

The World Bank

The Organization for Economic Co-operation and Development (OECD)

The Bank-Netherlands Water Partnership

MARKET DEVELOPMENT STUDY

Strategies for Domestic – Private Sector Inputs

in the

Water Utility Management Markets

of

Eastern-Central Europe and Central Asia

Final

July 2005

Prepared by
C. Schmandt, Water & Environment Consultant
Zurich, Switzerland
cschmandt_consultant@freesurf.ch

EXECUTIVE SUMMARY

1.0 Introduction

While the countries of the Eastern-Central Europe and Central Asia (ECA) region have undergone dramatic political, economic and social changes since the dissolution of the Soviet and East Block 15 years ago, this has not yet translated into universally sustainable community water services. After a flurry of activity, the international private sector appears to be in retreat. Nor have private domestic companies emerged to fill the large gaps for management of and investment in water services. This diminishes not only regional efforts for greater democratisation, economic recovery and standards-of-living, but is also incompatible with commitments to meet the United Nation's millennium development goals (MDG) in the region.

Therefore, the Organization for Economic Cooperation and Development (OECD) and the World Bank, with funding from the Bank Netherlands Water Partnership, have joined together to evaluate likely causes and possible solutions. This market development study evaluates the opportunities for greater domestic inputs in community water services, especially through public-private-partnerships (also known as private sector participation) in the ECA region.

This study is part of a greater evaluation in the ECA region, but is unique because it is based on "grass-roots" inputs (questionnaires, case studies, workshop) by domestic entities on the community water services markets in their respective communities and countries. Domestic entities have the opportunity to voice their own perspectives on the state of the water markets. With these valuable insights, a study team compiles the key market deficiencies and, accordingly, presents strategies for domestic solutions towards better water utility management for the people of the ECA region.

The overall goal is to evaluate the potential for improvements in water utility management through greater domestic inputs of expertise and capital, and how this potential can be realized within the ECA region. A complementary study assesses the potential for greater inputs by the "international private-sector" in the ECA water markets.

2.0 Market Setting

The ECA region covers an immense area with great diversity in geography, cultures, religions and societies and is home to about 480 million inhabitants. Starting with the fall of the "iron curtain", the ECA region continues to be in the midst of a significant socio-political - economic transition with repercussions at the local, regional and global levels.

The business setting continues to develop in parallel with the ongoing governmental and institutional reforms of a region that now numbers 29 countries and can, in some circumstances, be unpredictable or even unstable. However, reform and stability are possible, as shown by the 8 ECA countries, which joined the European Union in 2004.

While the future political-economic prospects differ in each country, most of the ECA countries have not yet resumed previous levels of economic activity or standards-of-living. Only, one-third of ECA countries are relatively prosperous (primarily the new EU states), with two-thirds identified as "lower middle" or "low" income countries.

3.0 Market Overview

A clear need prevails in many communities of the ECA region for **improved water utility management capacities** and **increased investments** to attain universal and reliable coverage (at best 92% of ECA residents are connected to piped water supply and 85% connected to basic sanitation). This leaves a minimum of 36 million inhabitants without adequate drinking water and 74 million without adequate sewage systems, many in rural settings. Therefore, to meet the Millennium Development Goals, about 18 million inhabitants require safe drinking water and 37 million require adequate sanitation. But the United Nations reports progress is slow, if any at all. In addition, many ECA communities already with service “coverage” may endure unsatisfactory drinking water & wastewater services. The rehabilitation and replacement of existing, aged systems significantly increases community needs to ensure viable drinking water & wastewater services.

Many water utilities and their respective communities are caught in a self-perpetuating “unsustainable cycle”, characterized by ineffective service, insufficient revenues and, as a result, inadequate investments for system maintenance, upgrade or expansion. Further, the water sector has changed dramatically in the wake of the political changes, with nationalisation, decentralization and commercialisation shifting the bulk of responsibility to the local government, which had relatively little experience in community water services and often remains sympathetic to the social needs of its population.

Both the international and domestic private sectors are seen as potential instruments for improvements through greater application of expertise and capital. Yet, domestic inputs to date have been minimal in most ECA countries with notable exceptions, such as Russia, where now about 8% of water services market is “privatised” and the Czech Republic, where about half of all private operators are domestic companies. International inputs now appear stable in a tentative market, but have decreased since the “opening” of the new geographic area. Plus, community water service owners, utilities or customer bases are not always open to new arrangements or competition, limited by legal restrictions to the public service utilities/ companies or local-national attitudes against the introduction of a “market” approach to a “social-common” resource.

The ECA region represents a marketplace of 480 million inhabitants with a revenue potential grossly estimated at **US\$ 55 billion per year**, including commercial and industrial activities. The OECD and World Bank estimates investments totalling US\$ 100 billion are necessary for water & sanitation infrastructure over the next 10 years in the ECA region, and likely even more for the rehabilitation and upgrade of existing infrastructure systems. Yet, local revenue sources are often inadequate and the local finance sectors are generally not developed or focused on water sector lending.

4.0 Domestic Inputs

The basis of this Market Development Study is the grassroots input gained through:

- Survey/ questionnaire of Domestic “Experts” (49 respondents from 24 countries)
- Survey/ questionnaire of Domestic “Market Participants” (39 respondents from 17 countries)
- Case Studies in Piaseczno, Poland and East Bohemia, Czech Republic
- Region-wide Workshop in Moscow, Russian Federation

Overall, these inputs demonstrate domestic experience and frustration with barriers to market entry/ activities, but also demonstrate the slow progress being gained on the ground, as reported by companies with an optimistic outlook on their own capacities, and also for the overall future of the private sector market. The case studies provide two successful examples of long-term utility management & community services provided by private operators, albeit with significant “PSP introductory period” deficiencies in procurement, contracts, etc., which could, eventually, undermine the integrity of the PSP-PPP model and the structural gains attained in moving away from monopoly markets. The regional workshop provided further confirmation of these trends, with a focus on the surge of private sector activity in the Russian Federation.

5.0 Domestic Perspectives

The domestic inputs gained from questionnaires, case studies and the workshop send clear messages regarding **eight key limitations** to domestic inputs (or lack thereof) in the ECA water utility management markets.

Country Setting	Continuing transitions in the political, economic and social systems renders many parts of ECA as unstable business environments, with excessive “non-project” risk
Water Sector	Adaptation from previous regimes to newly independent states has resulted in vague legislation and limited ministry capacities.
Market Structures	Many ECA markets are entrenched in the traditional and unsustainable “water utility” model without accurate knowledge, legal basis or mechanisms to consider alternative solutions, ala mobilization of the private sector.
Domestic Market	Market attractiveness is reduced by the limited size, economic viability and local “willingness” towards efficient water services
Procurement	Markets have an image of being biased to established, large and/or international companies. Pre-qualification and bidding procedures are not viewed as open or transparent.
Execution	Projects are often unviable due to unrealistic performance standards and conflicts in the project team
Domestic Expertise	Domestic companies offer expertise in some key technical and administrative areas, but not in management and operations; they prefer only low-level PPP inputs over the short-term, with the exception of operators.
Domestic Capital	Domestic companies are not capable of private investments over the short- to medium-term.

While some variations exist among various subgroups (operators and consultants, experts and participants, political-economic area) a general optimism that domestic companies have capabilities to offer the water markets (operators willing to take on a higher level responsibility than consultants) and that there is a future for private sector participation in the ECA region.

To be clear, private sector participation has not been universally accepted or applied throughout the ECA region during the window-of-opportunity since the political transitions. Key factors are the countrywide progression towards market economies and general levels of prosperity. Domestic companies successfully entered the “emerging” private markets for water utility management in the new EU states, EU candidate states and some CIS countries, but less so, if at all, in the Balkans and Central Asian countries.

6.0 Market Development Opportunities

Based on the input from domestic market respondents, the study team developed and extrapolated market “opening” strategies aimed at, on the demand side, eliminating barriers to domestic participation, and, on the supply side, fostering the domestic pool.

No Action	No significant change is likely in the water markets with the current levels of inputs.
Sound Business Setting	Further attention to country/ regional factors (democratisation, economic development, ethics/ corruption, etc.) are key to establish a suitable business environment. Risk guarantees are necessary to cover non-project risk for a more attractive market in the short-term.
Flexible Market Structures	Creation of water markets “open” to both public and private inputs requires key reforms, which may include: <ul style="list-style-type: none"> • A national PPP committee & clearing house • Informational campaign/ PPP demonstration projects • Legislative reforms • Tariffs for market viability: commercial basis with safety net • Stakeholder contracts (performance standards, referendums)
Procurement	Creating an “accessible” market may involve: <ul style="list-style-type: none"> • Establish rules of engagement with 3rd party enforcement • Ensure open bidding with pre-qualification • Adjust pre-qualification criteria to address perceived biases • Adopt more qualitative bidding (eliminate “low bid” wins)
Project Execution	A more attractive market includes viable projects: <ul style="list-style-type: none"> • Realistic contracts and performance standards • 3rd party involved as “honest broker”
Market Sphere	A key to greater domestic inputs is an extension of the market sphere: <ul style="list-style-type: none"> • Service area groupings: urban & rural, affluent & poor • Finance instruments focused on poor and rural areas/ utilities
Grow Domestic Expertise	To develop further domestic companies require more experience: <ul style="list-style-type: none"> • PPP exploratory and transitional period • Projects matching domestic company strengths and size • Service provider groupings (public-private, domestic-foreign)
Build Domestic Financing	Development of capacity for private capital is a long-term process: <ul style="list-style-type: none"> • Incorporate – develop the local banking sector • Local incentives through matching funds by third parties (IFIs) • Investment guarantees to safeguard private capital

7.0 Conclusions

The need for improved community water services persists throughout much of the ECA region, especially to meet the Millennium Development Goals by 2015 (additional access to water supply for 18 million inhabitants and to basic sanitation for 37 million inhabitants, in addition to the maintenance and rehabilitation of the already existing infrastructure). Yet, the private sector for water utility management is often limited in its ability to provide expertise and, especially, capital, as it is still evolving, having only started 15 years ago. However, input gained from ECA companies and entities provide cautious cause for optimism, if key deficiencies can be eliminated:

1. Barriers limit domestic company activities in many water markets, according to:
 - Country setting
 - Water sector
 - Market structures and models for community water services
 - Domestic market for water utility management
 - Procurement
 - Contract execution
2. Domestic companies can perform in the role of water utility manager
 - Most companies are confident of their abilities to execute service or management contracts, although operators are also keen on leases and concessions
 - The private sector is yet too young to provide investment capital

8.0 Recommendations: Strategic Action Plan

The lure of solving all community water service deficiencies via private sector participation is unrealistic. Yet, the window of opportunity is still open for the private sector to continue its development and aid in the attainment of the Millennium Development Goals for the ECA region, if a concerted effort is made by all water market participants. A strategic action plan to foster more accessible, transparent, effective and efficient water utility management markets is put forward for consideration by local, national and international entities, as they develop water service initiatives in specific ECA communities and countries:

I. Decrease and Eliminate Barriers to Water Market Access

- A. Establish Sustainable Community Water Market
- B. Open Markets to both Public & Private models
- C. Ensure Open and Transparent Procurement, via central regulatory entities
- D. Create Basis for Viable Projects & Contracts

II. Expand the Market for Domestic Inputs

- A. Expand the domestic market sphere
- B. Expand the domestic companies capacities for expertise and capital inputs

EXECUTIVE SUMMARY	i
1.0 INTRODUCTION	1
1.1 <i>Program Background</i>	1
1.2 <i>Purpose of the “Domestic” Market Development Study</i>	2
1.3 <i>Study Approach and Methods</i>	2
2.0 MARKET SETTING	4
2.1 <i>Natural Environment</i>	4
2.2 <i>Countries and Governments</i>	4
2.3 <i>Peoples and Cultures</i>	5
2.4 <i>Economies and Incomes</i>	7
3.0 MARKET OVERVIEW	10
3.1 <i>Characterisation of the Water & Wastewater Markets</i>	10
3.1.1 <i>Community Needs</i>	10
3.1.2 <i>Market Coverage</i>	11
3.1.3 <i>Market Value</i>	13
3.2 <i>Water Sectors in Transition</i>	14
3.2.1 <i>Independence</i>	14
3.2.2 <i>Decentralization</i>	14
3.2.3 <i>Unsustainable Inputs</i>	17
3.2.4 <i>Commercialisation</i>	18
3.2.5 <i>Chronic Under - Investment</i>	18
3.2.6 <i>Monopolies or Competition</i>	19
3.2.7 <i>International Donor and Financing Community</i>	20
4.0 DOMESTIC INPUTS	22
4.1 <i>Survey of Domestic “Experts”</i>	22
4.2 <i>Survey of Domestic “Market Participants”</i>	23
4.3 <i>Case Studies</i>	24
4.3.1 <i>Case Study in Piaseczno, Poland</i>	24
4.3.2 <i>Case Study in East Bohemia, Czech Republic</i>	26
4.4 <i>Regional Workshop</i>	27

5.0 DOMESTIC PERSPECTIVES.....	28
5.1 Overview.....	28
5.2 Country Setting	29
5.3 Water Sector.....	30
5.4 Market Structures for Community Water Services	31
5.5 Domestic Market for Water Utility Management.....	32
5.6 Procurement.....	33
5.7 Contract Execution.....	34
5.8 Capacities of Domestic Companies	35
5.9 Domestic Companies – Capital.....	36
5.10 Variations.....	36
5.10.1 Between Domestic Experts and Participants	36
5.10.2 Between Domestic Operators and Consultants	37
5.10.3 Between International and Domestic Companies	37
5.10.4 Between ECA Regions.....	37
6.0 MARKET DEVELOPMENT OPPORTUNITES.....	38
6.1 Objectives.....	38
6.2 Development of Strategies.....	39
6.3 Strategy: No Action.....	40
6.4 Strategy: Sound Business Setting.....	42
6.5 Strategy: Open Market Structures.....	44
6.6 Strategy: Open and Transparent Procurement.....	49
6.7 Strategy: Project Execution.....	51
6.8 Strategy: Expand the Domestic Market Sphere.....	52
6.9 Strategy: Develop Domestic Capacities.....	55
6.10 Strategy: Develop Domestic Finance.....	58
7.0 CONCLUSIONS	60
8.0 RECOMMENDATIONS: STRATEGIC ACTION PLAN	
61	

ANNEXES

Annex A: Definitions

Annex B: Distribution and Results of “Experts” Survey

- B1. Questionnaire Assessment
- B.2 Questionnaire and Instructions

Annex C: Distribution and Results of “Market Participants” Survey

- C1. Questionnaire Assessment
- C.2 Questionnaire and Instructions

Annex D: Case Studies

- D1. Piaseczno, Poland
- D2. East Bohemia, Czech Republic

Annex E: Regional Workshop

Note to Readers:

A companion report addresses the international perspective (*Market Development Study: Strategies for International– Private Sector Inputs in the Water Utility Management Markets of Eastern Central Europe and Central Asia*)

LIST OF ABBREVIATIONS

ECA	Eastern Europe and Central Asia Region (the “area” comprising the former East Block and Soviet Union)
EU	European Union
GOs	Government Organizations
MDGs	Millennium Development Goals, established during the Johannesburg Summit of the United Nations
MIGA	Multilateral Investment Guarantee Association
NGOs	Non-Government Organizations
IFIs	International Financing Institutions
OECD	Organization for Economic Cooperation and Development
PPP	Public-Private-Partnership
PSP	Private Sector Participation

1.0 INTRODUCTION

1.1 Program Background

Following the symbolic fall of the Berlin Wall in 1989 and the ensuing socio-political transformations that swept through the former Eastern Block and Soviet Union – termed the *Eastern Europe and Central Asia (ECA) region* for this report - the marketplace for community water services also changed forever.

Suddenly, the domestic water markets underwent whole-scale reforms, typically in parallel with the sporadic political and institutional changes of the newly (or more) independent countries. Water ministries strove to fulfil their missions in the midst of changing legislation and institutions, according to new or redefined state autonomy. Utilities struggled to maintain service and solvency during decentralization of powers and austere economic times. An infusion of international inputs, ranging from the financing & donor community to private companies, also attempted to address the evolving needs of the vast market.

While the world hoped more democratic forms of government and market economies would take hold in the ECA region, many in the water sector aspired for the emergence of a vibrant domestic private sector, as a key element in the region-wide efforts to improve community water services. A variety of domestic companies also asserted themselves to establish a private sector in an evolving water utility management market, according to ever more liberalized economies and legislation. Many former state water agencies were re-branded as private companies. Entrepreneurs emerged to take advantage of opportunities in the newly decentralized and “unplanned” markets: operators, engineering firms, technical service companies, etc.

Can domestic companies help improve sector performance & sustainability? ... and help attain the Millennium Development Goals?

Yet, after more than 15 years of activity and evolution in these “transformed” water markets, domestic companies were perceived by many observers to be playing a minor, if any, role. Many believed that private, domestic companies would not be able to establish themselves in the local water markets, introduce the efficiencies and investment levels necessary for sector sustainability, much less be able to play a significant role to help attain the Millennium Development Goals for environmental sustainability in the region (***to halve by 2015 the proportion of people without sustainable access to safe drinking water and basic sanitation***).

Therefore, many international financing institutions & donor organizations posed critical questions regarding inputs by domestic companies in water utility management:

- **Are domestic participants limited access to the ECA water markets?**
- **Are domestic companies capable to contribute as water utility managers?**

To find answers to these questions, the World Bank and the Organization for Economic Cooperation and Development (OECD) teamed together, with funding from the Bank Netherlands Water Partnership, to evaluate the changes in the ECA water markets. The joint program started as a regional part of a larger global consultation by The World Bank and the International Finance Corporation to engage the private sector, donor community and local stakeholders, regarding municipal water supply and wastewater.

The program for the ECA region was structured with the following objectives:

1. to engage the private sector, financing community (donors/ international financing institutions - IFIs) and stakeholders to share experiences on market activities and strategies
2. to discuss ways to maximize the flow of investment capital and technical know-how to the region.

To date, the program has included two **forums** (Paris 2002, Vienna 2003), which facilitated productive exchanges between donors, IFIs, private companies and stakeholders on factors (positive & negative) affecting future strategies in the ECA market for private water utility management^{1,2}.

Another part of the program consists of two **market development studies** to address the feasibility of improving the capacity and scope of private inputs, from the domestic private sector, led by the OECD (*this report*), and the international private sector, led by The World Bank (a companion report).

1.2 Purpose of the “Domestic” Market Development Study

This *Market Development Study* is a “grass-roots” and objective assessment of the ECA marketplace for community water & wastewater services in order to devise and establish the feasibility of strategies to enhance “domestic” inputs for the benefit of the ECA communities and region.

1.3 Study Approach and Methods

The *market development study* is based on three primary objectives and, accordingly, three main mechanisms.

¹ *Private Sector Participation in Municipal Water Services in Central and Eastern Europe and Central Asia – Conference Write Up*; Paris, 10-11 April 2002; Posch & Partners Consulting Engineers; May 2002

² *Private Sector Participation in Municipal Water Services in Central and Eastern Europe and Central Asia – Conference Write Up*; Vienna, 2-3 July 2003; Posch & Partners Consulting Engineers; August 2003

Goals of the “Domestic” Market Development Study

1. **Assess the ECA water market** focusing on the capabilities for utility management by the full range of domestic companies
2. Conduct a **forum for change** (with public, private & financing stakeholders)
3. Develop a **Strategic Action Plan** to:
 - a. decrease – eliminate limitations to access in the ECA market by the full range of domestic companies and organizations active in water utility management
 - b. grow the market for domestic inputs to include primary and secondary cities, rural areas and poor populations

The OECD and the World Bank’s Europe and Central Asia Sector Unit assembled a team from October 2003 through February 2005 to conduct the study:

- **Team Leader:** P. Borkey of the OECD
- **Team Leader:** A. Rohde of the World Bank’s ECA group
- **Water Supply Expert:** C. Schmandt, Water & Environment Consultant
- **Gultekin Yuksel:** Procurement Expert, Consultant

In preparation of the *Market Development Study*, the Study Team incorporated and relied on a combination of procedures and information sources to attain the goals.

ECA Water Market Assessment	<p>Survey - Questionnaire The Study Team conducted an open survey of “domestic” (ECA) companies via a questionnaire to directly solicit views, comments and suggestions from</p> <ol style="list-style-type: none"> 1. “Experts” (Annex B). 2. “Participants” (Annex C).
	<p>Case Studies The Study Team conducted two in-depth Case Studies to assess the experiences of “newcomers” to the marketplace (Annex D).</p>
	<p>References The Study Team utilized and relied on various reference materials, as referenced in the footnotes and Annex A.</p>
Forum for Change	<p>Workshop The Study Team conducted a workshop on the interim survey results in Moscow on 20-21 September 2004 (Annex E).</p>
	<p>Forums The Study Team benefited from the OECD & World Bank forums on PPP in the ECA region (Paris, April 2002 & Vienna, July 2003).</p>

2.0 MARKET SETTING

2.1 Natural Environment

The Eastern Europe and Central Asia region covers a vast area spanning from the Carpathian mountains of Central Europe to the steppes of Central Asia and from the Baltic, Mediterranean and Black Seas in the east to the Arctic and Pacific Oceans in the North and West. This enormous area is diverse in topography, morphology and climate resulting in a wide variety of ecologies (tundra, alpine, forest, plains - steppe, wetlands, semi-desert, desert, etc.). Many parts of the ECA region are rich in natural resources, including minerals, fertile soils, forests and, of great interest to today's economy, oil reserves.

The ECA region has water rich and water poor areas

Despite mighty river systems, such as the Danube, Volga, Ob' and Yenisey, and great inland waters, such as the Caspian and Aral Seas and Lake Bajkal, water availability varies widely throughout the region according to natural factors and phenomenon.

Human impacts on the natural environment are apparent throughout the region according to urbanization, industrial & mining activities, agriculture, infrastructure (hydropower, transportation), etc. The human manipulation of hydrology and waterways has, in some cases – witness the Aral Sea – significantly altered the ecology and the balance between water rich and water poor areas.

2.2 Countries and Governments

The fall of the “Iron Curtain” dramatically ushered in a dynamic, yet uncertain political era for the entire ECA region. The broad rejection of centrally dominant state institutions in favour of more “democratic” governments and market oriented economies, significantly altered the power and societal structures prevalent since 1945, the end of World War II.

A shift in power and alliances: 8 ECA countries join the EU

The dissolution of the “Eastern” superpower, the Soviet Union with its “East Block” satellites, including a regional power, Yugoslavia, has reduced the geo-political clout of the region over the last 15 years. Yet, the thawing of the Cold-War attitudes between East and West, has resulted in greater contact with and access to neighbouring regions, especially Western Europe, primarily due to commerce and trade, but also according to heritage and ethnic relationships.

The post Cold-War political realignment was accompanied by a rise in cultural - nationalism with the result that many “new” countries were carved out of formerly expansive regimes. A major step was the accession of eight Baltic and Central European Countries into the European Union in May 2004, according to the political, legislative and economic reforms in eight ECA countries, with accession foreseen for an additional four countries. Many former Soviet Republics have banded together in the Commonwealth of Independent States. The ECA region, as considered for this report, includes 29 countries and territories in 4 broad economic-political areas (see next table below).

At the **national level**, many political transitions occurred peacefully, such as the disbanding of the Soviet Union and the reunification of East & West Germany. In other cases, the changes in government were instigated or resisted by inter ethnic-religious-nationalistic violence, civil unrest, assassinations and, even armed conflict, such as the civil war during the break-up of Yugoslavia.

The political adjustments and power struggles are still ongoing in some parts of ECA, in some cases violently - witness the assassination of Serbia's Prime Minister in March of 2003 and the ethnic riots in Serbia & Kosovo of March 2004 - but peacefully in others, such as the "rose revolution" in Georgia of December 2003 and the "orange" repeated elections and transfer of power in Ukraine during late 2004 – early 2005.

Political transition and transformation - a long-term process

According to the creation of new and more democratic governments, many countries have or are undergoing whole-scale reforms of their legislative, judicial, etc. systems, a lengthy process to revamp institutions, procedures, laws and, at the grass-roots level, habits. A major challenge to government reform is the prevalence of corruption, a human predilection aggravated in uncertain political and economic environments. Organized crime, which gained strength and influence during the "law & order" vacuum of the political transitions, challenges the rule of law in many countries.

At the **community level**, the wide-spread elimination of central planning structures has triggered a process of decentralization, transferring greater autonomy along with responsibility to local and municipal governments. Accordingly, the local governments are increasingly more accountable to the local population for public services, such as education, transportation, power, but also water supply and wastewater. In many cases, the added levels of responsibility have outpaced local government capacities in these areas, resulting in financial and know-how gaps. Additional political responsibility and power at the local level may also open new avenues for corruption.

2.3 Peoples and Cultures

The ECA region is host to a wide variety of cultures, ethnicities, religions and languages, reflective of the regional and continental histories. While such diversity provides great cultural wealth and tradition, some areas experience longstanding tensions between various ethnic or religious populations. Throughout most of the ECA region, the various peoples coexist peacefully; yet, in some areas, the cross-cultural tensions have flared during the last 15 years, especially during political and power realignment, into isolated violence, armed conflict, even war.

480 million people require water supply & sanitation services

The total population of the ECA region is about 480 million with the most populous countries including Turkey and the Russian Federation. While large major metropolitan areas ("primary cities" greater than 500,000 inhabitants – see Annex A) are prevalent, such as Warsaw, Moscow, Kiev, Istanbul, Baku, Tashkent and Novosibirsk, much of the ECA population is settled in smaller cities, towns and villages ("secondary cities" – urban areas of less than 500,000 inhabitants) and in rural areas. Migration from the countryside to cities, spurred by the political transitions of the early 1990s, is gradually leading to a more urban demographic.

Table 1: Total & Urban Population in the ECA Region ³		
Countries per Economic-Political Areas	2003 Population	Percent Urban %
BALKANS	19'910'000	50%
Albania	3'166'000	44%
Bosnia and Herzegovina	4'161'000	44%
Macedonia	2'056'000	59%
Serbia - Montenegro (Kosovo)	10'527'000	52%
EUROPEAN UNION	73'160'000	64%
Czech Republic	10'236'000	74%
Estonia	1'323'000	69%
Hungary	9'877'000	65%
Latvia	2'307'000	66%
Lithuania	3'444'000	67%
Poland	38'587'000	62%
Slovakia	5'402'000	57%
Slovenia	1'984'000	51%
EU CANDIDATE STATES	105'984'000	63%
Bulgaria	7'897'000	70%
Croatia	4'428'000	59%
Romania	22'334'000	55%
Turkey	71'325'000	66%
COMMONWEALTH OF INDEPENDENT STATES	280'264'000	52%
Armenia	3'061'000	64%
Azerbaijan	8'370'000	50%
Belarus	9'895'000	71%
Georgia	5'126'000	52%
Kazakhstan	15'433'000	56%
Kyrgyzstan	5'138'000	34%
Moldova	4'267'000	46%
Russian Federation	143'246'000	73%
Tajikistan	6'245'000	25%
Turkmenistan	4'867'000	45%
Ukraine	48'523'000	67%
Uzbekistan	26'093'000	37%
TOTAL ECA REGION	479'318'000	63%
		302'835'190

The population is generally younger than Western European standards, in part due to higher population growth and in part due to lower living standards / life expectancies.

³ UNICEF Website – Country Profiles & Statistics

2.4 Economies and Incomes

The transition from state-dictated to more market-oriented economies has proven a long-term process and yielded significant challenges.

Domestic industrial capacity was generally devastated after the political transitions, as the state-owned industries were dismantled, resulting in unemployment (in many countries as high as 30-50%), loss of tax revenue and a general decline in wealth. Gradually, some industry is being privatised, but the reform process is slow and investment capital lacking. Foreign investment, benefiting from a cheaper labour pool, has offset this trend to some extent.

Agricultural activities and production were also disrupted by the shift away from socialist-communist systems, as former collective farms were divided into smaller plots, often for family farms. However, the future economic prospects of many countries lies in large part in the exploitation of natural resources, such as oil in Russia and Central Asia. Natural resource exports, for example, boosted economic growth in the CIS to 5.6 percent during 2003, the third highest level among the world's emerging economies⁴.

The previous free-trade zones and trade agreements, formerly the basis of much economic activity, were eliminated with the dissolution of the Soviet Union, East Block and Yugoslavia, aggravating regional commerce and exchange of goods. But, recently ratified regional trade pacts and accession of 8 ECA countries to the European Union has begun to spur economies.

The shift to a “market-oriented” economy introduced even more austere times

Therefore, the dramatic transformation since the early 1990s has not necessarily resulted in improvements to standards-of-living throughout the ECA region; indeed, the austere and uncertain times triggered by the political, economic and even social changes have triggered a decrease in life expectancies in some countries⁵.

For example, household incomes generally fell in much of the ECA region, according to the elimination of jobs and dismantling of pension systems during the political transition. Particularly in poorer areas, families rely on subsistence farming or support from the Diaspora for survival. Poverty levels have increased in areas most plagued by political instability, civil unrest and/or weak economic performance. Poor populations are located in both urban and rural areas. Many primary and secondary cities have “weed” neighbourhoods – new areas on the city outskirts inhabited primarily by recent migrants from the countryside with no official status nor access to municipal services/infrastructure.

Key economic foundations – the public infrastructure and services for transportation, power, communication, solid waste, water, sewerage - have often been victim to under-investment and poor operations & maintenance practices, both prior to and after the political transition. As such, the reliability and quality of public services often has a negative impact on economic development potential in some countries and regions.

⁴ Transition Report Update, April 2004, EBRD - European Bank for Reconstruction and Development

⁵ *Neue Zürcher Zeitung*; 5 August 2004; *Eine Gesundheitskrise gefährdet Russlands Wachstum* [A Health Crisis endangers Growth in Russia]

Yet, some ECA countries are becoming prosperous; the income levels in Central European and Baltic States (the new EU states), for example, are now beginning to approach Western European standards. For the remainder, however, income levels have stagnated, if not decreased in real terms over the past 15 years, with Gross Domestic Product still below the pre-transition levels. For instance, about two thirds (69%) of the ECA countries are considered “Lower Middle & Low Income” countries per The World Bank’s country income categories.

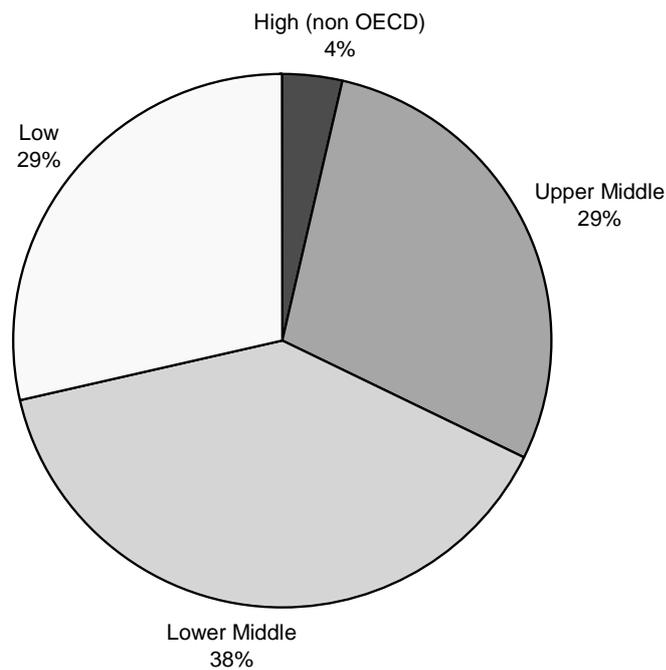
Table 2: Income Levels in the ECA Region			
Countries per Economic-Political Areas	GNI - Gross National Income ⁶		World Bank Income Category ⁷
	US \$ per capita	ECA Ranking	
BALKANS	1'793		
Albania	1'740	17	Lower Middle
Bosnia and Herzegovina	1'540	19	Lower Middle
Macedonia	1'980	14	Lower Middle
Serbia - Montenegro (Kosovo)	1'910	15	Lower Middle
EUROPEAN UNION	6'076		
Czech Republic	6'740	2	Upper Middle
Estonia	4'960	6	Upper Middle
Hungary	6'330	3	Upper Middle
Latvia	4'070	9	Upper Middle
Lithuania	4'490	8	Upper Middle
Poland	5'270	5	Upper Middle
Slovakia	4'920	7	Upper Middle
Slovenia	11'830	1	High (non OECD)
EU CANDIDATE STATES	3'145		
Bulgaria	2'130	13	Lower Middle
Croatia	5'350	4	Upper Middle
Romania	2'310	12	Lower Middle
Turkey	2'790	10	Lower Middle
CIS	1'016		
Armenia	950	22	Low
Azerbaijan	810	24	Low
Belarus	1'590	18	Lower Middle
Georgia	830	23	Low
Kazakhstan	1'780	16	Lower Middle
Kyrgyzstan	330	27	Low
Moldova	590	25	Low
Russian Federation	2'610	11	Lower Middle
Tajikistan	190	28	Low
Turkmenistan	1'120	20	Lower Middle
Ukraine	970	21	Low
Uzbekistan	420	26	Low

⁶ UNICEF; Website – Country Profiles and Statistics

⁷ The World Bank; Website – Country Incomes

Two-thirds of the countries in the ECA region register “low” or “lower middle” income levels. The remaining one-third of countries are significantly more prosperous, with “upper middle” and “high” levels of income. The income divergence in the ECA region is dramatic; on average, per capita GNI in the EU states is 6 times that of the CIS.

Figure 1: ECA Countries per World Bank Income Category



The CIS has the lowest income levels within the ECA region, encompassing all eight “low” income category countries. The Balkans countries are also poor, with only “lower middle” income categories. The EU Candidate States are noticeable more prosperous, especially Croatia. The EU states are clearly the most prosperous in the ECA region, consisting of “upper middle” and “high” income categories.

3.0 MARKET OVERVIEW

3.1 Characterisation of the Water & Wastewater Markets

3.1.1 Community Needs

The ECA market for water & wastewater services represents a population of about 480 million, with roughly 300 million (63%) located in urban settings and about 180 million (37%) in rural settings. Country standards and practices for public health / sanitation and environmental quality generally require piped water supply and sewerage services for urban dwellers and, increasingly, for rural inhabitants. Further, utilities typically provide service to businesses and industry in the respective community.

ECA require 78 billion m³ drinking water & produce 60 billion m³ sewage per year
Therefore, average water demand in the ECA region can be grossly estimated, based on a conservative adaptation (for instance, water consumption rates may be lower, but losses four to five times higher in many communities; neither fire fighting demand nor seasonal water use variations are considered) of standard user demand rates, to be about **78 billion cubic metres of community drinking water** per year.

Table 3: Gross Estimate of Community Water Demand in the ECA Region				
Community Water Usage	Daily Needs ⁸ litres per capita per day	Urban Demand for population of 300'000'000 inhabitants	Rural Demand for population of 180'000'000 inhabitants	TOTAL ECA for population of 480'000'000 inhabitants
	lpcd	cubic meters	cubic meters	cubic meters
Residential	200	60'000'000	36'000'000	96'000'000
Commercial - Industrial	200	60'000'000	9'000'000	69'000'000
Public	50	15'000'000	9'000'000	24'000'000
Losses - Wastage	50	15'000'000	9'000'000	24'000'000
TOTAL				
Daily Average		150'000'000	63'000'000	213'000'000
Annual Average		54'750'000'000	22'995'000'000	77'745'000'000

Accordingly, about **60 billion cubic meters of community wastewater** is generated per year, based on a standard engineering approximation of 70-80% of community drinking water supply returning as wastewater.⁹

⁸ Adapted from ranges in *Civil Engineering Reference Manual*; p. 26-18; M. Lindeburg, PE; 2003

⁹ Ibid., p 28-2

3.1.2 Market Coverage

Overall, the extent of adequate community water supplies extends at most (no data is available for some countries) to about **92%** and the coverage of adequate sanitation facilities extends to about **85%** of the ECA population, according to UNICEF figures.

Countries per Economic-Political Areas	Total Population Without Improved Drinking Water Sources (2002)		Total Population Without Adequate Sanitation Facilities (2002)	
	%	No.	%	No.
BALKANS		915'090		2'008'040
Albania	3%	94'980	11%	348'260
Bosnia and Herzegovina	2%	83'220	7%	291'270
Macedonia	na	na	na	na
Serbia - Montenegro (Kosovo)	7%	736'890	13%	1'368'510
EUROPEAN UNION		98'770		586'460
Czech Republic	na	na	na	na
Estonia	na	na	7%	92'610
Hungary	1%	98'770	5%	493'850
Latvia	na	na	na	na
Lithuania	na	na	na	na
Poland	na	na	na	na
Slovakia	0%	0	0%	0
Slovenia	na	na	na	na
EU CANDIDATE STATES		14'596'370		23'068'910
Bulgaria	0%	0	0%	0
Croatia	na	na	na	na
Romania	43%	9'603'620	49%	10'943'660
Turkey	7%	4'992'750	17%	12'125'250
CIS		20'740'180		47'981'370
Armenia	8%	244'880	16%	489'760
Azerbaijan	23%	1'925'100	45%	3'766'500
Belarus	0%	0	na	na
Georgia	24%	1'230'240	17%	871'420
Kazakhstan	14%	2'160'620	28%	4'321'240
Kyrgyzstan	24%	1'233'120	40%	2'055'200
Moldova	8%	341'360	32%	1'365'440
Russian Federation	4%	5'729'840	13%	18'621'980
Tajikistan	42%	2'622'900	47%	2'935'150
Turkmenistan	29%	1'411'430	38%	1'849'460
Ukraine	2%	970'460	1%	485'230
Uzbekistan	11%	2'870'230	43%	11'219'990
TOTAL ECA REGION		36'350'410		73'644'780

¹⁰ UNICEF Website – Country Profiles & Statistics

While the relatively high drinking water and sanitation coverage rates appears satisfactory for the region as a whole, the figures may mask some qualitative aspects:

1. No data is available for either drinking water nor sanitation for many countries. Therefore, the coverage rates of 92% for drinking water and 85% for sanitation likely represent a “best case” scenario, with an almost certain lowering of the average if complete data collection were possible.
2. The term “adequate sanitation facilities” does not necessarily include sewage treatment (whether for only mechanical or also to biological levels), underscoring the possibly remaining public health and environmental quality risks as well as the high costs of establishing such a capacity.
3. The coverage rates do not indicate the current state of nor the need (and cost) for repair and rehabilitation of the current infrastructure to maintain current levels of service. Indeed, current service levels in areas with water supply or wastewater “coverage” may often be unsatisfactory, due to dilapidated or improperly maintained facilities and equipment.
4. The overall ECA average does not parley the extent of regional and country variation in coverage; for instance, the largest gaps in drinking water and sanitation coverage are in the CIS, EU candidate and Balkan countries – but not the new EU states.

Therefore, some **deficiencies of the ECA water markets** include:

- Water supply systems are lacking for at least 36 million ECA residents
- Sanitation facilities are lacking for a minimum of 74 million ECA residents
- Most of the coverage gaps are in the poorer parts of the ECA region, in particular the CIS, EU Candidate and Balkans areas
- The typically undefined (financing source, technical capacity) mechanisms for the systematic rehabilitation and replacement of existing community water sector facilities and equipment, such that existing service levels can be maintained or even improved

To attain MDGs in ECA: 18 million need water supply & 37 million need sanitation

Therefore, to meet the Millennium Development Goals in the ECA region, the primary and likely most cost-effective inputs should be focused in the CIS, EU Candidate and Balkan states to halve the number of inhabitants without access to adequate water supply and sanitation. Further, additional investment is necessary to maintain infrastructure and expertise at current levels of service.

Table 5: Progress towards the Millennium Development Goals in ECA ¹¹		
	Halve proportion with access to Safe Drinking Water	Halve proportion with access to Basic Sanitation
CIS Europe		
Urban Areas	Met	High access but no change
Rural Areas	High access but limited change	No significant change
CIS Asia		
Urban Areas	Met	High access but no change
Rural Areas	High access but limited change	No significant change

The United Nations reports limited success as of fall 2004 in attaining the MDGs for the CIS (other areas of ECA not consistently reported on in a collective manner), especially in the rural areas.

3.1.3 Market Value

No comprehensive record of revenues or billings for all ECA water markets is readily available, as no entity collects such information for the multitude of communities across the vast geographic area of coverage. Moreover, estimates are difficult to calculate due to variations in local water supply (quality, type, pumping/ energy requirements, treatment levels & standards, etc.), community tariff policies (social vs. commercial/market water rates, subsidies, currencies, etc.), etc.

Yet, a gross estimate (assuming 100% market coverage and community water consumption rates indicated in the table above, i.e. 200 litres per capita per day, etc.) yields a ECA market value of about US\$ 55 billion per year.

Table 6: Gross Estimate of ECA Community Water Market Value			
Community Services	Annual Demand Cubic Meter	Rate US\$ per m3	Annual Value US\$
Water Supply			
Urban Demand	55'000'000'000	0.50	28'000'000'000
Rural Demand	23'000'000'000	0.50	12'000'000'000
ECA Sub-Total	78'000'000'000		40'000'000'000
Wastewater			
Urban Demand	44'000'000'000	0.25	11'000'000'000
Rural Demand	16'000'000'000	0.25	4'000'000'000
ECA Sub-Total	60'000'000'000		15'000'000'000
TOTAL ECA MARKET			55'000'000'000

¹¹ Millennium Development Goals – Progress Report, United Nations, October 2004

A gross estimate, based on current market coverage rates and extent of commercial tariffs, indicates the actual annual market revenues may total 50-80% of this amount, or about US\$ 30 to 44 billion per year.

3.2 Water Sectors in Transition

This section provides a brief orientation to some of the key forces and factors prevalent in many water sectors of the ECA region, during the wider political, economic and societal transition.

- Independence
- Decentralization
- Unsustainable inputs
- Commercialisation
- Chronic under - investment
- Structures for competition
- Private sector inputs
- International donor and financing community

While many of these conditions apply to ECA countries and are reported on by participants in the questionnaires, case studies and workshop (reported in the next chapters and respective Annexes), variations abound between particular countries and even communities.

3.2.1 Independence

Parallel to the wider political changes, many of the newly created federal governments in the ECA region continue the comprehensive process of adapting the prior institutional structures and regulatory regimes of the water sector. A common model for water sector reform is the European Union's Water Framework Directive, espousing a "river basin" and "user pays" approach to water resources management (irrigation, drainage, flood control, hydro-power, etc.), in general, and for community water & wastewater services, in particular (the focus of this study).

With numerous new or revised government ministries and agencies, new capacities are required in standards & regulations, tariff policies, operational & administrative oversight, etc. This process is ongoing and presents challenges to assemble a qualified and experienced government administration, especially in poorer countries. The transformation translates into a dynamic on-the-ground setting in some ECA countries, as many regulations and standards are replaced or introduced.

3.2.2 Decentralization

The current organization of many markets mirrors the overall political and economic shift in the ECA region away from centralized mechanisms to greater autonomy and accountability for community / municipal governments. In the water sector, the assets of the drinking water and sewerage systems have typically been transferred from the central to community governments. Accordingly, local governments have been transferred all responsibilities for community service. Therefore, responsibilities have shifted throughout the entire sector.

Table 7: Allocation of Main Functions and Responsibilities for Community Water & Wastewater Services (a “Generalized” Model of the ECA Water Marketplace)		
Primary Functions	Responsibility (Pre – Political Transitions)	Responsibility (Post - Political Transitions)
SECTOR OVERSIGHT		
• Regulations & Standards	Central Government	Central Government
• Tariffs	Central Government	Local Gov. with approval by Central Gov.
• Control & Enforcement	Central Government	Central & Local Government
SUPPLY		
Ownership		
• Water Resources	Central Government	Central Government (no private ownership)
• Assets (infrastructure)	Central Government	Local Government
• Service Company/ Utility	Central Government	Local Government
Community Service		
• Operations & Maintenance	Utility	Utility via Service Agreement with Local Government
• Operational Revenue	Utility via Customer Tariffs with cross-subsidization	Utility via Customer Tariffs plus some cross-subsidization
• Asset Management & Development	Central Government	Utility & Owner (Local Government)
• Asset Financing	Central Government	Utility & Owner (Local Gov.)
DEMAND		
• Inhabitants of Service Area	Payment of Tariff, based on “social” value	Payment of Tariff, based on “social” or “commercial” value
(Note: This generalized overview for the ECA region is presented as a basis for evaluation with the understanding that variations exist country-by-country in the organization of the water sector).		

STATE ROLE: Resources Owner & Regulator

The **central government** is typically both the owner and regulator of water resources. Therefore, central governments generally assign the main responsibilities to different agencies to determine and control:

- Use of all water resources (water rights, extraction / discharge, authority for community service)
- Public health, environmental quality and customer advocacy in community service (service standards & regulations; administrative, financial & operational requirements)

In this arrangement, the government performs two key responsibilities to fulfil its mandate of “**safeguarding common resources in the public interest.**” Critics of this arrangement claim a conflict of interest between the roles of owner and regulator of the same resources.

COMMUNITY ROLE: Utility Owner & Asset Development

The **local government** is generally granted, through enabling legislation (from the central government) the rights to provide community water & wastewater service. These rights are typically dedicated exclusively per each city, town or village (local government, typically a municipality).

Normally, the local government establishes a public service company / utility to operate and manage the particular community services, often formalized through a service agreement. Yet, the local government maintains overall management control over the utility company as owner. In particular, the leadership position(s) of a utility are often subject to political appointment by the ruling political party, rather than exclusively merit-based selection. Less frequently, the local government may outsource some or all of the utility functions & responsibilities to private companies, in a **Public-Private-Partnership** (also known as **private sector participation**).

As owner of the utility and all physical assets, the local government assumes responsibility for the renewal, replacement or expansion of the public service infrastructure, which formerly rested with the central planning agencies. This transfer of asset development responsibilities has presented great challenges, requiring new expertise and capabilities at the local level, especially to secure financing for infrastructure works.

UTILITY ROLE: Community Service, Cost Recovery & Asset Management

The **public utility company** assumes the obligations and rights for community water supply and wastewater evacuation. In many cases, especially in smaller towns where financial resources are scarcer, the utility is granted responsibility for a wide spectrum of other community services, such as solid waste, streets, parks, public market places, cemeteries, etc.

The utilities are responsible for the technical operation & maintenance of the water supply / wastewater systems, financial administration (billings & collections) and overall company management. A key duty is the recovery of funds from the customers using the service, typically through tariffs and connection fees, to recover operations costs and finance infrastructure.

CUSTOMER ROLE: Recipient of service in exchange for payment

The customers represent the revenue source of the sustainability cycle, providing the funds for operations and investment through their payment of water fees. Community water users typically include registered residential, business and industrial customers, though some areas have significant rates of unregistered, illegal consumers. Water supply is either metered at the customer connection, enabling demand management through consumption based billing, or not (block rates).

In areas without water metering and demand management, customer consumption habits can be extreme for non-drinking water uses (garden irrigation, car & street washing, household plumbing spillage, etc.), while billing levels and collection rates remain low. Such consumption and payment patterns exacerbate the “unsustainable” cycle, reducing overall levels-of-service (lower system pressure or less water available for other customers) without providing financial resources to cover the associated costs.

Yet, in some ECA countries, much of the customer base is unemployed or with earnings below the poverty level. This has a profound impact on customer affordability for water services, especially in poorer countries. Some areas have a historically poor payment culture for common good type resources, both before and after the political transitions.

Therefore, customer bases have generally been slow to accept the transition from a “social” to a “cost recovery” tariff, upon the disappearance of central government finances and subsidies, especially considering the onset of even more austere economic conditions and continued poor water service levels.

3.2.3 Unsustainable Inputs

Many utilities provide satisfactory service to their respective customer base, such that users are willing to pay for the benefits gained and, thereby, provide the necessary funds to cover system operations and investment requirements – the basics of a sustainable cycle.

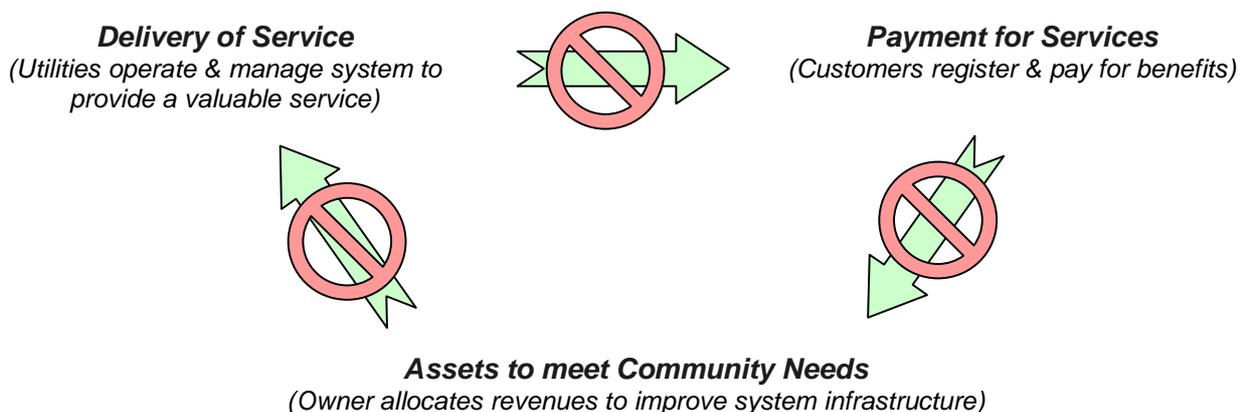


Figure 2: The “Sustainability Cycle” is broken in many water utilities of the ECA region

Yet, in some communities, especially in poorer ECA countries, a vicious cycle is created due to poor infrastructure and service levels, which alienates customers and lowers the likelihood of payment, thus decreasing the revenues available to fund utility operations and reinvestment, causing even greater deterioration in customer service, and so on. Such unsustainable situations aggravate not only the economic health of the utility, but also decrease the attractiveness of the entire community.

The ability to establish and maintain the sustainability cycle hinges on each of three primary parties (and one minor party) fulfilling its respective responsibility:

- Owners and financing (tariff policy and investments)
- Utilities Service Providers and service levels
- Customers and Payments
- Regulators and Market efficiency

3.2.4 Commercialisation

According to decentralization, tariff structures are generally proposed at the local level, but often still reviewed and approved at the state level, either directly through a government agency or an independent commission. At the local level, the new democratic procedures can result in electoral pressures on the local officials proposing changes to water tariff policy, possibly undermining the possibility to raise capital for necessary improvements and attain sustainable water services.

A dilemma in ECA (and the world): is water a “social right” or a “market product”

Tariff policies throughout the ECA region generally vary between two basic approaches:

- **“social pricing”**, which considers water services as a birth right of each citizen, to be provided at affordable levels and without profit by the state, generally resulting in state subsidies
- **“market pricing”**, which considers water as a product, to be priced according to the costs and investment incurred to provide community service

Typically the decision on tariff policy rests with the utility owner. The resolution of this basic issue in each country and each community has a significant impact on the financial viability of water utilities (first to cover operations costs and then investment for the construction or rehabilitation of infrastructure) and, in turn, the quality of services.

Commercialisation often includes reorganization of utilities, staff reduction and other efficiency improvement mechanisms.

3.2.5 Chronic Under - Investment

The political transitions disrupted the prior centralized approach to (and funding of) infrastructure initiatives. Decentralization placed the responsibility of asset management and development clearly with local governments, which typically had no prior experience in this capacity. Further, financing capacity is often limited in many parts of the ECA region, with limited or non-present financing institutions, government funds, etc. As a result, infrastructure investment has lagged before and after the transformation.

An investment gap to attain the Millennium Development Goals

In 2002, at the Johannesburg Earth Summit, all 191 United Nations member states pledged to attain the Millennium Development Goals (MDG) by 2015, including to “reduce by half the proportion of people without sustainable access to safe drinking water.”¹² On a worldwide basis, the World Panel on Financing Global Water Infrastructure estimates a doubling of investment is necessary in developing countries to reduce by half the number of people without sustainable access to safe drinking water¹³.

¹² Website of the United Nations – Millennium Goals

¹³ *World Panel on Financing Water Infrastructure*, 3rd World Water Forum - World Water Council – Global Water Partnership, March 2003

Doubling of investment levels necessary to meet MDGs: US\$ 100 billion in ECA

All the CIS states are identified as part of the MDG target group, plus the remaining countries are included for several goals. The OECD & World Bank estimate investments totalling about US\$ 100 billion are necessary over the decade [2002-2011] to meet the water supply and sanitation infrastructure requirements of the ECA region¹⁴. This amount may be a low estimate, depending on the extent of rehabilitation needs for the existing infrastructure. Based on a worldwide average of 5% private sector involvement in the water & sewerage market, this represents a private sector input of US\$ 5 billion over 10 years or US\$ 500 million per year.

Many Western European countries have bilateral investment mechanisms to promote investment and capacity building in developing countries, including the ECA region. The European Union, for example, has established financing instruments to assist candidate countries (the Central European and Baltic states) in their reform efforts and investments to qualify for accession, such as PHARE and ISPA (500 million per year until 2006). The TACIS program provides support to the Commonwealth of Independent States.

However, the international donor community is reducing their commitments and investment flows to developing countries by 50%, in part as a result of the global recession starting in 2001 and in part according to improving conditions in some ECA countries¹⁵. This trend is contrary to attaining both the MDG and the donor community missions. A key question remains how to close this substantial investment gap. Many hope the private sector provides a part of the solution.

3.2.6 Monopolies or Competition

Many states of the ECA region typically allocate the key responsibilities for community water and wastewater services in a monopoly fashion to municipalities and, in turn, municipal utilities, without opportunity for competition - a standard approach throughout the world for "common good" and capital intensive resources, such as water.

Private sector provides traditional & non-traditional inputs

The private sector often fulfils a traditional role in the ECA water market place as a contractor (construction, supplier, etc.) or consultant (technical, management, etc.) to water utilities and their owners for specific projects or assignments. A variety of domestic and foreign companies provide services in this manner. The indigenous private sector includes the remnants of the central planning agencies, converted to private companies during the political transitions, and newly formed companies (engineering, general contractors, etc.). The international private companies represent the entire range of companies active in the water sector of the "industrialized" world.

Public-Private Partnership type arrangements, in which a private sector company assumes responsibility for selected aspects or even all of a water utility's obligations and rights, have been introduced in the ECA marketplace since the political transitions, albeit with a wide variety throughout the region. PPP/ PSP has not been universally accepted nor applied throughout the ECA water sector since the political transitions.

¹⁴ *Private Sector Participation in Municipal Water Services in Central and Eastern Europe and Central Asia – Conference Write Up*; Paris, 10-11 April 2002; Posch & Partners Consulting Engineers; May 2002

¹⁵ Multilateral Investment Guarantee Agency

Often, the emergence of a private water utility management market, at all, parallels the countrywide acceptance of the structural, economic and legal reforms towards market economies. In any case, the community level attitudes and “willingness” influence the extent of private sector opportunities, whether domestic or international, according to the “local” nature of the water & wastewater utility market, as factor further strengthened by the process of assets decentralisation to local governments in most ECA countries.

ECA marketplace: defining the global competition for community water services

When the ECA water marketplace was initially “opened” in the early 1990s, a veritable “gold rush” ensued, as international companies bought up local companies or established satellite offices to assert market presence. The lure of the private sector (expertise for utility capacity building to attain sustainability, capital infusions for infrastructure investment) in combination with the ECA marketplace (large, untapped market of 480 million inhabitants right in close proximity to Western Europe) was irresistible to both sides.

The international participants initially included companies from all over the industrialized world vying for traditional or PPP type contracts offered by international donors and IFIs. In particular, the ECA region presented a new market for competition between various types of service providers. Established water utilities and operators, dominant in the water utility management market for decades, vied with market newcomers – consultants, contractors, non-water utilities who have increasingly gained experiences through more global activities and more dynamic contract types.

Following the global recession of 2001, many international companies retreated or changed strategies in the ECA region (or even globally), in part based on particular company experiences (procurement, execution, etc.) in the region, but also based on overall country factors and more critical attitudes regarding company risk & security. In addition, during the last few years the number of new PPP contracts diminished (see donor & IFI activities above), with some contending that the major urban markets suitable for PPP were already saturated.

Many companies, especially newcomers, voiced concerns about engrained procedures and mechanisms in the ECA region favouring the status quo. Were this trend to continue, Public-Private-Partnership, one potential pathway for water sector investments and improvements, would be diminished, contrary to the interests of the ECA region itself and the international donor and financing community.

3.2.7 International Donor and Financing Community

In the wake of the political transitions, the international donor and financing community commenced or intensified their activities in the ECA water sector (in addition to the power, transportation, finance and other sectors) to forward their missions of decreasing poverty and promoting sustainable development in support of political and social stability. For example, the World Bank’s mission is a world free of poverty through assistance to the poorest people and countries towards stable, sustainable and equitable growth¹⁶.

¹⁶ Website of The World Bank

Sustainable community water services are key goals of donor & IFI

An effective, efficient and transparent water sector is a key part of the strategy for Government Organizations (GOs), Non Government Organizations (NGOs) and International Financing Institutions (IFIs) to attain their goals in the ECA region. Accordingly, international donors and financing institutions have provided funding (technical assistance, grants, loans, etc.) over the last decade to address the assets and capacity gaps in the public service providers of the ECA region.

Since the political transitions, donors and IFIs have undertaken more than 290 projects in ECA, with about 90 in PPP structures and 26 in twinning (of a “developed” with a “developing” utility - mostly in Baltic countries with Scandinavian assistance) arrangements¹⁷. Many of the PPP contracts have been implemented in larger urban areas. The World Bank portfolio, for example, includes PPP projects in the community water services of the ECA region, accounting for 17% in terms of projects and 8% in terms of investments during 1990-2000¹⁸.

Strategy for more capacity building and investment: Public-Private Partnership

To encourage additional investment and capacity building, and to spread the risk of water sector “redevelopment”, many donor and financing entities encouraged, even actively promoted PPP in their activities in the ECA region since the political transitions. This goal of this strategy is to further increase investment and service efficiency in the water sector and, thereby, accelerate the process of meeting the water & sewerage needs of the ECA population.

However, to date the private sector accounts for about 5% of the total investments in the water sector during 1990-2000, and the cumulative investment in water & sanitation has slowed during the past 4 years¹⁹. This is neither sufficient to close the investment gap necessary to meet the MDGs in the ECA region nor attain donor and IFI missions.

¹⁷ *Private Sector Participation in Municipal Water Services in Central and Eastern Europe and Central Asia – Conference Write Up*; Paris, 10-11 April 2002; Posch & Partners Consulting Engineers; May 2002, p.18

¹⁸ *Private Sector Participation in Municipal Water Services in Central and Eastern Europe and Central Asia – Conference Write Up*; Paris, 10-11 April 2002; Posch & Partners Consulting Engineers; May 2002, p.5; Presentation by Jamal Saghir

¹⁹ *Private Sector Participation in Municipal Water Services in Central and Eastern Europe and Central Asia – Conference Write Up*; Paris, 10-11 April 2002; Posch & Partners Consulting Engineers; May 2002, p.5...presentation by Jamal Saghir

4.0 DOMESTIC INPUTS

This chapter includes a brief summary of the inputs provided by domestic entities on the ECA water markets, which form the “grass-roots” basis for the chapter on Domestic Perspectives:

- Survey/ questionnaire of Domestic “Experts” (Annex B)
- Survey/ questionnaire of Domestic “Market Participants” (Annex C)
- Case Study in Piasieczno, Poland (Annex D)
- Case Study in East Bohemia, Czech Republic (Annex D)
- Workshop in Moscow, Russian Federation (Annex E)

4.1 Survey of Domestic “Experts”

A total of 49 water sector “experts” (ministry officials, utility owners, professional associations, universities, etc.) from 24 ECA countries responded to the questionnaire. Overall, the experts hold a negative impression of water market effectiveness, but an optimistic perspective on the future of private water utility management and, especially, the capacities of domestic companies.

Key Barriers to the Water Markets (for Domestic Companies)

- **ECONOMICS OF THE WATER SECTOR:** Weak economies, social (not commercial) tariffs and low revenues
- **POLITICS OF THE WATER SECTOR:** Excessive political influence and even corruption
- **MARKET STRUCTURES:** entrenched, legal monopolies and bias against private sector inputs
- **PROCUREMENT PRACTICES:** un-transparent procedures with biases towards established, large and international companies

Primary Actions to Open the Water Markets (for Domestic Companies)

- **BUSINESS SETTING:** continue reforms to stabilize the overall economic climate and grow local financing sectors
- **ENABLE ALTERNATIVE MODELS FOR WATER UTILITY MANAGEMENT:** actively champion Public-Private-Partnerships, through education & training campaigns, development of PPP legal & contract mechanisms for specific ECA markets, and implementation of demonstration projects
- **REFORM PROCUREMENT:** revise pre-qualification and bidding procedures to ensure truly open, competitive & transparent procurement
- **INSURANCE:** mechanisms are needed to counter non-project & investment risk

The questionnaire, distribution list and evaluation of the responses are presented in Annex B.

4.2 Survey of Domestic “Market Participants”

A total of 39 “participants” (public utilities, operators, consultants, etc.) in the community water markets representing 17 ECA countries responded to the questionnaire. Overall, the participants hold a negative impression of water market effectiveness, but a cautiously optimistic perspective on the future of private water utility management and the capacities of domestic companies. The market “participants” share all the same impressions as the “experts” (similar areas are displayed in grey text) on barriers and corrective actions for the ECA water markets, with additional opinions on project specific factors .

Key Barriers to the Water Markets (for Domestic Companies)

- ECONOMICS OF THE WATER SECTOR: Weak economies, social (not commercial) tariffs and low revenues
- POLITICS OF THE WATER SECTOR: Excessive political influence and even corruption
- MARKET STRUCTURES: entrenched, legal monopolies and bias against private sector inputs
- PROCUREMENT PRACTICES: un-transparent procedures with biases towards established, large and international companies
- RISKS DURING PROJECT IMPLEMENTATION: companies face significant exposure to non-project factors, which affect the ability to successfully execute and complete contracts

Primary Actions to Open the Water Markets (for Domestic Companies)

- BUSINESS SETTING: continue reforms to stabilize the overall economic climate and grow local financing sectors
- ENABLE ALTERNATIVE MODELS FOR WATER UTILITY MANAGEMENT: actively champion Public-Private-Partnerships, through education & training campaigns, development of PPP legal & contract mechanisms for specific ECA markets, and implementation of demonstration projects
- REFORM PROCUREMENT: revise pre-qualification and bidding procedures to ensure truly open, competitive & transparent procurement
- INSURANCE: mechanisms are needed to counter non-project & investment risk
- FOSTER THE DOMESTIC MARKET: special measures and approach are necessary to provide opportunity to domestic companies (incremental approach to PPP, project components structured for domestic companies, etc.)

The questionnaire, distribution list and evaluation of the responses are presented in Annex C.

4.3 Case Studies

The two case studies in Poland and the Czech Republic demonstrate not only the emergence of private water utility management markets, but also that domestic companies can gain market share in the ECA region. Further, in both cases, the domestic companies are able to maintain satisfactory system operations, as was the case under “monopoly” structures prior to the introduction of PSP. These are assessed as positive steps in the progression from monopoly to more competitive, and hence efficient, markets for community water services.

However, the mere presence of private sector participation does not automatically guarantee attaining the potential benefits of improved and cost effective customer service. Indeed, the lack of truly competitive and transparent procurement procedures, especially for contract renewals, as well as the vague contract performance requirements cloud the final conclusion as to whether customers receive the most efficient and economic water & wastewater services possible.

Thus far, the communities and companies deserve full credit for the courage to venture into the “un-chartered and risky waters” of PPP – PSP and, up till now, the benefit of the doubt regarding the imperfect state of private water markets development. (An audit is necessary to determine if the transformation of former utility units into private companies have prolonged or transcended monopoly structures, for example, in terms of company entrenchment, procurement, customer tariffs, responsibility for investments, etc.).

But as of now, the PSP “introduction period” must be declared over and final steps taken to develop mature markets. Indeed, this is a key area in which international financing institutions and donors can provide much needed assistance, through institutional strengthening at the national and local level. Only so can the efforts and preliminary gains attained through the introduction of PSP in numerous communities and countries of the ECA region, since the political transitions, become the building blocks for competitive, honest, efficient and economic markets for private water utility management worthy of full customer confidence and public trust.

4.3.1 Case Study in Piaseczno, Poland

This example of a private operator, Aquarius & Co, in the Town of Piaseczno demonstrates the ability of entrepreneurs in Poland to build upon prior employment in the utility and take advantage of the market opportunities offered by decentralization in the water sector, new corporate forms and liberalized economies (Annex D). This presents a long-term example of a private operator engaged in a service contract forged with the Municipality at the onset of the transitional period (1993) and continuing for 10 years, before being upgraded to a 10-year “lease” in 2003.

In response to the transfer of assets to the municipal level across Poland, the Municipality took advantage of the flexibility in the Polish legislative regime to outsource operations, rather than form a new utility. While project preparation, procurement, transparency and risk allocation do not approach standard IFI practices, the local parties appear to have had neither the capacity nor the resources to proceed according to “best practices” during a period of high volatility and uncertainty in the water sector.

The key to the successful entry of a private, domestic company into the water utility management market at the onset of the political transition include:

1. National legislation enabling, but not requiring, public or private water utility management according to decentralization in the water sector
2. Local government “willingness” and “flexibility” to implement an untried, alternative model for community water services
3. Community openness to private sector inputs
4. Customer base prosperity, as an affluent suburb, provided atypical resources for the ECA region
5. Entrepreneurial approach and spirit of the private company to capitalize on prior market experience and seize the windows-of-opportunity in the changing water sector

While a private sector has and continues to emerge in Poland, this example also illustrates the need for continued vigilance to improve public-private-partnerships, especially:

- Transparency: ensure open, competitive and fair procurement
- Project Preparation: more effort and resources are needed to define baseline conditions, draft contracts and prepare tender documents
- Contract Structure: responsibilities and financial compensation must be apportioned equitably according to the risks incurred by the public and private partners (private sector must assume full responsibilities without public subvention)
- Tariff Policy: a fully commercial and sustainable water fee is needed, without subsidies
- External Assistance (by a central regulator?): inputs by “neutral” entities with experience in PPP is necessary to develop local capacities and mechanisms (procurement monitoring, contracts, performance standards, financial audits), both at the local and national level

The case study in Poland demonstrates that a domestic company can enter and survive in the local water utility management market. Moreover, it shows the ability of a municipality to establish a private water utility management market. Indeed, the key initial steps of enabling and starting-up the private sector have been taken in Poland.

However, this example also highlights the need to evolve beyond the vague and unclear procurement procedures and contracts of the transition period to ensure full acceptance and integrity of the PPP model. Now, the next steps require significant refinements to ensure transparency, equity and sustainability for all parties, but especially the customer.

4.3.2 Case Study in East Bohemia, Czech Republic

This example of a private operator, VHOS a.s., in East Bohemia demonstrates the successful transformation of a former regional utility division into a private operator (Annex D). Many factors are the same as in the case study in Poland (similar areas depicted in grey text).

The key to the successful re-branding of a public utility into a private operator in the Czech Republic include:

1. National legislation enabling, but not requiring, public or private water utility management according to decentralization of community water services
2. Local government “willingness” and “flexibility” to implement an untried, alternative model for community water services
3. Entrepreneurial approach and spirit of the private company to capitalize on prior market experience and seize the windows-of-opportunity in the changing water sector
4. Build public support for “privatisation” by integration of the customer base via distribution of coupons for company stock purchase plan
5. Pace water sector reforms and sustainability measures to on-the-ground progress, according to customer affordability, PPP capacities, etc.
6. Establish regular contact, for dialogue even without problems
7. Retain local asset ownership by local government
8. Open water sector to international as well as domestic inputs

The private sector has been successfully introduced in the Czech Republic and PPP mechanisms appear more equitable and refined (than in the Poland case study), some areas for improvement remain:

- Project Preparation: more effort and resources are needed to define baseline conditions, draft contracts and prepare tender documents
- Contract Structure: responsibilities and financial compensation must be apportioned equitably according to the risks incurred by the public and private partners
- Tariff Policy: a fully commercial and sustainable water fee is needed, without political influence and with adjustment mechanisms to keep pace with non-project changes (inflation, etc.)
- External Assistance: inputs by “neutral” entities with experience in PPP is welcome to develop local capacities and mechanisms, both at the local and national level
- Entrenched Private Sector: provide regular opportunities (every 10-20 years) for open bidding, and guard against direct-negotiation contract renewal, to ensure a vibrant and competitive private sector
- Empower a water sector regulator, to oversee activities at the local level

While the private sector has been established in the Czech Republic, even with domestic companies assuming some level of infrastructure investment responsibilities, the introductory period must be viewed now as complete. To ensure continued customer acceptance and the integrity of the PPP model, the key challenge is to guard against the replacement of monopoly utilities with an entrenched and appointed private sector; significant reforms are necessary in procurement (for open, competitive & transparent procedures) and contracts to ensure long-term customer confidence and value.

4.4 Regional Workshop

The OECD, the World Bank and the Russian Federation's Ministry for Industry and Energy conducted a workshop titled "Evaluating opportunities for a greater role of the domestic private sector" during September 20-21, 2004 in Moscow, The Russian Federation (Annex E). The meeting brought together entities active and interested in community water & sanitation services of the ECA region: representatives of ECA governments, national water ministries, country donors, international financing institutions, non-governmental organizations, water utilities and international as well as domestic private sector companies.

The purpose of the conference was to assess the actual and potential (future) role of domestic private sector companies, in order to better understand opportunities that might exist for ECA governments, IFIs and donors in co-operating with these new actors in the water market. The meeting in Moscow continued earlier dialogues on Private Sector Participation (PSP) in this region held in 2002 (Paris), 2003 (Vienna) and 2004 (Washington, D.C.).

Overall, the workshop served to confirm the trends of stagnating/ declining PSP activities in the region, with the exciting exception of the current PSP "boom" in the water markets of the Russian Federation. The next years will show whether this signals a change in fortune for the ECA region or whether a repetition of the mistakes of the 1990s will lead to a similar market "bust".

An underlying theme in all the presentations was that the path to success is linked to learning from mistakes. Indeed, the conference strived to provide a format in which all participants could benefit from the experiences, both positive and negative, for positive inputs in the ECA water sector.

5.0 DOMESTIC PERSPECTIVES

5.1 Overview

A summary of “domestic” views on barriers to “domestic” water utility management (as gained through the questionnaires, case studies and workshop) focus on eight major themes. (The “possible solutions” also include extrapolations by the study team).

Table 8: Summary of Domestic Views on the ECA Water Marketplace		
PROBLEMS	CAUSES	POSSIBLE SOLUTIONS
A. Country Setting		
1. Non-Project Risk in the business environment	<ul style="list-style-type: none"> • Weak economies • Political influence & corruption • Social strife/ Political volatility 	<ul style="list-style-type: none"> • Guarantees by IFIs/ Donors to cover non-project risk • Support economic development
B. Water Sector		
1. Institutional Framework	<ul style="list-style-type: none"> • Emerging regulations • Inefficient institutions 	<ul style="list-style-type: none"> • Continued institutional reform • Capacity Building
2. Economic Viability	<ul style="list-style-type: none"> • “Social” tariffs dominate over “commercial” tariffs 	<ul style="list-style-type: none"> • Remove political aspect (community referendums)
C. Market Structures and Models for Community Water Services		
1. Legal limitations to Private Sector inputs	<ul style="list-style-type: none"> • Enabling legislation • Company Structures 	<ul style="list-style-type: none"> • Legislative reforms • Prepare national standards
2. Role of Owner & Utility	<ul style="list-style-type: none"> • Political influence: tariff & staff • Monopoly bias 	<ul style="list-style-type: none"> • Stakeholder contracts • Merit-based staff selection
3. Misunderstanding of Alternative Models	<ul style="list-style-type: none"> • Unclear advantages & disadvantages of PPP 	<ul style="list-style-type: none"> • Education Campaign • Pilot-Demonstration Program
4. Scope of Utilities	<ul style="list-style-type: none"> • Public services beyond water 	<ul style="list-style-type: none"> • Un-bundle Utilities
D. Domestic Market for Water Utility Management		
1. Overall Market Attractiveness	<ul style="list-style-type: none"> • Limited by inefficiency, size, accessibility, competitiveness, profitability & non-project risk 	<ul style="list-style-type: none"> • Create domestic opportunities • Reforms for PPP suitability
2. Local acceptance and follow-through	<ul style="list-style-type: none"> • Lack of political and/ or community “willingness” 	<ul style="list-style-type: none"> • Stakeholder contracts • Education Campaign
E. Procurement		
1. Pre-Qualification (market access)	<ul style="list-style-type: none"> • Bias to established, large & international companies 	<ul style="list-style-type: none"> • Adapt PQ criteria for more open, accessible market
2. Bidding	<ul style="list-style-type: none"> • Excessive focus on price (“low bid wins”) 	<ul style="list-style-type: none"> • Adopt more qualitative selection process
3. Contracts	<ul style="list-style-type: none"> • Unfamiliar forms (non FIDIC) 	<ul style="list-style-type: none"> • Create national standards
4. Ethics-Transparency	<ul style="list-style-type: none"> • Political influence & corruption 	<ul style="list-style-type: none"> • Set, monitor & enforce rules
F. Contract Execution		
1. Contract	<ul style="list-style-type: none"> • High performance standards 	<ul style="list-style-type: none"> • Thorough baseline definition
2. Project Team	<ul style="list-style-type: none"> • Onsite conflicts 	<ul style="list-style-type: none"> • 3rd Party as honest broker
G. Domestic Companies: Expertise		
1. Capacities	<ul style="list-style-type: none"> • Limited advantages over utilities & international firms 	<ul style="list-style-type: none"> • Projects to “grow” domestic sector
H. Domestic Companies: Capital		
1. Private Capital	<ul style="list-style-type: none"> • No immediate capacities 	<ul style="list-style-type: none"> • Develop local banking sector

5.2 Country Setting

The national backdrop is a key factor in the community water services market. Domestic entities confirm the importance of economic, political and social stability as cornerstones of a suitable business environment for water sector activities.

The new EU countries are generally at the forefront of the ECA region with a greater likelihood that conditions conducive to sustainable business and, in turn, community water services are present. Conversely, the CIS, EU Candidate countries and the Balkans register the most country setting “limitations” to water services activities. However, there are exceptions - EU states report the greatest concern with corruption.

Table 9: Domestic Views on Country Factors	
CONCERNS – BARRIERS	POTENTIAL SOLUTIONS
1. Economic Factors	Economic Development
Dysfunctional economic cycles: high unemployment & low wages (tend to result in low collections on water fees)	<ul style="list-style-type: none"> Complementary measures by National Governments, IFIs & Donors to spur commerce, businesses and employment
2. Social Factors	Community Level Projects
Strife between various groups (cited by some respondents in the Balkans)	<ul style="list-style-type: none"> Projects to include all minorities
3. Political Factors	Inclusive Democratisation Measures
Political volatility during reforms & democratisation process	<ul style="list-style-type: none"> Complementary measures by National Governments, IFIs & Donors to spur democratisation (e.g. referendums)
4. Ethical – Legal Factors	Measures to Address Ethics
Corruption & Transparency	<ul style="list-style-type: none"> Measures by National Governments, IFIs & Donors to advance ethical behaviour
Rule of Law (a concern in all ECA, especially in the Balkans & EU Candidate states)	<ul style="list-style-type: none"> Ensure judicial procedures for dispute resolution
5. Country Perceptions & Risk	
Some regions are viewed as a more suitable (EU) or less suitable (CIS, EU candidate, Balkans) environment for business, including community water services.	Thorough Project Preparation
Private sector participants usually carry project risk as well as the non-project risk related to the country setting	<ul style="list-style-type: none"> To address, identify, allocate and manage risk
	Risk Guarantees
	<ul style="list-style-type: none"> For non – project related risk: political, economic, social, etc., e.g. MIGA, National funds, etc.

5.3 Water Sector

Domestic entities cite the developing nature of the water sector as a key concern throughout the ECA region. Following the dramatic political and regime changes of the late 1980s and early 1990s, parallel reforms took place in the water sector, to develop or harmonize water institutions and legislation. The reform process often resulted in on-the-ground ambiguities while new legislation was adopted and inefficiencies as new ministries developed institutional capacities.

Table 10: Domestic Views on the ECA Water Sector	
CONCERNS – BARRIERS	POTENTIAL SOLUTIONS
1. Institutional Framework	Complementary institutional reform measures <ul style="list-style-type: none"> • Spur (and finance) capacity building and efficiency improvements in Ministries • Complete legislative reform – compatible with on-the-ground progress • Notify communities of impending changes • Build capacities in local governments on administration for water services
Inefficiency of government bodies, as cited by the ministries (“experts”) themselves	
Insufficient presence and enforcement of “regulator“ in sector	
Developing legislation & agencies (changing standards, requirements, etc)	
Reallocation of responsibilities for community water services from central to local governments (decentralization)	
2. Project Risk	Thorough project preparation <ul style="list-style-type: none"> • including a risk allocation and management strategy
Private sector participants usually carry project risk plus non-project risk related to an “immature” sector: changes in regulations for compliance, agencies, etc.)	

5.4 Market Structures for Community Water Services

The traditional “water utility” model appears most prevalent in ECA, but public-private-partnership alternatives are generally acceptable to local communities, according to domestic entities. Yet, biases and structural obstacles persist. The key is to ensure full understanding and a legal basis for PPP models, such that communities can select the most appropriate solution to meet their needs from a full palette of options (whether a traditional utility or outsourcing to private companies).

Table 11: Domestic Views on Alternative Market Structures	
CONCERNS – BARRIERS	POTENTIAL SOLUTIONS
1. Facilitating Legislation	Legislative Reforms
a. “Enabling” legislation often limits community water services exclusively to public utilities (monopoly structure– no private inputs permitted); cited in Balkans	<ul style="list-style-type: none"> • Provide a legal basis for public AND/ OR private options to supply water services, with appropriate community safeguards (e.g. asset ownership)
b. Tariff policies set on a social (affordable to the poorest poor) rather than a commercial (cost recovery) basis	<ul style="list-style-type: none"> • Tariff setting procedures based on long-term sustainability (operations & investments) • Establish viable mechanisms for social cases
c. Asset ownership limited to public utilities – no private ownership/ divestiture allowed	<ul style="list-style-type: none"> • (In emerging markets, rights for asset ownerships are a low priority)
2. Role of Utility Owner	Circumvent the Political Role
a. Local government leaders (mayors) take political, rather than rational-technical, decisions on tariff policies due to re-election pressures from the electorate for low prices – With key impacts on the financial viability of the market	<ul style="list-style-type: none"> • Stakeholder contracts with performance standards (on tariffs, staff, etc.) to ensure community, utility & owner commitment for the full contract term • Community referendums on investment funds or tariff policy to remove political pressures • Merit Selection Procedures for fair and transparent hiring of key utility management staff – eliminate mid-contract replacement risk from private companies
b. Water utility management staff is often vulnerable to political appointment for alignment with the reigning political party	
3. “Market” Understanding of PPP	Information – Education Campaign
a. Many market entities and participants do not fully understand the opportunities and implications (advantages & disadvantages) of PPP to make an informed selection	<ul style="list-style-type: none"> • Explain facts and dispel myths of PPP • Target water sector agencies, utility owners, water companies and customers (workshops, pilot programs, etc.)
4. Scope of Utilities	
a. Utility responsibilities often extend beyond water & wastewater services (to solid waste, streets, public spaces, cemeteries, etc.) especially in Balkans and EU candidate countries	<ul style="list-style-type: none"> • “Un-bundle” local utilities: separate water & non-water services/ entities prior to starting PPP contracts • Pair water sector with non-water sector companies: to cover full range of public services

5.5 Domestic Market for Water Utility Management

Domestic companies report the ECA markets for water utility management vary in efficiency and attractiveness. The EU, CIS and EU Candidate countries appear most compatible with and open to domestic inputs, and less so in the Balkans.

Table 12: Views on the Domestic Market for Water Utility Management	
CONCERNS – BARRIERS	POTENTIAL SOLUTIONS
1. Market Efficiency & Need	<ul style="list-style-type: none"> • Establish/ bolster finance mechanisms for Rural & Poor Areas (such as ISPA & PHARE for the accession countries) • Domestic companies are ready to work in rural areas, less so in poor areas
a. Urban areas receive the best level of water services in ECA, though service in secondary cities is ranked better than in primary cities b. Rural and poor areas are the most ill-served, indicating the greatest need for improvement	
2. Market Size	<ul style="list-style-type: none"> • Establish New Markets: form groups of urban with rural areas, existing with new service areas, villages with regions, etc.
a. Too few and infrequent projects – not a viable and reliable income source; cited especially in Balkans b. Young market “over saturated” by capable companies both domestic & international	
3. Market Openness	<ul style="list-style-type: none"> • Revise Pre-Qualification & Bidding (see “procurement” section below)
a. Perception of being closed to non-water sector enterprises	
4. Profitability	<ul style="list-style-type: none"> • Tariff & Stakeholder Commitments (see “market structures” section above)
a. Weak economy & revenues impact market viability; cited in Balkans and EU candidates	
5. Political Will	<ul style="list-style-type: none"> • Stakeholder Commitments (see “market structures” section above)
a. Insufficient Political “Willingness” at national & local levels to implement reforms for PPP	
6. Utility Will	<ul style="list-style-type: none"> • Stakeholder Commitments (see “market structures” section above) • PPP Information – Education Campaign (see “market structures” section above)
a. Public utilities and their owners often will not take difficult steps towards efficiency (modern techniques, staff reductions, reorganization); less so in EU countries b. Some public utilities are biased against private inputs by “domestic” companies; cited most in Balkans	
7. Community Will	<ul style="list-style-type: none"> • Stakeholder Commitments (see “market structures” section above)
a. Customer base with historically low payment levels is not willing to take the necessary steps (higher tariffs, metering) to achieve a sustainable water service via any model	

5.6 Procurement

Domestic entities express an overall lack of confidence in the bidding and selection processes in the ECA region; the case studies demonstrate a generally unsophisticated level of procurement, even in the most affluent of ECA countries, especially due to regulatory ambiguities during the initial political transitions.

Table 13: Domestic Views on Procurement	
CONCERNS – BARRIERS	POTENTIAL SOLUTIONS
1. Pre-qualification	Select and justify criteria specific to project needs: <ul style="list-style-type: none"> • company turnover, minimum number of staff, value of projects, financial resources, etc. • number of similar projects, staff qualifications • location of company headquarters/ registration
a. Criteria tend to favour:	
<ul style="list-style-type: none"> • Large companies 	
<ul style="list-style-type: none"> • Established companies from the water sector • International 	
2. Bidding	Eliminate “Low-bid wins” policy: <ul style="list-style-type: none"> • Reform selection process to emphasize quality of services & company value more than project cost Reduce burdens among all competitors: <ul style="list-style-type: none"> • Use standardized pre-qualification and bidding forms
a. Excessive focus on financial rather than qualitative factors	
b. Costs of bidding: time and money to prepare proposals	
3. Contracts	Create National Standards (via PPP committee) <ul style="list-style-type: none"> • Use (prepare) national-regional level standard documents for procurement, contracts, etc. • Meet international and domestic language requirements
a. Unfamiliar – non-standard forms (e.g. non-FIDIC)	
4. Government Capacities	Establish National Board to address PPP Issues <ul style="list-style-type: none"> • Address PPP at a national level • Provide central information on key issues in procurement, regulations, legal basis, etc. • Support and build domestic capacities in PPP, benefiting from international experience & expertise
a. Since decentralization, local government administrations have often have limited experience, capacities or examples in procurement	
5. Ethics & Transparency	Establish & Enforce strict rules of engagement <ul style="list-style-type: none"> • Define “acceptable” types of interaction permitted between competitors (and agents, home governments, etc.) with the “selection committee”
a. Non-merit type of influences in the selection process: (e.g. politics, bribery, collusion)	
b. Perception that the market is biased or “closed”	Ensure a truly Competitive Marketplace <ul style="list-style-type: none"> • Introduce/ Retain open bidding with pre-qualification • Eliminate invitation only or direct-negotiation • Adopt parallel local language documentation
c. Lack of a Regulator	Monitoring & Enforcement by a Third Party <ul style="list-style-type: none"> • Such as a Ministry, NGO, IFI or neutral agent

5.7 Contract Execution

Domestic entities report caution and hesitation at the prospect of implementing projects, primarily due to non-project risk or waning stakeholder commitment, as reported in the categories above, but also other factors.

Table 14: Domestic Views on Contract Implementation	
CONCERNS – BARRIERS	POTENTIAL SOLUTIONS
<p>1. Dysfunctional Project – Contract Team</p> <p>a. Excessive company risk due to lack of “willingness” of all stakeholders – national, owner, utility, customers</p>	<p>Stakeholder Contracts – Commitments</p> <ul style="list-style-type: none"> • Make all stakeholders party to the contract, each with relevant performance standards (tariff, staff, etc.) <p>Engage 3rd Party as honest broker:</p> <ul style="list-style-type: none"> • Mediator between parties • IFIs use special relationship to convince/ apply pressure at local & national levels • Promote institutional reforms and capacity building
<p>2. Contract Form</p> <p>a. Performance standards often based on unrealistic expectations</p>	<ul style="list-style-type: none"> • Thorough Project Preparation to understand the setting, context, challenges and opportunities (perhaps including an on-site technical assistance phase)
<p>3. Project and Non-Project risk</p> <p>a. Excessive company risk due to factors beyond their control (country setting, economic fluctuations, stagnant tariff policy)</p>	<p>Thorough Project Preparation</p> <ul style="list-style-type: none"> • fully understand the local context • clearly define and allocate responsibilities • prepare risk allocation & management strategy

5.8 Capacities of Domestic Companies

A “self-assessment” by domestic entities indicates a confidence in the capacities of domestic companies to provide suitable inputs for water utility management. The “experts” are generally enthusiastic for all types of PPP inputs, while the “participants” are more cautious, most preferring to engage only in service and management contracts.

Table 15: Domestic Views on the Capacities of Domestic Companies	
CONCERNS – BARRIERS	POTENTIAL SOLUTIONS
1. Utility Inefficiencies	
<p>a. Deficiencies of Utilities</p> <ul style="list-style-type: none"> • Infrastructure project development: design, procurement, etc. • Repairs and proactive maintenance of system infrastructure • Human resources and staff development • Customer service & management • System/ service area planning: master plan/ capital investment plan <p>b. While many utilities in ECA are effective, perception that unsustainable utilities are incapable of self-improvement</p>	<p>Provide PPP Exploratory - Transition Period</p> <ul style="list-style-type: none"> • Technical Assistance & Performance Standards: give existing utility & community “last chance” to commercialise (with inputs from domestic companies in areas of strength) • Require bids from Utility on any PPP inputs (provide bidding assistance if necessary)
2. Domestic “advantages” in competition with International Companies	“Grow” the Pool of Domestic Companies
<ul style="list-style-type: none"> • Technical/ engineering capabilities • Familiarity with the local community & water sector • Coordination with local officials, customer base, etc. • Better Performance – Quality • Better value: best combination of price & performance • Willingness to provide services in remote or rustic locations – less so to poor areas • Lower Price 	<ul style="list-style-type: none"> • Structure projects matching the areas of strength of domestic companies • Develop smaller projects to suit domestic company size and financial-execution capabilities • Provide projects or project components dedicated to domestic- national companies • Cluster domestic with international companies, each in accountable roles
3. Domestic “disadvantages” in competition with International Companies	Incorporate Project Safeguards
<ul style="list-style-type: none"> • Access to Capital • Limited experience/ capacity in private water utility management • Exposure to local economy & currency • Corruption (most concern by EU states) • Abuse of Monopoly 	<ul style="list-style-type: none"> • Involvement of local/ national finance & banking sector, to develop capacity • 3rd party project monitoring • Establish customer representation groups
4. Application of PPP	Use Service and Management Contracts
<p>a. Most domestic companies are only ready for low-level PSP in next 5 years, except operators</p>	<ul style="list-style-type: none"> • Use an incremental approach to introduce/ spread PPP into markets

5.9 Domestic Companies – Capital

Domestic entities indicate an inability and complete lack of desire to provide capital as part of their responsibilities in water utility management. Overall, domestic companies will not provide an immediate source of capital for community water services.

Table 16: Domestic Views on Domestic Companies - Capital	
CONCERNS – BARRIERS	POTENTIAL SOLUTIONS
1. Lack of Domestic Capacity for Investment Capital	
a. Domestic companies are not willing/ able to provide own capital for project investments/ improvements; most prefer low-level PPP	<p>Provide Local Incentives</p> <ul style="list-style-type: none"> • matching funds per referendums • matching funds per public or private investments <p>Develop Local Finance & Banking Sectors</p> <ul style="list-style-type: none"> • IFIs & donors support and build finance capacity in complementary project and sector activities
b. Inability of private sector to contribute to strategy to rectify community water sector deficiencies and attain Millennium Development Goals	<p>Develop Financing Mechanisms</p> <ul style="list-style-type: none"> • IFIs & donors build up/ support similar investment mechanisms for poorer ECA countries as for the EU accession countries

5.10 Variations

5.10.1 Between Domestic Experts and Participants

The two types of respondents present generally comparable results, with the primary differences in the assessment of the current situation and future opportunities. For example, experts view the existing levels of service more successful in primary and secondary cities, than market participants.

Experts are more confident in the capabilities of domestic companies and, accordingly, are more optimistic about the future of PPP in their respective markets, not just low-level responsibility type inputs (service and management contracts), but also high level PPP contracts (lease and concessions). Domestic market participants, on the other hand, are somewhat more cautious about their capabilities over the next 5 years (more confident with service and management contracts, than leases and concessions).

5.10.2 Between Domestic Operators and Consultants

The major difference between these types of respondents lies in their capacities and willingness to engage in PPP contracts. The operators present a greater level of confidence to engage in all types of PPP inputs, including leases and concessions. Consultants, on the other hand, are more content with service and possibly management contracts.

5.10.3 Between International and Domestic Companies

International companies generally concur with domestic companies on all key limitations to the ECA community water markets and also retain a key interest in market activities. However, domestic companies clearly indicate that international companies are a competitive barrier to their market activities.

5.10.4 Between ECA Regions

Clear variations exist in the impressions and attitude towards PPP-PSP. Accordingly, private sector participation has not been universally accepted or applied throughout the ECA region during the window-of-opportunity available since the political transitions.

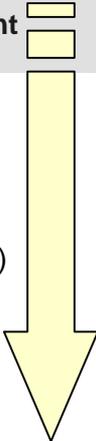
Overall, domestic companies successfully entered newly emerging markets for private water utility management in the new EU states, EU candidate states and some CIS countries. For example, about half of the private water utility managers in the Czech Republic are domestic companies and in Russia about eight percent of water services market are met by the private sector (domestic & international companies).

Conversely, viable private water utility management markets, and hence a suitable stock of private water services managers/ companies, have not emerged in many ECA areas and communities, especially in the poorer areas of the Balkans and Central Asian countries. Many local governments have retained the traditional municipal utility model, in part as a means to foster employment, according to the dire economic conditions, but also due to limited local capacity and know-how to adopt a new model, e.g. PSP-PPP. For instance, an international financing institution is undertaking a PSP water sector project in a Central Asian city, with the first step being to establish and then strengthen a private sector operator.

6.0 MARKET DEVELOPMENT OPPORTUNITES

6.1 Objectives

The market development aspect of this study focuses on strategies to further mobilise domestic companies in the process to maximise the expertise and capital available to the ECA water utility management markets.

“Market Opening” Objectives	
<p>1. Eliminate Limitations and Barriers to Domestic Participation and Inputs in Water Utility Management (Demand Side)</p> <p><u>Target Group</u></p> <ul style="list-style-type: none"> • National Governments & Legislation • Water Sector Ministries & Regulations • Utility Owners (local government) • Utilities • Customer Bases • Existing and Potential Market Participants • Professional Associations • IFIs & Donors 	<p>2. Increase the Capacities of Domestic Companies in Water Utility Management (Supply Side)</p> <p><u>Target Group</u></p> <ul style="list-style-type: none"> • Water Utilities • Operators • Construction Companies • Consulting Firms • Engineering Firms • Non-water Utilities • Non Governmental Organizations
	
Expected “Market Opening” Results	
<p>The private sector contributes to the attainment of the Millennium Development Goals in the ECA region by 2015 (maintain and improve levels of service in areas with services coverage, and provide additional access to water supply for 18 million inhabitants and to sanitation for 37 million inhabitants)</p> <ol style="list-style-type: none"> 1. Greater Participation and Inputs by Domestic Companies in the ECA Water Utility Management markets 2. Greater Domestic Capacities to apply expertise (short-term) & investment (long-term) in community water services 3. Sustainable Water Utility Management in ECA communities 	