of legal framework on PPP in Moldova, sharp deterioration of facilities of communal infrastructure, along with low incomes of population explain the reluctance of private sector to get involved in the urban WSS sector.

255. However, in Moldova, a few small private operators provide water supply and sanitation services in several rural settlements. These private operators are established on the initiative of a group of local inhabitants who are willing to renovate water supply and sanitation networks (see OECD, 2004 report “Water Supply and Sanitation in Rural Settlements in EECCA countries: Survey of Present Situation and Key Problems of the Republic of Moldova”). Private operators participate in the WSS sector mostly on the basis of management contracts. Another type of contracts envisages an option for a subsequent purchase of water supply and sanitation networks by a private provider of water services.

256. Water tariffs are most likely to be increased in big towns alone, and nowhere else, whereas tariffs for water supply and sanitation services in many rural settlements already exceed affordability limits. This is a strong constraining factor impeding private sector from being involved in management of communal infrastructure. For all that, the population of Moldova demonstrates more willingness to pay for high quality water supply services as compared to other EECCA countries. In those rural settlements where water supply and sanitation networks were renovated, the collection rate has risen drastically (on average, some 91% over 2005-2007, in some cases up to 98%).<sup>29</sup> This is a favorable background for more active involvement of private operators in Moldova’s water supply and sanitation sector.

257. In the opinion of international organizations, excessive fragmentation of the WSS sector is another pressing issue facing Moldova and Kyrgyzstan alike (the countries have over 40 water supply companies for 3 million inhabitants and 5 million inhabitants, respectively).<sup>30</sup>

258. A report on financing strategy for Moldova (OECD, 2007) suggests that regional water supply companies should be established in order to:

- Operation at a needed minimal scale / increase the number of served inhabitants to benefit from the “economies of scale”;
- Set a uniform tariff rate in the service area in order to remove excessive variations and obtain more affordable average tariff rate (say, less than €1 for one cubic meter).

259. It should also be mentioned that IFIs have supported the recommendation, and EBRD has already launched a feasibility study on development of regional water supply companies attractive to private operators. At the first stages of PPP introduction, private operators are most likely to be attracted to WSS sector in Moldova on the basis of management contracts. That means that private companies will operate water supply and sanitation networks and get their compensation as envisaged by the contract, while the state bears all financial and investment risks.

---

<sup>29</sup> OECD/EAP Task Force (2005). Water Supply and Sanitation in Rural Settlements in EECCA countries. Current situation and main problems in the Republic of Moldova. Principal Report. Chisinau.

<sup>30</sup> OECD/EAP Task Force (2009a). National Policy Dialogue on Financing Strategy for Urban and Rural Water Supply and Sanitation in the Kyrgyz Republic. Final Report; OECD/EAP Task Force (2008). Facilitating Policy Dialogue and Developing a National Financial Strategy for Urban and Rural Water Supply and Sanitation in Moldova. Final Report.

## Tajikistan

### Brief characterization of PSP in WSS in Tajikistan:

- Favorable framework for PSP is still to be developed.

260. The Republic of Tajikistan has the richest renewable water resources in Central Asia and in the whole of Eurasia.

261. Nearly half of Tajikistan population is connected to centralized water supply networks. In rural areas where 73% of the total country's population is concentrated, centralized water supply is available to 35.3% of inhabitants, as compared to 95.2% of urban population. Only 20% of the country's population has access to safe drinking water, while the major part of it has no sustainable access to water supply sources meeting sanitary-epidemiological standards. 16% of population is connected to centralized sewerage networks. As a consequence, Tajikistan is notorious for extremely high incidence of diseases caused by substandard drinking water.

262. In cities and regions' central towns average water consumption is 198.7 litres per day. In rural areas where water is supplied mostly through yard taps and public standpipes (street posts) water consumption ranges from 50 to 120 litres per capita per day.

263. Water supply and sanitation networks are in unsatisfactory conditions because of insufficient maintenance and renovation over the last two decades. One third of all water supply networks do not operate for a variety of reasons, other networks are heavily deteriorated. Water losses in water supply networks are up to 50-60% of water production. Over the last five years, the number of breakdowns of water supply and sanitation networks has increased by the factor of 1.5. Water supply services are delivered on average 14 hours per day because of limited electrical power supply. For rural areas the figure is even more modest: rural population has access to water supply services for only 8 hours per day. Over 80% of wastewater treatment facilities do not operate because of their deterioration. Only 30-40% of total wastewater collected into sewer networks passes through wastewater treatment facilities.

264. In Tajikistan water resources are owned by the state. In compliance with the national constitution the state guarantees an efficient use of the country's water resources. The government has the right to attract local and foreign water companies to operate water supply and sanitation facilities on a competitive basis.

265. Several organizations provide water supply and sanitation services: the state unitary enterprise Zhilishchno-kommunal'noye Khozyaistvo (Housing and Utility Sector), the Department of Construction, Design, and Operation of Rural Drinking Water Supply Networks and Stockwater Development (former enterprise Tajiksel'khozvodoprovod), and large industrial enterprises. The Republic has 52 water supply and sanitation companies, with 40 of them subordinated to the state unitary enterprise Zhilishchno-kommunal'noye Khozyaistvo. The Department of Construction, Design, and Operation of Rural Drinking Water Supply Networks and Stockwater Development supplies water to more than half of rural population.

266. Tajikistan' centralized and non-centralized water supply networks may be publicly owned by the state (republican and communal property), or held by public joint stock companies. The republican law forbids privatization (full divestiture) of centralized and non-centralized water supply networks.

267. The tariff rates for water supply and sanitation services are set by authorized organizations, then agreed with the Ministry of Finance of Tajikistan, and, finally, are submitted to the Antimonopoly Policy and Support of Entrepreneurship Department under the Ministry of Economic Development and Trade of Tajikistan.

268. The utility rates for water supply and sanitation services are maintained at 0.5-1% and 0.2-0.4% of per capita income, respectively. WSS services are paid for by population on the basis of established consumption standards (norms), since domestic users rarely have water meters installed.

269. There is substantial cross-subsidization: tariffs established for rural consumers cover approximately 15% of the cost of consumed services. At the same time, commercial consumers pay for water supply and sanitation services on average 4 times as much as domestic consumers (households) pay.

270. Non-revenue water amounts to some 35%, while the collection rate (as per cent of billing) is below 50%. As a result, water supply and sanitation networks, including those in rural areas, are significantly underfinanced. In the present situation, maintenance is the first to be compromised: even if to take into account government subsidies, just 25% of total expenditure for the sector is channeled for the maintenance of water supply and sanitation networks.

271. The WSS sector strongly needs extra financing. To tackle water supply and sanitation problems the Government of Tajikistan turns to international financial institutions for aid:

- The Dushanbe Water Supply Project estimated at \$ 20 million is financed from the funds of the World Bank. The project will help Dushanbe' water supply company to replace water treatment equipment;
- The European Bank for Reconstruction and Development, in cooperation with the Swiss Agency for Development and Cooperation and the State Secretariat for Economic Affairs of Switzerland, provides financial resources to improve water supply services in the town of Khujant in the amount of \$ 4.7 million (the sponsor contribution comprises \$ 1.2 million in loans, \$ 0.35 million and \$ 3.15 million, respectively);
- The Swiss Agency for Development and Cooperation supports the implementation of the project Development of Co-operation between Public Institutions, Donors, and Organizations for Increased Responsibility, Sustainability and Efficiency in Rural Drinking Water Supply.

272. Taking into account the state of water supply and sanitation facilities in Tajikistan, private companies are most likely to get involved in the WSS sector on the basis of management contracts. This form of PSP is also supported by existing legislative mechanisms regulating a competitive transfer of water supply and sanitation facilities to private companies for operation.

## Uzbekistan

### Brief characterization of PSP in WSS in Uzbekistan:

- First attempts to develop PPP projects in Bukhara and Samarkand have ultimately failed.
- Favorable framework for PSP is still to be developed.

273. Ground water is a main water resource in Uzbekistan. The rivers of Syr–Darya and Amu–Darya are major sources of surface water. The republic suffers from water shortages, with Kara-Kalpak, Khorezm and Navoi leading among mostly hurt regions (provinces).

274. In 2006, 86.5% of urban population and 66.3% of rural population had access to safe sources of drinking water. Centralized sanitation services were available to 39% of people living in towns and 1.5% of rural inhabitants. The average water consumption is 318 litres per capita per day for urban people, and 70 litres per capita per day for rural residents.

275. Water supply and sanitation networks in Uzbekistan are in unsatisfactory conditions. With gradual renovation of water networks in process, almost 27.5% of water supply networks and 39.6% of sanitation networks are heavily deteriorated. Water losses (leaks) in water supply networks reach up to 50% of water production. In many settlements water is supplied according to a schedule and for no longer than 5 hours per day.

276. Interregional water mains are typically used in Uzbekistan to supply water to regions with insufficient or absent water resources.

277. Water supply and sanitation networks may be public, communal, or private property. In some regions water supply and sanitation networks are being privatized and transferred as a contribution to authorized funds of private enterprises. Yet the ownership of water supply companies is mostly held by the state.

278. Under the republican law, water supply and sanitation enterprises are the subjects of natural monopolies. The state adjusts prices and determines minimum range of services to be delivered by natural monopolies to groups of users. The State Committee on De-monopolization, Competition and Business Support jointly with the Ministry of Finance, which is responsible for price adjustments, supervise the activities of natural monopolies. The Ministry of Finance delegates the right to set utility tariffs and their threshold levels to financial departments of regional *khokimiyats*<sup>31</sup>. The water tariff rates are often considered on the basis of a ‘from achieved’ principle when the results achieved in the previous period are automatically increased by a certain percentage. Typically, the utility tariffs, estimated in such a way, do not consider such factors as inflation and depreciation of fixed assets. This adversely affects the state of water supply and sanitation networks.

279. The Uzbek Agency *Uzkommunkhizmat* assists in designing and implementing the state policy in housing and utility sector, conducts a coherent technical policy of development and renovation of communal infrastructure and enterprises, and encourages both national and foreign capital flows to that end.

<sup>31</sup> *Khokimiat* - regional or municipal government in the Republic of Uzbekistan.

280. To improve water supply and sanitation services in Uzbekistan, the international financial institutions:

- Participate in renovation of water supply networks in the cities of Bukhara and Samarkand (the project is estimated at \$62 million). Financial resources are provided by the International Bank for Reconstruction and Development (IBRD) (\$20 million), the International Development Association (IDA) (\$20 million), and the Government of Switzerland (\$9 million). The Government of Uzbekistan allocated funds in the amount of \$ 13 million;
- Give \$36 million in loans (the Asian Development Bank / ADB). The funds go to renovate water supply networks in the towns of Gulistan, Dzhizak, and Karshi;
- Extend a loan of \$25 million (the Asian Development Bank / ADB) to ensure better water supply services to rural residents of Navoi region and Kashkadarya region;
- Extend a loan of \$25 million (the Asian Development Bank / ADB) to deliver better water services to rural users in Dzhizak region and Surkhandarya region;
- Renovate drinking water supply networks in the Republic of Karakalpakstan and Khorezm region through loans extended by the Asian Development Bank (ADB) (\$38 million) and the Iran Export Development Bank (€10 million);
- Develop water supply network in the city of Tashkent. The project is financed by the European Bank for Reconstruction and Development (EBRD) in the amount of \$10 million.

281. To finance all these projects the international financial institutions either transferred financial resources to government authorities or invested in the form of government-guaranteed loans.

282. The project on renovation of water supply networks in the cities of Bukhara and Samarkand has been implemented envisaging the public-private partnership. A competitively selected private operator was involved on the basis of a management contract. Municipal investments were financed by international financial institutions.

283. Shortly after the project has been launched, the French company Veolia Water, acting as a private operator, demanded to raise water tariffs due to worsening economic conditions. The Government of Uzbekistan chose to cancel the contract and held another tender. An Austrian-Swiss company Amiwater was selected but soon this contract was terminated as well with a reference to unsatisfactory execution of contractual obligations by the operator. In 2007 the project was rearranged and took the form of an investment project. Water utility companies, supervised by public authorities, became responsible contractors.

284. The negative experience with PPP in the cities of Samarkand and Bukhara demonstrates the importance of a more careful consideration of the conditions of a tender and the terms of a contract, to be concluded between selected private operator and the owner of communal infrastructure (WSS system). If only the contract with the company Veolia Water contained renegotiation clauses, the cancellation of the contract might have been avoided.

285. Unsuccessful cooperation with the Austrian-Swiss company is mainly accounted for by the fact that the organizers of the bidding process were attracted by financial terms offered by the bidder rather than by professional skills of the operator. In both cases, the contracts were terminated because of their inability to compensate for all the defects of the institutional environment. The lack of experience in implementing PPP projects is to blame.

## **COUNTRIES WITH POOR CONDITIONS FOR PRIVATE SECTOR PARTICIPATION**

### **Azerbaijan**

286. Unsatisfactory state of communal facilities and networks is a distinctive feature of water supply and sanitation sector in the Republic of Azerbaijan. Water losses in water supply networks reach 50% of water production. A considerable share of water supply networks was built more than 50 years ago. The national water supply networks suffer 5-10-fold more breakdowns than EU countries.

287. Less than half of the population has access to centralized (piped) water supply services. Water shortages are common in most places. The quality of water supply services proves to be unsatisfactory. Water treatment is non-existent in more than half of the regions; water is supplied to most users 5-12 hours per day.

288. Sanitation services are accessible to 55% of the population. Of all sewerage users, 78% live in Baku, and 32% inhabit other urban settlements of the Republic. In Baku hardly half of wastewater is treated (90% undergo biological treatment, and 10% - only primary treatment). In the vast majority of other settlements all wastewater is discharged into water bodies without any treatment.

289. Azersu JSC, a state-owned joint stock company, is the only provider of centralized water and sanitation services in the Republic of Azerbaijan. The state does not plan to privatize or split up the company in the coming years.

290. The features below are indicative of activities conducted by Azersu:

- Low revenue from user charges is a persistent problem to the company. Only 67.4% of total user charges, including 46.7% of domestic user charges, were collected in 2008.
- Credit debts incurred by the company are growing due to low collection rate. The amount owed by Azersu from October of 2002 through May of 2009 for consumed power exceeded 48 billion manats (€42.0 million). The amount is commensurate with 44% of the overall cost of resources and services provided by Azersu in 2008;
- The state-funded program of water meters installation is being implemented in the Republic since 2006. The approved program assumed that in Baku the installation should have been completed in 2007 and countrywide by the end of 2008. However, only 35.5% of users were provided with water meters as of July 1<sup>st</sup> 2009. The installation of water meters in multifamily houses is financed from budgetary funds.

291. International organizations and development banks provide their assistance to the Republic in tackling water supply and sanitation challenges. The following projects are being implemented:

- Azerbaijan Second National Water Supply and Sanitation Project<sup>32</sup> for 2009-2012, financed from a loan provided by the World Bank (\$230 million), and a credit allocated by the International Development Association (\$30 million). The project will improve water supply and sanitation services for some 570 000 people;

---

<sup>32</sup> Azerbaijan Second National Water Supply and Sanitation Project (SNWSSP), WBID P109961.

- The project on Water Supply and Sanitation Renovation in the towns of Gyandzha and Sheki is jointly financed by KfW, the State Secretariat for Economic Affairs of Switzerland (Seco) and the government of the Republic of Azerbaijan. The project aims to improve the living conditions of residents from mentioned above urban settlements and, to that end, improve the quality of supplied water and ensure 24-hour water supply. The project's budget amounts to €55 million, including a loan of €37 million allocated by the German part, a grant of €10 million contributed by the Swiss part, and budgetary funds in the amount of €8 million provided by the government of Azerbaijan.

292. Private operators are unlikely to be attracted to the WSS sector since the delivery of water supply and sanitation services in the Republic of Azerbaijan is concentrated in the hands of only one operator. However, a *service contract* with specified requirements to quality, and other parameters may be signed with Azersu, JSC.

### **Belarus**

293. As of January 1<sup>st</sup> 2005, housing and public utilities organizations operated water supply networks in 3 353 settlements, including 3 154 rural settlements, sewage networks in 1 725 and 1 222 settlements, respectively. These utilities maintained 7 007 boreholes, 25 393.6 km of water supply networks and 13 234.5 km of sanitation networks, and 988 wastewater treatment facilities.

294. Domestic users consume nearly 70% of total water use. 96.5% of urban households have access to centralized water supply and sanitation networks. In rural settlements the access to centralized water supply and sanitation services is 2-3 times lower. The level of water consumption is rather high: in Minsk household consumption reached almost 300 litres per capita per day (given a 24-hour supply). The average household water consumption in other major cities, such as Brest, Grodno, and Vitebsk, amounts to 200-230 litres per capita per day.

295. The following figures describe the status of water supply and sanitation facilities and networks in the Republic of Belarus:

- Accumulated depreciation of the fixed assets exceeds 50%. As a consequence:
  - ✓ Nearly 10% of WSS networks are broken down or very close to that state;
  - ✓ 0.5 to 2 breakdowns per one kilometer of water supply networks are registered every year;
  - ✓ Over the last decade the unaccounted-for water invariably has remained at 20% of overall water consumption;
- More than 50% of centralized drinking water supply systems lack facilities to treat water up to standard quality;
- Up to 40% of urban wastewater treatment facilities are either overloaded or operate at full capacity. Almost 50 billion cubic meters of inadequately treated wastewater is discharged into water bodies.

296. Multiyear financial gap in the water sector caused technical problems due to:

- Low revenues of WSS companies (in 2009 an average tariff rate is €0.22 for one cubic meter of water supplied and €0.17 for one cubic meter of wastewater) which are not sufficient to adequately maintain WSS infrastructure, not to mention their much needed renovation;
- Even lower water tariffs for domestic users (on average, €0.08 per one cubic meter of supplied water and €0.06 per one cubic meter of wastewater) hardly cover 40% of financial costs incurred by facilities of communal infrastructure due to production and delivery of water supply and water sanitation services;

- Substantial share of cross-subsidies is financed by commercial users (water tariffs for industrial users are 6 times as high as those paid by domestic users, and 2.7 higher than weighted average cost of water supplies);
- Low collection rate of utility charges, particularly in case of industrial users.

297. Water supply and sanitation sector of the Republic of Belarus comprises 50 public utility companies operating in midsize urban settlements and big cities of the Republic of Belarus, and 6 regional water supply and sanitation companies operating in other settlements.

298. According to the law ‘*On Drinking Water Supply*’ adopted in the Republic of Belarus in 1999, ‘the ownership of drinking water supply networks may be republican, municipal, or held by legal entities or individuals’. Actually, apart from Slonimsky Vodokanal, JSC, controlled by the state, all Belarusian water companies are owned by municipalities or regions (*oblasts*). Public-private partnerships are non-existent in the WSS sector of the Republic of Belarus.

299. Water supply and sanitation sector in the Republic of Belarus is vertically integrated from local utilities to central government. The decentralization attempt of the mid-1990s, when full responsibility for regulation of water supply and sanitation services for settlements was delegated to the local level, was considered unsuccessful and the old system was reinstalled in 1999. Though water companies are the property of municipalities, the republican Ministry of Housing and Utility Services conducts the overall supervision and provides financial recourses to develop the water infrastructure.

300. The Council of Ministers of the Republic of Belarus sets utility rates for domestic users which are the same countrywide. However, local governments are entitled to revise the republican utility rates within the legal terms and on the basis of actual utility costs borne by utility operators. At the same time, the law of the Republic of Belarus envisages that the overall utility rates for domestic users should not exceed 50% of utility costs. Besides, annual user charges for all utility services should not be increased for an amount higher than €3.5. Along with these legislative limitations the republic provides targeted social assistance to help low-income households pay their utility bills. The System of Social Service Standards approved in 2003 establishes that citizens whose utility charges exceed 20% of their income (15% - for rural residents) may be qualified as eligible for non-cash (in-kind) housing subsidies.

301. The state program *Clean Water* provides mostly budgetary funds to finance the development of water supply and sanitation sector. Under the program, total expenditures on renovation and development of water supply and sanitation sector in 2006-2010 are estimated at €138.3 million, of them according to sources of financing:

- 50% - republican, regional and local budgetary funds;
- 48% - republican foundations (environment conservation foundation, institutional investors, etc.);
- 2% - funds allocated by utility companies.

302. The participation of international capital flows in financing the development of water supply and sanitation sector in the Republic of Belarus is minor. In 1994-1997 the World Bank had an urban WSS project under preparation but it was canceled as the bank suspended its program in Belarus.

303. In October 2008, the World Bank decided to provide a credit to the Republic estimated at \$60 million to finance the renovation of the WSS sector in 20 districts inhabited by 18% of the republic’s population.

## **Turkmenistan**

304. Turkmenistan is the only country, of all those reviewed in this survey, with completely unavailable official data on water supply and sanitation sector - both nationally (through republican statistics agencies) and internationally (in data bases of international organizations, particularly those of the World Bank).

305. There is a three-stage water resources management in Turkmenistan. The Ministry of Water Economy is authorized by the state to use national water resources. The structure of the ministry comprises water economy associations Suvkhodzhalyk uniting 5 *velayats* (regions) of the republic, and a water basin economy association Karakumsuvkhodzhalyk. The water economy departments of etraps (districts), which operate within the boundaries of their respective etraps, are subordinated to water economy associations of velayats.

306. Nearly 82% of the country's water resources come from transboundary water courses. Subsurface (ground) water is mainly used in undeveloped and sparsely populated areas. Return drainage water contains the residuals of mineral fertilizers, and, therefore, can be used neither for domestic nor for industrial use. Agricultural sector is a principle user of water supply services in Turkmenistan. It consumes as much as 90% of the total amount of water resources. In 2005 water users consumed an average of 260 litres per capita per day for domestic needs (including for drinking).

307. Over the last 16 years Turkmenistan has been the only post-soviet country with free water supply services for all groups of population. Despite absolute financial affordability of water supply services for population, the access to safe drinking water in the republic is unsustainable. Apparently, the existing renewable resources of water are not enough to satisfy the needs of domestic and industrial users. The water supplied to users often does not meet sanitary-epidemiological and chemical standards applied to drinking water.

308. The population of the western part of the republic, and specifically of the Caspian Sea shore region, suffers most from inadequate water supply. In the City of Turkmenbashi - major seaport -water services are delivered on average every 10-12 days and only for 1-2 hours. More than half a million inhabitants of Dashgouz velayat, which is a part of the Aral zone of ecological catastrophe, has no access to clear piped water. They use substandard saline surface water instead. The inhabitants of that velayat frequently die of hepatitis, enteric intoxications, and other infectious diseases. In Dashgouz, the velayat's center town, water is supplied twice a day for one hour (in the morning and in the evening).

309. Though adequate access of population to drinking water supply services was set up as one of priorities of the National Program of Improvement of Social and Housing Conditions in Villages, Towns, Etraps and Etrap Centres for the period till 2020 strong efforts are yet to be made to attain, at least partially, sustainable access of population to centralized drinking water supply services.

## CONCLUSIONS AND RECOMMENDATIONS

310. The last decade has not witnessed any major breakthrough in tackling the challenges facing the water supply and sanitation sector in the countries of EECCA. However, most EECCA countries demonstrated substantial improvements achieved in the institutional and legal framework in their water sectors. This encouraging trend is indicative of the need for continuing institutional changes to their successful completion.

311. One of key institutional changes entails enabling private participants to get involved in the water sector. These are primary outcomes of institutional changes achieved as of a midyear of 2009.

312. In terms of developing an effective institutional environment, which is essential to facilitate private involvement in the WSS sector, the countries of EECCA fall into four groups.

- **The first group comprises Azerbaijan, Belarus, and Turkmenistan.** The governance systems in these countries are strongly centralized. This also affects the responsibility for operational management of the WSS sector which remains in the domain of public authorities. The principle of vertical operational management of the WSS sector, with country-to-country variations, has been adopted and applied nationwide. It is clear that in such circumstances private enterprises are not invited to the water sector. In fact, eventual private involvement should be preceded by deep institutional changes.
- **The second group includes Kyrgyzstan, Moldova, Tajikistan, and Uzbekistan.** In these countries the participation of private sector in WSS is either non-existent or very modest. Although there is a certain ground for private involvement. This minor or absent private participation is accounted for, principally, by a decentralized approach to operational management of WSS enterprises according to which central government transfers associated responsibilities to regional or local authorities. In current political environment in these countries the decentralization approach is more specific to Kyrgyzstan and Moldova rather than Tajikistan and Uzbekistan. Consequently, private participation in the WSS sector is more likely advance in Kyrgyzstan and Moldova.
- **The third group includes Georgia, Kazakhstan, and Ukraine.** In recent years much has been done in these countries to create a favorable climate helping to encourage private involvement in the WSS sector. This has been proclaimed as a national approach to private participation in the water sector. Kazakhstan has gained valuable experience of private participation in the WSS sector entailing both successful and problematic cases. However, these activities are not large-scale, and are reviewed only as individual cases and practices. The prospects for development of private participation are only being outlined.<sup>33</sup>
- **The fourth group consists of Armenia and Russia.** In these two countries private participation in the WSS sector has been arranged on a large scale, and trends demonstrate the sustainable development of private participation. Participation of private enterprises in the WSS sector has become common practice. With varying enabling approaches and tools being applied, the countries have generally accumulated valuable experience in developing successful public-private partnerships in the WSS sector. The body of experience developed in these countries provides a strong basis for analysis of private participation in WSS.

---

<sup>33</sup> In 2009-2010 Georgia has been progressing very fast towards full divestiture (privatization of fixed assets) of WSS infrastructure. However, the outcomes of the process in terms of improving performance of the sector while maintaining WSS bill affordable for the population has yet to be seen.

313. The extensive experience accumulated by Armenia and Russia should so far be considered as top achievements in private participation in the WSS sector in EECCA over the last decade. This valuable experience naturally varies from country to country. Therefore it is essential to briefly review on the achievements made by each country.

- **Armenia**

- ✓ In Armenia PPPs have been developing within the framework of a sufficiently well defined government policy with the primary focus on pressing issues facing the water sector. Specifically, the State Water Sector Development Strategy has been designed and adopted to this end.
- ✓ From the very beginning the emphasis has been on promoting the participation of international financial institutions and foreign private operators. Nonetheless, it has been of fundamental importance to understand that in Armenia, with due account of its national circumstances, investment responsibilities had to remain generally with public authorities, while private sector participated principally to ensure increased operational efficiency.
- ✓ Financial status of utility companies and existing socio-economic constraints impeding the growth of utility tariffs generated the need for gradual and consistent involvement of private companies, at first on the basis of mid-term management contracts with a guaranteed compensation to private operator, and then, on the basis of long-term lease contracts with private operators taking financial and commercial risks.
- ✓ Along with the policy-based involvement of private sector, a national regulatory agency was established to enhance utility tariff regulation procedures, making them less politically sensitive. This was an important step towards encouraging the private involvement.
- ✓ Utility companies acting on economic management principles have been established for the purpose of attracting private participants to the sector while transferring the associated responsibilities to the regions. To this end, multiple utilities have been consolidated to form a joint-stock company with the state being a majority shareholder, and municipalities, whose utilities formed the authorized capital of the company, holding the remaining share. This politically controversial solution has proved to be reasonable in practice.
- ✓ Operation contracts have been awarded to private companies on the basis of transparent international competitive tendering.

- **Russia**

- ✓ In 2003 federal government triggered private participation incentives. The government has come to recognize the need for sharing the risks of possible utility problems with private companies. However, government policy encouraging private participation in the utility sector had not been designed at that time.
- ✓ From the very outset the stakes have been placed on large-scale private Russian enterprises. The first national operator 'Russian communal systems' has been formed by six large Russian companies under government control.
- ✓ In 2004-2005 a legislative framework has been designed in order to enable private participation. To support the implementation of the national project Affordable Housing to Citizens of Russia a legislative package was adopted. This included a number of laws essential for advancing the development of PPP such as the law '*On Regulation of Tariffs of Utility Companies*' (Federal Law #210), '*On Concession Agreements*', (Federal Law #115), and the Housing Code. The laws could be improved and their application is still limited. However, they have played an important role in giving a strong political impetus to addressing a lot of organizational issues.

- ✓ Russian business demonstrated its willingness and readiness to enter the new sector. The national business has a sufficiently well developed structure, with actual (if not adequately transparent) marketing competition. There are first examples of business expansion in WSS outside Russia.
- ✓ From 2004 onward, the revenue from utility charges in large cities has become sufficient to cover the operational costs incurred by utility companies. Substantial shortage of technological and operating efficiency in utility companies provided many opportunities to save and reduce costs. This helped to bolster private participation in the water sector.
- ✓ The cooperation of Russian water companies with IFI and western companies aiming at attracting international loans, and helping them further to enter the authorized capital of a utility company, demonstrates the sustainability of the Russian water business. Almost every Russian private operator has gained positive experience of such cooperation.

314. Other countries of EECCA (except Georgia) have so far witnessed minor achievements in enabling private participation in the WSS sector.

315. None of EECCA countries has so far succeeded in developing the enabling institutional environment and regulatory framework fully complying with the OECD Principles for Private Sector Participation in Infrastructure (see Table 4). The scope of challenges to be tackled to ensure the development of effective institutional environment and regulatory framework and to enable private involvement in WSS for the benefits of end-users, private sector and society, is so vast that it currently outweighs the achieved positive outcomes. On average, in the countries observed, the institutional environment and regulatory frameworks meet the Principles for Private Sector Participation in Infrastructure only to the extent of 45.1%. Armenia has the best conformity level (67.5%) among all EECCA countries, whereas in all other countries observed the level of conformity is lower than 50%<sup>34</sup>.

---

<sup>34</sup> The quantitative evaluation of the level of conformity of the institutional environment and regulatory framework to the Principles for Private Sector Participation in Infrastructure relies on the estimates made by experts from these countries who responded to the questions contained in the Checklist of Actions of Public Authorities and Civil Society (see Table 4). This Checklist contains 24 principles, and the following procedure was applied to quantify the level of conformity of actual conditions for attracting private businesses with the principles formulated in the Checklist: for each of the 24 principles of the OECD a score evaluation was made, and a full score (1) was assigned in the event that the existing practice fully conforms to a particular principle; a 0.6 score – if the practice generally conforms; a 0.3 score – if the practice partially conforms; and a 0 score – if the practice does not conform to a particular principle at all. Then the scores for all 24 principles were summed up and divided by the number of principles for which information was available for the given country (i.e. the maximum possible number of scores is 24). Figure 1 illustrates the evaluation results.

**Table 4. Assessment of the institutional and regulatory framework compliance with the OECD Principles for Private Sector Participation in Water Infrastructure, in Selected EECCA Countries**

OECD principles	Armenia	Russia	Georgia	Kazakhstan	Ukraine
<b>Deciding on public or private provision of infrastructure services</b>					
1. Informed and calculated choice	■	▣	▣	▣	▣
2. Financial sustainability of infrastructure projects	▣	▣	▣	▣	▣
3. Apply tailor-made model of private sector involvement	■	▣	▣	▣	▣
4. Preserve fiscal discipline and transparency	▣	▣	▣	▣	▣
<b>Enhancing the enabling institutional environment</b>					
5. Enabling environment	▣	▣	▣	▣	▣
6. Fight against corruption	No data	▣	▣	▣	▣
7. Create a competitive environment	■	▣	▣	▣	▣
8. Facilitate access to financial market	▣	▣	▣	▣	▣
<b>Goals, strategies and capacities at all levels</b>					
9. Consultation with stakeholders	▣	▣	▣	▣	▣
10. Empower authorities responsible for privately-operated infrastructure projects	▣	▣	▣	▣	▣
11. Clear and broadly understood objectives and strategies	▣	▣	▣	▣	▣
12. Mechanisms for cross-jurisdictional co-operation	No data	▣	▣	▣	▣
<b>Making the public-private co-operation work</b>					
13. Establish communication and consultation with private sector	▣	▣	▣	▣	▣
14. Full disclosure of project related information	▣	▣	▣	▣	▣
15. Fair, non-discriminatory and transparent awarding of contracts	▣	▣	▣	▣	▣
16. Output/performance based contracts	▣	▣	▣	▣	▣
17. Competent, well resourced and independent regulatory bodies	▣	▣	▣	▣	▣
18. Allowing for good faith, transparent and non-discriminatory renegotiations	▣	▣	▣	N/A	▣
19. Setting dispute resolution mechanisms	No data	▣	▣	N/A	▣
<b>Encouraging responsible business conduct</b>					
20. Responsible business conduct	No data	▣	▣	N/A	▣
21. Good faith and commitment	No data	▣	▣	N/A	▣
22. Fight against corruption	No data	▣	▣	▣	▣
23. Communication with the consumers	No data	▣	▣	▣	▣
24. Awareness and responsibility for the social consequences of actions	No data	▣	▣	▣	▣
<b>OVERALL SCORE</b>	<b>10.8</b>	<b>10.5</b>	<b>10.2</b>	<b>6.6</b>	<b>9.3</b>

Source: Questionnaire «Private Sector Participation in Water Sector», based on the Checklist for Public Auction, on Russia, Georgia, Kazakhstan, Ukraine; Gagik Khachatryan (2009). Overview of the private sector participation in the water supply and sanitation sector in Armenia. Draft; author's assessment.

Note: ■ full conformance; ▣ fair conformance; ▣ partial conformance; □ non-conformance

316. On top of some country-specific problems, there are a number of problems and challenges most crucial, shared and typical for the EECCA region. They are outlined below, with suggestions on how to address them:

- Nearly every country where PPP projects have been launched, with the exception of Armenia, had unreasonably high expectations regarding PSP. This led to disappointments and failed projects. EECCA governments continue to view private participation in the WSS sector as a source of capital for infrastructure investment, often setting unrealistic tasks regarding investments. To improve the situation, public authorities should, primarily, define realistic targets and tasks to be performed by the private sector. For instance, in most cases, it is advisable to separate investment risks (associated with extensions of existing WSS system and construction of new systems) from operational risks (associated with efficiency of utilities).
- Political risks for PSP remain significant. In fact, this is common not only in countries with strong centralized governance systems in WSS. For instance, in Russia some PPP contracts were canceled after municipal elections. Clearly defined contractual relations between public authorities and the private sector, with contracts granted in a transparent way, can help mitigate this risk. The Guidelines on performance-based contracts developed by the European Bank for Reconstruction and Development (EBRD, 2009) and the OECD (2010) might be useful in this regard.
- Some countries lack a clear vision of the role of PSP: is it a step towards full privatization of the WSS sector (that is, divestiture of communal infrastructure and utility systems)? A clear answer by public authorities is especially crucial in Georgia, Kazakhstan, and Russia, where full privatization of water supply and sanitation networks is already taking place. Considering international practice, it looks reasonable to impose legal restraints on privatization (full divestiture) of physical assets in the WSS sector in EECCA countries. Experience in the region suggests that, in the context of poorly balanced legislation, unadjusted procedures of utility tariff regulation, and inefficient judicial system, full privatization can lead to unjustified high political risks.
- The public mostly continues to view private companies as a driver for increased user charges, with only stagnant quality and sustainability of service provision. This perception calls for exchange of information and dialogue between key stakeholders to explore opportunities of PSP on case by case basis. Similarly, encouraging private operators to ensure the transparency of their activities can help. This can be done via a clause in the contract, or at a more general level, by a law on business information disclosure standards for enterprises operating in natural monopoly industries.
- The laws regulating concession contracts in the countries of EECCA proved to be ineffective. In most cases, this is because they are incomplete and because the economic environment is inadequate.
- In addition, some issues regarding the property of fixed assets are not settled. Ownership rights must be registered.
- Reliable information about the status of fixed assets is needed to develop balanced and tailored PPP contracts. This implies that utility systems must have design and technical documentation, and engineering certificates. This information is usually missing in EECCA countries.
- Competition for the market should be stimulated, inter alia through well-devised transparent tenders with appropriate selection criteria, focusing on the price and quality of WSS services.
- Private operators cannot operate without a sound tariff policy that makes tariffs and revenues from user charges predictable in the medium to long term. The contractual obligations and the preferred model of PPP directly depend on tariff setting mechanisms and on what costs are covered by tariffs. Where revenues from user charges are not sufficient to fully cover operation and maintenance costs borne by water utilities, it is unreasonable to discuss lease contracts, let alone concessions. Before moving to more advanced forms of PPPs, it is advisable to start with operation (management, service) contracts which mitigate the financial risks borne by a private operator. That route was followed by Armenia.

- Tariff policy can be used to drive the performance of the operator. Well designed tariff structures can stimulate costs reductions and resources savings, while encouraging full cost-recovery. Long-term utility tariffs are needed. In Armenia, they have been set on a competitive basis, as an outcome of tenders. Experience shows that tariff setting procedures work best if the authority in charge is part of the PPP contract (as it is involved in assigning tasks and responsibilities). In this perspective, the intention of Ukraine to establish a national regulatory body should be carefully assessed.
- Too small and fragmented settlements and services (a situation encountered for rural areas, small and medium-size urban settlements) are not attractive for private sector operators. Some countries (e.g. Ukraine) have gained experience in addressing this institutional issue. Possible options include (i) pooling several bids; the preferred bidder would conclude contracts with each municipality participating in the pool; or (ii) the establishment of one utility company which covers several municipalities; the utility may operate on the basis of a PPP model, and may be leased by a private operator; only one PPP contract will be concluded as only one utility company is established.

317. Enabling true long-term partnerships between public authorities and private companies within the framework of PPP contracts is a comprehensive, complex issue. The responsibility for tackling the issue lies in the domain of municipal or regional authorities. Public authorities are to provide substantial methodological assistance to local governments who play the role of a contracting authority. This would help boost a successful development of PPP. The creation of Centers for PPPs may become an important and helpful instrument to this end. Russia, Kazakhstan and other countries have already gained experience in establishing such centers. One of the tasks of PPP Centers is raising public awareness. Primary objectives to be achieved through the implementation of PPP contracts, management performance indicators and monitoring of those indicators must become accessible to the public.

318. The EECCA experience suggests that private sector participation in the WSS sector is an important tool – though not a unique one - helping to enhance operating efficiency, mobilize investments, and, ultimately, to ensure a higher-quality and sustainable provision of affordable WSS services for the benefit of end-users.

319. Based on this review, future work on PSP in WSS in EECCA could focus on addressing key existing gaps, including the following:

- Assistance to interested EECCA countries in developing WSS Sector Policy documents and/or Road Maps to PSP in WSS, based on the *OECD Principles for Private Sector Participation in Water Infrastructure* and good practices from EECCA, OECD and world-wide.
- Assistance to interested EECCA countries in improving their economic and environmental regulation of the WSS sector, as well as the sector performance monitoring system;
- Identification of good practices and development of recommendations on viable PPP models involving several small and medium-size settlements in urban and/or rural areas, as well as assistance to interested EECCA countries in pilot testing/implementing appropriate arrangements;
- Development of WSS sector governance and management capacity in EECCA: activities towards closing the aforementioned capacity gaps could be implemented jointly with international organisations, such as UNDP and UNECE, multi-lateral and national development banks, such as the World Bank, EBRD and Russian Development Bank (*Vnesheconombank*), other interested donors, national and international water organizations. Establishment of an EECCA Water Academy would create an important mechanism for capacity development and a tool for improving knowledge base for decision-making. Support to the establishment of PPP centers could also be considered.

## REFERENCES

- EC/TACIS (2003). Assistance to the ecological policy and implementation of the National Environmental Action Programme in the NIS. Development of the strategy of financing of water supply and sanitation in the big settlements of the Eastern Kazakhstan Region. Final Report.
- Government of Moldova (2007). Strategy of the water supply and sanitation of the settlement in the Republic of Moldova. Approved by the Resolution of the Government of the Republic of Moldova #662 as of June 13, 2007.
- Government of Ukraine (2008) National Report on the quality of the drinking water and the state of the water supply systems in Ukraine in 2007. Kiev.
- Ministry of Housing and Utility Sector of Ukraine (2008). Draft legal acts on reforming the housing and utility sector. The strategic plan for the Ministry of Housing and Utility Sector of Ukraine. Kiev.
- PPP Center of Kazakhstan (2008). The Concept of the Public Private Partnership in the Republic of Kazakhstan for 2009–2015. Draft.
- Government of Kyrgyzstan (2009). Development Strategy of the Kyrgyz Republic for 2009–2011. Bishkek.
- Ministry of Housing and Utility Sector of Ukraine (2009). Public Private Partnership in the Water Supply and Sanitation Sector. Analysis of the first steps and perspectives of the future development. Kiev.
- ADB (2005). Kazakhstan: the aggravation of the sector program Drinking Water. The Report of the technical assistance project consultants.
- ATKINS (2009). Sustainable Models of Finance for O&M, Reinvestment and Capital Expenditures. Case Studies of Efficient Management and Operation of WSS services: Bishkek Vodokanal and Kant Vodokanal.
- Chemonics International Inc. (2008). Kazakhstan: possibilities for public private partnership in the young country. Near-term perspectives.
- EBRD (2006). Commercial Laws of Georgia. An Assessment by the EBRD.
- EBRD (2007). Commercial Laws of Ukraine. An Assessment by the EBRD.
- EBRD (2009) Principles for balanced contracts between municipalities and private operators (available at: <http://www.ebrd.com/pages/sector/mei/ppp.shtml>)
- Gagik Khachatryan (2009). Overview of the private sector participation in the water supply and sanitation sector in Armenia. Draft.
- Martusevich R.A., Sivaev S.B., Khomchenko D.Yu. (2006). Public Private Partnership in the utility sector. Moscow: the Institute for Urban Economics.
- OECD (2004). Overview of Domestic and International Private Companies Operating in the Water Utilities Sector in Russian Federation. – Paris: OECD.
- OECD (2007a). Monitoring of Water Supply and Sanitation System in Kyrgyz Republic. Document 4.

- OECD (2007b). OECD Principles for Private Sector Participation in Infrastructure.
- OECD (2007c). Promote Achieving the Millennium Development Goals on Water Supply and Sanitation in Georgia through Extending the Financial Strategy for WSS to Rural Areas and Facilitating Related National Policy Dialogue. Interim Report.
- OECD (2008a). Facilitating Policy Dialogue and Developing a National Financial Strategy for Urban and Rural Water Supply and Sanitation in Moldova. Final Report.
- OECD (2008b). Financial Strategy for the Urban Water Supply and Sanitation Sector in Georgia. Document 2.
- OECD (2008c). Promoting the Use of Performance-Based Contracts between Water Utilities and Municipalities in EECCA. Case study no. 2: Armenian Water and Wastewater Company. SAUR Management Contract.
- OECD (2008d). Promoting the Use of Performance-Based Contracts between Water Utilities and Municipalities in EECCA. Case study no. 1: Yerevan Water Supply Company. Lease Contract.
- OECD (2008e). Promoting the Use of Performance-Based Contracts between Water Utilities and Municipalities in EECCA. Case study No.3: Shymkent water utility. “Water Resources – Marketing” Ltd.
- OECD (2008f). Promoting the Use of Performance-Based Contracts between Water Utilities and Municipalities in EECCA. Case study No.4: Berdyansk City Water Utility. “
- OECD (2009a). National Policy Dialogue on Financing Strategy for Urban and Rural Water Supply and Sanitation in the Kyrgyz Republic. Final Report
- OECD (2009b). Private Sector Participation in Water Infrastructure. Checklist for Public Auction.
- OECD (2009c). Promoting the Use of Performance-Based Contracts between Water Utilities and Municipalities in EECCA. Case study No.5: Kupyansk Water Supply and Sanitation Utility.
- OECD (2010). Guidelines for Performance-Based Contracts Between Water Utilities and Municipalities: Lessons Learnt from Eastern Europe, Caucasus and Central Asia.
- Sivaev S.B. (2008). Private Business in the Utility Sector: the practice of the development/ Moscow: the Institute for Urban Economics.
- UNDP (2006). National Plan on the integrated water resources management in Kazakhstan. The access to drinking water and sanitation in the Republic of Kazakhstan.
- UNDP (2006). Review of the national policy, legislative and institutional environment necessary for the establishment of municipal public private partnerships (PPPs) for public service delivery and local development in the Europe and CIS region. Caucasus.
- UNDP (2007). Analytical Report №2007/06 Public Private Partnership in Uzbekistan: problems, possibilities and implementation. Tashkent.
- UNDP (2009). Problems and recommendations for the rural drinking water supply at the level of communities. Dushanbe.
- USAID (2009). Georgia Water Utility Sector Reform Program. Final Report.

## Sources of information for country chapters

### Armenia

Gagik Khachatryan (2009), Overview of the private sector participation in the water supply and sanitation sector in Armenia. Draft.

OECD (2008c). Promoting the Use of Performance-Based Contracts between Water Utilities and Municipalities in EECCA. Case study no. 2: Armenian Water and Wastewater Company. SAUR Management Contract.

OECD (2008d). Promoting the Use of Performance-Based Contracts between Water Utilities and Municipalities in EECCA. Case study no. 1: Yerevan Water Supply Company. Lease Contract.

OECD/EAP Task Force (2007). Implementation of the National Financial Strategy for the Water Supply and Sanitation Sector in Armenia. Paris.

Web-site of the European Bank for Reconstruction and Development:  
<http://www.ebrd.com/country/armenia/index.htm>

Web-site of the World Bank:  
<http://www.worldbank.org.am/WBSITE/EXTERNAL/COUNTRIES/ECAEXT/ARMENIAEXTN/0,,menuPK:301584~pagePK:141159~piPK:141110~theSitePK:301579,00.html>

### Azerbaijan

National Water Supply and Sanitation Project, 2007 The newspaper “Nedelya”, the issue of April 17, 2009,  
[http://www.nedelya.az/article.php?mat\\_id=226&id=12](http://www.nedelya.az/article.php?mat_id=226&id=12)

The news agency “Rosbalt-kavkaz”, May 13, <http://www.rosbalt.ru/2009/05/13/640148.html>

The journal “Water magazine”, <http://www.watermagazine.ru/index.php?dir=3&id=1232>

The news agency “Apa Economics”, [http://ru.apa.az/news\\_За\\_6\\_месяцев\\_этого\\_138898.html](http://ru.apa.az/news_За_6_месяцев_этого_138898.html)

### Belarus

‘On present state and prospects of development of water supply and sanitation sector in Belarus’:  
<http://www.nestor.minsk.by/sn/2002/22/sn22215.html>

‘On social housing standards’: <http://www.nestor.minsk.by/sn/2003/39/sn33906.html>

The World Bank papers under the Water Supply and Sanitation project in Belarus  
<http://web.worldbank.org/external/projects/main?pagePK=51351038&piPK=51351152&theSitePK=40941&projid=P101190>

‘Water supply and sanitation state program ‘Clean water’ for 2005-2010’:  
<http://www.nestor.minsk.by/sn/2005/09/sn50902.html>

‘Water supply and sanitation: challenges and solutions’  
<http://www.nestor.minsk.by/sn/2008/03/sn80311.html> ,  
<http://www.nestor.minsk.by/sn/2008/04/sn80403.html>

## **Georgia**

EBRD (2006). Commercial Laws of Georgia. An Assessment by the EBRD.

OECD (2007c). Promote Achieving the Millennium Development Goals on Water Supply and Sanitation in Georgia through Extending the Financial Strategy for WSS to Rural Areas and Facilitating Related National Policy Dialogue. Interim Report.

OECD (2008b). Financial Strategy for the Urban Water Supply and Sanitation Sector in Georgia. Document 2.

UNDP (2006). Review of the national policy, legislative and institutional environment necessary for the establishment of municipal public private partnerships (PPPs) for public service delivery and local development in the Europe and CIS region. Caucasus.

USAID (2009). Georgia Water Utility Sector Reform Program. Final Report.

Web-site of the European Bank for Reconstruction and Development:  
<http://www.ebrd.com/country/country/georgia/index.htm>

Web-site of the World Bank:  
<http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/ECAEXT/GEORGIAEXTN/0,,menuPK:301751~pagePK:141159~piPK:141110~theSitePK:301746,00.html>

## **Kazakhstan**

EC/TACIS (2003). Assistance to the environmental policy and implementation of the National Environmental Action Programme in the NIS. Development of the strategy of financing of water supply and sanitation in the big settlements of the Eastern Kazakhstan Region. Final Report.

PPP Center of Kazakhstan (2008). The Concept of the Public Private Partnership in the Republic of Kazakhstan for 2009–2015. Draft.

ADB (2005). Kazakhstan: the aggravation of the sector program Drinking Water. The Report of the technical assistance project consultants.

Chemonics International Inc. (2008). Kazakhstan: possibilities for public private partnership in the young country. Near-term perspectives.

OECD/EAP Task Force (2003). Indicators of operational and financial activity of water supply and sanitation companies in Kazakhstan. Final report on the water supply and sanitation companies. Paris.

OECD/EAP Task Force (2008e). Promoting the Use of Performance-Based Contracts between Water Utilities and Municipalities in EECCA. Case study No.3: Shymkent water utility. “Water Resources – Marketing” Ltd.

UNDP (2006). National Plan on the integrated water resources management in Kazakhstan. The access to drinking water and sanitation in the Republic of Kazakhstan.

Web-site of Kazakhstan public-private partnership center: <http://ppp-center.kz/>

Web-site of the Association of water supply and sanitation companies (vodokanals) of Kazakhstan [Ассоциация предприятий по водоснабжению и водоотведению Республики Казахстан]:  
<http://www.kazsu.astanainfo.kz/>

Web-site of Agency of the Republic of Kazakhstan for regulation of natural monopolies:

<http://www.regulator.kz/>

Web-site of Ministry of Economic Development and Trade of the Republic of Kazakhstan:

<http://www.minplan.kz/>

Web-site of online government of the Republic of Kazakhstan: <http://www.e.gov.kz/wps/portal>

Web-site of information portal Nomad: <http://www.nomad.su/>

### **Kyrgyz Republic**

Government of Kyrgyzstan (2009). Development Strategy of the Kyrgyz Republic for 2009–2011. Bishkek.

ATKINS (2009). Sustainable Models of Finance for O&M, Reinvestment and Capital Expenditures. Case Studies of Efficient Management and Operation of WSS services: Bishkek Vodokanal and Kant Vodokanal.

OECD/EAP Task Force (2007a). Monitoring of Water Supply and Sanitation System in Kyrgyz Republic. Document 4.

OECD/EAP Task Force (2009a). National Policy Dialogue on Financing Strategy for Urban and Rural Water Supply and Sanitation in the Kyrgyz Republic. Final Report.

### **Moldova**

Government of Moldova (2007). Strategy of the water supply and sanitation of the settlement in the Republic of Moldova. Approved by the Resolution of the Government of the Republic of Moldova #662 as of June 13, 2007.

OECD/EAP Task Force (2005). Water Supply and Sanitation in Rural Settlements in EECCA countries. Current situation and main problems in the Republic of Moldova. Principal Report. Chisinau.

OECD/EAP Task Force (2007). Financing water supply and sanitation sector of Moldova. Executive Summary of the final report. Paris.

OECD/EAP Task Force (2008a). Facilitating Policy Dialogue and Developing a National Financial Strategy for Urban and Rural Water Supply and Sanitation in Moldova. Final Report

### **Russian Federation**

State statistical review, forms: 1-vodoprovod, 1-kanalizaciia, 22-ZHKH (aggregated), 22-ZHKH (reform)

Interviews with selected domestic private operators (JSC “Evraziyskiy”, JSC “Rosvodokanal”)

Martusevich R.A., Sivaev S.B., Khomchenko D.Yu. (2006). Public Private Partnership in the utility sector. Moscow: the Institute for Urban Economics.

Sivaev S.B. (2008). Private Business in the Utility Sector: the practice of the development. Moscow: the Institute for Urban Economics.

OECD (2004). Overview of Domestic and International Private Companies Operating in the Water Utilities Sector in Russian Federation. – Paris: OECD

Web-site of the European Bank for Reconstruction and Development:

<http://www.ebrd.com/country/country/russia/index.htm>

## **Tajikistan**

UNDP (2009). Problems and recommendations for the rural drinking water supply at the level of communities. Dushanbe.

Web-site of European Bank for reconstruction and Development:

<http://www.ebrd.com/country/country/taji/index.htm>

Web-site of the World Bank:

<http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/ECAEXT/TAJIKISTANEXTN/0,,hPK:261514~menuPK:258749~pagePK:141159~piPK:141110~theSitePK:258744,00.html>

## **Turkmenistan**

“Turkmenbashi sea-port (Turkmenistan) faces portable water supply problem” [В порту Туркменбаши (Туркмения) обострилась проблема питьевой воды], web-site of information agency REGNUM: <http://www.regnum.ru/news/1193812.html>

N.Saparov: “Shortage of water in Turkmenistan; water in best case just covers the bottom of irrigation canals” [Н.Сапаров: Маловодие в Туркменистане. Вода, в лучшем случае покрывает дно оросительных каналов и арыков], web-site of information portal CentrAsia: <http://www.centrasia.ru/newsA.php?st=1211878320>

## **Ukraine**

Government of Ukraine (2008) National Report on the quality of drinking water and the state of the water supply systems in Ukraine in 2007. Kiev.

Ministry of Housing and Utility Sector of Ukraine (2008). Draft legal acts on reforming the housing and utility sector. The strategic plan for the Ministry of Housing and Utility Sector of Ukraine. Kiev.

Ministry of Housing and Utility Sector of Ukraine (2009). Public Private Partnership in the Water Supply and Sanitation Sector. Analysis of the first steps and perspectives of the future development. Kiev.

EBRD (2007). Commercial Laws of Ukraine. An Assessment by the EBRD.

OECD (2009d). Promoting the Use of Performance-Based Contracts between Water Utilities and Municipalities in EECCA. Case study No.4: Berdyansk City Water Utility. “

Web-site of the European Bank for Reconstruction and Development:

<http://www.ebrd.com/country/country/ukraine/index.htm>

Web-site of the World Bank:

<http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/ECAEXT/UKRAINEEXTN/0,,menuPK:328539~pagePK:141159~piPK:141110~theSitePK:328533,00.html>

**Uzbekistan**

UNDP (2007). Analytical Report №2007/06 Public Private Partnership in Uzbekistan: problems, possibilities and implementation. Tashkent.

Web-site of European Bank for Reconstruction and Development:  
<http://www.ebrd.com/country/country/uzbe/index.htm>

Web-site of the World Bank:  
<http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/ECAEXT/UZBEKISTANEXTN/0,,menuPK:294193~pagePK:141159~piPK:141110~theSitePK:294188,00.html>

## ANNEX 1. OECD PRINCIPLES FOR PRIVATE SECTOR PARTICIPATION IN WATER INFRASTRUCTURE

Organised around the 24 OECD *Principles for Private Sector Participation in Infrastructure* (OECD, 2007), when being applied to the water sector, the aforementioned principles cover the following 5 key areas (OECD, 2009):

1. Deciding on the nature and modalities of potential private sector involvement;
2. Providing a sound institutional and regulatory framework for infrastructure investment;
3. Ensuring public and institutional support;
4. Making the co-operation between the public and private sectors work in the public interest;
5. Encouraging responsible business conduct;

Assuming that the following four pre-requisites are in place, or respective actions are undertaken:

### **1. Clarify the ultimate objectives for service provision and the opportunities and risks involved in private sector participation.**

The choice (**principle 1**) between different modes of service provision is a means to an end: ensuring access to sustainable and affordable services. It should follow an initial consensus on the service provision desired by society, an assessment of where and how private partners can add value and determination of the modalities of their participation. Quantitative tools exist, such as the Public Sector Comparator, which combined with qualitative analysis, can help governments better define the costs (including contingent liabilities) and benefits associated with private sector participation and can support policy dialogue on this issue.

In some countries, the private actors are already catering for sections of the population on an informal basis or with little visibility – including the small-scale operators and the big users. The issue for governments is not only to decide upon private sector involvement. They also need to consider ways to ensure greater insertion of existing private activities into the formal chain of service provision and include them in the oversight mechanisms. In order to reach the objectives, a wide range of risk sharing arrangements is available to policy makers, from the public sector assuming most of the risk to significant risk transfer to the private sector. Tailor-made models of private sector participation should take account of local specificities and make the best of private partners' strengths (**principle 3**). An appropriate risk allocation should be driven by an assessment of the party best able to manage risk (the party best able to influence the probability of occurrence or to deal with its consequences), so as to ensure value for money and the sustainability of the partnership (**principles 2-4**). The success of a model can be assessed only in the long run when sustainability and adaptation to changes can be proved.

### **2. Develop a conducive framework based on high-quality regulation, political commitment (including to fight corruption) and an adequate allocation of roles and responsibilities.**

Private participation in the water sector does not exclude a role for government. Indeed, the government has the essential responsibilities of establishing adequate policy and regulatory frameworks, institutions and contractual arrangements and overseeing their functioning (**principle 17**). It has the ultimate responsibility of meeting population's basic needs (**principle 5**). This is valid regardless of the private or public nature of service providers.

In that context, strong political commitment remains critical, notably in the fight against corruption (**principle 6**) and in addressing lack of access to water and sanitation and service affordability. A major lesson from past experience is the need to clarify the different roles for the public sector: political function, administration, regulation and operation of service delivery. A second important challenge is to ensure policy coherence. Water and sanitation infrastructure development is indeed closely related and dependant on other policies such as urban development, energy policy, etc. In particular, such infrastructure development should very often be addressed as part of an integrated urban planning programme that tackles housing, property right tenure and, where relevant, relocation.

In addition, water is a segmented sector, with oversight responsibilities for resource management and service provision often split horizontally between different Ministries, and vertically across national, regional and local authorities. This may raise important capacity challenges and also generate issues of consistency across government levels. Careful allocation of roles and responsibilities is needed across different authorities, taking into account existing capacity gaps, and based on resources allocated in line with duties and distributed in a predictable way (**principle 10**). Preserving consistency across government policies also involves strengthening co-ordination mechanisms across government levels (**principle 12**) and building common understanding across levels of government on the objectives, means and resources for water provision (**principle 11**). Regular monitoring and performance assessment can also help define capacity building needs and contribute to a better understanding of objectives.

### **3. Root the partnerships in strong accountability mechanisms, through clear and consistent contractual arrangements, monitoring and relations based on information-sharing and consultation with stakeholders.**

Contractual arrangements with the private sector in the water sector are typically long-term and as such not likely to cover all aspects of the complex relationship between the private sector and the public sector. Many past difficulties have also arisen from dispute over the real state of water systems and the quality of baseline data. No contract can be comprehensive enough to eliminate all elements of uncertainty. Mechanisms exist that may help reduce the uncertainty that comes with long-term incomplete contracts or deal with its consequences. They include: adopting performance-based contractual arrangements (**principle 16**); providing for clauses and mechanisms to frame the discussions on future issues as well as formal dispute resolution mechanisms (**principle 19**); strengthening competitive pressure (**principle 7-15**) and promote information sharing (**principle 14**). Monitoring processes can also contribute to reducing uncertainties when they are focused on a small number of key indicators that are clear and easy to measure. In any case, good faith and willingness of the parties to co-operate and find solutions will remain crucial. In that context, starting the discussion early when challenges arise and before conflicts escalate can help diffuse the tensions (**principle 18**).

Engaging the private actors to formulate their requirements and constraints can promote mutual understanding and better appropriateness of contracts (**principle 13**).

Past experiences have shown that partnerships should not be viewed as simply a bilateral relationship between the public and the private sector as they generate strong interest from consumers and communities. Greater involvement of civil society (NGOs, consumer groups) may contribute to developing a feeling of ownership on the part of the users and the communities, to better protection of consumer rights and to monitoring service provision (**principle 9**). Public consultation should be developed according to the principles of clear focus, representation and transparency. It requires time and resources and, therefore, should be organised strategically at important stages of policy-making and preferably start at the early stage of the projects. It may also require providing adequate training.

### **4. Private actors also have an important role to play and responsibilities in ensuring the sustainability of partnerships and that their contribution can make a difference in improving the lives of millions of people.**

Water, as a vital good involving important economic, social, environmental and political repercussions, requires strong commitment on the part of the private partners to responsible business conduct (**principle 20**) and to participate in infrastructure projects in good faith (**principle 21**).

Businesses have a critical role to play to promote integrity (**principle 22**) by engaging in timely, reliable and relevant information disclosure on activities, structure, financial situation and performance (including participating with good faith and commitment in due diligence processes) and supporting the development of a high quality regulatory framework while avoiding undue involvement in local politics. Showing a strong anticorruption commitment also involves going beyond communication on anti-corruption policies and internal management systems to the staff. A new corporate culture that provides incentives to stop corrupt practices should be established.

Companies also have an important role to play in evaluating the social and environmental impacts of their activities (**principle 24**), mitigating the potential negative impacts and contributing to the country's development goals. They can contribute to the assessment and discussion of the consequences for the poor of technology choices, tariff setting policy, and planned investments. They can also evaluate the impacts of activities on the environment and continuously seek to improve environmental performance. The difficulty lies with the set of indicators that are chosen to support their evaluations of social and environmental impacts. Following internationally-agreed guidelines such as the Global Reporting Initiative can facilitate the monitoring and comparison across companies. In addition, if private actors have a role to play in terms of local capacity building and the transfer and diffusion of technologies and know-how, this should take place in the context of national discussions on appropriate levels of service and technology, as technology choices may lock-in country service provision profiles for years.

Finally, being responsive to clients' claims (**principle 23**) and providing transparent and effective procedures to address complaints can contribute to building mutual understanding and improving service provision.

## ANNEX 2. PPP PROJECTS IN THE WSS SECTOR IN THE EECCA COUNTRIES

Table 5. Attributes of the WSS Sector in the EECCA countries

	Armenia	Russia	Georgia	Kazakhstan	Ukraine	Kyrgyzstan	Moldova	Tajikistan	Uzbekistan	Azerbaijan	Belarus	Turkmenistan
Population at the beginning of 2009, thousand people	3 238	141 900	4 385	15 777	46 000	5 276	3 568	7 374	27 555	8 730	9 672	6 746
Percentage of urban population (2007)	64,0%	73,1%	52,5%	53,2%	68,0%	34,6%	41,4%	26,3%	36,1%	51,8%	73,9%	46,7%
Percentage of residential premises equipped with:												
- piped water supply		76%		56%	57%	44%	36%	30%		53%	69%	
- sewage		72%		46%	55%	36%	32%	27%		33%	67%	
Percentage of population that has access to piped water supply services												
- urban areas	97%	89%	96%	78%	99%	82%	56%	93%	90%	85%	97%	85%
- rural areas	53%	46%	67%	35%		58%		49%	71%	25%	48%	42%
Percentage of population that has access to centralized sanitation services												
- urban areas	60%	87%	93%	84%	67%	68%		20%	85%	45%	97%	62%
- rural areas	15%	35%	29%	10%		28%		5%	40%	5%	32%	2%
Water losses in the process of transportation as a proportion of the total volume of water abstracted from natural water sources	32,0%	9,5%		11,9%	18,0%	37,2%	7,8%			32,8%	10,0%	
Water consumption for household/domestic needs, per one citizen (liters per capita per day)	97,3	218,2	223,7	127,6	125,3	71,1	95,2			109,2	162,6	
Expert evaluation of the average daily volume of water consumption by population	115	190	180-250	50-220		50-125		30-180	70-318	105	230	260
Average duration of water supply, hours/day												
- urban areas	8	24	4-24	18	16 - 24	16		18-24	18	7	24	18
- rural areas	17	24	2-10	9		6		4-24	8	10	24	6

	Armenia	Russia	Georgia	Kazakhstan	Ukraine	Kyrgyzstan	Moldova	Tajikistan	Uzbekistan	Azerbaijan	Belarus	Turkmenistan
Tariff for 1m <sup>3</sup> of water for commercial consumers as related to the tariff for population, times	1,00	1,11	1,83	4,95	1,62	2,33	2,50		2,10	3,89	3,14	---
WSS tariff collection rate for households, %	80%	94%	45%	85%		65%		80%	80%	42%		---
Availability of water consumption metering devices	70%	52%		60%	33%				85%	30%	62%	---
Number of the WSS sector enterprises	5	16877				>40	>40	52		1	57	
<b>Ownership to the WSS sector facilities and networks</b>												
- public	+	+		+	+	+	+	+	+	+	+	+
- private	+	+		+			+		+			
<b>Sources of financing operational expenditures of the WSS sector</b>												
Budget funds	19%	3%	30%	90%		75%		20%	50%	20%		75%
- national budget	12%	3%	30%	45%		50%		10%	25%	20%		75%
- local governments' budgets	7%			45%		25%		10%	25%	0%		0%
Budgets of the WSS sector enterprises	81%	97%	70%	10%		25%		80%	0%	80%		25%
Foreign investment	0%	0%	0%	0%		0%		0%	50%	0%		0%

Sources: Interstate statistical Committee of the Commonwealth of Independent States, <http://www.cisstat.com/2base/frame01.htm>

"Regional Review. Water Supply and Sanitation in the Countries of Central Asia and Southern Caucasus". Global Water Partnership of the Central Asian Region and the Southern Caucasus, 2009, [http://www.cawater-info.net/library/rus/gwp/wss\\_review\\_2009.pdf](http://www.cawater-info.net/library/rus/gwp/wss_review_2009.pdf)

Data on tariffs in capital cities of various countries – Websites of city administrations

Sources of information on forms of ownership to water supply and sanitation (WSS) facilities are given in relevant country sections of the Review

Table 6. PPP projects in the WSS sector in the EECCA countries

Operator	Owner of operator	Service territory	Population residing within the service area (ths. people),	Ground for selection of operator	Contract description				Investments
					Type of contract	Contract start year	Contract end year	Expected contract period	
<b>Armenia</b>									
Yerevan Water, CJSC	Veolia Water	Yerevan and 32 neighboring rural settlements	1100	Competition	Lease agreement	2006	2016	10	Plan: Euro 9.1 million of Operator's own funds within the contract period
Armenian Water and Sewerage Company, CJSC	SAUR	37 towns and 280 rural settlements	619	Competition	Contract for management	2005	2010	4 + 2	n/a
Lori Water Sewerage , CJSC	Consortium of MVV Decon, MVV Energie, and AEG Service	1 town and 16 rural settlements	375	Competition	Contract for management	2009	2012	3 + 1	n/a
Shirak Water Sewerage, CJSC		2 towns и 35 rural settlements							n/a
Nor Akunq, CJSC “		2 towns и 9 rural settlements							n/a
<b>Russia</b>									
Amur Utility Systems, OJSC	RCS, OJSC	Blagoveshchensk	223	Owner's decision	Lease agreement	2003	2013	10	n/a
Kirov Utility Systems, , OJSC		Kirov	502	Owner's decision	Lease agreement	2004	2019	15	n/a
Novogor-Prikamie, LLC		Perm	982	Owner's decision	Lease agreement	2003	2052	49	n/a
Novogor-Prikamie, LLC		Berezniki	250	Competition	Lease agreement	2005	2035	30	n/a
Novogor-Prikamie, , LLC		Krasnokamsk	52	Owner's decision	Lease agreement	2006			n/a
Petrozavodsk Utility Systems, OJSC		Petrozavodsk	266	Owner's decision	Lease agreement	2005	2025	20	n/a

Operator	Owner of operator	Service territory	Population residing within the service area (ths. people),	Ground for selection of operator	Contract description				Investments
					Type of contract	Contract start year	Contract end year	Expected contract period	
Tambov Utility System, OJSC	RCS, OJSC	Tambov	294	Owner's decision	Lease agreement	2003	2028	25	n/a
Barnaulsky Vodokanal, LLC	Rosvodokanal, LLC	Barnaul	650	Owner's decision	Lease agreement	2005	n/a	n/a	n/a
Kaluzhsky Oblast Vodokanal, LLC		Kaluga Oblast	1 003	Owner's decision	Lease agreement	2006	n/a	n/a	n/a
Krasnodar Vodokanal, LLC		Krasnodar	711	Owner's decision	Lease agreement	2005	n/a	n/a	n/a
Omskvodokanal, OJSC		Omsk	1 140	Owner's decision	Lease agreement	2007	n/a	n/a	n/a
Orenburgvodokanal, LLC		Orenburg	526	Owner's decision	Lease agreement	2003	n/a	n/a	n/a
Tvervodokanal, LLC		Tver	409	Owner's decision	Lease agreement	2007	n/a	n/a	n/a
Tyumenvodokanal, LLC		Tyumen	600	Owner's decision	Lease agreement	2005	n/a	n/a	n/a
Vodokanal of Rostov-on-the-Don, OJSC		Evraziyskiy, OJSC	Rostov Oblast	1 062	Competition	n/a	2006	n/a	n/a
Yugvodokanal, LLC	Krasnodarskiy Krai		1 147	n/a	n/a	2006	n/a	n/a	n/a
<b>Georgia</b>									
AO "Tbilvodokanal"	Veolia Water	Tbilisi	1093	Competition	Lease agreement	2001	Agreement is early terminated	5	n/a
Georgian Water and Power	Multiplex Solutions			Competition	Privatization	2007	WSS facilities have been privatized		Plan: USD 350 million
<b>Kazakhstan</b>									
TOO "Water resources – Marketing"	TOO "Water Resources – Marketing"	Shymkent	534	WSS facilities owned by Operator					n/a

Operator	Owner of operator	Service territory	Population residing within the service area (ths. people),	Ground for selection of operator	Contract description				Investments
					Type of contract	Contract start year	Contract end year	Expected contract period	
The "Oskemen-Vodokanal" governmentally owned enterprise	"IR-Group"	Ust-Kamenogorsk	287	Competition	Trust management agreement	2004	Agreement was early terminated in 2007.	25	n/a
The "Almaty Suy" Joint Venture	Vivendi Water	Almaty	1200		Concession agreement	2001	Agreement has been terminated	30	Plan: USD 100 million from all sources of funding
<b>Ukraine</b>									
Infoxvodokanal	Infox, LLC	Odessa	1001	Owner's decision	Lease agreement	2004	Agreement was early terminated in 2008.	49	Plan: Euro 44 million during the agreement validity period, including Euro 19 million in 2006-2008 Fact: Euro 9 million in 2006-2008 (47% of planned investment)
Water Services, LLC	Water Services, LLC	Kirovograd	258	Owner's decision	Lease agreement	2006	Agreement was early terminated in 2008.	49	n/a
Lugansk Water Company, LLC	Rosvodokanal, LLC	Lugansk Oblast	2409	Competition	Concession agreement	2008	2033	25	n/a
Clear Water Berdyansk	n/a	Berdyansk	122	Competition	Concession agreement	2008	Pretern cancellation of the contract is initiated	30+20	n/a
<b>Kyrgyzstan</b>									
The City of Kant Vodokanal	OOO "Marketing-Service"	Kant	23	Owner's decision	Lease agreement	2007	2010	3	n/a
<b>Uzbekistan</b>									
The "Suvokova" Bukhara city industrial state enterprise	Veolia Water	Bukhara	247	Competition	Contract for management	2003	Agreement was early terminated in 2007.		Plan: USD 62.3 million during the contract period
The "Suvokova" Samarkand city industrial state enterprise		Samarkand	412						

Source: sources of information on each country are presented in References.