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BUILDING TOGETHER FOR THE FUTURE

GREEN PAPER
on the Transformation of Public Utility Companies in Serbia
Options for Reform

Deli Radivoja 15,
11000 Belgrade, Serbia
Tel: + 381(11) 308 92 70, 344 32 60 Fax: + 381(11) 308 92 73

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CHAPTER 1 INTRODUCTION, SCOPE AND PURPOSE

1.1. Structure and Legal Environment of the PUC Sector

Public services in Serbia are overwhelmingly performed by publicly[1] owned utility companies. The Law on Communal Services[2], lists the services which are deemed essential to the community and are the responsibility of local government. They are

1. water treatment and distribution
2. atmospheric[3] and waste water treatment and sewerage;
3. production and supply of steam and heated water[4];
4. urban public transportation.
5. urban sanitation in cities and settlements
6. organization and maintenance of parks and recreational and green areas;
7. maintenance of roads, streets and other public areas in cities and other settlements and public lighting
8. maintaining landfills[5]
9. operating graveyards and burial services;

According to Article 3 of this Law, these activities are to be performed by public utility companies (PUC's), or "other company or entrepreneur, depending on the nature of communal activity and concrete conditions and needs in the municipality, in accordance with the law and regulations enacted on the basis of the law".

Article 8, paragraph 2 of this Law defines a subset of the above nine activities are to be performed by PUC's unless it is deemed that establishing a PUC would not be cost effective ("….would not be rational given the scope of the tasks and the number of users" is the literal translation of the text of the law)[6]. The subset includes water supply, waste water treatment,

[1] In other countries one would say "municipally owned" instead of "publicly owned", but in Serbia that would not be correct, see Chapter 2.1.
[2] "Zakon o komunalni delatnostima", Official Gazette of the RS no 16/97 and 42/98
[3] Read: rainfall
[4] In fact this wording refers to district heating, as clarified in Article 5 para 4
[5] This provision might just as well refer to waste disposal in general, which includes incineration and composting. Perhaps alternative forms of disposal were not considered when the law was formulated, or alternately these were intentionally excluded from the domain of PUC's. Be that as it may, it is just as well, because the private sector does participate in Serbia in all sorts of waste disposal, including by now in landfilling. Article 5 para 8 dilates on the definition of "maintenance of dumpsites" and includes in the activity the "sorting out and processing of secondary raw materials from the waste in the dumpsites". This activity however is frequently carried out by the informal sector, including Roma micro-enterprise. Further, should Serbia introduce producer responsibility for the recovery and recycling of selected waste streams, such activities could by law become the domain of the private sector.
[6] For a comment on this stipulation see Chapter 2, footnote 10.

district heating and public transportation[7]. Waste management is notably absent from this list, so it appears that the municipality does not need to demonstrate a special justification for delegating this service to the private sector. This is important, since private sector participation in municipal waste management has recently become an important factor in this sector (see Section 3.1.4).

According to Articles 10 and 11, municipalities can contract private parties to carry out communal services according to regulations set by law and by their own municipal council regulations. The contracts can be up to five years, unless the contract obliges the private party to make investments, in which case it can be up to 25 years. Further, the Law on Local Self Government [8] confirms the right of municipalities (i) to establish "enterprises, institutions, and other organizations" to carryout its responsibilities "…to satisfy the needs of the local population …." and (ii) to contract for such services to "…a legal entity or a natural person" "…in accordance with principles of competition and public transparency" (Article 7).

Article 18 of the same Law reasserts the local government's authority to regulate the services mentioned in the Law of Communal Services. Municipalities thus have broad responsibilities and authority to regulate service levels and the conditions of service. They set the tariffs for the services. Under certain conditions they can interrupt or deny the service, including if a user fails to pay for the service.

In Serbia, each municipality has its own PUC's. Table 1.1. states their sectoral breakdown and employment generation:

[7] In fact large chunks of the public transport are contracted to private companies in some cities, including in Belgrade.
[8] Official Gazette of the Republic of Serbia, no.9 of February 26, 2002

Table 1.1 Number of PUC's and Employment[9]

Type of Public Utility Company	Number of PUC's	% of total number	Employees	% of total employed
Water/Waste Water & Municipal Waste				
Specialized Water & Waste Water	30	7%	10,200	19%
Specialized Waste Management[10]	11	2%	8,250	16%
Mixed Water and Waste Management[11]	122	27%	10,710	20%
Subtotal	***163***	***36%***	***29,160***	***55%***
District Heating	***28***	***6%***	***6,440***	***12%***
Other				
Road maintenance	20	4%	2,000	4%
Fee collection & building maintenance	10	2%	1,250	2%
Administration:Construction&LandUse	140	31%	7,700	14%
Green market services	25	6%	1,250	2%
Gas supply	30	7%	1,500	3%
Parking services	6	1%	750	1%
Miscellaneous	25	6%	3,125	6%
Subtotal	***256***	***58%***	***17,575***	***32%***
TOTAL	**447**	**100%**	**53,175**	**100%**

PUC employment accounts for about 2.6% of officially registered employment in Serbia, estimated at about 2.1M people in 2005.

[9] Source: "Business Association of Communal Enterprises KOMDEL", 10-year memorial issue, May 2008
[10] Includes park maintenance, urban sanitation, and cemetery
[11] May include other services in addition to water/wastewater and waste management

1.2. Purpose and Scope of the Green Paper

Much has been written about the need to modernize and reform PUC's, including under a number of technical assistance projects. Suggestions and recommendations abound. This Green Paper does **not** aim to review this body of work and the policy advices it contains. **The purpose of this paper is to present options and alternatives for PUC reform in key areas of policy and practice, in order to generate and facilitate a dialogue among concerned decision-makers**. This paper responds to initiatives "from above" -i.e. the initiative spearheaded by the Ministry of Economy and Regional Development to formulate a reform strategy for PUC transformation by the end of 2008 – and "from below", i.e. the initiatives stemming from municipalities and coordinated through their association, the Standing Conference of Towns and Municipalities (SCTM).

Reform in the provision of services carried out by PUC's needs to respond to several imperatives:

- cost-effectiveness, efficiency, and competitiveness in a developing market economy. PUCs must improve the quality of their services and their cost effectiveness, i.e. their operational and financial performance. This is in turn linked to the institutionalization of financial autonomy and sound tariff policies that will safeguard the financial sustainability of autonomous PUC's, albeit within an effective regulatory framework overseeing local monopolies – a regulatory framework that needs to be developed in Serbia.
- meeting the challenges of approximation to the European Union. This means moving towards compliance with the *acquis communitaire*, which will require (i) substantial investment in environmental infrastructure (ii) the ability to generate funds at the local level and (iii) in some cases a fundamental restructuring of service provision. As an example of the last, once regional landfills replace local ones, the transport of waste has to be reorganized on a regional level, calling for inter-municipal cooperation
- the general objective of decentralization, that is of delegation of authority from central government to the local level The principle of subsidiarity calls for empowering local government to deal with local services. While the provision of the main environmental services – water and sewerage and waste management is decentralized in the sense that each municipality has its own PUC(s), the central government unduly limits local decision making in a number of areas. The policy of limiting tariff increases to inflationary adjustments is an important example.

There is a general consensus that the overall performance of PUC's leaves much room for improvement. Problem areas have been documented, *inter alia,* in the SCTM/MIASP report on "PUC Transformation in Serbia", 2007. Excerpts from the conclusions of that report, and the suggestions for improvements which it contains, are cited in Annex 1.1 of this Green Paper. Also, the Terms of Reference of a proposed World Bank consultancy for PUC contains a succinct statement on the issues of PUC reforms; these are cited in Annex 1.1 Appendix 2 of this Paper.

This Green Paper focuses on the water services sector and the waste management sector, i.e. the services provided by the 163 PUC's on the top of Table 1. These two services account for more than half of PUC employment. They are also the most important municipal activities in economic terms, where reform is a high priority. In addition to the PUC directly engages in water services and waste management, the Construction Directorates have an important role vis-à-vis the utility companies. Most municipalities have such a Directorate. Responsibility for investment planning for utility companies is in most cases shared between the PUC's and the Directorates. Directorates are often the main agency of the municipal government where investment decisions are made and financial resources are allocated. As the directorates are deeply involved in the governance of public utilities, their role in PUC transformation must also be considered.

There are crosscutting issues and options for reform which affect PUC's across sectors. Such issues, including issues of governance", are addressed in Chapter 2. The two sector-specific chapters – Chapter 3 on waste management and Chapter 4 on water services address

- Tariff policy as it relates to financial sustainability
- Regulation (mainly relevant to the water sector)
- Regionalization of the service (mainly relevant to the waste sector)
- Opportunities for private sector participation (mainly relevant to the waste sector)

This Green Paper **does not** address financing issues and the problem of limited access to capital. It is taken as axiomatic that a reformed PUC sector will have much improved ability to plan and attract investment. This Green Paper **is not** prescriptive: while it suggests certain reforms it does not contain firm recommendations. It aims to outline strategic policy options in key areas rife for reform. It is **interactive**: the text is interspersed with direct questions to the readers asking their views on policy options.

CHAPTER 2 CROSS CUTTING ISSUES AND OPTIONS FOR REFORM

2.1. Ownership of Assets

A peculiar feature of the Serbian regime of property rights is that PUC's – and municipalities for that matter - do not own property. The State does[12]. The regime of property rights underwent some fundamental changes in recent history:

- Until 1995 assets operated by PUC's were in "social ownership", a legal form specific to ex-Yugoslavia
- Between 1995 and 2006 all publicly owned assets were designated as State property
- The new 2006 Constitution of the Republic of Serbia restitutes property rights to municipalities. However this constitutional provision will only go into effect by the passage of a Law on Public Property, which is in the making for the last two years. Thus to this day the assets of PUC's constitute *de jure* State property. (Drafts of a Law on Public Property have been prepared over the last two years; its passage is still expected during 2008.)

The *de facto* situation however differs from the *de iure* situation, as in most respects municipalities exercise the ownership rights of the PUC's. Municipalities are the "founders" of PUC's and in that capacity appoint the managing board and the director(s) of the PUC. As such they have all the authority concerning management decisions.

For the purposes of this Green Paper it suffices to consider in what ways the present regime of State ownership of assets may inhibit PUC reforms. It may also be worth while to consider alternative property regimes in the future. However, the following passages in this Section 2.1 are speculative as the draft Law still appears to be "work in process".

First, it appears that reform measures for improving the performance and the governance of PUC's are not contingent on the transfer of State property to municipalities. There is nothing preventing municipalities and the PUC management to work to improve PUC performance on their own initiative.

[12] According to the Law on State Assets all assets operated by public companies belong to the State. However, a provision of the Law on Public Enterprises (Article 9, para 1) states that the "property of the Public Enterprise consists of real estate and movables, financial assets and securities and other property rights, including the right to use state property". The Supreme Court of Serbia has no jurisdiction to rule on the validity of laws; it would be up to the Constitutional Court of Serbia to rule on this, which it has not done so far. Passage of the Law on Public Property. will hopefully resolve this quandary.

State ownership of assets may however constrain transactions where **transfer of_property** is involved. It may also stand in the way of including appropriate **depreciation_charges** in the cost structure of PUC's.

If the (State-owned) assets operated by a PUC do not appear on the balance sheet of the PUC (or of the founder municipality), it would stand to reason that the PUC could not charge **depreciation** on these assets. If this is the case, the State ownership of the assets would stand in the way of the cost recovery of capital assets, and thus of cash generation for the replacement of assets. There doesn't appear to be reliable documentation on the way public assets are carried (or not carried) on PUC balance sheets (nor on how in practice depreciation charges are calculated). It would be important to shed light on this question in the case of the fixed assets such as water distribution and sewerage networks, as well as fixed assets deployed in waste management services.

When reforms involve **transfer of property**, they may be impeded or slowed down by requirements to obtain central government consent. This would be relevant to cases where (i) municipalities establish joint venture to merge their operations or when (ii) municipalities wish to transfer assets as capital contribution to a joint venture with a private investor.

As to alternative property regimes for the future, assuming that the assets operated by PUC's revert to municipal ownership, the options are to further transfer these assets to the ownership of PUC's or to keep them in the property of the municipality. With regard to water and sewerage networks and other fixed assets in water services, the prevalent practice is to keep the infrastructure in municipal ownership, while the water utility owns the assets and equipment needed to operate the system. With regard to waste management, the prevalent practice is to keep transport vehicles and containers, as well as all operating assets, as PUC property. However the landfill site usually remains municipal property. It is operated (sometimes under a lease or a concession contract) by the service provider, but reverts to the municipality after closure. (This raises the often unresolved question as to who is liable for after care: the operator or the municipality, see Annex 3.1, Appendix 1).

It is noted that even after the passage of the Law of Property, considerable time may elapse until secondary legislation rules on issues such as the above.

Do you think that in the future the long-term fixed assets operated by PUC's should belong to municipalities? Why or why not? Do you think that in the future all assets operated by PUC's should by the property of the PUC? Why or why not?

2.2. "Corporatization" and Governance

Corporatization has been defined as "the process of utility restructuring and reform that results in a utility being guided by management practices and internal incentives that 'mimic' those of private businesses".[13] The operative word is "mimic". How can public sector companies, which have been ruled by quite another set of objectives and processes, be made to reform so as to operate "as if" they were private companies? And why should they imitate private business in the first place?

The underlying assumption of proponents of corporatization that business-like management is better than public sector management and therefore should be emulated and imitated by public sector companies. Not all agree. Particularly in ex-socialist economies, there is a strong tradition that asserts the primacy of social functions and negates the validity of the profit motive for PUC's. According to this thinking, utilities may pursue "social pricing": tariff should be kept low even if this involves losses and subsidies from the public purse.

The opposition to business-like practices is not limited to tariffs as a means of generating full cost recovery or profit. Some think that it is legitimate for public utilities to employ more staff than required for cost effective operations. Chronic overstaffing is public utilities is a measure of the implicit acceptance of this view.

Further, once the view is rooted that it is right for PUC's to subsidize services and serve as agents for local employment creation, a lack of concern with cost effectiveness and efficiency may follow. This is one reason why indicators of unit costs and other measures of efficiency are often deficient in PUC's.

PUC transformation should entail cost effectiveness in investment and operations. While profits are not an overriding goal for PUC's, **for public companies the profit objective may be translated as cost effectiveness, i.e. achieving a target "level of service" at the least cost**. Thus corporatization would entail striving for cost effectiveness in service delivery. Coupled with tariff policies to ensure cost recovery, PUC corporatization would result in financially self-sustaining and efficient companies which would accordingly operate much like private enterprise. This is the vision of the future.

However there will always remain a basic difference from the private sector and publicly owned PUC's. While in the private sector the profit motive is the "invisible hand" which provides the incentive for cost effectiveness and pricing decisions, the incentive for PUC transformation must come from somewhere else. There is no invisible hand guiding PUC's. Therefore the issues and options for PUC transformation revolve around how the owners and clients - the central government, local government, and the public clientele of PUCs - are to provide the incentives and controls that will make PUC's operate **as if** they were cost conscious private companies. This involves devising a legal and institutional framework where PUC's will in fact "mimic" private sector behavior – in a positive sense.

[13] Case Studies of Bankable Water and Sewerage Utilities, USAID, August 2005 Volume I, Overview Report, page 10

What are the ways in which PUC's don't behave like private enterprise, and what are the options to reform this behavior?

A government approved terms of reference[14] for advisory services lists some of key problems of PUC governance in Serbia:

- **Political influence /**in employment/: "… influence of local political parties is pervasive leading to ***frequent turnover*** of …. managers and pressures for employment of ***unqualified staff*** …" /To this might be added ***over-employment:*** PUC's can serve as fiefdoms providing jobs for political supporters, phantom employees, or simply as social policy to mitigate local unemployment/.

- **"Unclear governance arrangements** between the founders (municipalities) and the utility companies, such that the performance expectations and criteria for satisfactory delivery of services ….and use of resources are not specified in contracts or performance agreements

- **"Financial Relationships: ….** Financial transfers from the municipality to the PUC's are not specific to performance based … parameters. …. For example compensation to the PUC for services delivered to 'vulnerable' users who are unable to pay or are formally exempt from payment are not distinguished from financial losses due to inadequate tariffs or inefficient operations."

Assuming that these are indeed principal aspects of poor PUC governance, what are the options to remedy them? And what are the options (i) for the central government to bring to bear on improving local governance, and (ii) initiatives at the local level for the same?

Some tentative answers based on previous work follow, with questions addressed to the readership:

Cost Accounting: Most PUC's are multipurpose. In smaller municipalities one PUC tends to operates water services as well as waste, and beyond that other services such as cemetery management, public sanitation etc. PUC accounts however are normally not set up around profit centers, i.e. there is no way to keep track of and monitor what each service costs. Thus tariffs are not based on costs and cross subsidization is difficult to track down. It is difficult to tell profitable activities from loss leaders.

Municipalities can of course require[15] their PUCs to institute activity based cost accounting. A "bottom up approach" fronted by a group of progressive municipalities could develop guidelines for activity based cost accounting, coordinated by the SCTM, which would then promote "best

[14] Cited from "Terms of reference for advisory support to the working group designing a reform strategy for municipal public utility companies" agreed between the Ministry of Economy and Regional Development and the World Bank.
[15] Municipal government has different financial reporting requirements from PUC's, but the management board of the PUC's, appointed by the Municipality as it is, can cause the PUC to adopt cost accounting as it sees fit. The Law on cost accounting has provided a framework for analytical cost breakdown, but the law does not require that it be followed.

practices" among its membership. Alternately, the Government accounting standards could mandate activity-based cost accounting. PUC's are under obligation to report on their financial results, and the Government could regulate the way this reporting is carried out.

Do you think the SCTM could/should coordinate the development of activity- based cost accounting guidelines to be propagated among its membership?

Do you think the Government should establish mandatory accounting guidelines rules for activity - based cost accounting?

What do you think should be the Governments role in monitoring and overseeing the operational and financial performance of PUC's?

Service Contracts: PUC's should have contracts which stipulate service levels and their estimated costs. (For example, the service level in waste management could refer to the frequency of service, which may be different in different seasons and in different parts of the municipality. The contract could also specify the fees for services to the Municipality, for example, for machine hours used in snow removal, for the length of sidewalks cleaned, for the surface area of roads washed, etc.) .

Do you think that PUC's should have obligatory service contracts with PUC's which specify levels of service and fee structure?

Do you think that the SCTM should initiate the development of c model guidelines for service contracts for water and waste management services?

Transparent Subsidies

Municipalities often subsidize "vulnerable" groups (low income groups, unemployed) by exempting them from user fees. PUC's are then required to provide services for these groups and absorb the losses. Thus PUC's become instruments of social policy, which further undermines their financial viability. "Arms-length" financial relations between the municipality and the PUC would require municipalities to compensate its PUC's for subsidized services.

Municipalities transferring the cost of subsidies to a service provider becomes even more problematic when the service is outsourced to a private company. There is an example of a waste management contract in Serbia where the private service provider acceded to the request of the Municipality to service to the whole population as long as the proportion of the exempt population is less than 5%.

Do you agree that when a municipality subsidizes vulnerable groups, it should finance the subsidies from its budget rather than through a PUC? Why or why not?

Comparative "Benchmarking"

Much has been written about "benchmarking" as a technique for measuring performance. Benchmarking revolves around creating a database of indicators which would allow comparing performance of PUCs and thus pointing to problems areas and opportunities for improvement. The literature distinguishes between performance indicators, process indicators, and product indicators[16]. Benchmarking could be a voluntary activity undertaking by groups of progressive PUC's, or it could be imposed in the form of mandatory reporting requirements to monitor PUC performance. The latter is the case, implicitly, in some regulatory regimes which require water companies to report on their operational and financial performance.

Do you think that the Standing Conference should develop guidelines for comparative benchmarking for public utilities? What agency/entity is best positioned to initiate/support/mandate benchmarking for water services and waste management? Start with? Do you think the Government should impose mandatory reporting requirements on PUC operational and physical performance in water services and waste management services? If so which agency of Government? And existing one or a new one to be created? What steps should the Government take, if any, if a PUC is shown to be widely out of line in terms of the quality and cost of its services?

Nepotism, Cronyism, and Over-employment.

These problems are difficult to tackle anywhere in local politics. The following questions contain suggestions:

Do you think that it would be desirable and practical to regulate civil service employment standards for PUC's, such as prescribing professional qualification for management positions? Do you think that top jobs in PUC's should be publicly advertised? Followed by formal evaluation of the candidates by a committee? Do you think that line Ministries should have a say in the appointment of the Director and other key executives of PUC's? Do you think that PUC management should report on the job description and qualifications of the staff it employs? If so to whom; the Mayor, the Municipal Council, an outside Auditor?

[16] For examples of such indicators in waste management and water services, see "PUC Transformation in Serbia", SCTM and MIASP, November 2007, pp 22-23

2.3. Tariff Policies

2.3.1 Low and Capped Tariffs: A Major Problem

Reform of tariff policies is essential for PUC transformation. Tariffs must be adequate to safeguard the PUC's financial sustainability and to comply with the "user pays principle".

Depressed tariffs are a major problem facing PUC's. Tariffs are often set below the level to even meet just operational cost, so that many PUC's are dependent on budgetary subsidies for their operations. (Low tariffs are of course not solely responsible for the financial plight of PUC's, which are compounded by low collection rates, the obligation to pay VAT to the government based on billings rather than receipts, and various sources of inefficiency such as over-employment and poor network maintenance.) PUC's generally do no generate operating surpluses from which they could finance deferred maintenance, equipment replacement, or capital investment. The result is obsolescent equipment (e.g. transport vehicles in waste management) and deteriorating infrastructure (e.g. water and sewerage networks) which in turn result in rising operating and maintenance costs. Without rising tariffs PUC's face a vicious circle of rising costs and a deteriorating service level.

The government present practice to limit tariff increases to compensate for inflation is sometimes blamed for perpetuating the above vicious circle. This practice violates the principle of local autonomy and perpetuates the financial plight of PUC's. (For the recent history of this price control and its legal context, see Box 2.1 below.) However, apart from this governmental price control, municipalities face political pressures to keep tariffs low. It is therefore questionable whether removing central government capping of price increases would suffice to raise fees to the "right" level in terms of making a contribution to cover investment. Investment decisions and the allocation of funds for investment is in many cases made by the Directorates of Construction. This has at least two important consequences (i) the PUC's don't control the planning and financing of their investments (ii) investments are financed as budgetary grants channeled through the Construction Directorates so that they do not enter into the PUC's tariff proposals. This institutional setup perpetuates the notion that tariffs only have to cover operating costs. As investment requirements for environmental services will increase substantially in the course of approximation to European Union standards, these practices may result in an unsustainable drain on municipal budgets in years to come.

(The present policy is capping price increases to inflation is not the only government measure prejudicing the financial situation of PUC's. PUC's are obliged to pay to the budget VAT based on their billings rather than on existing revenues. While this may provide an incentive to PUC's to increase collections, it is a policy at odds with business practices and commonly accepted norms of taxation.)

Box 2.1

PUC Tariffs in Serbia – Historic Overview since 2000*

2000-2002 - Open Price Control

The Law on Public Enterprises and Performing Activities of Public Interests adopted in July 2000 (henceforth "the PE Law") explicitly authorized the Government of Serbia to control the price of the PUC services. Article 27 empowered Government to withhold consent for prices proposed by municipalities. As some of the municipalities kept increasing the prices of the PUC services (and the IMF warned Serbia concerning impact on inflation) in January 2002, Government passed a "Decree on Prices for Certain Products and Services" setting maximums for certain tariffs (e.g. a maximum tariff for households for the waste management at 1,2 Dinars per m2). This Decree allowed for exceptions subject to approval by the Ministry of Commerce, Tourism, and Services. This Decree was abolished in 2003.

2002-2005 - Free regime

Amendments to the PE in 2002 abolished the provision that empowered the Government of Serbia to control prices. During these three years municipalities were allowed to autonomously control PUC tariffs. Many municipalities arbitrarily raised tariffs as well as the salaries of PUC staff, which was perceived to pose a threat for macro economic stability.

2005 to Present: Hidden Price Control

In 2005 National Assembly adopted new changes to the PE Law which indirectly reintroduced price controls on utilities, having been warned by the Constitutional Court of Serbia that administrative control of PUC',s tariffs was not constitutional as both the previous Constitution of Serbia and actual Constitution from 2006 explicitly say that only the municipality is entitled to "regulate and ensure performance and development of utility services" (Article 190 of the Constitution). That means that only the town/municipality is entitled to regulate the performance of PUC's and approve their tariffs, without any Government intervention. Bearing this in mind, Government introduced an indirect way to control prices. Article 22 b of the Law on Public Enterprises and Performing Activities of Public Interest (passed in 2005) do not mention central administrative control of the prices at all. However, it obliged municipalities to submit annual business plans of the PUC's to the four sectoral ministries "which will control whether tariff policy is in line with the macro-economic policy on prices and salaries". If local tariff or salary policy is not in line with "macro economic policy" municipalities will be penalized by suspension of all transfers from the central level. (Transfers represent approximately 60% of municipal budgets).

* excerpted from a memorandum by courtesy Tatijana Pavlovic-Krizanic, MEGA, USAID

Do you agree that the Government should suspend its policy of imposing caps on PUC tariff increases linked to inflation? If you agree, what alternatives would you suggest for Government intervention to oversee, monitor or regulate tariffs for communal services?

2.3.2 "Full Cost Pricing" versus the Ability to Pay

While there is a general consensus that tariffs for water services and waste management are too low in Serbia, there is no straightforward answer as to what a sound and acceptable tariff policy might be.

A tariff that would cover "full cost" is a common yardstick against which the adequacy of actual or proposed tariffs can be assessed. In "full cost pricing" analysis the cost is broken down into components. The breakdown then permits to analyze the impact of alternate tariff policies.

A usual breakdown for the purpose is

Full Cost = Operating&Maintenance Cost + Depreciation/Amortization + Profit

FC = O&M + D + P

The notion that PUC's should cover O&M cost generally accepted. However meeting full costs is often considered as a distant long term objective.

A depreciation charge generates cash from which assets can be replaced/renewed at the end of their economic life. However in an environment where capital expenditure is traditionally financed by budgetary grants depreciation as source of cash generation tends to be neglected. However, if tariffs do not cover an adequate depreciation charge, because (i) depreciation is calculated on an unrealistic basis, or (ii) because asset are not revalued from time to time, or because (iii) assets are already full depreciated, cash generation will be far below what might be needed for asset replacement (see Box 2.2). These practices help explain why replacement of assets and other investment are financed from the municipal budget.

Box 2.2.

Depreciation on Vehicles for Waste Management
The minimum depreciation rate on vehicles is 12.5%, i.e. straight line depreciation over 8 years. There are options for accelerated depreciation, but in practice they are not applied. Revaluation of vehicles to compensate for inflation is also not practiced. As a large proportion of the vehicles used by PUC's is over eight years old, they are carried on the books at zero value. Consequently cash generation from depreciation is no longer available for vehicle replacement. One way to improve on this situation would be to empower PUC's to levy a charge to fund a "reserve for equipment replacement" when completely depreciated vehicles are still in service but funds are not being generated for their impending replacement. However there appears to be no such practice in place; moreover the cap on tariffs linked to the inflation rate effectively prevents PUC's from raising tariffs in order to generate cash for

investment. All this helps to explain why vehicles are in most cases financed from the municipal budget instead of the PUC's own cash generation.

When PUC assets are funded as a grant, the depreciation charge should generate cash from which the asset may be replaced at the end of its economic life. PUC's that borrow for asset acquisition might be required to service the debt from tariff revenues or they might not. In cases where the municipality or the PUC borrows, an adequate depreciation charge should be the main source of cash generation for servicing the debt. (See also Annex 3.1, Appendix 1).

Profit - or "normal profit" - is usually calculated as "normal" return on assets based on an estimate of "the cost of capital" to the economy. The argument for including a "normal profit" in tariffs is that public enterprises should also generate a surplus commensurate with the cost of capital. Otherwise tariffs of public enterprise would discriminate against the private sector competing in the same market. Not everybody accepts this argument – some would argue that profits are inconsistent with the social mandate of public service provision.

In making a choice between alternate policies, the main consideration in practice concerns the "ability and willingness to pay" of the population, i.e. the clientele of the PUC's. For example, the criteria for grant support by the EU explicitly recognize that tariffs increases are constrained by affordability. This recognition been institutionalized (in EU and IFI project finance) by setting limits to limit tariffs related to a percentage of household income. These percentages are rules of thumb: there is no particular theoretical or empirical justification for them, but nevertheless they are widely used in EU and IFI practice. The rules of thumb most often used are 2% of household income for municipal waste management services and 4% for water/sewerage/and waste water treatment.

The share of EU grant funding projects – for example under the ISPA program – is directly linked to the ability to pay. Applications for grant support must estimate the "financial gap" which is a calculation of the portion of the project cost which is not recoverable as it bumps into the constraint set by the ability to pay criterion. (See Annex 3.1, Appendix 2 on the calculation of the financial gap). This is how the tension between full cost pricing and the ability to pay is resolved in IFI (World Bank, EBRD) and EU financing instruments (for example in ISPA projects of the 2001-2007 EU budget cycle.) In effect, EU project finance does not insist of full cost pricing but agrees to limit tariffs to what is affordable.[17]

Similar approaches are practiced in some of the new member countries which joined the European Union since 2004. For example, in Bulgaria, where water tariffs are regulated by a Commission of Energy and Waters, the water companies annually propose tariffs based on full cost pricing **except** that no depreciation is charged on investment that has been financed as a grant (from EU sources or from the national budget). This in effect is a variation of the EU methodology for limiting cost recovery to what is deemed affordable The exception is important, since most of the heavy investments in water and waste water services – a major part of in

[17] As indicated in Chapter 1 (Section 1.2) this paper focuses on options for PUC reforms and does not address financing issues and the role of EU funding to assist the modernization of municipal environmental infrastructure in line with the requirement of accession is beyond the scope of this paper. However a separate paper on that topic may follow up this paper.

undertaken to comply with the Urban Waste Water Directive – is thereby exempted from cost recovery.

2.3.3 Options for Tariff Policy

Given the tension between the full cost recovery and affordability – and the diversity of practices to deal with this tension – there seems to be no unique or straightforward answer to the right tariff policy for PUC's for Serbia . Options concern both the overall level tariffs as well as the structuring of the tariff.

The Level of the Tariff

With regard to the overall level of tariffs, options include - as discussed above -

- Tariffs to be limited to cover operating cost – this is the prevalent practice which leaves PUC's dependent on municipal grants for investment and asset replacement
- Tariffs to cover operating cost plus depreciation/amortization for generating cash to recover the cost of capital assets
- Tariffs in addition to generate "normal profits"
- tariffs determined in relation to the ability of the population to pay, which will vary in time and place; each municipality could determine its tariff in terms of what the population can afford, and determine how much of the costs are to recovered through tariffs and how much through budgetary subsidies (using some methodology analogous to the ISPA calculation of the "financial gap").

Regardless of the criteria a municipal council adopts for setting tariffs, tariff proposals should be related to a multi-year business plan prepared by PUC's for the approval of the municipal council. The business plan should include a financing plan which shows how investments will be funded from increasing revenues from tariffs *versus* municipal budgetary grants, loans, or other sources.

Do you agree that PUC's should be obliged to prepare multi-year business plans which would propose an investment program ant its financing? Do you think that it is sufficient if tariffs cover the operating expenses of the PUC? Do you think that capital investment of the PUC's should be financed as grants (from the budget, from donors)? Do you think that tariffs should cover amortization/depreciation (so that PUC's can accumulate cash for asset renewal and investment? Do you think that PUC's should borrow to finance capital investments? If you think that PUC should borrow for investment do you think that loan service should be covered from the PUC's revenues from tariffs? From the municipal budget? From the State budget?

Structuring the Tariff

Other than setting the level of tariffs, there are options for structuring the tariffs. Tariffs may be differentiated between different clients, according to levels of service, depending on different costs, etc.

Tariffs are often differentiated between commercial clients and households. For example Serbian PUC's typically charge a much higher rate to commercial clients than to household. Affordability is one argument for cross-subsidization: commercial clients are thought to be richer so that they should pay more. On the other hand cross subsidization is a price distortion that leads to inefficient resource use. As an example of heeding this argument, Bulgarian water companies have by and large abolished price differentiation between clients: industry pays the same for water as households.

The tariff can be structured with specific social objectives in mind. For example reduced rates or exemptions may be given to economically vulnerable groups.

Tariffs can also be differentiated according to service levels. For example, a base tariff can apply up to a standard consumption rate of water, beyond which the tariff is much higher. Or in waste management, tariffs can very according the frequency of service.

Do you think that commercial/industrial/institutional clients should pay the same for utilities as private households? If so why? If not why not? Do you think that tariffs should be a tool of social policy, for example by granting lower rates or exemptions to vulnerable groups? If you think so, should the subsidy be born by the PUC? by the Municipality? by the State?

Tariff policy is a complex subject, and its application varies from sector to sector. The above considerations apply generally to all utilities, but the options and alternatives need to be assessed in view of sector specific circumstances. Chapter 3 on Waste Management and Chapter 4 on Water Services address these. However a consensus needs to be created on the basic principles for a policy framework in which sector-specific issues can be addressed.

2.4. Issues for Regulation

Water services and municipal waste management are normally local monopolies. The traditional justification for tariff regulation is to prevent the abuse of monopoly power to gain excess profits through monopoly pricing. This rationale applies widely in "old" member states where the private sector often has a dominant position in the market for municipal environmental services. Tariff regulation in such countries deploys techniques of price capping, such as limits on profits calculated on a cost-plus formula or as limits on return of assets. Such techniques may also be appropriately adapted for a future regulatory regime in Serbia. However the main problem to be tackled by regulation in Serbia is not excessive profits. On the contrary, tariffs are generally insufficient to meet costs and should be raised. Instead of limiting tariff increases to inflation, intervention by central authorities might be geared to promote (i) transparent accounting practices that show the full cost of the service (ii) movement towards full cost pricing.

Serbian PUC's are public sector companies, so the rationale for regulation is not to curb monopolistic behavior but to impel and motivate PUC's to behave more like cost conscious and efficient private enterprise. Regulation in Serbia has to address, in the first instance, the implementation of sound tariff policies at the local level[18]. The issue then becomes how: according to what criteria and rules? This in turn relates back to creating a consensus to guide tariff policy.

Regulation has a much broader scope than controlling tariffs. A recent World Bank report[19] suggests the following criteria for regulating publicly owned utilities:

> *"Whether publicly owned can or should be regulated by an autonomous regulator is less clear /*than in the case of regulating private water companies*/.*
>
> *Among the questions to be considered is the following*
>
> 1. *Whether certainty and predictability in the regulatory environment can strongly and positively influence the performance of government owned water operators*
> 2. *Whether transparency in political and policy interventions is also important for good policy making, and for stronger government and*

[18] Regulation of tariffs in Serbia would of course also imply prevention of abuse of monopoly powers to gain excess profits, whether by private or public enterprises, along with safeguarding transparency and arms-length contractual relationships between municipalities and service providers, public or private. However it may be expected that the first impact of concerted tariff regulation would be an increase in tariffs pursuant to a policy of ensuring the financial autonomy and sustainability of PUC's.

[19] "Economic Regulation of Urban and Water and Sanitation Services: Some Practical Lessons" by David Erhardt, Eric Groom, Jonathan Halpern, and Seini O'Connor, World Bank, Water Sector Board Discussion Paper Series, Paper #9, April 2007, page 7

service provider accountability when the service provider is government owned

3. *Whether potential benefits are outweighed by the cost and resource constraints – especially for small service providers"*

Such criteria appear appropriate when posing the question whether Serbia should establish central regulatory bodies for municipal utilities.

With regard to criterion #1, it stands out that in the current situation the central government lacks instruments to bring about improvements in the service provision or to regulate tariffs. PUC tariffs are controlled Government policy that limits tariff increases to inflationary adjustments. This however is counterproductive to the objective of fostering the financial sustainability of PUC's. At the sector level, there is no central authority that exercises the functions of a regulator.

With regard to criterion #2, it stands out that at present there are no mechanisms in place to ensure transparency in accountability for operational and financial performance. Without an obligation to report according to rules that apply to all PUC's it would be difficult if not impossible to implement "good policies", or indeed to measure their impact.

Criterion #3 appears especially relevant to Serbia, because there is a very large number of PUC's – at least one in each municipality and several in the larger municipalities. This means that a regulatory body would have a very high work load and would need to be staffed with a relatively large number of experts: engineers, economist, financial analysts, and accountants. This is a serious consideration as long as the present institutional setup of each municipality having its own PUC's persists.

Though tariff regulation is of key importance, the scope of regulation is much wider. As indicated above the regulator's role may encompass (i) enforcing transparent reporting on operational and financial performance according to clear guidelines (ii) mechanisms to bring about improvements in investment planning, operational performance, cost recovery, etc, and (iii) means to enforce these.

Regulation is sector-specific. It is common in EU member countries to find a Water Regulator at the State level. Bulgaria and Romania are two member states that have created a Water Regulator in recent years. In waste management regulation is in the main left to the local level of government, though normally municipalities have reporting requirements to the central government.

Thus there is a range of options for dividing regulatory functions between the central and local levels of government. Under Serbian law, the authority to set tariffs rests with municipalities. However, central authorities may at the very least insist on surveillance and oversight over PUC performance, especially if they let go of the present system of limiting tariff increases to inflation. "Top down" and "bottom up" measures could of course strongly complement each other. The effectiveness of central regulation would much depend on municipalities' cooperation and commitment to the policies embedded in regulation and oversight.

Establishing national regulatory bodies and making them functional has proven to be a lengthy process, for example in Romania and Bulgaria for water regulation. Therefore municipalities could be encouraged to initiate self-regulatory measures on their own initiative, by adopting transparent reporting on standardized indicators of operational and financial performance and thus support the work of central agencies that are responsible for the monitoring and surveillance of PUC performance.

Do you think that Municipalities should be free to set tariffs as they like? Do you think the Government should set limits on tariff increases? (see More questions in the sector – specific Chapters on waste and water)

2.5. Regionalization and the Difference between the Water and Waste Sectors

The sole fact that each municipality has its own PUC providing water and waste management services sets it apart from practices in most of Europe, including in transition economies that have joined the European Union in recent years. The extreme fragmentation of the service provision in Serbia is twofold: (i) geographical, in that even the smallest municipality has its own PUC for water service and waste management, and (ii) in that normally several services are provided by one and the same PUC.

While this type of structure was common in ex-socialist countries (and particularly in ex-Yugoslavia) it is no longer the norm, even in recently joined member states of the European Union. For example in Romania, water utilities are organized on the county level. With 40 counties, one water company typically serves several hundred thousand people. In Bulgaria there are 51 water companies, also serving large populations.

In waste management the trend towards regionalization was impelled by the construction of regional landfills which also serve normally more than hundred-thousand people.
Municipal waste management companies are regrouping around regional landfills. Local companies are increasingly taken over by regional operators.

However there is a fundamental difference between waste and water services with respect to regionalization. Regionalization is a must in waste management, because the economies of scale of modern “EU conforms” landfills require that several municipalities use the same landfill. Regional systems of transport and disposal must replace local one.

There is no similar imperative in water services. There is no technical or logistical reason why the present system of each municipality operating independently cannot continue, even though there might be advantages to bigger regional operations.

Because of this fundamental difference, the issues and options for regionalization are addressed separately for the two sectors in the following chapters.

However there are some cross-cutting advantages of consolidating companies into bigger units:

- Managerial and technical resources are scarce and could be more effectively deployed if there were fewer companies
- Larger regional companies would be specialized in one type of service; hence cost accounting would at once become simpler and more transparent.
- “Politicized” employment practices would be mitigated. Nepotism, cronyism, and phantom employment are typical of small-town politics. When several municipalities

have to cooperate, the influence of local politics should fade away behind the common interest of cost effective service delivery.

Options for consolidation will therefore no doubt be considered as the Government formulates the strategy of PUC transformation. Options could include consolidation by decree “from above”, incentives to municipalities to join forces in providing one or the other service, or simply encouragement of voluntary initiatives on the part of municipalities to do so. However it bears repetition that while the water service can continue to be operated independently by each municipality, in the waste sector the market will force the regionalization of the service once the construction of regional landfills takes off.

2.6. Private Sector Participation and the Difference between The Water and Waste Sectors

Private sector participation in municipal service provision may profoundly transform the sphere of PUC operations. There is a vast literature on different options and techniques for private participation in municipal services. Case studies from ex-socialist transition economies abound. A recurring theme often heard Serbia is the need to learn from the mistakes of other countries. However, it would seem to be as important or more so to learn from successes, and how success stories elsewhere other countries could be transplanted to the Serbian business and legal environment.

Private sector participation, like regionalization, has sector-specific dimensions and will be discussed sector by sector. This Chapter only comments on the difference between the water and the waste sectors.

A main difference relates to size. Water concessions initiated by large West European water companies have involved massive investment. The biggest cities have been targeted. In Bulgaria there is only one water concession, that in Sofia. In Romania Bucharest have a concession, and only a couple of major cities. In Hungary as well, private strategic interest focused on Budapest and a few larger towns. The Czech Republic is an exception, as major foreign companies have taken over the operation of entire regions.

If history is any guide it would be unrealistic for any but the largest Serbian municipalities to contemplate a water concession. Private sector participation in the water services of smaller cities is deemed irrelevant at this time to the process of PUC transformation.

By contrast, in waste management, middle-sized companies have been just as active in penetrating Eastern Markets, though there have been some large actors as well. However, the individual investments are also much smaller than in the water sector. There have been marked differences in country experiences. For example, in the Czech and Slovak Republics foreign private investors spearheaded investment in regional landfills. This was also true in Hungary until the mid90s, when the Government started an ambitious grant program for building landfills with which the private sector could no longer compete. In Romania and Bulgaria, strategic investor interest focused on taking over the transport and collection system in major cities but investment in landfills was limited to two cases in Romania (none in Bulgaria). No foreign investor ventured into Macedonia, in spite of a few initiatives, and in Bosnia Herzegovina only one strategic investor operates in one major city. Thus there is wide range of experience to draw on in formulating a strategy for enhancing the role of the private sector in municipal waste management.[20]

[20] For further reading see “Opportunities and Constraints for Public Private Partnerships in Municipal Solid Waste Management; a Comparative Study in Central Eastern Europe: Bulgaria, the Czech Republic, Hungary, Macedonia, Romania, and Slovakia” by Paul Dax et al, the Open Society Institute, Budapest, Hungary, 2001, 160 pages

There has been a recent upsurge of private investor interest in Serbia. At least four foreign-based private companies are now operating in the country – see Box 3.1 in Chapter 3 and Annex 3.3. These operations need to be studied for their potential impact on the PUC sphere in waste management. With an improving investment climate, private sector participation in waste management could over a short period make significant inroads into the waste management sector. This would have an important impact on PUC transformation as some municipalities transfer waste management to a private operator or form joint ventures with them. It would also have an impact on the regionalization of waste management as private operators typically endeavor operate larger areas centered on a regional landfill. Such trends are at work responding to market opportunities, and so far have been fostered out through bilateral initiatives between municipalities (or groups of municipalities) and foreign private companies.

In both the water and waste sectors, a concerted governmental strategy[21] could be helpful to support a positive business environment in which the private sector contributes to the heavy investments in modernizing the sector and to improving the quality and the cost-effectiveness of the service.

[21] Government policies and legislation may inhibit or foster private sector participation in communal services. Without going into the question of what strategies the Government might pursue *vis-à-vis* private sector participation (which is beyond the scope of this Green Paper), there appear to be some easy options to amend or eliminate some elements of existing legislation so as to help to create a more business-friendly environment:

- As pointed out in Chapter 1, municipalities are instructed to demonstrate that public service provision is not cost-effective as a condition of transferring the service to a private operator. This provision is not "neutral" between public and private enterprise and is liable to be misused by adversaries of private participation. Besides, the list itself contains activities for which there seems to be hardly any reason to favor public enterprise.
- As long as PUC property is State property, this makes the process of transferring property to joint ventures with private companies (or with other municipalities) cumbersome. While this problem is likely to be remedied subsequent to the passage of a Law on Public Property, in the meanwhile the procedures could be streamlined to facilitate transactions between municipalities and private companies.
- The provision of the Law of Public Services that limits the "change of ownership of state capital" (*note bene*: not shareholding, as PUC's are not limited liability companies with shares) in PUC's to 49% (Article 21) seems redundant and impractical. (For good reason there do not seem to be any precedents to a transaction where a private entrepreneur acquires a minority property right of state assets in a PUC. Private entrepreneurs are interested in management control, which may be acquired with or without a stake in the assets of a PUC.) Municipalities can anyway circumvent this limitation by forming joint ventures in which the private party has a majority share. However, this provision of the law seems to close an option of selling a majority stake of an existing PUC to a private company, which is a common technique, practiced in other countries. But even if this provision is a "red herring" it can raise a "red flag" to private investors.

CHAPTER 3 MUNICIPAL WASTE MANAGEMENT (MWS)

3.1. Introduction: Sectoral Overview

3.1.1 The Structure of the Subsector; Embryonic Regionalization

In most municipalities, waste management is the responsibility of a multi-purpose PUC which is also delivers water and sewerage and a number of other services. Only the bigger cities have specialized waste management companies. Even these often carry out activities which are not strictly related to waste management, for example they are responsible for park maintenance, urban sanitation, and the management of cemeteries. According to KOMDEL[22], there are only eleven PUC's that are specialized in waste management and related services.

As long as each municipality has its own service provider and its own disposal site(s), waste management remains a local rather than a regional activity. There are as yet very few landfills that serve more than one municipality, so that one municipality transporting waste to a regional landfill remains the exception. Thus the regionalization of waste management around large landfills is in an embryonic state. Similarly the merger/consolidation of local service providers remains the exception. There is one instance of five municipalities merging their operations to form a joint venture (as a prelude for this joint venture to in turn form another joint venture with a private strategic investor). The regionalization of the service, limited as it is, is being pioneered by the private sector, see Section 3.1.4 below. In the public sector there are two ongoing regional projects where several municipalities will use the same landfill (Duboko landfill serving Čačak, Užice, and seven minor towns, and Muntina Padina landfill serving four municipalities in the Pirot region.) These two publicly owned regional landfills are expected to be commissioned by the end of 2009.

Issues and alternatives for intermunicipal cooperation in regionalized waste management are discussed in Section 3.3. below and in Annex 3.1.

3.1.2 Operational Performance and Service Levels

In most municipalities the service is limited to the major town(s). Organized service in rural areas is the exception. Although each municipality has an authorized disposal site where the PUC vehicles are emptied, unregulated and unauthorized dumps are common, particularly in the countryside where there is no organized service.

The vehicle fleet is typically old and obsolete and maintenance and repair costs are high. Nevertheless, over-employment and larger than normal vehicle fleet are also frequently

[22] "Business Association of Communal Enterprises KOMDEL", 10-year memorial issue, 2008 May

observed, so that operational costs are high; consequently there is often substantial room for savings by improving cost-effectiveness. These problems are typical of transition economies, where waste management ranks relatively low as an investment priority and is consequently under-funded, but where it nevertheless remains an instrument of social policy in providing employment and thus subject to politically motivated decisions. These problems however are hard to pinpoint in the field and harder to remedy; they pertain to the problems of governance discussed in Chapter 2. There are also great variations in service levels and cost effectiveness between municipalities, sometimes in the same region.

The service levels and the state of equipment tends to be better in the larger towns, and are considered as adequate in the largest cities, except for disposal standards. The main challenges ahead include the nationwide improvement of the level of service and its cost-effectiveness and to extending the organized service over time to cover the entire population. (This in addition to the regionalization of the service as discussed above and in Section 3.3. below.)

Reference is made here to the National Solid Waste Management Plan[23] which presents a comprehensive list of investment requirements (in accordance with the requirements of approximation to EU policies and directives) but does not really address the operational and financial problems of PUC's.

3.1.3 Financial Performance

Because multipurpose PUC accounts are typically not structured around activities, it is very difficult to gain a reliable insight into the cost and the financial results of the service.
The overall impression is that tariffs are (i) in most cases barely enough to cover the operational cost of the service (ii) low tariffs are aggravated by inadequate collection rates (iii) as a result it is not unusual for municipalities to subsidize even the operational cost of the service (iv) most PUC's depend on budgetary subsidies for investment and vehicle replacement. However, once again, there are significant variations in financial performance between municipalities so that generalizations can be misleading.

Overall, it appears that the financial state of waste management has improved, partly because of a significant increase in fees between fees during recent years. According to KOMDEL the fee for and average household increased from 0.42 Euro to 2.5 Euro/household since 2000.[24] The 2.5 Euro figure is broadly consistent with data found in recent feasibility studies (see Section 3.2.1 below and also with the fees charged by private service providers (Box 3.1 below). Further it appears that PUC losses in waste management are much smaller than in water

[23] Dated 2003, scheduled to be updated as soon as possible
[24] "Business Association of Communal Enterprises KOMDEL", 10-year memorial issue, 2008 May.
The 2.5 Euro figure is broadly consistent with data found in recent Feasibility Reports (see footnote 9) and also with the fees charged by private service providers.

services. According to KOMDEL, waste management PUC's actually generated a small operational surplus in the aggregate in 2006)[25].

3.1.4 Private Public Partnerships – the Appearance of Foreign Investors in Serbian Waste Management

As noted in Chapter 2, the appearance of foreign-based strategic investors in waste management is a recent development in Serbia. Four foreign based companies have, in various ways, formed partnerships with municipalities (see Box 3.1 below)

Box 3.1

Pioneering Private Partner Partnerships in Waste Management in Serbia

Brantner Abfallwirtschaft, an Austrian waste management company. Brantner has concluded long terms concession contracts with Nova Becej and Kovacica municipalities. Both concessions are for twenty years. As part of its capital contribution Brantner furnished its two local companies with vehicles and containers. Brantner also took over staff of the municipal PUCs engaged in waste management. In Kovacica municipality Brantner extended the service to all settlements in the municipality; also it is now using only one central disposal site replacing the many local dumps previously in use.

Porr, Werner and Weber is a German controlled joint venture. Instead of concessions, the Company formed joint ventures with two municipalities; with Jagodina and Leskovac; it has a majority stake in both companies. The company contributed new vehicles to the joint ventures; the municipalities contributed their existing vehicle fleets and the staff engaged in waste collection. The company has increased the coverage of the service to rural settlements. It charges a fee of 65 RSD per person for the service. The collection rate is improving and is now about 70%. The Company has introduced selective collection of PET, paper, and aluminnium cans and plans to invest in a composting facility. It is committed by contract to build "EU conform" landfills in both projects.

ASA, originally an Austrian waste management company, later taken over by Electricite de France, and later acquired by a Spanish investor group, has been a major strategic investor in waste management in Central and Eastern Europe since the early 90s. Its recently launched two joint ventures, one with Kikinda and the other with a group of five Serbian municipalities in Central Serbia, is its latest venture in the Region. ASA has a 80% shareholding in both joint ventures. ASA has also increased the coverage of service and is engaged in selective collection of recyclable waste streams. It is charging a flat rate of 67 dinars per person per month (about 2 Euro per month for an average household of 2.5 people). In the Kikinda joint venture, ASA has constructed a modern "EU conform" landfill, just commissioned in July 2008. This is the first privately financed landfill in the country. ASA has a two fold contractual arrangement for generating revenues: it collects directly the fees from households, and in addition it charges a tipping fee to the Municipality, at present about 17 Euro per ton.

Trojon and Fischer EKO is a mixed Serbian/German company operating in five municipalities in Eastern Serbia. In each case it has a 25 year concession for handling waste. The Company has brought in second hand vehicles from Germany. It distributes containers to households. The Company introduced separate collection of PET, paper, and aluminium cans, which it sells to dealers in the local market. It has increased the service coverage, supported by a public outreach program aided by the

[25] Ibid p P10. However, note that the operational losses of PUC don't really measure the fiscal drain of waste management as investment in equipment replacement and acquisition is often financed from the municipal budget

German Gesellschaft fuer Zusammenarbeit (GtZ).

The outsourcing of the core waste management service to private companies in itself has an important impact on PUC transformation. It creates a specialized service, hiving it off from multi-service PUC's. Importantly, the private partner contributes capital for investment in upgrading the vehicle fleet and for acquiring containers. As investment for modernizations becomes the responsibility of the private partner, this breaks the dependence of the service provider on the municipal budget for capital expenditures – which the common malaise of PUC financing in Serbia.

In all cases, the privately controlled companies have improved disposal practices and increased the coverage of the service from the main urban areas to villages – for some details see **Annex** 3.3 "Contacts with Strategic Investors in Waste Management". The companies introduced or developed further the selective collection of recyclable waste streams. In each case they also changed the basis of the payment, from the traditional fee related to surface area to a per capita (or in once case a per household) fee. Some already brought about significant improvements in the fee recovery rate. In once case the private company has financed a modern regional landfill; at least one of the three others intends to do the same (see Box 3.1 above). And importantly, the private companies are instrumental in bringing about the regionalization of the service as they aim to expand their operations (see Section 3.3. below). However, the pricing of the service and where tipping fees are directly paid by the municipality (and not by the final consumer) is raising a new issue when the service is highly subsidized (see Section 3.2.2 below).

3.2. Issues for Tariff Policy

3.2.1 Tariffs: the Present Situation

Waste fees in Serbia – as in much of ex-Yugoslavia – are levied on the surface area of residential and commercial estates. The fee is typically much higher for commercial and industrial clients. Outside yards are also charged but at a lower rate[26]. The tariffs vary widely between municipalities, even within the same region where the logistical conditions for waste management may be similar.

It is generally agreed that not withstanding a substantial increase in fees since 2000, waste fees remain too low in Serbia. Thus a 2004 report by the association of service providers KOMDEL argues that low prices are largely responsible for inadequate service levels and inadequate investment, and that prices should cover "all costs".[27]

Full cost pricing however may clash with affordability.[28] For waste management the limit of affordability is normally considered as 2%. Given the range of fees in Serbia, household expenditure for waste fees is normally well below that limit. Analyses in recent feasibility studies suggest that the fee could be more than doubled and still be within the 2% affordability limit, as for example in the Toplica region: [29]

[26] The fee structure of Pirot Municipality illustrates such a structure. The fees in this structure were uniformly increased by 7.5% in 2007 and by 6% in 2008, thus complying with the inflationary cap on fees:

	2006	2007	2008
Households, RSD / m^2	2.24	2.408	2.552
Commercial and Industrial Premises			
Up to 100m2 Retail Space RSD / m^2	12.86	13.825	14.655
Up to 100m2 Other Space RSD / m^2	6.44	6.923	7.338
Over 100m^2 RSD / m^2	5.11	5.493	5.823
Yards and Gardens	0.23	0.247	0.262
Schools and Kinder-gardens			
Inside Space	3.24	3.483	3.692
Outside Space	0.12	0.129	0.137
Street Cleaning RSD/household/month	24.00	25.80	27,348

[27] "Optimal Models of Transformation and Privatization of Communal Enterprises in Serbia" by the Business Association of Communal Enterprises COMDEL, 2004
[28] Ibid, page 5, see also the technical Appendix 2 for the "financial gap" calculation.
[29] Source: Feasibility Study Regional Solid Waste Management System Toplica District, Royal Haskoning et. al. prepared for EAR, 19, Dec, 2007, page 30. Similarly, in the Sremska Mitrovica Region, the average fee of 229RSD per household amounts to 0.7% of average household income; Source: Feasibility Study Regional Solid waste Management System Sremska Mitrovica/Sabac, Royal Haskoning et al, prepared for EAR, 12 November 2007

Table 3.1
2006 Tariffs and Affordability by Households ,(in the area of the planned Toplica Regional Landfill)

Municipality	Tariff/m^2 RSD	Total invoiced /month 000 RSD	# of House Holds	Avg. tariff/ House-Hold/month RSD	Avg House-Hold Income 000RSD	Avg. fee As % of Avg. Income
Prokuplje	2,53	1388	7496	185	30	0.6
Zitorada	2.38	30	142	213	34	0.6
Kursumlija	2.70	341	4561	75	28	0.3
Blace	2.20	212	1876	113	26	0.4
Total/Average		1972	14074	140	29	0.5

(For “vulnerable groups” the fee may often exceed an affordability limit. This is an argument for extending exceptions and subsidies to vulnerable groups rather than for lowering the fee for all.)

As discussed in Section 3.1.3, revenues from fees typically just cover operating cost. Investments for equipment are usually financed by municipal grants channelled through municipal Construction Directorates in charge of investment planning y and allocating funds among competing ends. PUC’s are often not in a position to plan ahead and control investment.

In coming years, the investment requirements for waste management will increase substantially as waste management is regionalized and municipalities will have to contribute to the financing of regional landfills, new vehicles, and the closure and reclamation of old dumps. This will require systematic investment planning by PUC’s, best done in multi-year business plans for approval by municipal councils. Such business plans would include a financing plan which would propose the proportion of investment plan that is to be financed by increasing tariffs as opposed to municipal grants. As fees are way below generally accepted affordability criteria indicates there is substantial scope for increases, both to finance immediate investment requirements and to save up cash for the major investments for regionalization and approximation to EU standards of waste management.

Do you think that tariffs should be raised in line with agreed affordability criteria so as to generate cash for present and future investment requirements?

Do you think that revenues from tariffs should just cover operating expenses, and investments should be financed by grants?

Do you agree that PUC’s should be responsible to prepare multi-year investment plans and financing plans for the approval of municipal councils?

3.2.2 The Tipping Fee and Subsidization in Regional Landfill Development in Serbia

The recent contracts between municipalities and private investors regarding landfill operations introduce an entirely novel pricing of the service. The fee charged by the private companies to households remains rather low as the amount paid by households is comparable to the previous fees calculated on residential area. For example, a household with a, say, 80m^3 apartment, at a fee of, say, 2.5 RSD per m^2 would pay in a 200 RSD monthly fee per household, which is roughly comparable 2.5 to 3.0 Euro per household charged by the PPPs. .

However where the company develops a landfill – which is the case of two of the major private companies now active in Serbia - the revenue from customers becomes only a part of the revenue of the company. The landfill operating company is to receive the tipping fee directly from the municipality. For example in the one case where the new landfill financed by the private investor is already in operation, the company has a two fold billing system:

- it bills households and commercial establishments directly and collects the fees itself from the individual customers.
- it charges municipality the tipping fee for disposal

In this case, households are charged on a per capital basis (currently at 67 dinars per person per month). The Municipality pays the joint venture a fixed fee per ton of household waste (currently about 17 Euro per ton). This dual fee structure distributes the risk between the municipality and the company as the municipality's payment for disposal carries (presumably) less risk. It also

- circumvents the restriction of capping fees to the inflation rate, as the tipping fee is not a tariff imposed on the population and is not subject to the limitation on tariff increases
- institutionalizes a substantial subsidy for the end-users of the service, as fee for disposal is not charged to the end user.

While this model of charging fees is consistent with the principle of full cost recovery on investment, it violates the "user pays/polluter pays" principle. Assuming that the per household generation of waste is about 1 ton per year, the implicit subsidy to the user is the same 17Euro per ton that the municipality pays to the company. The payment of an average household of 2.5 people for the collection and transport service is about 20 Euro per year[30]. Thus the implicit subsidy to the population is almost half (17Euro/37Euro), paid by the municipality. (It remains to be seen if in the future ways can be found to transfer the liability for the tipping fee from the municipality to the customers, but this does not appear to be under consideration at present in the respective municipalities.)

The same issue may arise in public sector regional development projects where municipalities might pay the tipping fee directly to the landfill operator. Transferring the tipping fee to households would imply a rise in fees well above the inflation rate and might thus may not be permissible under the present price capping regime (unless it is agreed that disposal at the new

[30] 0.85 Euro per person per month = Euro1.7 month for an average household = 20.6 Euro per year

regional landfill is a new service to be paid for, however this proposition would probably need to be tested either by a policy statement of government or tested in court.)

Do you think that households and businesses should absorb the tipping fee in cases where the municipality is contractually obliged to pay the tipping directly to the landfill operator?

3.2.3 Responsibility for Collection and Risk Sharing

In much of ex-Yugoslavia, public utility companies bill the customers and are responsible for collection of the dues. While this arrangement is often taken for granted without questioning, it is unusual in much of Europe. It is more common for the municipality to collect the fees and pay the utility company based on a service contract.

For example in Bulgaria, where the fee is a quasi-real estate tax (see Table 3.2) households get the bill directly from the municipality, along with the bill for other taxes and services. In major Bulgarian cities where several private sector companies carry out the service, their revenue is determined by annual budget allocations (at times a far from satisfactory procedure). In Hungarian joint ventures, the municipality bills customers, and the revenues of the service provider are ruled by an agreed formula (usually linked to the number of inhabitants served, and with provisions for price adjustments linked to cost).

Collections rates are usually far from satisfactory in Serbia, though they are big variations in performance. Collections rates typically and range between 40% to 80%. Municipalities do not appear to give much support to PUC's in enforcing collections. While the PUC's can take non-payers to court, the procedure is considered as too expensive and time consuming to be worth it.

PUC's thus bear directly the risk of non-payment. Where the PUC is a municipally owned company, this risk is indirectly transmitted to the municipality: it has to either increase budgetary support or reduce the level of service to compensate for non-payment.

Risk sharing becomes an important issue when the service provider is a private company.
There are those who would argue that if a private company offers to take over the service it should also assume the responsibility for collection and the risk of non-payment.
They would also argue that if the municipality takes over the responsibility for collection the company loses the incentive for improving fee recovery.

However, on the other side of the argument, the waste service remains a responsibility of municipal government, irrespective whether it is carried out by a public utility or a private company. Selling these service is not like selling apples, since the citizenry is obliged to use the service (and the municipality is within rights to designate the service provider which the citizen must use). Further, the municipal council authorizes the price of the service, not the private company: the price is a quasi-tax which the citizenry is obliged to pay for a compulsory service. The municipality which engages a private company for the service does not devolve the responsibility for providing the service: it merely engages a company to carry it out, hopefully

based on an agreed service level. According to this line of reasoning the municipality should be responsible for collecting the fees and shoulder the risk of non-payment. Further, the municipality has much stronger sanctions at its disposal for enforcing payments than a private company, which is another reason why it is better positioned to improve collection performance.

There is a range of options for sharing the risk of non-payment, all the way from the service provider to the municipality assuming it all. Risk sharing is more of an issue in private public partnerships than in publicly owned services, where subsidies are simply transfers from one pocket of the municipality (the budget) to the other (the PUC). There are precedents where the private company assumes the responsibility for collection but the municipality compensates the company for a shortfalls above a certain level, or shares the shortfall with the company.[31]

As discussed above, the ASA and Porr and Weber contracts split the commercial risk as the municipality pays the companies directly the tipping fees and the companies collect from the population the fee for collection and transport. As discussed in Section 3.1.4. this may be a satisfactory way of spreading risk as far as the company and the municipality is concerned, but it results in a substantial subsidization of the clientele.

Another type of risk concerns the subsidies/exemptions to vulnerable groups, as mentioned above. Should the service providers assume the financial burden of these subsidies, or should municipalities compensate the service providers for the corresponding shortfall in revenues (assuming that the service providers gets its revenues directly from customer payments.)?

Do you believe that it would be good to transfer the responsibility for collection of the waste fee from PUC's to municipal government? Only when the PUC is municipally owned? Only if the PUC is privately controlled? In both cases? Never? Who should bear the financial burden of subsidies to vulnerable groups? Should the municipality reimburse the service provider for subsidies/exemptions? Does it make a difference whether the service provider is privately or publicly controlled?

3.2.4 Changing the Basis of the Fees

People generate waste, not apartments. The user pays principle not only asks that consumers pay for what they use, but also that the fees relate to the amount of consumption. Levying a fee based on the surface area of the residence is a progressive tax, if it to be assumed that richer people live in larger apartments. However, it can also be unfairly regressive when old people live alone on pensions in family houses or apartments.

One advantage of levying the fee on residential area is that it is relatively easy to administer based on available cadastral records. Levying the fee based on the number of people in a household is more difficult, because not all people are properly registered, and many registered

[31] In Bosnia Herzegovina, where as in Serbia PUC's are responsible for collections, there is however one major town where a private company has taken over the service; in this case such a risk-sharing arrangement is in place.

people live elsewhere. Nevertheless some municipalities already levy the fee on the number of registered residents per household. As observed above in Section 3.1.4, private strategic investors are pioneering in charging households on a per capita basis. Three companies charge a fee per person (varying from about 70 to 80 Eurocent per person per month) while a fourth company charges 3 Euro per household).

While charging per person is a step in the right direction, other options may also be considered in the future (see Table 3.2 below). Relating the fee to the service level, e.g. to the frequency of the service and to the size of the container relates the fee closer to the cost of the service and also provides an incentive to waste recovery/minimization. However it can only be introduced when households are serviced with individual containers, and not in the typical setup in urban areas where the population deposits waste in 1.1m^3 containers placed on the curb. (Fees can also be based on weight, but this is generally considered too expensive in transition economies.)

Do you agree that it would be good to change the basis of charging households away from the traditional fee levied on residential area? If you agree, why? If you disagree, why?

Do you think vulnerable groups should have lower fees or be exempted altogether from payment? If so according to what criteria (e.g. pensioners, unemployed etc.)

The Table below summarizes some of the main options:

Table 3.2 Types of Fees in Municipal Solid Waste Management

Ref #	Type of Fee	Examples	Advantages /Disadvantages	Issues/Questions/Remarks
1	Fess calculated on surface area of dwelling	prevalent in ex-Yugoslavia	Fee is unrelated to waste generation, unfair to single member households	Is such a progressive tax warranted in waste management?
2	Fee on the value of the apartment/or house	The prevalent fee in Bulgaria, the “pro-milla” fee is expressed in thousandths of the assessed real estate value	Fee is unrelated to waste generation, unfair to single member households	A fee as a real estate tax is even more progressive as it is more closely related to wealth and income than the surface area.
3	Fee related on number of registered persons in household	Usual practice in Slovakia, Czech Republic, Hungary,	Waste generation is related to the number of generators, but still no incentive for decreasing waste generation	

4	Fee related to service level -frequency of service and number & size of containers	practiced in some major towns in Hungary, including Budapest, increasingly practiced for one family houses	Incentive for households to decrease waste generation by ordering fewer containers, thus incentive for waste recovery / composting	Not possible where waste is collected form large (1.1m^3) containers on the curb
5	Fee based on weight of disposed by household	Practiced in some northern countries, e.g. Netherlands	Provides strong incentive to waste minimization	Requires high cost weighing equipment installed in vehicles

3.3 Regionalization and Inter-municipal Cooperation

3.3.1 Intermunicipal Agreements on the Joint Use of the Landfill and on the Regional Transport of Waste

In waste management, the economies of scale of an "EU conform" landfill dictate that the collection and transport of waste be organized on a regional level. A modern landfill should serve upwards of 200,000 people, which means that several municipalities will use a central landfill.

When a regional landfill is financed by central government and/or by an international financing agency and/or by an European Union grant, the beneficiaries of the financial support, the municipalities which will use the landfill are the joint beneficiaries of the financing support. The financiers usually ask the beneficiary municipalities to commit themselves to use the landfill and to close their old non-compliant dumps. This is usually accomplished as a condition of financing support. However the key decisions on (i) how to jointly decide on the operational and financial management of the landfill – including the all important question of immediate concern to all, namely the setting of the tipping fee, and (ii) how to set up a cost-effective regional collection and transport system, are often left for later. Annex 3.1 addresses the difficult issues and options to deal with these two important questions. The below only summarizes the options and alternatives, without repeating the analysis of the issues.

With regard to the decision-making process on the joint management of the landfill – and on the tipping fee - the following are main options:

- The host municipality operates the landfill and controls its finances. The landfill operation can be part of the host municipality's PUC, or a separate company or subsidiary (or at least a separate accounting unit.) In this option participating municipalities are by and large excluded from the decision on the tipping fee, though the host municipality may be required to render separate financial reports on the landfill operation and may be held to abide by agreed limits on profits. The problems with this option are evident on account of the conflicts of interest discussed in Annex 3.1 as well as lessons from experience of other countries.

- The host municipality operates the landfill in consultation with municipalities. The tipping fee is set and adjusted from time to time in consultation with representatives of the user municipalities. This is a weak form of inter-municipal cooperation.

- The user municipalities establish a body (e.g. a limited liability company in which they all have shares) which exercises the ownership rights of the landfill operation. Formal processes for setting the tipping fee, including voting rights, are adopted.

Do you think that municipalities which commit to the joint use of a regional landfill should have formally agreed voting rights concerning decisions on the joint use of the landfill ? Should individual municipalities have a right to opt out of using the landfill if they disagree with the management decisions that are being made? Do you think that it is feasible and/or desirable for the authorities to force municipalities to close their own (non-compliant) landfills once they have an opportunity to dispose of waste at a compliant landfill?

Alternatives for the regionalization of waste transport include

- One company handling the entire collection and transport of the region
- Each municipality keeping its collection and transport service and transporting waste directly to the landfill
- Each municipality keeping its local collection system, but delivering waste to a local collection point whence a regional transport operator takes the waste to the landfill

Do you think municipalities should be encouraged to merge their waste collection and transport operations?

While the decision-making process for the joint use of the landfill – and for the determination of the tipping fee – must be in place by the time the regional landfill is commissioned, the regionalization of the waste transport system can evolve gradually, in response to market forces and to the strategies of the participating municipalities. Thus inter-municipal agreements are more urgent for sorting out issues arising from the joint use of the landfill.

3.3.2 Regionalization through Private Sector Initiatives

As discussed in Section 3.1.4 above, the private companies which have established themselves in Serbian waste management in recent years all aim to serve several municipalities; thus they are agents of regionalization. This is happening even when there is as yet no “EU compliant” regional landfill in place. In the one case where the private company has constructed a modern landfill, it is also intent to conclude contracts with other municipalities than the host municipality for bringing the waste to its landfill.

When regionalization occurs under private auspices contracts between the private operator and municipalities take the place of inter-municipal agreements; municipalities no longer need to enter agreements between each other. The private operator takes over the transport of waste from the municipalities and consolidates disposal, in most cases on one location instead of the dispersed dumps previously used.

Do you think municipalities should be encouraged to outsource their collection and transport system in the interest of cost-effectiveness? to private companies? To publicly owned PUC of another municipality or a PUC established by a group of municipalities?

The private companies that take over the waste management service are by definition no longer PUC's. However the process private participation is an important facet of PUC transformation: either the PUC's gets out of the waste management entirely or it continues in selected sub-activities related in waste management. For example in one case the private company took over street cleaning and washing, in addition to collection transport and disposal, while the PUC continued with cemetery management and park maintenance. Often the private company only deals with collection, transport, and other waste-related activities remain with the PUC. The core services are regionalized while the related services remain in the local domain.

3.4 The Role of Government Policy in Privatization and Private Public Partnerships – Lessons from Transition Economies

The National Waste Management Strategy mandates the regionalization of waste management in that it prescribes the establishment of regional landfills and the closure of local dumps. However it does not go into detail as to how municipalities are to collaborate to establish and operate landfills, or how the closure of old dumps is to be accomplished. As discussed above, the inter-municipal agreements will be of crucial importance for transforming PUC services when waste management is regionalized.

The experience of transition economies is rich in lessons for this transformation, both with respect to regionalization and the role that private enterprise can play in modernizing waste management. The experience of Slovakia is a success story on how price incentives, coupled with enforcement of regulations, can stimulate investment, both by the private and public sector. The case of Bulgaria demonstrates the consequences of failure to plan ahead for the joint use of landfills by municipalities.

The Slovak experience is described in Annex 3.2. In the early 90s, Slovakia introduced an innovative policy aiming at the replacement of some 5000 local landfills and unregulated dumps by modern regional landfills. The consequent legislation adopted a two pronged approach

1. regulations to close most the dumps by means of administrative decrees
2. financial incentives for the upgrading of landfills and the development of new ones that meet EU standards.

The combination of price incentives for investment and enforcement of closures succeeded to bring about massive investment in modern landfills, to the point where Slovakia substantially met European Union standards waste disposal in modern landfills. This was accomplished without budgetary support for landfill construction. Private investment played a leading role in investment and modernization of the service. In the process, waste management has been largely regionalized. This is a success story that deserves close attention given the recent upsurge in Serbia of foreign investor interest in the sector. Beyond some of the obvious measures to create a more business-friendly environment as discussed above in Section 3.3.2, Serbian decision-makers could consider adopting similar policies to foster investment and minimize the need for budgetary finance.

Policy failures in Bulgaria refer to making poor use of landfills financed through ISPA grants in recent years – see Annex 3.1 pp8-9. Eventually these failures may be corrected, but the experience is a timely warning concerning the need to establish a sound contractual framework for the joint use of landfills in publicly funded regional projects.

Hungary has by now succeeded to establish a network of regional landfills covering most of the country. However this has been accomplished through massive budgetary grant funding, starting in the mid-90s, some ten years before the country's accession to the European Union.

Similar problems to Bulgaria's were encountered as landfills operated way below capacity and intended beneficiaries failed to use them. These problems were gradually overcome in most cases, but great cost of time and money. More importantly, however, the massive budgetary funding had an adverse effect of displacing private investment in the sector. While strategic investors played a pioneering role in modernizing the sector in the first half of the nineties when the first EU conform landfills were constructed by foreign strategic investors, private investment in new landfills came to a stop after grant finance became available to municipalities. Thus Hungary's case is a study in costly and inefficient government investment and a failure to make best use of potential private sector participation in the sector.[32]

[32] "Public Grants and Private Investments in Solid Waste Management – Alfold, Hungary" by Paul Dax, Jozsef Fucsko, Peter Kajner, and Gabor Ungvari, Discussion Paper 19, Local Government and Public Service Reform Initiative of the Open Society Institute, Budapest, Hungary, 2000, 85 pages

CHAPTER 4 WATER SUPPLY, SEWERAGE AND WASTE WATER TREATMENT

4.1. Introduction: Sectoral Overview

4.1.1 The Structure of the Subsector

In Serbia, each municipality manages its water and sewerage service through its own PUC. Most are multipurpose PUC's, i.e besides water related services they also carry out waste management and other services. Only 30 PUC's are specialized water service companies; most of these are in the bigger towns and cities. (The 30 specialized water PUC's serve about 4.3M people, i.e. almost 60% of the population). 122 multipurpose PUC's in Serbia provide water services for the rest of the country[33].

This institutional setup is unusual in Europe, both in old member states, and in those who have recently become members since 2004. Water utilities are typically specialized in water services and serve much larger population agglomerations than found in a typical Serbian municipality.

4.1.2 Operational Performance and Service Levels

At the outset in needs to be observed that statistical information on water production, consumption, and losses are quite fragmentary in Serbia, as there are no uniform standards for reporting and in particular no enforced requirements for measurement of water losses and their reporting. Therefore the data presented in this and the following section are to be viewed as indicative background information to provide a tentative context of PUC operations in the water services sector

About half the population receives water from the three largest water supply systems: Belgrade, Nis and Novi Sad. In these large cities more than 90% of the population is connected to the public water system. However nationwide only 76% of the population has access to public drinking water supply. In many rural areas, the coverage is below 50%[34].

[33] Source: "Business Association of Communal Enterprises KOMDEL", 10-year memorial issue, May 2008

[34] Source for the data in this paragraph and for Table 1: "Sector Review Paper on the Water Supply and Waste Water Sector in Serbia", MIASP Project, 27 February 2007

Aggregate water supply and consumption have been estimated as follows:

Table 4.1 Water Supply and Consumption in Serbia[35]
Million m^3 per year

	Public water supply		Own sources
	Production	Consumption	Production
Inhabitants	485	306	-
Industrial/Institutions	126	126	53
Total	610	432	53

From these data it would appear that domestic consumption is about 54m^3 per capita per year, or about 150 liters per day[36]. Water production per person, according to the above Table, would be 58% higher, i.e. 235 liters per person per day. These data are not quite consistent with other published data, for example the 185 liters per day per capita consumptions cited in the Statistical Yearbook of Serbia.[37]

Global estimates of network losses vary widely but are generally assumed to average about 30%. However, much larger losses are observed in many municipalities.

4.1.3 Financial Performance

The overall financial performance of PUC water services is also difficult to assess, on account of scarcity and unreliability of data. One difficulty is that the accounts of multi-purpose PUC's are quite intransparent in that the costs and revenues of the individual services cannot be readily disentangled. Nevertheless, KOMDEL reports[38] the aggregate losses of water companies at about 6M Euro in 2006. On face value, this loss would appear quite modest in that it is of the order of magnitude of about one Euro per consumer. Based on this figure one could gain the impression that modest improvements in operational efficiency and improvements in fee collections could render the water services financially self-sustaining. However, irrespective of its reliability, the KOMDEL estimate may just indicate the tip of the iceberg, since income statements (the presumptive source of the estimate) would not normally take into account budgetary subsidies for investments and deferred maintenance or operational deficits. Basic

[35] cited ibid, page 19 from "Global Serbia Wastewater Study", EAR 2005. It is of course misleading to present the data in such a way as to suggest that there are no water losses involved in supplying industrial users, and attribute all the losses in the supply to the population. Network losses don't discriminate between population and industry.
[36] Assuming that the population of Serbia is 7,46M people, of which 76%, i.e. 5,67M people are connected, the average consumption is 54m3 (306Mm3/5,67).
[37] Cited ibid page 28
[38] "Business Association of Communal Enterprises KOMDEL", 10-year memorial issue, 2008 May, page 10

research is needed on this question. Modest estimates of losses are suspect when only one major city in Serbia reports the losses of its water services at over 3M Euros.

4.2 Issues and Alternatives for Reforms

4.2.1. Tariff Policy and Affordability

It is generally recognized that water prices are too low, and that this is a major reason for the poor financial state of the subsector. By international comparisons, the price households pay is indeed low. However, fees have increased substantially in recent years. KOMDEL reports that the average fee rose tenfold, from 0.04 Euro/m^3 in 2000 to 0.4 Euro/m^3 in 2006. Assuming an average consumption of 15m^3 per month per household, the average household expenditure on water would be some 6Euro per household per month, which is well below the 4% of household income usually taken as the threshold of affordability[39]. Thus there appears to be sufficient scope for increasing tariffs in real terms, particularly if incomes are rising. However, the government policy which limits PUC tariff increases to inflation is counterproductive to the aim of financial sustainability. Alternative mechanisms for regulation are to be considered in reforming sectoral tariff policy.

The table below is a sample of water tariffs and illustrates the wide variation between municipalities.

[39] Recent feasibility studies for Vrbas and Leskovac estimate household expenditure on water services at about 1.0 to 1.2 % of average household income in the respective regions.

Table 4.2
Water Tariffs in Selected Municipalities

					Tariffs RSD/m^3			
					For industry		For Households	
PUC NAME	District	Municipality	Population	Tariff date	Water	WW	Water	WW
JKP MIONICA	Kolubarski	MIONICA	16.000	01.07.2003.	35,00	9,00	14,00	3,00
JKP GRADITELJ	Juzno Backi	SRBOBRAN	18.000	23.05.2003.	72,00	36,00	18,00	9,00
JKP VODOVOD	Sever. Banatski	ADA	19.000		58,08	-	14,52	-
JKP EKOS	Sred. Banatski	ZITISTE	20.000		17,50	-	53,75	-
JP KOMUNALAC	Sred. Banatski	NOVI BEČEJ	27.000	01.10.2003.	47,37	28,86	14,40	7,20
JKP ALEKSANDROVAC	Rasinski	ALEKSANDROVAC	30.000	2007	49,80	13,32	20,91	2,61
JKP USLUGA	Zlatiborski	PRIBOJ	30.000	01.04.2004.	36,00	9,00	10,00	2,50
JKP VODOVOD	Moravicki	G. MILANOVAC	50.000	11.05.2007	72,03		25,77	
VODOVOD	Pomoravski	PARACIN	60.000	01.08.2007	47,16	51,44	14.51	5,81
JKP VODOVOD I KANALIZACIJA	Pirotski	PIROT	64.000	01.03.2004.	32,40	8,10	10,80	2,70
JKP VODOVOD ZAJEČAR	Zajecarski	ZAJEČAR	66.000	01.03.2004.	34,52	8,64	8,63	2,16
JKP OBRENOVAC	Grad Beograd	OBRENOVAC	71.000	01.09.2003.	40,00		12,00	3,00
JKP VODOVOD UŽICE	Zlatiborski	UŽICE	83.000	01.03.2004.	36,80	9,20	11,060	2,77
				Jan. 2008	54.07	13.52	17,25	4,31
JKP VODOVOD I KANALIZACIJA	Raski	NOVI PAZAR	86.000	01.05.2003	28,80	7,20	7,30	2,70
JKP VODOVOD VALJEVO	Kolubarski	VALJEVO	100.000	2007	53.79	22.42	18.38	10.93
				01.04.2008	57.02	23.77	19.48	11.59
JKP VODOVOD I KANALIZACIJA	Sred. Banatski	ZRENJANIN	134.000	01.11.2003.	27,40	40,60	14,90	12,30
JKP VODOVOD I KANALIZACIJA	Sever. Backi	SUBOTICA	149.000	01.06.2008	46,57	69,11	25,40	20,90
JKP VODOVOD	Jablanicki	LESKOVAC	156.000	02.10.2003.	32,90	5,91	11,33	2,27
JKP VODOVOD I KANALIZACIJA	Sumadijski	KRAGUJEVAC	176.000	15.04.2004.	26,90	9,00	13,83	4,65
				10.06.2008	72,15		37,13	
JKP NAISSUS		NIS	245.000	01.11.2007	55,58	10,58	22,21	4,22
JKP VODOVOD I KANALIZACIJA		NOVI SAD	300.000	01.08.2008	41,94	26,38	17,80	11,22
BEOGRADSKI VODOVOD I KANALIZACIJA		BELGRADE	1576.000	20.01.2007	56.87	18.96	28.15	7.04
				12.08.2008	61.42	20,48	30.4	7.60

In some municipalities water consumption over a certain level is subject to a "block tariff". For example in Novi Sad, household consumption over 5 m^3 per capita is charged at almost double the base charge at 53RSD/ m^3. In Nis consumption over 5 m^3 is billed at 98 RSD/ m^3 for water and RSD39/m^3 for wastewater. In the Subotica consumption over 25 m^3 per household is billed at same rate as industry.

The average tariff on household consumption appears to be significantly lower than the 0.4 Euro/m^3 (or about 30RSD/m^3) figure cited KOMDEL. (Note that Table 4.2 is quite representative in that the 32 companies serve municipalities with a population of about 3.5 M people).

Various studies estimate in some detail the affordability of water services. Recent MISP feasibility studies for Vrbas and Leskovac estimate household expenditure on water services at about 1.0 to 1.2 % of average household income in the respective regions. A recent study conducted by the Kreditanstalt fuer Wiederaufbau "Water and Sewerage Programme in

Medium-Sized Municipalities in Serbia" shows the percentage of household income spent on water services ranging between 0.6% and 1.2 % in eight towns. Accordingly, tariffs could be increased three- to six-fold depending on the town. The below table is also of interest as it also shows the structure of the tariff and the much higher tariffs which are applied to industry:

Table 4.3
Tariffs and Affordability in Eight Middle-size Municipalities

Current Tariffs for Households	Unit	Kraljevo	Loznica	Pancevo	Sabac	Smedevo	Sombor	Sr. Mitrovica	Vrsac
Valid since:		*30/01/2008*	*14/02/2008*	*01/02/2008*	*10/07/2007*	*01/05/2007*	*01/02/2008*	*01/12/2005*	*2008*
Water supply (consumption based)	RSD/m³	17.56	17.62	18.23	17.05	17.66	21.75	17.59	20.38
Sewerage tariff	RSD/m³	5.15	8.79	14.80	6.84	3.54	4.35	8.33	8.27
Wastewater treatment tariff	RSD/m³						17.40		3.88
Sub-total = taxable cost		22.71	26.41	33.03	23.89	21.20	43.50	25.92	32.53
VAT	8%	1.82	2.11	2.64	1.91	1.70	3.48	2.07	2.60
Water use fee	RSD/m³	0.172	0.170	*0.170*	*0.161*	*0.161*	*included*	*included*	*0.137*
Pollution fee	RSD/m³	0.194	0.190	*0.190*	*0.181*	*0.181*	*included*	*included*	*2.355*
Current overall tariff WS+WW	RSD/m³	24.89	28.88	36.03	26.14	23.24	46.98	27.99	37.62
Percentage of household income	%	0.8%	1.0%	0.8%	0.7%	0.6%	1.2%	0.7%	0.7%
Socially affordable total overall tariff for WS+WW	RSD/m³	128	114	177	145	145	151	167	206
Acceptable factor of increase	factor	5	4	5	6	6	3	6	5

Current Tariffs for Industry	Unit	Kraljevo	Loznica	Pancevo	Sabac	Smedevo	Sombor	Sr. Mitrovica	Vrsac
Enforcement date:		*30/01/2008*	*14/02/2008*	*01/02/2008*	*10/07/2007*	*01/05/2007*	*01/02/2008*	*01/12/2005*	*30/06/1905*
Water supply (consumption based)	RSD/m³	59.04	52.85	92.87	54.28	52.97	54.39	11.79	70.96
Sewerage tariff	RSD/m³	16.07	26.45	76.91	21.87	10.60	10.88	3.01	28.70
Wastewater treatment tariff	RSD/m³						43.51		14.24
Sub-total = taxable cost		75.11	79.30	169.78	76.15	63.57	108.78	14.80	113.90
VAT	8%	6.01	6.34	13.58	6.09	5.09	8.70	1.18	9.11
Water use fee	RSD/m³	0.333	0.330	*0.330*	*0.331*	*0.331*	*included*	*included*	*0.137*
Pollution fee	RSD/m³	0.194	0.190	*0.190*	*0.181*	*0.181*	*included*	*included*	*2.355*
Current overall tariff WS+WW	RSD/m³	81.65	86.16	183.88	82.75	69.17	117.48	15.98	125.50

In summary it appears that the percentage of household income spent on water services hovers around 1%, however with significant differences between municipalities.

Do you think that increases in water tariffs should remain limited to the inflation rate?
Do you think that households should in general pay more than they do now for water services?
Do you think that PUCs should pay VAT on their billings or on their actual revenues?

4.2.2 Options for Regulation

In a number of EU member states, a central authority regulates the water sector. The Water Regulator can be a department in a line ministry, as for example in England (see Box below), or it can be established as an independent commission responsible to the Government at large, as in Bulgaria and Romania.

Box 4.1

Regulation in England & Wales

Since the privatization of water companies in England and Wales in 1989/90, the Office of Water Services (OFWAT) is the economic regulator of the Water Sector. OFWAT is a government department OFWAT limits the price increases that companies can charge, or alternately mandates price decreases. For the period 2000 to 2005, OFWAT mandated an average annual decrease of 1.6% in the tariff, but for the period 2006 to 2010 it permits an average increase of 4.0%.

OFWAT gathers extensive information from the water companies. It has five lengthy guidelines for recording on operations including a Guidelines for Accounting Current Costs and a Guideline for the Analysis of the Operating Cost and Asset Values.

Importantly, OFWAT compares the operational results of the companies which gives an incentive for poor performers to catch up with the leaders.

A basic feature of regulatory regimes as practiced in member countries of the EU is to regulate not only tariffs but also operational standards with reference to business plans of the water companies. Such business plans include - in addition to proposals for capital expenditures and their justification - projections of water losses and of the expenditures required to reduce water losses towards an "optimal" level. Permitted tariff increases are thus tied to the financial/economic justification presented in the business plan. Adoption of such a regulatory mechanism would do away with the crude price control now in place.

The creation of a Water Regulator has been a complex and time-consuming exercise in those countries that have accomplished it in recent years (for example Romania and Bulgaria) and has been supported by heavy technical assistance inputs, including IFI involvement (mainly the World Bank and EBRD). Should Serbia follow decide in principle to follow this path – and there are indications that this possibility has been considered; see Box below - a similar process could be initiated.

Box 4.2

Proposal for a Regulatory Body *

Based on the draft of the New Water Law, the state administration will acquire the new task of introducing standards for water service providers, including water and wastewater utilities. This is one of the reasons for proposing that the regulatory function be assigned to the Ministry of Agriculture, Forestry and Water Management, or its attached Water Directorate. This function should include the following duties:
(i) Development of methodologies for economic water and service pricing in the water sector, and monitoring of implementation;
(ii) Licensing of water and wastewater utilities and water companies which meet requirements in terms of technical capability, organizational aspects, and human resources; and
(iii) Development of groundwork for the involvement of private capital in the water sector, including identification of appropriate private capital models and provision of oversight over implementation.

The assignment of the regulatory function to the Ministry is proposed based on current analyses of the national economy and the water sector. A fully stand-alone and independent regulatory body established at this time would not achieve the anticipated level of effectiveness. Namely, conditions must first be created for economic strengthening of the water sector, as well as for the involvement of domestic and international private capital as a source of development project funding, and only then should the ultimate status of the regulatory body be determined.

* from “Instruments for Water Sector Development in the Republic of Serbia, Phase 1, Draft” , Ministry of Agriculture, Forestry and Water Management 2006, p119

The scope of work and powers of a Water Regulator could be included in the new Water Law. Alternately, special legislation could be enacted for the purpose. The Water Regulator could *inter alia* exercise oversight and surveillance over water tariffs and the replace the present policy of tying tariff increases to inflation. A principal role of the regulator would be define the criteria and methods for setting tariffs and to regulate the process of tariff adjustments. However the functions of a Water Regulator are much wider than institutionalizing a sound tariff policy (see Section 2.4 above).

Serbia may or may not decide to institute a central Water Regulator. If and when it does, it will take considerable time before the such a Regulator starts its work. In the absence of a regulator, municipalities themselves are in a position to institute measures to improve their operational performance and accountability. As pointed out in Section 2.4, “bottom up” initiatives could strongly complement “from the top down” measures, as with or without a regulator, the PUC’s will need to address pervasive problems, including:

- Poor information about network losses
- lack of incentives to decrease network losses
- overstaffing
- lack of accountability for operational performance
- lack of accountability for financial performance

- inadequate collection from customers
- promote sound tariff policies towards financial self-sustainability.

In the absence of a regulatory framework, an Association of Water Companies[40], with a membership made up of progressive PUC's, could be encouraged to formulate a work-program to tackle these problems, to formulate guidelines for good practices, and to propagate them, possibly through the SCTM.

4.2.3 Issues of Regionalization and Specialization

Unlike in waste management, regionalization is not an imperative in the water sector. As discussed in Chapter 3, the economies of scale of an "EU conform" landfill dictate that the collection and transport of waste be organized on a regional level. With water there is no similar imperative. If the physical infrastructure of the water distribution network and the sewerage network functions independently in the municipality – as is most often the case – these systems can indefinitely remain independent of each other.

Nevertheless, there is a trend for consolidating water services between municipalities, both in Western Europe and in transition economies. For example the British Government encouraged the consolidation of numerous local water companies to merge into 10 regional companies in England and Wales (but excluding Scotland). These ten companies were in 1989 sold to private companies. England is one of the few countries where the water infrastructure is privately owned, albeit under a strong regulatory regime (see Box 4.1 above).

In new member states of the European Union as well, water utilities normally serve larger population agglomerations. In Romania water utilities are organized on the county level. With 40 counties, the utilities each serve several hundred thousand people. In Bulgaria there are 51 water companies, most of them serving four to six municipalities, again with populations usually in the several hundred thousands. Moreover, water utilities are invariable specialized in water-related services, unlike in Serbia. This in itself is an issue: should Government encourage or mandate that water services should carried out by specialized companies at the local level?

The case for keeping the *status quo* can be made citing the merits of decentralization – the principle of local autonomy and the "subsidiarity principle", i.e. the desirability of services being provided at the lowest level of government wherever it is feasible and practical to do so. Further, it has been argued that historically the local water infrastructure has been created with substantial investment from local sources, and hence people consider these assets as rightfully their own.

Arguments propounded for consolidation include

- Economies of scale in management and service provision
- More effective investment planning

[40] A loose association of water companies had existed until 2006 but is now defunct.

- De-politicization: local political cronyism and nepotism would be easier to mitigate
- Facilitating private sector participation: potential private privates wish to see single purpose companies with transparent accounts, and larger companies than the usual local PUC's
- A smaller number of companies would be easier to regulate than the present proliferation of multipurpose PUC's.
- Specialization: consolidation would have the advantage that the resulting regional water companies would be specialized in water services, doing away with the problems arising from several services being carried out by the same PUC in most municipalities.

Water services are usually the largest part of multi-purpose PUC's, in terms of assets, employment, billings, etc. Hiving off the water services into single-purpose PUC's would

- Improve the transparency of accounting
- Do away with cross-subsidization between different activities in the same PUC
- Facilitate regulation if and when a national Regulator is established
- Facilitate mergers or joint ventures between municipalities, if and when regionalization of the service becomes and object
- Facilitate private sector participation, if and when that becomes an objective.

Though the question of specialization and consolidation is a vital issue, the (now outdated) Water Management Masterplan of the Republic of Serbia only mentions the topic in one paragraph, proposing rather vaguely that "…a separate segment of institutionalized water management system, a system of organizations for supplying the population with water, sewerage, and waste water treatment, should be developed. …the system should consist of regional organizations with local branches ….,these organizations would be linked to the local autonomous bodies and public companies".[41] While none too clear, this paragraph indicates an awareness of the problem, though the report does not go further into the matter. Be that as it may, decision-makers face a basic choice between leaving the present structure of each municipality delivering its water services intact or moving towards specialization and regionalization.

Do you think that the Government should encourage the formation of specialized water companies at the local level, thus hiving off water services from multi-service PUCs? Do you believe the Government should mandate such specialization for municipal water services? If so, only in larger municipalities or in all cases?

Do you think it would it be desirable to move towards a regional organizational structure in the water sector, merging the water service segment of municipal PUCs into larger regional organizations?

If you think so, can the initiative for such mergers be left to municipalities that wish to thus rationalize the service, or would government intervention –by means of legislation or otherwise – be necessary to bring about regionalization?

[41] "Water Management Masterplan of the Republic of Serbia" prepared by Institute for Water Management Jaroslav Cerni, 2001), p345

4.2.4 Private Sector Participation

Unlike in solid waste management, where strategic investors (mostly foreign) have, in the wake of the transition, focused in medium sized cities with relatively small investments, in the water sector the main targets of water concessions have been the biggest cities.

In Bulgaria there is only one water concession, that in Sofia. In Romania Bucharest and a couple of major cities have water concessions. In Hungary as well strategic investor interest focused on Budapest and a few larger towns.

Water concessions in ex-socialist economies have invariable been initiated by very large West European water companies and involve massive investments. (This contrasts with waste management, where middle-sized companies have been just as active in penetrating Eastern Markets and where the size of the investment is much smaller.)

As pointed out in Section 2.6 it would be unrealistic at this time for any but the largest Serbian municipalities to contemplate water concessions. Private sector participation in smaller cities is deemed irrelevant at this time to the process of PUC transformation. Therefore this Green Paper will not deal with this topic further. (At the same time it is noted that the ministerial briefing paper cited in Box 4.2 considers it a task of the potential "Regulatory Body" to work on the " ….development of groundwork for the involvement of private capital in the water sector …" .)

Do you think there is a role for private sector participation in the water sector? If so in what way?

Should any one of the largest three or four Serbian cities opt to consider a concession or some other form of privatizing water services, such an exercise will, as experience tells, call for massive deployment of transactional advice, such as has been most often been undertaken by the IFC and the EBRD, two IFIs which have been active proponents of private sector participation of the sector in transition economies. The topic of alternative structuring of major water concessions is beyond the scope of this Green Paper.

CHAPTER 5 PROCESSES OF CHANGE

5.1. Introduction: Diversity in Reform

The purpose of this Green Paper is to address options for "PUC transformation" and to sound out stakeholders on their views on the issues and how they might be addressed. The Green Paper is intended as an input to the deliberations of a proposed interministerial working group which is to formulate a "Strategy" for PUC transformation. (The Strategy in turn is to be followed up by an Action Plan.)

How reforms are to be implemented is another subject, which will be just as important as the strategy itself. This concluding chapter comments on the ways reforms may be approached, by the PUC's themselves, the municipalities, and the Government. What are the respective roles and possibilities of the agents of change? What can municipalities do to reform themselves? What can government do to reform municipalities? What can municipalities do to press for reforms at the government level?

The word "transformation" connotes radical structural change, a comprehensive remaking of institutional setups, possibly through a concerted package of government-initiated measures implemented over a short period of time. That would be one way to achieve reforms. But processes of reform can also be gradual, tackling problems piecemeal, and not all at the same time. Reforms can move at a different pace in different sectors, as the constraints and the opportunities for change differ. Initiative for reform may just as well originate "from below" at the municipal as "from above" from central government. Initiatives from below can reinforce initiatives from above and vice versa

The options for reforms discussed in this paper focused on some of the main challenges in a changing policy environment:

- Improvement of operational and financial performance
- Regionalization of services
- Private sector participation, and
- cross-cutting problems of "governance"

As discussed in Chapters 2 and 3, the sectoral context of these challenges varies:

- poor financial performance is a greater problem in water services than in waste management
- regionalization is an imperative in the waste management sector, but not so in water services
- the upsurge of private sector participation in waste management is not expected to have a parallel in the water sector.

Because of such differences, reforms may have different priorities and follow different paths between sectors. The respective role of central government and local government as agents of change is also likely to be different across sectors and depending on the subject:

- Private public partnerships in waste management have been initiated by municipalities, with little guidance or regulation from central authorities. This may change if the central government issues guidelines for contracts (mandatory or otherwise). Donor technical assistance projects may also have a role to support municipalities in contract negotiations with private companies, and in propagating best practices.
- Regionalization of waste management services, while mandated in the National Waste Management Strategy, requires structuring (i) inter-municipal agreements where the public sector is concerned, and (ii) d contractual arrangements between municipalities and private companies when the private sector is the agent of change.
- Price policy, in the shape of price controls linked to inflation, is exercised by the central authority, but in practice allows significant degrees of freedom for municipalities to change fee structures. For example, in the water sector municipalities appear to be free to introduce block-pricing, effectively raising tariffs for higher than a standard rate of consumption. In the waste sector, municipalities may pay directly the tipping fee for disposal to the landfill operator, without raisin fees to households. Once the rather crude price control is replaced by alternate mechanism of oversight or regulation, the role of central government intervention in the two sectors might be quite different. .

Establishing a new institutional framework for surveillance and regulation is a difficult and time consuming process. Interim solutions may need to be considered while the current regime of controls and interventions are suspended or replaced. The SCTM's Working Group on PUC Transformation made suggestions along these lines, e.g. an *ad-hoc* interministerial body could be established to oversee the PUC performance. Such a body could be staffed by experts from concerned Ministries of Government (e.g. Finance, Economy and Regional Development, Trade, Agriculture and Water, Local Administration and Self-Government, Environment and Spatial Planning, etc) who would receive a standardized set of information and performance indicators from water and waste PUC's; they would review the adequacy of their tariff proposals in light of their business plans. Such a body would also develop and refine standards for "benchmarking", advise PUC's on improving their performance, and recommend sanctions to the concerned line Ministries in case of poor performance. The Working Group recommended that municipalities and their PUC's should channel their views and concerns through to SCTM to the central level so as to foster a more efficient "bottom up approach". The *ad-hoc* body (or interim agency) could also serve to respond to requests from municipalities and PUC's: it is a common complaint that these have to "knock on the doors" of several ministries and often are not sure that they were at the right address and the first place to seek answers to their questions and problems.

5.2. How should Price Policy and Regulation Change?

The present policy of capping tariffs to inflation is often blamed for the poor financial performance and the deteriorating service levels of PUC's. While municipalities have some leeway to raise fees, it is generally agreed that the present policy of imposing caps on price increase caps linked to inflation is counterproductive and tends to perpetuate the financial plight of PUC's and their dependence on budgetary funding.

Tariff reform is key. Once PUC's – and municipalities - are empowered to increase tariffs so as to generate operating surpluses, this is likely to be conducive to positive changes in performance. A loss-making PUC cannot provide but alow and deteriorating service. This goes hand in hand with low collection rates as collections cannot be increased as long as service levels are low. Experience shows that improvement in the level of service enhances the population's willingness to pay. Increasing the collection rate may often be conditional on improving the level of service, which however is impossible without funds.

What is lacking is a policy framework that would empower municipalities to adopt sound pricing policies, but at the same time institute mechanisms for oversight and surveillance and supervision of the operational and financial performance of PUC's.

Establishing a national regulator for the water services sector, along the lines of precedents in the EU, is a principal option to be considered in the water-services sector. Waste management is rarely deemed to need a national regulatory body, though reporting and monitoring operational and financial performance to a central authority is a requirement in line with EU policies.

5.3. How is Governance to be Reformed?

Improving governance is not conditional on new legislation. There is plenty that PUC's and municipalities can do on their own to improve governance, as suggested in Chapter 2 and the sectoral Chapters 3 and 4. They are certainly empowered to cut costs, increase collection rates, reduce overstaffing, and in general strive for cost effectiveness. The question is how to motivate them further to enhance their operational and financial performance.

Governance has diverse dimensions. Chapter 2 suggests some Government interventions that may impose from above better governance. Answers from the readership on the questions posed in the text should help to make concrete proposals for laws or regulations that could mandate better governance standards. To recapitulate, measures could include;

- Requiring PUC's to adopt activity-based cost accounting so as to make the cost of each service transparent
- Requiring PUC's to prepare business plans which include medium term investment plans with a financing plan that justifies proposals for appropriate tariffs.
- Requiring obligatory service contracts between municipalities and PUC's that stipulate levels of service and specific fees for the range of services which the PUC renders to the public and to the municipality
- Requiring municipalities to finance subsidies to "vulnerable groups" from their budget (instead of transferring the financial burden to the PUC's, as is the prevalent current practice)
- Establish/strengthen governmental audit of PUC's [42]
- Requiring PUC's to report on operational and physical performance (this could be part of sector-specific regulatory regimes prescribing "benchmarking" in terms of salient indicators)
- Regulate civil service employment standards, prescribing professional qualifications for management positions
- Requiring advertising for management posts in PUC's, followed by formal and recorded evaluation of the candidates.

This is not meant to be a complete list but just an indication of the kind Government interventions that might go towards improving governance. These and similar measures could be instituted by decree, by enforcing/amending already existing legislation, or in the context of creating new institutions (e.g. a Water Regulator). The measures can come piecemeal in time and originate in different Ministries, but they will need to be coordinated within a concerted reform program.

[42] a Government Audit Agency – responsible exclusively for auditing public companies – had been in existence until the late 90s but has since been disbanded .

The ills of poor governance reflect an institutional asymmetry: on the one hand the Government straitjackets municipalities by disallowing adequate tariff increases and other onerous limitations on their freedom of action, but on the other hand PUC's are not held accountable for their operational and financial performance. Sound reform measures would correct this: they would empower PUC's to be financially independent and self-sustaining but on the other hand hold them accountable for performance.