

Reorganization of water utilities - regionalization, an opportunity to increase their efficiency

A comparative literature - Albania Case

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Abstract

The purpose of this research is the study and analysis of factors affecting the need for reorganization of entities engaged in water supply services. From this perspective, the research seeks to identify international practices made in this regard and how they can be adapted to water utilities in Albania.

The objective of this paper is to show that regionalization of water utilities is a successful development direction not only of studied literature but also practice in Albania. The study is based on sources of information taken from primary and secondary sources. The selected method for collecting and processing information from primary sources is the empirical method through direct surveys and questionnaires, whereas from secondary sources is descriptive and analytical method. As secondary sources, we are consulted and referred to academic resources, such as articles, books, studies and reports carried out and published by national organizations, local and foreign companies in this field.

Keywords: Reorganization, water utilities, regionalization, Albania.

Introduction

Water utilities are considered public entities not only that provide a public service (for the public and controlled and regulated by the public), but also because they provide one of the most important services to the public. Despite the number of consumers (connections or contracts), size in terms of turnover and employment, organization and management of a public enterprise in general and in particular a water utility, is a major challenge. It depends directly from them the quality of water supply service and success in the management of a public resource such as water. Water utilities in terms of organization and functioning of the unit, can be local, regional or centralized, with public or private control without excluding other public control. While the base of customers is rising, there is a risk that small units (local units) charged with performing local services, show less responsibility to customers, especially this problem is likely to happen to the units performing water supply services. Aggregation as a group of several administrative units in an administrative structure in order to perform specific functions or services is viewed as an optimal solution for enhancing the quality of services and accountability of units in providing services to the community.

We will present in the following the factors affecting the promotion of aggregation/regionalization of local water companies and the results obtained from questionnaires. A public regional water supply and sewer system utility represents the entire technological, operational and managerial resulting from the combination (merger) of two or more local systems to supply drinking water and sewerage service (Kingdom,

W., 2005). The main objective in the creation of a regional enterprise to supply drinking water and sewerage service is to optimize the performance of operations and the quality of services provided, using shared resources and capacities. Therefore, the process of regionalization consists in focusing and integration of services carried out by a group of administrative-territorial units by creating a single regional economic unit. Criteria that can be used to join the service of drinking water supply and sanitation service based on region can be different. New regional entity could be created by having a criterion covering a geographical area defined by hydrographic basin, or boundaries, or both criteria. It is recommended that the regional operation of water supply and sewerage service should be carried out in an area covering at least 100,000 habitants and as many urban population as possible in a region or hydrographic basin (Haskoning, 2008). For the purposes of regionalization, grouping can be defined as the union of several local units in a single administrative structure for the entire region to offer a unique service. In general, these aggregated structures vary in three dimensions:

- by size: Structures states can group two neighboring local units, or some local units in a single region or in a wider area;
- by scope: Joint structures can provide a single service (for example, bulk water supply) or all services, from water production to wastewater treatment;
- by process: Local units can be combined to form structures based on voluntary mutual interests, or as an alternative, a higher level of government, driven by the general public interest, may impose or stimulate the merger process of structures.

In general, consolidation and regional integration for the service of drinking water supply and sanitation service includes technical and physical infrastructure, procedures and financial and accounting systems, procedures and systems for billing, collection, customer relations and human resources.

According to Kingdom (2005), regionalization of water utilities has a relatively high risk of failure when the political will is missing, when the potential benefits are not clearly understood and resistance to regionalization is high, especially when it comes to the involvement of other entities in access water resources of an entity, or when the process of regionalization is perceived as too complex. Reforms in systems of water supply, and specifically reforms to regionalization taken into consideration when it is perceived that there are inefficiencies in the management of water supply and sanitation, or because service providers are too small to provide a service efficient and/or previous decentralization of public services has led to a very fragmented sector of water supply.

Factors for regionalization of local water supply and sanitation

To accurately assess the need for regionalization of water services utilities is necessary to consider the factors supporting this process. Among the key factors that support the idea of regionalization and thus increase the size of water services utilities are included:

- Increased efficiency through economies of scale;

- Access to water resources and / or the integrated management of water resources;
- Greater funding opportunities and increased participation of the private sector;
- Former unsuccessful decentralization process;
- Increasing the professional capacities;
- Cost-sharing between service areas with high and low costs.

These key factors that argue the need to make a reform in the process of regionalization in the sector of drinking water supply and sanitation can also take into account the potential benefits, as we will look in more detail below:

Increased efficiency through economies of scale

The main factor that supports regionalization of services is the need to improve the efficiency of service delivery, as cities or villages are often inefficient to water supplying and other related services because generate economies of scale by sharing overhead production costs on a wider basis of demand and thus reducing the unit cost of production. Although there is evidence of economies of scale, it was often difficult to evaluate them correctly or identify the point at which economies of scale begin to fall due to inefficient production levels and water use.

There are several international studies and research recently aimed to discover whether there is a significant correlation between the size of the water utilities and efficiency of services provided by them. For example, a study of econometric (Garcia and Alban, 2001), using data from developed countries concluded that water companies can operate cost-effective within the limits of their sizes. A more recent study (Tynan and Kingdom, 2005) results more interesting as it takes a first look at the link between the size of a water utilities and unit costs of them, using data from developed countries and developing countries. This study demonstrates conclusively that water utilities can reduce operating costs for customers by increasing their level of functioning as a regional enterprise. Most importantly, and in line with other studies carried out previously, this study showed evidence of economies of scale (when increasing their size) is stronger for smaller companies (that serve more than 125,000 people) than for larger ones, for which economies of scale begin to fall. The main conclusion is that neighboring small enterprises that provide water supply services may be able to reduce customer costs through mergers and action as a larger regional enterprise. Regional Operating Unit will be able to earn more and be able to support further investment and development of water supply infrastructure, since there are real opportunities to reduce the costs of investments in a more efficient scale.

Access to water resources and/or the integrated management of water resources

The need to improve access to water resources, due to unequal access to water resources from different locations within a region or country can be a strong incentive factor for regionalization. Therefore, management of water resources at a higher level than communal or municipal level may be required because of the overall situation of scarcity or sustainability of water, which creates the need for larger scheme of supply of water. The process of regionalization can be applied when the national government (or regional) seeks to implement the integrated management of water resources, to distribute effectively water resources, to address environmental issues,

improve the efficiency of water resources management, as required by the European Commission Framework Directive on Water 2000/60/EC.¹

An example of regionalization and integrated management of water resources can be mentioned the case of England and Wales (since 1974). In these countries, high rates of projected growth of demand and perceived problems of pollution have led, that under the central government, started a reform that brought aggregation and regionalization of more than 200 water utilities and 1400s authorities for sewerage 10 regional water authorities; At the same time, these regional water authorities have performed integrated management of water resources, water supply and performing other related services. Areas covered by the new water authorities were determined on the basis of the borders of water basins (Kingdom, 2005).

Greater funding opportunities and increased participation of the private sector

Long-term financing can act as a great incentive for regionalization. The combination of requirements for large investments with relatively low levels of cost recovery is typically in the water industry, so that long-term financing is an important element for sustainable development in this sector. Providing long-term financing may be quite at risk for investors (central governments, international donors, or commercial lenders). It is often considered more efficient to ensure a bigger long-term loan for a single entity than smaller loans to a higher number of entities, because in this way the loan is signed by some entities that can guarantee each other in case of inability of repayment.

Regionalization can be seen also in the context of inclusion of private sector participation (OECD, 2006). In this regard, the central government can force the merge of successful companies with less successful ones. This can be done by central governments or state agencies to increase investment in areas that would be undesirable from the successful ones. Regionalization may include the creation of an entity of many small entities, because such minor entities will not be able to finance themselves the private investments.

Even subsidies should be addressed to support the long-term sustainable development in the water sector when the local entities are aggregated and demonstrate that they will cover the operating costs and will use the subsidies and loans only for capital investments

Former unsuccessful decentralization process and the need for aggregation

Today there are opinions that defend the idea that water supply services should be decentralized to the lowest political level, i.e. local level, to make them more responsive to the needs of the local population. However, experience has shown that a blind application of this principle is not useful for small and medium locations, because they lack the capacity to provide public services beyond a basic level. Worldwide, more and more reports on the reform in the water sector have observed that decentralization in the water sector cannot give all the expected benefits, without strong ability of government at the local level., (Easter, K.W., and Hearne, R.(1994)). Therefore, regionalization of water supply services can be the right choice of small locations that have increased power, competences and responsibilities due

¹ Directive2000/60/EC amended with the directive 2009/31/EC.

to decentralization choose to be merged to be able performing these responsibilities in an appropriate manner. For example, in France, the responsibility for water supply services and sanitation belongs to 36,000 local units of the country, most of them very small. These responsibilities and corresponding financial resources are beyond possibilities of small municipalities could provide these services in a reasonable manner, and therefore local authorities increasingly are focused to the regionalization, as a tool for providing these services efficiently.

Increasing the professional capacities

The need for adequate support of professional capacities is one of the most common incentives for regionalization of water utilities. Although small local governments may have sufficient capacity to perform routine acts of management and operation of services of water supply, they often lack the capacity to more professional activities, such as planning and design of the system, financial management, efficient procurement of materials and investments, maintenance and repair with advanced technology, water quality testing and information technology.

Usually, the lack of sufficient and professional qualified staff is derived from the inability of small units to generate enough income to provide efficient and effective water supply services (the right services in the right way). By grouping services and revenue from a small number of locations may create a sufficient financial reserve to support a wider range and comprehensive functions, in a larger operational unit. Increasing the professional capacities, attractiveness and motivation of trained professionals and efficient transfer of technical knowledge will have a direct effect on a better functioning and development of regional operators as potential beneficiaries in the water sector.

Cost-sharing between service areas with high and low costs

Regionalization in the sector of water supply / sewerage offers the opportunity to share the costs of water supply services between areas with higher costs and lower cost. If costs sharing occurs or not, this depends on whether the level of fees and services are equal to the entire coverage area of regional service entity. In some cases, the costs sharing can be seen as a restriction or disadvantage to the regionalization, because low cost service of small utilities can oppose merging with other neighboring utilities that are more expensive to serve. However, the allocation of costs has been a clear incentive for regionalization through the merger. One such case was in Scotland for example (Kingdom, W. (2005))², where the creation of a single large entity that provides water supply services is driven by the political will of the government to subsidize the mountain and island regions (population more scattered and expensive to serve) from utilities with lower costs.

So, as a conclusion we can say that there are some significant benefits of regionalization of water supply and sanitation services, which may be accounted for as incentive factors of the process. However, each of these incentive factors may face some special restrictions or perceived disadvantages⁷, such as:

² Kingdom, W. (2005). "Models of Aggregation for Water and Sanitation Provision".

- It can result in a loss of control over water resources;
- Administrative boundaries often do not comply with the limits of water basins;
- Conflicts and lack of coordination between water users;
- Lack of incentives to share access to water, which will lead to increased tariffs for local units, abundant in water;
- Potentially higher costs for external support, it is increased the distance to the provision of services;
- High Risk for local units due to joint liability for repayment of loans;
- Participation of the private sector for the provision of services can generate the popular and political resistance;
- Resistance of communities with lower costs to subsidize those with high costs;
- Required political will at the central and local level for the aggregation of services.

Regionalization of water supply and sanitation utilities in Romania

In this chapter will be brought about Romania's experience with regional organizing of water utilities. Romania was selected because of the similarity of the situation before the process of regionalization in Romania with the current situation in Albania in terms of technical and financial performance of the water utilities, organization and management system of these utilities and the requirements of the European Commission for EU membership.

According to the study done by the Institute of National Economy in the Academy of Romania (Frone S. and Florin. D, 2012) it is evidenced that the water supply situation in Romania in 2001 was characterized by a lack of water supply (only 65% of population Romania was connected to the system of drinking water supply and 50% of the sewage) .More than 70% of wastewater is not treated or treated insufficiently, from a very amortized distribution network due to lack of long-term investments in the system of water supply and sanitation, from a poor management of water utilities due to excessive fragmentation of water systems in small and medium units with limited financial and institutional capacity, and water pollution, one of the biggest environmental issues in Romania. The performance of many water utilities in Romania was very poor due to lack of investments for rehabilitation / expansion of water supply infrastructure and sanitation; the high level of non-revenue water caused by interferences in the distribution network and the low level of collection (collection efficiency) by customers; poor management of operating and maintenance costs.

In order to meet some of the criterion required by EU membership process for standards compliance, and concretely: efficient use of water resources, the movement from the management of supply to demand management, pricing to reflect the actual cost of using water, Romania benefited from EU funding, and in 2005 initiated a broad program of reforms in terms of quantity and quality of water. Specific objectives were to improve the quality and access to infrastructure, water supply and sanitation, offering the services of water supply and sanitation in accordance with the practices and policies of the EU, developing effective management structures of regional water supply and sanitation. It was planned regionalization of water supply services to

overcome excessive fragmentation of the sector and to achieve economies of scale. Until 2013, they were created 22 regional structures and are in the process 21 of them in various stages of institutional building. Results so far are very promising. Water consumption was reduced by approximately 50%, coverage area of the population with services was increased to over 70%, the level of measurement was increased to over 95% of customers served, but also the level of tariffs was increased by 100%, which it means recovery of the cost of service, more investments, more savings, more financial stability and economic efficiency.

Regionalization of water utilities in Albania

Before the 90s, the central government controlled the responsibility for water supply in Albania without the participation of local governments and communities, like everything else centralized in that period. Then, under the new democratic regime, water supply and sanitation was provided by local state-owned enterprises in an attempt to strengthen local government. Typically, service coverage areas with water supply and sanitation, consisted of several local units.

However, all important decisions regarding investments and personnel continued to be taken by the central government, so that local governments had no responsibility for water supply. In the year 1998 the government decided that the regional water supply enterprises to be transformed into shareholding companies, whose shares were held by the central government. In the year 2000, under the Law "On Organization and Functioning of Local Government", it was given exclusive responsibility for water supply and sewerage local government units. In the early 2000s, the government undertook a reform in the water sector which included three main elements: decentralization, private sector participation and increased cost recovery. The main goal was to improve financial and operational performance of water utilities. For many reasons, the reform didn't function or was implemented very slowly, we can mention here the lack of legal framework for the implementation of reform and the reluctance of local governments to assume responsibility for the governance of companies as long as it was still uncertain their financial status. Only in 2008 it was completed the process of transferring the ownership of the central government to local government.

Although expectations were high, the performance of water utilities is not so high. Some of the performance indicators for 2013 were presented as follows: coverage area water supply 80%, sewerage 65%, the duration of water supply 11.5 hours a day, total costs recovery was 85%, collection rate 82%, non-revenue water 67%, the number of staff per 1,000 connections was 9.5, measuring level 59% (source: Water Regulatory Authority, Performance Indicators, 2013). From the total of 58 enterprises operating in Albania, only 32 of them provide sewer service; 31 of 58 enterprises, have serving areas with fewer than 20,000 inhabitants, and 9 of them provide services to areas with less than 5,000 inhabitants (Source: WRA, Performance Indicators 2013). Decentralization led to the fragmentation of service delivery at local small units, some of them were not covering not only the full cost, but also the operating cost.

Administrative and territorial reform, the reduction of government grants for

infrastructure investments, increased demand for income, along with factors that are in favor of regionalization are the main reasons that local water utilities assess the possibility of regionalization based on their region, district, water basin or geographic location. This can be seen as one of the ways towards improving performance indicators.

Reforms followed by Romania for regionalization, but not only, i.e. in 1994 in Italy, a process of aggregation was initiated in the whole territory on the basis of the functional areas of management and hydrological areas, process which ended after 10 years with the creation of 83 regional operators. In 1975, The Netherlands counted 180 companies and today there are only 24, the example of England and Wales cited in the previous section, are the best guide to realize the process of regionalization in Albania.

The criteria on which a strategy and action plan for regionalization in Albania should be designed, above all, should consider functional, geographical and operational requirements. There are currently 61 municipalities in Albania, regionalized on the basis of functional, economic and social areas, 6 main water basins and only 3 of a total of 58 enterprises are serving more than 100,000 residents.

From analyzing the data obtained through questionnaires sent to 28 companies (only 22 of them responded), we concluded that 20 local enterprises would like to join with neighbor enterprises to improve the quality of the water supply, increase the investments and reduce O & M costs, and increase access to water and financial resources.

The regional enterprise of water supply and sewerage Berat-Kucova is so far the only company that offers regional water supply and sanitation in Albania. The aggregation of two former public enterprises owned by the Ministry of Economy and later owned by the relevant units of local government with the transfer of ownership to local governments in 2008, was formalized in a legally binding agreement negotiated between shareholders of both companies and is listed on the National Registration Centre. From this agreement, with a financial support to infrastructure, water supply time was increased from 4 hours to 8 hours per day for the community of Kucova and the operating costs are saved more than 2 times. (Only electricity cost for Kucova branch is decreased by 80%). The aggregation of Lezha and Shëngjin water utilities and the aggregation of Shkodra City and Shkodra Village water utilities are in progress.

Conclusions

Aggregation and/or regionalization of water services is the merger of two or more entities that provide water services in a regional unit using geographical position, the capacity of water resources, the link between communities and administration of the territory. Regionalization plays a very important role in improving the efficiency of water services and increasing the sustainability of the financial sector. Factors that support the process of regionalization are: increase of service efficiency through economies of scale, that is, decreasing the unit cost of service; increase of access to water resources, that is, distribution of water resources proportionally and increased service coverage area; increase of professional capacity in a larger scale, that is,

creating opportunities for smaller units to conduct more professional operations through mergers with larger units; increase of access to sources of funding and the possibility of private sector participation, that is, regional units offer more guarantees to obtain financing and investments from financial institutions and the participation of private investors; cost sharing between service areas with high costs and low, that is, economizing operational and administrative costs by merging units with different costs structure.

Finally, we have learned from the literature review that the process of regionalization has been successful in England and Wales, Brazil, Netherlands, Italy and Romania, being a very good and positive example to be taken into consideration by government and supervision authorities in water services sector. The case of the aggregation of Berat and Kucova enterprises in a regional entity is considered a success story and a good example to follow by other companies, which with the new territorial and administrative structure, distribution structure of water basins throughout the territory and the above cited factors that support regionalization, should seriously evaluate this process and to begin to implement immediately.

The factors analyzed above, positive examples brought from the literature study and the current practice in Albania, administrative / territorial reform with the creation of 61 municipalities out of a total of 383 local administrative units in the year 2015, show the importance of the process of water utilities in Albania, but not only.

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