

## Conceptual model for concessioning in the Water Supply and Sanitation sector in Bulgaria

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**Abstract.** The purpose of this article is to create a new conceptual model for sustainable development of the water sector in Bulgaria on the basis of concessions by statistical regions according to the NUTS-2 classification of the European Union. The essence of the proposed model includes an approach for consolidating the existing 66 WSS operators in three WSS operators – concessionaires. The approach is applied to provide WSS services for drinking and household needs of the population. WSS services for the sectors – Industry, Services, Agriculture, Forestry and Fisheries remain outside the scope of the study. The proposed model is based on statistical analyses of the effectiveness of the WSS operators working by statistical regions and the state of the technical infrastructure they use. Such concessioning by combining one region from the North and South Bulgaria should help to overcome the existing disproportions in the social and economical development and its harmonization in the regions of Northern and Southern Bulgaria. Its implementation should create new opportunities for introducing foreign direct investment which will contribute to the sustainable development of the water sector in the country. The practical significance of the proposed model for overall concessioning of the WSS sector is for Bulgaria as well as for other countries with low and middle incomes. The model is a part of a comprehensive study of a scientific project, according to the Ordinance No.9 of the Ministry of Education and Science of 08.08.2013, with No.NPI-130/2014, on the topic: „The concession as a factor for development of the Water Supply and Sanitation sector in the Republic of Bulgaria“.

**Key words:** water sector, water and sanitation, water concession.

### 1. Introduction

*There are two main types of public-private partnerships in the European water sector* (Lanjekar, 2010, pp. 168-169):

- *the first one* is the English type of complete privatization in which governance and ownership are personal;

- *the second one* is the French type in which the governance is delegated (for example, through leasing and concession contracts) and combines public and private governance, but the ownership is public.

The World Bank prefers to fund a public-private partnership of the French type that is widely used and acknowledged by already developed and developing countries in various forms.

Some authors (Ameyaw *et al.*, 2017, p. 37) try to find some factors affecting the attractiveness of the water supply sector for concessions. Public-private partnerships are widely discussed as an appropriate form of investments in water supply infrastructure. The research findings of (Ameyaw *et al.*, 2017, p. 60) provide an insight into a number of important issues to enable greater private participation in water supply projects, most of which aim at reminding governments of some key areas that need reform and enabling greater commitment among them to undertake such reforms. Datasets about concessions in the water sector provide huge amounts of data. They have to be stored in data warehouses, which allow the creation of reports in different dimensions (Vasilev and *et al.*, 2017b, pp. 54-57) by sorting, filtering, grouping and aggregating data. Furthermore business intelligence techniques (Vasilev and *et al.*, 2017a, pp. 63-77) may be used to find an appropriate model for financing and organizing the water supply sector.

In Bulgaria, the process of decentralization in the 1990s led to the creation of companies that are too small to achieve economies of scale and perhaps even too small to effectively manage modern WSS systems (Bocheva, 2013). So far, *Sofiyiska Voda PLC* has been the only WSS company operating since 2000 under a 25-year concession (Sofiyiska voda, 2017). According to the contract, Sofia Municipality assigned to the company the operation and maintenance of the WSS system in Sofia. The share capital is distributed between Sofia

Municipality – 22.9% and the French company *Veolia Voda SA.* – 77.1%. *Sofiyska Voda* is not the owner, but the concessionaire of the WSS assets, which are public municipal property. All newly constructed facilities with the company's investments also belong to the municipality.

There are different problems and challenges in the water sector in the country, which can only be solved through a complete reform of the sector and reorganization of WSS companies based on concessioning.

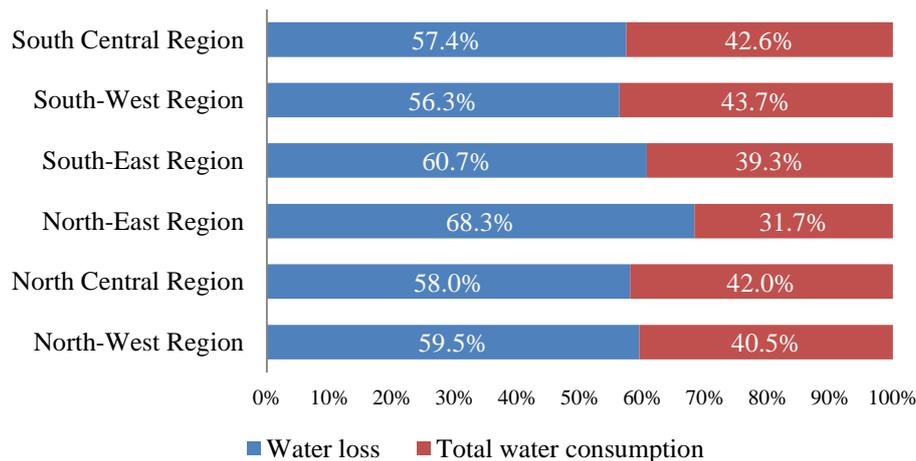
**The purpose** of this article is to analyze the effectiveness of the existing WSS operators in the statistical areas and the state of their technical infrastructure, to propose **a new conceptual model for the sustainable development of the water sector in the country.**

This statement is part of a full study of a scientific project under Ordinance No.9 of the Ministry of Science and Education from 08.08.2013, with No.NPI-130/2014, titled: „The Concession as a Factor for Development in Water Supply and Sanitation sector in the Republic of Bulgaria“.

## 2. Reasons for concessioning of the water sector in Bulgaria

The conducted survey of the dynamics of the water sector development in the period 2003-2015 and the comparative analysis of the indicators that take into account the efficiency of the WSS operators in the statistical areas give grounds to make the following important *conclusions* regarding the development of the WSS sector in the country.

During the period under review, *total water losses in all statistical regions are high* and amounted to 68.9% on average per year. The largest is their share in the Northeast region – 68.3%. In the Southeastern region they are 60.7%, in the Northwest region 59.5%, in the North Central – 58.0%, in the South Central Region – 57.4% and the lowest in the Southwest region – 56.3% (see Figure 1).



**Figure 1. Relative share of total water consumption and water loss**

Source: NSI data and author's own calculations.

The level of coverage of sewerage services is low and stands at 64.2% on average per year. It is the lowest for WSS PLC(AD), town of Lovech – 35.6%, WSS Ltd (OOD), town of Sliven – 37.4%, WSS Ltd (OOD), town of Kardzhali – 41.1%, WSS Ltd (EOD), town of Vidin – 47.6%, WSS Ltd (OOD), town of Silistra – 50.5%, WSS Ltd (EOD), town of Pazardzhic – 52.8% and WSS Ltd (EOD), town of Pleven – 53.2% (see Table 1).

During the period 2010-2015 the ratio of operating costs to the revenues from the activity of the water and sewerage companies exceeds 100%, which is an indicator of low efficiency. For the North-East and South Central region these values are the highest. For WSS Ltd (OOD), town of Kardzhali the indicator is 104.6%, for WSS Ltd (EOD), town of Plovdiv – 104.2%, WSS Ltd (EOD), town of Dobrich – 103.9%, WSS Ltd (EOD), town of Blagoevgrad – 102.2%, WSS Ltd (OOD), town of Shumen – 101.5%, WSS-Yovkovtsi Ltd (OOD), town of Veliko Tarnovo – 100.6% and WSS Ltd (OOD), town of Varna with 100.5%, or for the period the expenses exceeded the revenues by 0.5%.

The indicator measuring the cost-to-activity ratio of the invoiced water quantities has a drastically significant negative impact on the North-East region, including the individual WSS operators in it.

The total metric for the region is 2.17 BGN/m<sup>3</sup>. For WSS Ltd, town of Dobrich this indicator is 2.59 BGN/m<sup>3</sup>, for WSS Ltd, town of Shumen – 2.29 BGN/m<sup>3</sup>, for WSS Ltd, town of Targovishte – 2.01 BGN/m<sup>3</sup>.

The next indicator, showing the ratio between *uncollected revenues and operating income*, shows its uneven distribution by statistical regions. On the first place by uncollected revenues is Northeastern region with 28.5%.

This average annual value is exceeded by WSS operators in Pernik – 44.7% and Kyustendil – 33.8%.

**Table 1.**

Financial and economic indicators and quality indicators of the services provided of main WSS companies by statistical regions in 2010-2015

Region/ WSS operators	Level of coverage of sanitation services (%)	Activity costs/ Operating incomes (%)	Activity costs/ Invoiced water quantities (BGN/ m <sup>3</sup> )	Uncollected incomes/ Operating incomes (%)	Costs for wages/ Activity costs (%)	Number of staff providing water supply services Total number of consumers (1:10000)	Number of staff providing water supply services / Total number of BPD (1:10000)	Number of staff providing sanitation services / Total number of BSD (1:10000)
<b>North-West</b>	50.3	99.1	1.471	20.3	39.3	0.0033	0.0052	0.0036
Vidin	47.6	99.7	1.734	5.9	47.6	0.0023	0.0074	0.0040
Lovech	35.6	95.2	1.570	29.2	41.0	0.0031	0.0040	0.0057
Montana	-	95.8	1.197	30.3	33.9	0.0025	0.0036	0.0000
Pleven	53.2	96.8	1.674	20.6	37.8	0.0034	0.0065	0.0085
<b>North Central</b>	44.4	96.5	1.748	19.3	39.2	0.0037	0.0069	0.0063
V. Tarnovo	60.0	100.6	1.550	24.4	50.6	0.0034	0.0070	0.0150
Razgrad	51.1	80.2	1.506	10.2	34.3	0.0044	0.0073	0.0043
Ruse	61.2	93.9	1.662	4.1	34.6	0.0035	0.0074	0.0039
Silistra	50.5	99.2	1.896	15.8	44.8	0.0017	0.0075	0.0012
<b>North-East</b>	60.3	100.7	2.173	18.2	34.9	0.0038	0.0670	0.0078
Varna	73.9	100.5	1.796	16.5	42.6	0.0033	0.0940	0.0210
Dobrich	54.3	103.9	2.592	27.1	23.8	0.0029	0.1580	0.0040
Targovishte	52.6	97.0	2.010	12.8	40.0	0.0050	0.0080	0.0010
Shumen	60.5	101.5	2.293	16.3	33.0	0.0040	0.0079	0.0053
<b>South-East</b>	61.7	96.4	1.743	27.6	36.9	0.0035	0.0064	0.0043
Burgas	75.5	91.9	1.474	6.8	35.5	0.0041	0.0065	0.0046
Sliven	37.4	98.9	1.891	59.2	36.9	0.0039	0.0060	0.0050
Stara Zagora	74.1	96.9	1.957	15.2	36.3	0.0036	0.0060	0.0060
<b>South-West</b>	77.9	90.4	1.189	28.5	40.0	0.0030	0.0066	0.0027
Blagoevgrad	73.0	102.2	1.347	16.9	51.5	0.0034	0.0132	0.0023
Pernik	74.4	100.1	1.384	44.7	30.2	0.0032	0.0060	0.0020
Sofiyska voda PLC	96.1	61.7	0.644	29.3	20.2	0.0011	0.0056	0.0034
<b>South Central</b>	64.2	100.2	1.406	19.7	42.7	0.0039	0.0086	0.0023
Kardzhali	41.1	104.6	1.348	18.7	55.7	0.0039	0.0133	0.0016
Pazardzhik	52.8	93.3	1.094	22.3	37.1	0.0027	0.0040	0.0010
Plovdiv	73.2	104.2	1.391	24.5	31.8	0.0025	0.0049	0.0025

Smolyan	74.0	97.7	1.186	6.4	48.6	0.0063	0.0122	0.0029
Haskovo	64.6	99.0	1.963	30.3	34.5	0.0045	0.0070	0.0010

Source: according to Energy and Water Regulation commission data and author's own calculations.

The collection of revenue is also very poor by WSS Ltd, town of Sliven – 59.2%, followed by WSS Ltd, town of Montana and WSS Ltd, town of Haskovo each 30.3%. For the concessioner *Sofiyska voda PLC, town of Sofia* the uncollectibility of revenue is the lowest – 29.3%.

There are too large differences between the values of the indicators related to the staff. For example, for *Sofiyska voda PLC, town of Sofia* the relative share of the wage costs to operating costs are 20.2%, and for WSS Ltd, town of Kardzhali they are 2.5 times bigger – 55.7%. The relative share of the number of staff providing water supply services to the total number of consumers for *Sofiyska voda PLC* is 11 people, servicing 10000 consumers, and for Silistra it is 17 people for 10000, for Targovishte it is 50 people for 10000 consumers, and for Smolyan this share is 63 people for 10000.

The Human Resource *Efficiency Index*, which determines the ratio of the average annual number of employees providing water services to the total number of BWD, is large, for the South Central Region it is 86:10000. For WSS Ltd, town of Kardzhali and WSS Ltd, town of Smolyan it is respectively 133:10000 and 122:10000. For Northeastern region this ratio is the highest and amounts to 670:10000, and for WSS Ltd, town of Dobrich and WSS-Varna Ltd, town of Varna is respectively 1580:10000 and 940:10000.

The ratio of the average annual number of employees providing sanitation services to the total number of BSD is the biggest for Northeastern region – it is 78:10000, followed by the North Central region – 63:10000. For WSS – Varna Ltd, town of Varna it is 210:10000, and for WSS-Yovkovtsi Ltd, town of Veliko Tarnovo it is 150:10000 (see Table 1).

In the Strategy for Development and Management of Water Supply and Sanitation in the Republic of Bulgaria for the period 2014-2023 the vision for the WSS sector is aimed at creating a „... financially, technically and environmentally sustainable WSS sector, that provides WSS services with high quality socially affordable“. (Ministry of Regional Development and Public Works, 2014b, p. 48). The implementation of this 10-year objective for the water sector implies generating significant funds for investment in the full range of services available by 2023. Funding from European funds as well as national co-financing from government capital grants to loans from financial institutions and mainly accumulated funds from WSS companies during this period are expected. The preliminary estimates for the 25-year period 2014-2038 show that investments are necessary in the water sector amounting to 24 207.8 million BGN (see Table 2).

**Table 2.**

Estimated total investment in the WSS sector for the period 2014-2038  
according to the adopted strategy (in million BGN)

Source of granting, million BGN	2014-2023	2024-2028	2029-2038	TOTAL	Share of total
Project co-financed by EU – Grant	3 684.1	-	-	<b>3 684.1</b>	15.2%
Project co-financed by EU – national co-financing	2 247.2	-	-	<b>2 247.2</b>	9.3%
State subsidies	390.7	163.9	70.3	<b>624.9</b>	2.6%
WSS operators – internally generated resources	4 141.0	3 731.8	8 195.5	<b>16 068.3</b>	66.4%
WSS operators – loans	1 271.1	262.2	50.0	<b>1 583.3</b>	6.5%
<b>TOTAL</b>	<b>11 734.1</b>	<b>4 157.9</b>	<b>8 315.8</b>	<b>24 207.8</b>	<b>100.0%</b>

Source: Comparative analysis of the WSS sector in the Republic of Bulgaria for the period 2009-2014. „Prices and Business Plans - WSS Services“ Directorate, WSS Services Directorate General, Version 07, p. 9 (EWRC, 2015)

In our opinion, the details in Table 2 **internally generated funds from the WSS operators are too ambitious, inflated and do not match their real possibilities**. This conclusion follows from the results of the analysis of the development of the Water Supply and Sanitation sector in Bulgaria in the period 2003-2015 (see Table 3).

The analysis shows that the average value of the total annual profit of WSS operators is only BGN 17.13 million and the average annual growth rate is 13.42%. This growth rate is good but applied to the very low average annual profit base in the water sector is not enough to accumulate the necessary financial resources for

investment activity, for the rehabilitation, modernization and renovation of the highly depreciated WSS infrastructure.

The results of the analysis of the financial and economic indicators and the quality indicators of the services provided by the WSS companies during the period 2010-2015 show that the following *problems* exist:

- all public operators provide water services with significant losses of drinking water;
- the technical infrastructure used is heavily;

**Table 3.**

Financial and economic indices of WSS companies in the country for the period 2003-2015 (in million BGN)

Index	Mini- mum	Maxi- mum	Average value	Average annual growth	Average annual growth rate (%)	Average annual increase rate (%)
1. Operating income	383.38	672.38	550.17	23.37	104.60	+4.60
2. Activity costs	376.65	641.35	529.80	20.56	104.14	+4.14
3. Final financial result (profit/loss) from the activity	-6.38	37.94	17.13	1.88	113.42	+13.42

Source: according to data provided by NSI and own calculations by the author.

- the rate of uncollectability of revenue is very high;
- employed personnel are used inefficiently;
- the relative share of remuneration relative to operating costs is high;
- the possibilities for the accumulation of investment funds are limited.

In general, the low-performing business of WSS companies *is not able to ensure sustainable development of WSS sector*. An exception is made only by the concessionaire Sofiyska Voda PLC, Sofia, which in most cases has *much better indicators than those of the other WSS operators in the country* (see Table 1). In our opinion, this is due to the chosen model of cooperation of the local authority with a foreign private partner in the form of concessioning for the provision of water services to the population and its more efficient strategy for the development of WSS services in Sofia Municipality.

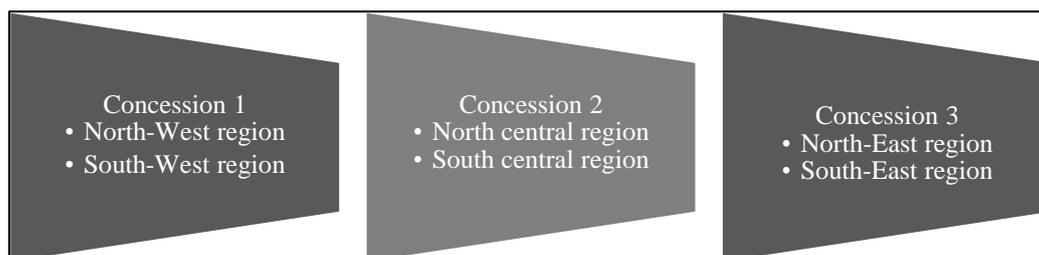
### 3. Essence of the proposed concessioning model for the water sector

The concessioning model proposed by us has been developed on the basis of the *status of the WSS operators* by statistical regions and districts as well as on the basis of the *multiparametric analysis of the factors* determining the effective development of the water sector in the country. These include:

- factors determining the dynamics of the development of water resources;
- factors determining the dynamics of the development of water economy infrastructure;
- factors determining the dynamics of the development of provided water services;
- factors determining the quality of WSS services;
- factors determining the financial and economic development of WSS operators.

The conceptual model of concessioning is built according to the classification NUTS-2 of the European Union. In order to maximize the impact of improving the management and production structure and optimal use of the personnel of WSS operators, we propose the creation of *3 water concessions*. They cover the next statistical regions (see Figure 2):

- **Concession 1** for North-West and South-West regions;
- **Concession 2** for North central and South central regions;
- **Concession 3** for North-East and South-East regions.



**Figure 2.** Optimal version of concessioning of water services provision to the population in the country

The considered optimal option for concessioning by grouping the statistical regions in the way described will contribute to the *concentration of financial, investment, technological and human resources*. The *consolidation of the territorial scope of the WSS operators* will give them new tactical opportunities and strategic prospects. Serving a larger number of users gives **significant benefits**, for example:

- making *bigger economies from the scale*;
- eliminating the imbalance in the pricing of water services damaging small settlements and those with predominantly pumping water supply;
- *creating more flexible organizational structures*;
- *imposing on the territory of the whole country greater sector expertise, managerial potential and international experience*;
- *accumulation of a significantly larger volume of investment for a relatively short period of time*;
- *better use of staff, working time, vehicles and machinery*;
- *taking loans on preferential terms*;
- *better opportunities for coordination, monitoring and control between water and sewerage operators (concessionaires), public authorities and control bodies*.

For a more accurate assessment of the status of WSS companies entering a statistical area, an open quantitative assessment system may be used with the introduction of relative weights only for the groups or for each individual indicator expressing the degree of importance to the rest of the item public authority or a purely expert one. This evaluation system should be adaptable to the changes in the water sector, as well as to the requirements of the EWRC, in case of changes in the country's legislation and the European Union, etc. Adjustments to the relative importance levels of indexes, as well as the inclusion / exclusion of indexes, are possible.

The model includes also the creation of **3 Regional WSS associations**. We recommend that the status and design of existing WSS associations be retained as entities in the system, but **territorially integrated - from the administrative district level to the level of the statistical area**. In the initial stage Regional WSS associations will be needed to provide a grant from the European funds in the medium term and – if the water services provided in a given area are not declared to be a concession or there are no real candidates, they will continue to work with the WSS operators operating in both regions.

We propose **that the administration of the individual Regional WSS associations** be determined in accordance with the current provision of the Ministry of Regional Development and Public (MRDPW, 2014a). Art. 3, para. 2, according to which „*If the detached territory is located in the territory of more than one district, its management address is located in the building of the district administration of the area where the majority of the consumers served by the WSS operator of the respective territory*“.

Figure 3 presents the proposed conceptual model for concessions in the water sector by statistical regions of the country.

#### **4. Interaction of public institutions with concessionaires**

In the Bulgarian WSS sector, as in other countries, there are many interested parties in complex legal relationships. The *Water Act* (MC, 2017) sets out in detail the status and responsibilities of the institutions and authorities involved in the management and operation of water WSS systems, making reference to the specific legislation regarding the status and functions of the EWRC and WSS operators. In the model shown in Figure 3 are the four main types of relationships (subordination, interaction, control and monitoring of activity, consultancy and civil control) between the concessionaire companies in the WSS sector and the other institutional and potential participants, revealing the nature of their relationship.

*The Ministry of Environment and Water (MEW), and in particular its Minister*, is responsible for:

- environmental protection, water management at national level;
- the preparation of a National Strategy for the water sector that can provide a common framework for the management and development of the water sector; as well as
- the implementation of the relevant program providing European funding for environmental protection under which WSS infrastructure can be co-financed in accordance with its terms.

The MEW also coordinates and controls administrative structures such as Regional Inspectorates for Environment and Water and state administrations such as the Basin Directorates. They, in turn, through monitoring and control links can actively influence the work of concessionaires to make better use of water and to improve and maintain the quality of water services provided to consumers.

*The Ministry of Regional Development and Public Works (MRDPW)*, and in particular its Minister, implements the state policy in the Water Supply and Sanitation sector at national level, such as:

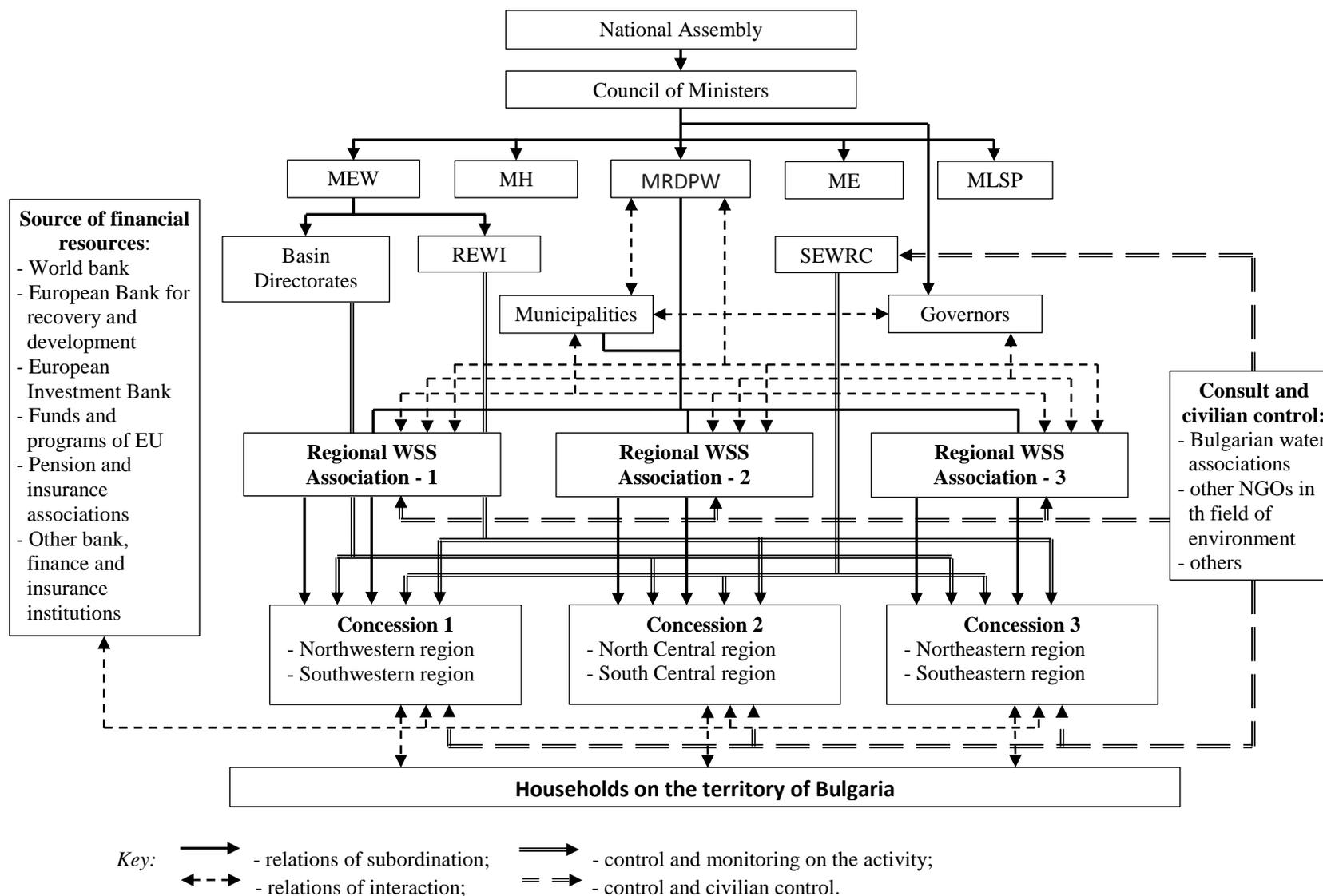
- develops and proposes to the Council of Ministers a Strategy for development and management of water supply and sanitation in the Republic of Bulgaria and carries out coordination and control over its implementation;

- draws up the legislative framework for the management and development of the WSS sector;

- establishes and maintains a Unified Information System and Register of Regional WSS associations and concessionaires (WSS operators) and exercises control in the cases provided by the law.

MRDPW implements subordination relationships with the companies-water concessionaires. It also coordinates the management of WSS systems at national level as well as the activities of Regional WSS associations and provides methodological guidance for the preparation of the regional water and sanitation master plans.

*The Ministry of Health (MH)* controls the water quality for drinking and household needs and the health and hygiene condition of the water supply facilities. Its territorial structures – regional health inspections play an important role in identifying priority issues and the necessary measures, which should be directed to the appropriate financial means for their prompt and effective resolution within the time limits allowed by EU law.



**Figure 3.** Conceptual model for concessioning in Water Supply and Sanitation sector by statistical regions of Bulgaria

*The municipalities* are responsible for managing only the WSS systems that are wholly owned by them. Their elective bodies:

- adopt general and detailed development plans necessary for the development of the WSS infrastructure in the municipality in accordance with the regional master plans for WSS and the general plans for agglomerations with over 10 000 inhabitants;
- coordinate as the direct beneficiaries the preparation and implementation of projects related to WSS infrastructure, which are financed under operational programs with EU Cohesion and Structural Funds;
- express views on the business plans developed by the concessionaire and monitor their implementation;
- represent the municipality in the concession authorities with municipal participation, in the capital and in the relevant Regional WSS association;
- exercise control in the cases provided for by the law.

The municipalities, which own WSS assets, undertake ties of subordination with the benefiting company-water concessionaire.

*The Regional Water Supply and Sanitation Associations* are legal entities that manage the WSS systems within the separate territories – statistical regions. They interact with the municipalities and regional governors in the territorial scope of the respective statistical regions as well as with MRDPW and fulfill the following functions:

- decide on concluding a contract with the concessionaire (WSS operator) for outsourcing of WSS services;
- prepare and approve the investment programs and the general WSS plan in accordance with the Regional Master Plan for Agglomerations with over 10,000 inhabitants;
- cohere the business plan of the concessionaire (WSS operator).

*The Energy and Water Regulatory Commission (EWRC)* is an independent specialized state body. Its powers include:

- preparation of projects of regulations for the water sector;
- carrying out preliminary control during the preparation of the concession and other types of contracts for management of the WSS systems and gives an opinion on their compliance with the Water Supply and Sanitation Services Regulation Act (WSSRA) and other related normative acts;
- approval of business plans for concessionaires (WSS companies);
- exercising control and imposing penalties in the cases provided in WSSRA;
- valuation of the prices of the water supply and sanitation services in response to the applications submitted by the concessionaires (WSS companies);
- control to achieve the target values of service level indicators from Concessionaires (WSS operators);
- dealing with consumer complaints and others.

*Concessionaires*, in their role as water supply and sanitation infrastructure operators, are commercial entities (irrespective of the structure of capital ownership – state, municipal or a combination of them. They provide the following WSS services:

- purification and supply of potable water and water for industrial and other needs;
- removal and purification of sewage and rainwater from urbanized territories;
- construction, maintenance and operation of WSS systems, including treatment and other facilities.

As WSS operators, the concessionaires are also responsible for fulfilling the waste water discharge requirements under the provisions of the Water Act.

*The main stakeholders are the users of WSS services*, covering the categories of household, commercial, industrial and other business users. Their interests are represented by consumer associations and other related structures of civil society. So far, consumer organizations have not been particularly active in the field of WSS services.

Other key stakeholders include *employees, specialists, consultants, suppliers and contractors* in the WSS sector, their trade unions and associations. An important representative is the *Bulgarian Water Association*, which expresses in general the interests of the stakeholders in the sector (Bulgarian Water Association, 2012). In the model we offer, it has the responsible role of a professional consultant and a guarantor of timely civil control, both in terms of the concessionaires' activities, as well as on the institutional decisions and public policies pursued.

## 5. Conclusion

In this article there is a presentation of a new conceptual model for concessioning the WSS sector in Bulgaria, which consolidates the existing 66 WSS operators in three WSS operators – concessioners. The consolidation was done in statistical regions according to NUTS-2 classification of the European Union.

As a result of the presented concessioning model the following main conclusions can be drawn:

1. The use of concessions in the water sector will contribute to attracting new investments in it, to the expansion of private initiative and the unfolding of completion.
2. The concessions will contribute to the faster and deeper implementation of system- based and/or process-oriented benchmarking by concessionaires in order to identify and implement „good practices“ from competitors on the sector, including in an international plan.
3. A similar concessioning by the combination of one region from northern and from southern Bulgaria, should help to overcome the existing disproportions in the social and economic development and its harmonization in the regions of North and South Bulgaria. Its application should create new opportunities for introducing foreign direct investment, which will contribute to the stable development of the water sector in the country.
4. The service in the water sector by statistical regions will contribute to increasing the efficiency of the WSS services, as well as to the reduction of the administrative and managerial staff.
5. A very important advantage in giving water concessions to whole areas is the minimization of the number of operators active, which will contribute to better coordination and control between them and the public authorities
6. The reorganization of the WSS sector presented by us will have an impact on pricing – concessionaires will have much smaller, system increases in the cost of 1m<sup>3</sup> of water to accumulate significant financial resources for significant investment activity with their business plans.
7. Concessioning of WSS services by statistical regions of foreign investors will help to overcome the political dependence and political pressure on the managers of the consolidated WSS companies.

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