

Challenges in asset management of the water supply and wastewater infrastructure in the Republic of Bulgaria



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Water supply in Bulgaria is at comparatively good level; this is confirmed by the extremely high level of central water supply for the population in the country (98,8%), the large scale water supply systems and the highly qualified engineers and specialists. Nevertheless, there are a lot of serious problems in the water sector.

The WSW sector has gone through different stages of management, the most characteristic of which are the following:

1966 – 1989

The WSW Sector was managed by the Ministry of Regional Development and Public Works (MRDPW). There were several main organisations functioning in the water field, as:

1. The University of Architecture, Civil Engineering and Geodesy in Sofia.
2. The Scientific&Research Institute of WSW.
3. The National Design Institute.
4. The State Directorate which performed the activities of investment and exploitation of all WSW systems in the country, except those in Sofia.

During this period the water price was equal for the whole country. The assets of all WSW systems were public property. This period can be named “the golden period” of the Bulgarian water supply and wastewater sector.

The experience in Bulgaria till 1989 showed that the existing structure of WSW Sector of that time was the best among all the models existed in the water sector through the years. The advantages of this model are the following:

- Unified national policy in WSW Sector;
- The price of water is equal for the whole country which allows the application of the principles of social solidarity and equality;
- Centralised scientific/applied and technological/research activities were carried out.

1989 – 2007

1. The restructuring of the WSW sector followed the recommendations of the World Bank. As a result, the State WSW Company was closed down in 1989 and a number of independent companies were set up. The closing down of the national WSW Company was the biggest mistake in the water sector. The current bad situation is a consequence of this step.
2. Out of the existing 29 state-owned WSW companies, 16 were transformed into mixed state-municipal companies with 51: 49 ratio of shares. According to the instructions of the World Bank, the aim of the restructuring of the WSW Sector was the state to assign the remaining 51% of its property to the municipalities. Fortunately, this second stage was not realized.
3. 22 municipal WSW companies were set up with 100% municipal ownership of assets.
4. The Research Institute of WSW was closed;
5. The National Design Institute “Vodokanalproekt” was closed.

6. A Joint Stock Company (AD) “Sofiyska Voda” was created between the Sofia Municipality, the UK company “International Waters”, the American company Behtel and the Italian company Edison. The WSW services in the capital city of Sofia were given under 25-year concession contract to “Sofiyska Voda”. The ratio of assets between the Municipality and the Concessionaire was 23% : 77%.
7. Nowadays, the foreign stockholders in “Sofiyska Voda” are the UK Company United Utilities and the European Bank for Reconstruction and Development, which bought out the shares from the previous concessionaires.
8. The Sofia Concession turned out to be a major problem for the capital city; it kept standing on the top list of the news.
9. The Water Supply and Wastewater Services Regulation Act was adopted. According to the Act the WSW services became an obligation of the existing State Energy Regulatory Commission, which added “Water” in its name.



The regulations for the organisation and management of water services should take into account that the sector has specific characteristics, which are not valid for other industries and services, namely:

- WSW is water industry which produces and delivers water to consumers for drinking, industrial and other needs, receives and treats wastewater to a degree which allows discharging into water intakes;
- "Water" as a commodity is very specific and therefore it is a "special commodity";
- The water industry relies on a secured national water resources and naturally secured monopoly market;
- WSW provides public services of natural monopoly character;
- Drinking water is the only product of vital social and sanitary importance which can not be imported through transport vehicles;



Main challenges in WSW sector

- Inadequate and inefficient regulatory provisions for the sector;
- The price of water and the quality of WSW services;
- The quality of the drinking water;
- High levels of water losses in the water networks;
- Rehabilitation and modernisation of the existing water treatment plants and construction of new ones;
- Necessity of laying of thousands kilometres of sewers for settlements and hundreds of wastewater treatment plants;
- Protection of the national water resources;
- Education, training and qualification of managers, engineers, experts and workers for design, operation and management of WSW systems, incl. treatment plants.
- Adoption of a new **Water Act**. It has to regulate the ownership of water as well as the basic principles of protection, rational use and management of water resources; to implement the essential part of the European Water Framework Directive.

- Adoption of **Water Supply and Wastewater Act**. This act is the key for solving the problems in water sector because it should regulate the rights and obligations of all stakeholders. WSW Act should define clearly and precisely the following basic issues:
 1. Management of the water sector by one state body.
 2. Public property of WSW systems and facilities.
 3. The access to drinking water should be declared an irrevocable human right.
 4. Admissible models for management of WSW systems and services.
 5. Regulation of the water quality and the price of WSW services should be performed by independent public-state authority.
 6. The rights, obligations and responsibilities of public authorities; water operators/companies; water consumers and branch NGOs.
 7. Sources for financing of investment projects
 8. Establishment of National WSW Centre, providing scientific/applied, technological, informational and methodological services to the sector, as well as preparing of legislative documents, strategies, standards, regulations, instructions, etc.; transfer of foreign positive experience and good practice; qualification and training of managers and workers.
 9. Education, qualification and training of managing and working personnel of the public operators.

Models of WSW sector management

Several main preconditions are necessary in order to achieve a high level of WSW services:

- Water sector has to become a state priority;
- A specific WSW Act should regulate the water sector.
- Some of the existing water supply systems cover the territory of dozens of settlements belonging to different municipalities and regions;
- There are small and poor municipalities, which, alone, do not have the capacity to develop and maintain WSW systems on their territory. It is necessary for them the principle of social solidarity to be applied, which is possible only for a large enough region with economically strong municipalities;

The form of ownership has a decisive importance for water service efficiency. The practice since 1989 indicates that almost all newly established municipal companies worsened sharply the technical condition of the systems and the quality of water services. Nowadays, the municipalities are not ready to manage independently this activity.

Forms of ownership and asset management models

VARIANT 1. Public state ownership of all WSW systems and facilities, except those of Sofia municipality

Option 1.1. An Executive body is established to perform investment and exploitation activities of all public WSW systems, which assets become state property.

Option 1.2. Four public WSW companies are set up on a basin principle.

VARIANT 2. Public municipal property of all WSW systems and facilities

Option 2.1. Establishment of association of municipalities for WSW systems operation in the four Basin Directorates.

Option 2.2. Mandatory establishment of association of municipalities in the framework of the existing administrative districts of the country, as well as mandatory establishment of association of those areas for which water is supplied by joint WSW systems.

VARIANT 3. Public state or public municipal property of whole or parts of the WSW systems

The essence of this variant is the following:

- WSW systems and installations or parts of the systems, operating and delivering services to more than one municipality, are public state property;
- Water supply and sewerage networks in the settlements, wastewater treatment plants, as well as those parts of WSW systems, which provide services to one municipality; all situated on the municipality's territory, are public municipal property

We believe that with respect to the most important issue – the form of ownership of the WSW assets - **variant 1** has the most serious organisational, technical, technological, operational and social advantages out of all recommended variants. In any case, the strategy should be aimed at a considerable reduction of the number of the WSW companies.

Conclusions for Bulgarian conditions

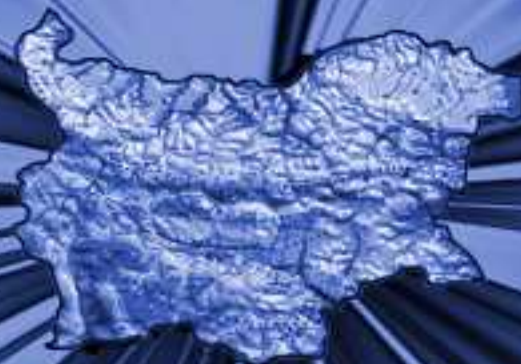
1. The Bulgarian tradition – water supply and wastewater services to be concentrated in one company - should continue, without intermediaries.
2. It is expedient for the conditions in Bulgaria WSW infrastructure to remain public.
3. The most suitable model for management of WSW companies is the “delegated public management”.
4. It is expedient one state body to be established for coordination of the WSW activities in the country.
5. It is necessary a national WSW center to be established under the guidance of the coordinating state body to provide scientific/applied, technological, informational, legislative, strategic and methodological services to the sector.
6. The water sector urgently needs Water Supply and Wastewater Act.

General conclusions



1. Public authorities should be responsible for the quality control and prices of water services.
2. Access to clean drinking water should be proclaimed a basic human right, guaranteed by law.
3. The WSW sector is of natural monopoly character and strong vital social and sanitary importance.
4. The property of WSW assets should be public.
5. The number of WSW operators should be made as low as the local conditions allow.

THANK YOU FOR YOUR ATTENTION!



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