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## REORGANIZATION OF WATER AND WASTE WATER MANAGEMENT IN ROMANIA: FROM LOCAL TO REGIONAL WATER GOVERNANCE

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### Abstract

Romania's drinking water and wastewater sector is currently going through a process of regionalization. This process involves a replacement of a local-focused governance structure by a regional-focused governance structure. The objective of this paper is to explore and explain this regionalization from a governance perspective. In two case studies, the situation before and after the regionalization are investigated. Analyses of the case studies show that the local-focused governance structure was highly incoherent. This resulted in a lack of financial resources needed to maintain and develop the water infrastructure. Romania's accession to the European Union affected several governance elements and evoked the regionalization. Real improvements are not visible yet as the time needed for actual services improvements is considerable and governance elements are still adjusting to each other. This means that there is still a need for ongoing support to arrive at a coherent governance structure.

*Key words:* case study, drinking water, governance, regionalization, wastewater

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### 1. Introduction

During the last decades, the organization of Romania's water and wastewater sector changed considerably. Before 1990, water utilities in Romania operated as public services at county level, without any central authority or ministry who coordinated their activities. Infrastructure was owned by county councils who had integrated public companies taking care of most public services (e.g. water, waste and energy). After 1990, the organization of water services changed. Romania returned to the local autonomy principle and major responsibilities were transferred to the local communities. To support the autonomy of local councils to manage public services, the legal framework was also adjusted in several ways. Examples of these adjustments are the law on public ownership (no. 213/1998), on concessions (no. 219/1998) and on efficient and adequate providence of public services by local public administrations (no. 215/2001).

In the same period, programmes were initiated to assist local authorities with the development of

their water services. An example is the Municipality Utility Development Programme (1995-2001), which supported various local operators through investment funds, institutional strengthening and reorganization. However, only a small number of towns benefited from these programmes. In particular, the smaller and medium-sized towns were not able to attract sufficient financial funds to maintain and develop their water and wastewater infrastructure. In 2004, the situation was that only 52% of the Romanian population was connected to the drinking water and sewage system and 71% of the wastewater was not or insufficiently treated (MoE, 2007). This service level does not correspond with the standards of the European Union (EU), which Romania accessed in 2007. Currently, Romania is therefore in a transition period for the implementation of EU directives on drinking water (98/83/EC) and wastewater (91/271/EEC). It now has to comply with the requirement of providing wholesome and clean water for human consumption by the end of 2015. The directive concerning the collection and treatment of urban waste water fully applies by the end of 2018, with intermediate targets

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for 2013 and 2015. Eventually, all agglomerations with a population equivalent of 2000 persons should be provided with collecting systems for urban waste water. To bring Romania's environmental infrastructure in line with EU policies and practices, the Sectoral Operational Programme Environment (SOP ENV) defines 'modernization and extension of water and wastewater systems' as one of its six highest priorities (MoE, 2007). Regionalization of water services is one of the measures aiming to support local authorities in reaching the EU objectives.

A key aspect of the regionalization is the redefinition of the relation between the local authorities (owner of infrastructure) and operators (service providers). Until recently, local authorities managed water services either through direct management or through delegated management with local operators. The regionalization process encourages local authorities to establish an Intercommunity Development Association (IDA) at county level and to delegate water services (through a delegation contract) to a certified Regional Operating Company (ROC). This requires that multiple local operators merge into one ROC, from which the shares are held by the members of the IDA. In this regionalization process, authorities and operators are supported by several EU pre-accession programmes. This paper pays attention to one of these programmes, which is the recently completed 'Financial and Operational Performance Improvement Programme I' (FOPIP I) (Sannen et al., 2008b, Wilson et al., 2006, Sannen et al., 2008a).

The central question addressed in this paper is 'why and how did drinking water and wastewater services (water services) change from local-focused to regional-focused governance?' For this, two case studies – one before and one after the regionalization – are analyzed from a governance perspective. This perspective focuses on the coherence and interaction between various governance elements, such as resources, actors and levels. A basic assumption underlying this framework is that a direct relation exists between a governance structure and provided water services. By providing insights in why and how a governance structure changes, the authors intend to contribute to the existing knowledge on governance and institutional change of countries in transition. This paper is structured as follows. Section 2 further explains the adopted analytical framework and research methodology. Section 3 presents a case study that signals the main problems associated with local-focused governance in Teleorman County. Section 4 presents a case study of the development and functioning of regional-focused governance in Tulcea County.

Based on the analysis of both case studies, the answer on the central question is presented and discussed in section 5. Section 6 summarizes the main conclusions. Table 1 presents a list of the abbreviations used in this paper.

**Table 1.** List of abbreviations (in English)

<b>ANRSC</b>	National Regulatory Authority for Municipal Services
<b>ARA</b>	Romanian Water Association
<b>EU</b>	European Union
<b>FOPIP</b>	Financial and Operational Performance Improvement Programme
<b>IDA</b>	Intercommunity Development Association
<b>MoE</b>	Ministry of Environment
<b>OC</b>	Operational Centre
<b>PIU</b>	Project Implementation Unit
<b>ROC</b>	Regional Operating Company
<b>SOP ENV</b>	Sectoral Operational Programme Environment

## 2. Analytical framework and research methodology

### 2.1. A model of governance and institutional change

Water governance refers to the manner in which water resources are allocated and regulated. The Global Water Partnership defines it as "the range of political, social, economic and administrative systems that are in place to develop and manage water resources, and the delivery of water services, at different levels of society" (Rogers and Hall, 2003). This paper focuses on one of the tasks associated with water governance, namely the delivery of water services. Basis for the empirical analysis is a 'model of governance' developed by Bressers and Kuks (2003). According to them, governance involves more than policy objectives and means for policy implementation. Policies are shaped by many actors, public and private, and governance is the result of the interaction between these actors. They conclude that governance in a certain field and in a specified place and time can be described using the following five dimensions (Bressers and Kuks, 2003; Bressers et al., 2004):

1. Levels and scales of governance: Where? Multi-level.
2. Actors in the policy network: Who? Multi-actor.
3. Problem perceptions and policy objectives: What and why? Multi-faceted.
4. Strategies and instruments: How? Multi-instrument.
5. Responsibilities and resources for implementation: With what? Multi-resource based.

According to Bressers and Kuks (2003) a governance structure is rather stable and will only change as a result of external developments, such as major societal developments or developments in other policy fields. One of the basic mechanisms underlying this idea is that the best predictor for each element of governance at a certain point in time is its status at an earlier moment. Every change takes energy and will not take place if a governance system is in balance. Hence, only changes outside a governance element can bring about governance changes (Kuks, 2004). Examples of *sources of change*

in relation to the five elements of governance are the rise of: the EU (levels), environmental organizations (actors), availability of information (perceptions and objectives), preference for indirect measures (strategies and instruments), and privatization (responsibilities and resources).

The above-mentioned sources of change do not shed much light on what happens if a governance structure is not in balance. This paper clarifies this subject by assessing the *coherence* of the governance structure before and after it changed. Coherent governance means that there is consistency within and between various elements of governance (Bressers et al., 2004). This broad definition of coherent governance goes beyond, for example, ‘policy coherence’ (the coherence within a policy or between policies) (Hoebink, 1999; May et al., 2006) or ‘institutional coherence’ (the institutional process by which policies are made) (Christiansen, 2001). In this paper, coherent governance includes that if multiple actors or multiple layers of government are involved, they should be aware of their mutual dependencies and interact with each other. It also implies that specified objectives are accompanied by adequate instruments and resources to implement them (Bressers et al., 2004). The presented theoretical concepts – the sources of change, the elements of governance and the (in)coherence within and between various elements – are used in this paper to explore and explain the regionalization in the water sector.

## 2.2. Research methodology

Case study research is used as the main strategy to answer ‘why’ and ‘how’ water services have been regionalized. This method allows for an in-depth study of the situation before and after the regionalization within its real-life context (Yin, 2009). This case study research consists of two single cases, one case illustrating the situation before the regionalization (Teleorman County) and one case illustrating the situation after the regionalization (Tulcea County). Drawing some general conclusions from two cases requires good knowledge of the larger population of cases (Gerring, 2006). This knowledge was gained through the FOPIP I project, a programme involving operators from 21 counties, including both case study areas. Teleorman participated in a financial and institutional pre-screening to benefit from future EU cohesion funds (pre-FOPIP) in the period 2006-2007. Tulcea fully participated in the FOPIP I project in the period 2006-2009 and benefited from another pre-FOPIP project before (Fig. 1).

Teleorman County was selected as a case because one of the authors already collected data on water services in Teleorman County in the period 2006-2007 (Dinica, 2007). This case clearly illustrates the typical problems associated with local-focused governance just before regionalization. For this case, both quantitative and qualitative techniques for gathering and analyzing data have been used. First, an analysis of the relevant legal and policy

framework was made to understand how this guides the actions of water companies. Following this, in-depth face-to-face interviews were undertaken with key stakeholders to investigate how the legal framework is applied in practice. Based on the results of these interviews, a survey was designed, which was sent to eleven important stakeholders (five Local Councils, five local water companies and the County Council). Nine of these stakeholders responded to the invitation to be interviewed and eight filled in and returned the questionnaires.

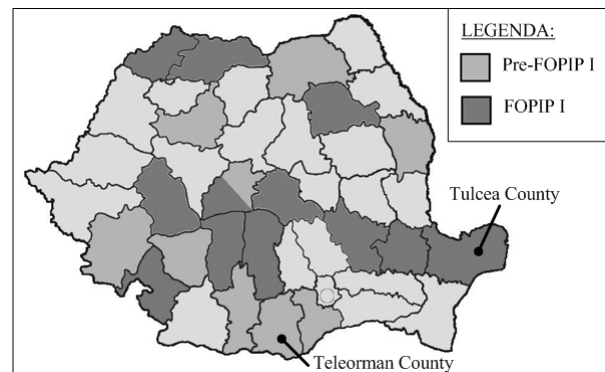


Fig. 1. Location of FOPIP I projects and the counties of Teleorman and Tulcea in Romania

In order to prepare for the second case study, three in-depth interviews were carried out with the team leader and experts from the FOPIP I project. Furthermore, relevant literature, project and policy documents and changes in the legal framework were analyzed. Based on this exploration, Tulcea County – one of the fore-runners in the regionalization process – was selected as a second case study. During the analysis in 2009, Tulcea was already in an advanced stage of regionalization. The Tulcea case study is based on qualitative research methods. Various documents were analyzed, including progress reports, the business plan, the EU project application and newspaper articles. In addition, five in-depth interviews were undertaken with key stakeholders at the ROC in Tulcea.

## 3. Local-focused governance: experiences from Teleorman

### 3.1. Introduction

Teleorman County is formed by the following five towns: Turnu Magurele, Alexandria, Zimnicea, Videle and Rosiorii de Vede. In the local-focused governance structure, local councils could arrange the administration of water infrastructure either through direct management or through delegated management. In all cases, infrastructure was kept under the public ownership of local councils. Since 1990, each town in Teleorman County was served by a local publicly-owned water company. The Local Councils of Videle and Rosiorii de Vede chose for direct management via public companies that had the

position of a local administrative department. These companies integrated public services in the field of water, energy, waste, green spaces, roads and other public properties. They were given the responsibility by local authorities for the implementation and daily operation of all tasks and responsibilities regarding the organization, management, administration, financing, and performance control of water services. The other towns in Teleorman – Alexandria, Zimnicea, and Turnu-Magurele – each delegated their water services to a specialized commercial water company. This means that local authorities delegate a part of their legal responsibilities and tasks to the company. The company is working under an indirect management arrangement, on the basis of a delegation contract. This contract obliges the company to supply and manage water services for a specific territory.

All companies in Teleorman County have had serious problems in delivering water services. The main problems related to drinking water services were: (1) water quality problems; (2) service quality problems; and (3) high costs that do not reflect the quality of provided services. The companies could also not comply with their legal obligations regarding the delivery of wastewater services; the main problems were: (1) insufficient treatment of residual waters; and (2) high energy costs resulting in high consumer bills. Another problem was that the water infrastructure did not cover the entire urban areas, leaving parts of the population without water services.

Until now, the companies have been unsuccessful in addressing the two major challenges facing their towns: the rehabilitation and the expansion of water infrastructure. Interviews with political authorities from the Local Councils and the five water companies indicated shortage of financial resources as the main cause for their service problems. The remainder of this section further explores the factors lying behind these financial shortages. It focuses on two aspects of governance that appeared to be empirically most relevant: financial resources and the interaction with and between public actors. This section concludes with a reflection on the local-focused governance structure and its incoherence before the regionalization in Teleorman County.

### 3.2. Financial resources

The financial resources available to water companies to ensure their service obligations used to be fully defined by Romanian legislation; this is before the transition started to EU regulations. The interviews and survey reveal that all five water companies have been using only very little of the available financial resources and that they have all been in a very difficult financial situation during the last two decades. The legal framework provides that, in order to improve service quality and to do new investments, water companies may use the following financing sources:

- a. Water charges, this generates ‘own funds’ to do investments;
- b. Local taxes, through allocations from the local budget. In case of a delegation contract, this should reflect the obligations included in the contract;
- c. Bank loans, which are guaranteed by local public administrations or the state;
- d. Non-reimbursable funds from bilateral or multilateral arrangements;
- e. Special funds based on locally instituted special taxes;
- f. Private capital, through the establishment of public-private partnership contracts;
- g. Central state budget, as co-financing for projects with external financial support, or through emergency programs for social support.

In Teleorman, the first two of the above-mentioned resources – water charges and local taxes – were used most often and explained below. The level of water charges for consumers (the tariff) is under the authority of local councils. According to all interviewed water managers, the tariffs in Teleorman have been amongst the lowest in the country: 1-1.5 % of the average monthly household income. All interviewees of the Local Councils admitted that local water charges are still far away from the maximum 3-4 %. They argued that the average income per household in Teleorman is low compared to the national average. It is also believed that increasing water charges for rehabilitation will only result in more non-payment. With the survey statement ‘*town population could have supported higher water charges than those approved so far*’ two survey respondents agreed, four partially agreed and three disagreed. According to the County Council ‘local councils are making a mistake when they do not want to approve higher water charges or water taxes to include also investments in infrastructure and more significant maintenance’.

Local councils are legally obliged to ask the National Regulatory Authority for Municipal Services (ANRSC) for advice about the tariff. However, they are not obliged to follow this advice. Operators in three towns reported that local councils often approve tariffs below those for which positive advice was obtained from ANRSC. The operator from Rosiorii de Vede stated that the tariffs approved by the Local Council for both drinking water and wastewater have been systematically below production costs. Some Local Councils – including Rosiorii de Vede – even introduced a special advisory committee who had to advise water companies on tariff proposals by water companies before it was sent to ANRSC. This advisory committee usually lowers the proposed tariff. In this way, the chance that ANRSC approves a low tariff that is convenient for a local council is higher. If the company complains that it cannot cover investments needed for rehabilitation or extension, a local council can point towards ANRSC. The interviewee also reported that the population is unsatisfied with water services. In contrary to the arguments of the Local Council, citizens are not glad

with the low tariffs as the drinking water service is so poor. The company does not expect that opening a case on the basis of the contentious administrative law would help the situation.

Investments can also be based on funds from local taxes. The law provides that if operators fail to deliver adequate water services, local councils can be held accountable when the reason for failure is that operators were deprived from needed funds of the local budget. Law No. 431/2000 also lists 'special taxes' and 'other local taxes'. This leaves local councils with the possibility to institute, for example, water related taxes. Interviews indicated that, so far, there has been no political commitment to use special taxes as financing source. The survey statement '*the local town council is willing to impose special local taxes in the future, after the creation of the county operator, to help co-finance the needed rehabilitation and expansion works for water infrastructure*' was only agreed upon by one respondent. The other respondents answered with 'maybe' (3 respondents), 'no' (2 respondents) and 'I do not know' (3 respondents). During interviews, three Local Councils argued that the financial needs for service improvements are so high that extra local taxes will be insufficient anyway to provide adequate services. In the opinion of political actors, it would be unacceptable for citizens if they would be asked to pay more local taxes while so little improvement could be seen in practice.

### *3.3. Interaction with and between public actors*

The previous subsection showed that there is significant dissatisfaction amongst interviewees from water companies and the county council about the Local Councils. According to the four interviewees from the Romanian Water Association (ARA) the competence of local council members is sometimes limited and they proved to be unable to understand the price advices of ANRSC. Many interviewees considered that there should be training courses for all new members entering local councils after elections because the quality of their decisions reveals their poor understanding of the administration and public services.

During interviews, the managers of the operators also expressed their disappointment about their relationships with several de-concentrated public authorities. These relationships mainly involve the payment of fines, in particular, to the County Water Agency from 'Romanian Waters', the Public Health Directorate and the County Environmental Agency. For some companies, fines have become a structural obstacle in investments for service improvement bringing them in a vicious circle.

Furthermore, Teleorman County Council was critical about the top-down attitude of Romanian Waters. It was argued that the cooperation was not good, because institutional procedures for cooperation between local authorities and Romanian Waters are lacking. There is also frustration that Romanian

Waters has a monopoly on technical information required for policy implementation. Legal demands for actions that involve technical information are high, but all stakeholders have to pay high fees for any information. Seven out of eight survey respondents agree that '*the coordination of local/county public authorities by Romanian Waters, for integrated water management is deficient*'.

The County Council was also dissatisfied with the lack of cooperation in implementation of water related EU directives. It was argued that 'on the implementation of directives was mainly decided at national level, with little or no input from regional or local levels in decision-making processes'. Some contacts were attempted through the Prefect Office, which is having a more direct relation with Romanian Waters as both institutions are de-concentrated bodies of the government. However, there are no clear institutional cooperation procedures and lines about the relationships between de-concentrated and decentralized bodies, especially when it comes to the implementation of national and EU policies. At local level, it is unclear which actor has the main responsibility to implement the water related EU directives. Some interviewees consider water companies to be responsible as managers of infrastructure; others state that local councils are the main responsible as owners of infrastructure. Both the water companies and local councils have no persons or units with clear responsibilities regarding the implementation of water related EU directives.

### *3.4. Reflection on the experiences in Teleorman*

After 1990 it was widely thought that decentralization, including concentration of financial resources at the local level, would be an adequate change in governance. Experiences from Teleorman show that this was not the case: the political culture led to a shortage of financial resources available to water companies for the improvement of water services. The lack of expertise on a governance approach that does not require the implementation of regulations and control from "the above authorities" led to populist decisions on low water charges and a lack of financial resources from local funds. In terms of the analytical framework, there was significant incoherence between governance level (element 1) and resources for implementation (element 5). The introduction of a local advisory committee for tariff proposals, a change in strategies and instruments (element 3) negatively affected the resources for implementation (element 5). This change in pricing strategy further reduced the prospects of improving water services through rehabilitation and expansion of infrastructure.

For the near future, the County Council expects that 'there will be strong discussions regarding the tariff setting competences after the new county operator is established; all Local Councils want to retain their tariff setting competences and do not intend to approve higher water prices in the

future'. The survey statement 'the Local Council considers setting high water charges after the creation of the regional operating company to finance some investments' was only agreed upon by two out of nine respondents. The other responses were: 'no' (3 respondents), 'maybe' (2 respondents), and 'I do not know' (2 respondents). In the opinion of the interviewee from the County Council, there must be some pressure on local politicians to deliver higher quality services, for example, from the Public Health Ministry or the Ministry of Environment (MoE). In other words, the political culture requires some counterbalancing competences from higher-level authorities.

The performances of water companies crucially depend on financial resources. However, more broadly, their performances are also influenced by the interaction with and between other public actors. So far, the interaction with other public actors is often characterized by the payment of fines. The County Council adds that there is a monopoly on information and lacking institutional procedures for cooperation. This reveals that there is an incoherence between actors in the policy network (element 2) and resources for implementation (element 5). There is also incoherence between levels and scale of governance (element 1) and actors in the policy network (element 2).

In conclusion, the Teleorman case reveals that the local-focused governance structure was characterised by significant incoherence between the following governance elements: (1) levels and scales, (2) actors in the policy network, (3) strategies and instruments, and (5) responsibilities and resources for implementation. This incoherence was felt by all actors in the governance structure and noticed in other Romanian counties as well. Because of this, the regionalization of water services was a desirable development for many stakeholders. The main source of incoherence was the direct political influence of local councils on the water services. Hence, redefinition of this relation seems to be an appropriate adjustment in governance.

#### 4. Regional-focused governance: experiences from Tulcea

##### 4.1. Introduction

Tulcea County is formed by the towns of Tulcea (county residence), Sulina, Babadag, Isaccea and Măcin. Before 2007, water services in Măcin, Isaccea and Sulina were taken care of by public services departments providing multiple services. In Tulcea, the administrative structure has been changing several times. Since 2004, water services are delegated to the company S.C. Aquaserv S.A. Tulcea. This was the first time that the Local Council delegated water services (including all risks and responsibilities) to a commercial, publicly owned company. Discussions about regionalization started in Tulcea County in 2005. This resulted in April 2007 in

the establishment of an IDA (conform Law No. 215/2001) with members from the Local Councils of Tulcea, Măcin, Isaccea and Sulina and the County Council of Tulcea. Initially, the Local Council of Babadag was involved in the negotiations as well. It decided however to withdraw and has not become member of the IDA until now. In October 2007, the IDA members delegated all their water services to Aquaserv. They also became shareholder of the company (see the last column in Table 2). Following this, Aquaserv started to overtake the operation of water services in Isaccea (November 2007) and in Sulina and Măcin (December 2007). The new institutional setup is also schematized in Fig. 2.

According to the general manager of Aquaserv, the establishment of the IDA was an important change for Aquaserv, as it established a new way of working with the Local Councils. However, most interviewees indicated that the establishment of the IDA was not such an important change. It was rather a formality that needed to be fulfilled in order to merge water services into one ROC and to get access to EU funds. The impact of overtaking services was considerable, especially for the smaller operators that used to be public services departments. Each small operator has now become Operational Centre (OC) of a commercial company. Physically these OCs are still located in the city halls of Măcin, Isaccea and Sulina, but this is expected to change. As part of the ROC, the OCs have to comply now with certain quality standards, salaries increased and a more professional way of working has to be adopted, i.e. contracts with all water users, installation of new meters and higher pressure on cashing bills. According to employees at Aquaserv in Tulcea, the effects of overtaking were mostly positive for the OCs and negative for Aquaserv. Following overtaking the overall operational and financial performance of Aquaserv decreased dramatically, at least temporarily. The impacts of regionalization on various governance elements are elaborated further in the remainder of this section. It focuses on the following factors that appeared to be particularly relevant: financial performance and resources; operational performance, objectives and instruments and interaction with other public actors. This section concludes with a reflection on the regionalization process and accompanied changes in the governance structure.

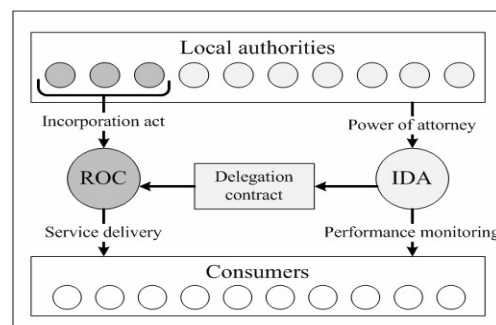


Fig. 2. Institutional setup after the regionalization (adapted after Sannen et al., 2008a)

#### 4.2. Financial performance and resources

The financial performance of Aquaserv Tulcea used to be good, but this changed considerably after overtaking the water services from other cities. The economic director summarizes that 'we [Aquaserv] used to make good profits, now we have a lot of debts'. Aquaserv is still able to pay salaries and utilities, but is having debts to the state and Romanian Waters. Factors lying behind these debts are: the raising of employee salaries at the OCs to bring them at the level in Tulcea; purchasing of new equipment (e.g. cars, new meters, GIS-equipment) to improve the OCs performances; and that tariffs in the smaller cities did not cover all costs. Table 2 shows that the tariffs were in most other cities lower than in Tulcea. Regionalization is accompanied by a new tariff strategy and will be based on full cost-recovery. In the period 2007- 2011, yearly tariff increases are expected in all cities. It is foreseen that a unified tariff for drinking water (3.45 Ron/mc) and wastewater (1.50 Ron/mc) will be realized by 2011. Inhabitants in Sulina receive a 50% subsidy from the County Council so that they can afford their water charges.

Interviewees mainly regard the regionalization as a financial strategy that makes the operators eligible for EU funds. They argued that 'the regionalization decision was the first step in accessing EU funds' and that 'it is only possible to access EU funds after creating an IDA and ROC' and 'the good thing about the regionalization is that we have access now to EU cohesion funds'. The operator in Tulcea already tried to access EU funds since 2002. Only now, after an institutional reorganization resulting in the establishment of Aquaserv and after establishing of a Project Implementation Unit (PIU), it has been successful in applying for EU funds. The most important task of the PIU was to prepare for the application of EU funds by developing feasibility studies and a master plan for the extension and rehabilitation of the water and wastewater system in Tulcea County. In March 2008, a final project proposal with a total amount of € 114 million was submitted to the EU. The proposal was approved by the European Commission in May 2008. The project will be financed by EU Cohesion Funds (80.25%), the Government of Romania (12.27%), the ROC (5.59%) and local budgets (1.89%). The EU project did not

start yet, as the ROC is still struggling with arranging a bank loan that will cover its own contribution.

Before the regionalization all infrastructural investments were made by the Local Councils. They still do investments, but mostly to solve urgent problems. The smaller cities are currently also benefiting from investments paid for by the national budget. Aquaserv has never been investing in infrastructure before this EU project, but it made investments in equipment after overtaking services. The city of Tulcea also applied for a grant from the U.S. Government. In January 2009, it approved a grant of \$ 340.000 ( $\approx$  € 250.000). This will be used for additional feasibility studies and may result in another application for EU funds. Involving private capital has never been considered as a possible funding mechanism.

#### 4.3. Operational performance, objectives and instruments

Before Aquaserv started to develop a master plan, it had no strategy to improve the quality and access of water services. When the general manager was appointed in 2004, his first priority was to become a more efficient company by reducing the number of employees. Although many infrastructural investments have been done, operational performance is still poor: infrastructure is old (35-40 years), water losses go up to almost 50% and only 40% of the wastewater is treated. In particular in the smaller cities, only a small number of households are connected to the wastewater system (see Table 2). Large-scale improvements in the delivery of water services are not visible yet. After completing all investments of the EU-funded project (expected by 2013), the ROC expects that it can comply with relevant EU directives. The project covers investments in the production, distribution and treatment of water in all four cities. The most important operational changes, so far, took place in the smaller cities (e.g. new equipment).

Aquaserv received support to improve its operational and financial performance through a pre-FOPIP and a FOPIP-project. These projects assisted the company in the development of an adequate institutional framework (pre-FOPIP) and in becoming efficient and effective operators (FOPIP).

**Table 2.** Key figures of the IDA members in Tulcea County: inhabitants in 2006, connection and tariff for drinking water and wastewater in 2007 and their share in the ROC (anno 2009 1 Ron  $\approx$  € 0.24) (Source: Aquaserv)

Locality	Inhabitants (2006)	Drinking water (2007)		Wastewater/sewage (2007)		Share in ROC
		Connections (%)	Tariff (Ron/m <sup>3</sup> )	Connections (%)	Tariff (Ron/m <sup>3</sup> )	
Tulcea County	251,614					10%
Tulcea City	92,652	96%	1.62	69%	0.68	75%
Măcin City	11,034	81%	1.41	26%	0.67	9%
Isaccea City	5,248	65%	1.37	18%	0.45	4%
Sulina City	4,630	75%	1.72	31%	0.16	4%

After several institutional changes in 2004 and 2005, Aquaserv managed to obtain the required licence to become a ROC. FOPIP introduced new instruments in various fields, including strategic planning, human resources management, asset management, financial planning and customer relations. The project also provided the companies with a comprehensive manual, guidelines and a benchmarking system (Sannen et al., 2008a, Sannen et al., 2008b). Most of the instruments introduced through FOPIP were not used at Aquaserv before. Some instruments were familiar to the interviewees, but they did not know how to work with them.

#### 4.4. Interaction with public actors

The responsibility for the organization and functioning of local public services is in the hands of local authorities. Since 2007, the authorities of four local administrations and the county council are organized in an IDA. According to the general manager, the establishment of the IDA really changed the relation between the operator and local administrations. Whereas before the regionalization local authorities could develop their own rules, after the regionalization they have to follow established rules. He mentions that *'after the establishment of the delegation contract they actually turned into our enemies'*. What changed, for example, is that the local councils can only approve the prices and charges after receiving the approval from ANRSC (Law 51/2006, art 21a). This legislative change is expected to reduce the influence of local politics on water services. According to the general manager of the ROC its relation with local councils has improved, but it still took almost six months to get approval for a new tariff setting. In his opinion *'the influence of local politics was and still is a big problem'*. The importance of political factors appears also from remarks regarding the large number of political elections, receiving penalties in election periods and the political orientation of the IDA members.

In addition, national authorities also have competences in the regulation, monitoring and supervision of ROCs. The most relevant bodies are the ANRSC, the MoE and Romanian Waters. Besides these, there are other national authorities monitoring e.g. for financial audits and labor protection. According to the general manager there are about fourteen bodies monitoring the activities of the ROC. Aquaserv is usually not experiencing problems with them and seldom receives penalties. The relation between Romanian Waters and Aquaserv has always been good, even though the ROC is currently not able to pay for extracted water.

The ANRSC monitors if the operators and local authorities comply with all legal provisions and regulations. It provides the operators with functioning permits; approves the methods for tariff setting; issues minimum requirements for regulations and service specifications to be developed by the local authorities

and IDA; and monitors the fulfilment of performance indicators, permit rules and tariff regulations (Law No. 51/2006). Aquaserv Tulcea already had to comply with certain quality standards to remain a certified operator, but this was not the case for the providers of public services in the smaller cities. In December 2008, Aquaserv renewed its license and became the certified operator in all four cities. According to the general manager of Aquaserv, their relation with ANRSC improved since the regionalization. The fact that ANRSC needs to approve the method for tariff setting is regarded to be a positive development: it makes it easier for the operators to develop an appropriate tariff.

The MoE plays, as managing authority of the SOP ENV (2007-2013), a key role in the regionalization process. According to the general manager of Aquaserv, the regionalization has never been an objective of the operators. It was rather a national strategy consisting of *'a modification in the legislative framework'* and *'imposed by the EU and the MoE'*. Operators were never asked for advice regarding the regionalization directly, but they were represented by ARA. Regarding the role of the MoE, one of the respondents mentions that *'it [MoE] initiated pre-FOPIP and FOPIP projects and developed the SOP ENV through which we can access EU funds now'*. In preparing for the EU application, it was for both the MoE and the ROC important to maintain a good relation. It is in the interest of MoE that funds are actually used, so if the ROC is in problems they become involved. On the other hand, the ROC has to apply for EU funds at the MoE and needed its help to prepare the EU application correctly. As one of the pioneers in EU applications, Aquaserv experienced difficulties related to unclear procedures and legislation. The lessons learnt in this process were used by the MoE to adapt procedures and legislation.

#### 4.5. Reflection on the regionalization in Tulcea

The interviews indicated that opinions about the regionalization process are mixed. Currently, it is mainly a positive development for the smaller cities. On the longer-term it will also benefit the operator in Tulcea. A positive result is also that the submitted EU project has been approved and will allow for many new investments. However, until now the regionalization mainly resulted in liquidity problems and operational performances hardly improved.

In terms of governance, an important change has been that new financial resources for implementation have become available in the form of EU funds (element 5). The objectives of the company also changed and now include infrastructural investments (element 3). Because of the regionalization the relations and competences between actors within the policy network changed (elements 2). In the institutional changes and applying for EU funds, the ROC was assisted through FOPIP



projects. This supported the company in adopting new strategies and instruments (element 4). Both components of the regionalization were necessary changes to enhance the development of a more coherent governance structure. In order to be able to do all necessary investments to comply with EU directives, there was a need to improve the position of operators in tariff setting and to enlarge its financial resources (element 1, 3 and 5). The ROC is still affected by local political pressure, but the present legislative framework forces local authorities to approve a tariff covering all costs. In terms of the analytical framework it means that the coherence between the level at which water services are managed and the actors in the policy network (element 1 and 2) has been improving. Furthermore, the coherence between the level at which water is managed and resources (element 1 and 5) increased. Despite these improvements, the interviews also indicated that actors are still struggling with their new positions and with new regulations. The relation with the local council has improved, but the influence of local politics is still high.

## **5. Results and discussion**

### *5.1. Sources of change: Why did it change?*

Subsection 2.1 presented various possible sources of change in relation to the five elements of governance. One of the basic assumptions behind this framework is that changes are unlikely to occur if a governance system is in balance. The Teleorman case clearly shows that this was not the case before the regionalization. One of the main problems was a lack of financial resources, caused by the lack of political will to increase water charges. This was not only a problem in Teleorman; the SOP ENV states that *'due to lack of funds, these [small and medium] towns have made very little investments over the past 15 years to maintain and develop their water and wastewater infrastructure'* (MoE, 2007 p. 20). The Teleorman case shows that an incoherent governance structure was an important factor lying behind this poor performance. The local-focused governance structure (element 1) caused that operators were deprived from financial resources (element 5). In addition, they lacked the strategies and instruments (element 3) to change this situation and there was disappointment about the interaction between actors in the policy network (element 2). This incoherence created a need to change the governance structure.

Although it was necessary to change the existing governance structure, it would have been an unlikely development without the pressure from the MoE and the EU. After the communistic era there was a tendency towards decentralization instead of regionalization. The Tulcea case shows that for relatively strong operators the main reason to regionalize was to become eligible for EU funds. Access to EU funds was also mentioned by the FOPIP I project team and in the SOP ENV as main incentive

for regionalization. In terms of the analytical framework, this implies that Romania's accession to the EU – influencing levels and scale (element 1) – is the most important source of change. The presented analytical framework emphasizes external developments as the only triggers for change. The case studies reveal that the incoherent governance structure also played a key role in the regionalization. Only because the governance structure was not in balance, the prospect of having access to EU funds – which results from Romania's EU accession – could result in such an extensive reorganization of the water sector. In conclusion, Romania's EU accession and accompanying EU funds could only trigger this reorganization because the previous local-focused governance structure was highly incoherent.

### *5.2. Changes in the governance structure: How did it change?*

According to Kuks (2004) changes within a governance system occur because external triggers affect one or more governance elements. These changes may subsequently evoke changes in all other elements as well. The latter mechanism is called 'mutual adjustment' and has the function to encapsulate the changes and to diminish consequences. Mutual adjustment is needed to arrive at a stable governance system (Bressers and Kuks, 2003).

The previous subsection shows that the regionalization was triggered by Romania's EU accession (source of change). This affected the following governance elements: governance levels (element 1); objectives, in the form of EU directives (element 3); and resources, in the form of EU funds (element 5). To bring water services in line with EU standards, the Romanian government decided to change other governance elements as well by initiating a regionalization process. The two basic components of this regionalization are: (1) modification of the legislative framework, which mainly involves a redefinition of the relation between local authorities and operators; and (2) assistance through several programmes (MoE, 2007). The first component includes changes in actors (element 1), whereas the second component focuses on strategies and instruments (element 4) in the form of institutional support and through assistance with EU funds applications. The regionalization thus compromises changes in all elements of governance. The most important changes in each element are:

1. Levels and scales: introduction of the EU level; concentration of water services at regional level instead of local level.

2. Actors in the policy network: introduction of new actors (the ROC and IDA) in the policy network; modification of cooperation procedures; less influence of local political actors; beginning of an improved cooperation across scales (at least in terms of legislative and institutional frameworks).

3. Problem perceptions and objectives: change of objectives from short-term local objectives to strategic, regional objectives; implementation of EU directives involving that a higher priority is given to improvement of water services.

4. Strategies and instruments: introduction of strategic planning, including the preparation of a master plan under supervision of MoE and new methods for tariff setting; introduction of new instruments to become efficient and effective operators through FOPIP projects.

5. Responsibilities and resources for implementation: investments under the responsibility of operators; increase of financial resources through EU funds and through the development of a cost-covering tariff policy.

One of the main factors lying behind the problems observed in Teleorman was a lack of coherence between the position of actors in the policy network (element 2) and resources (element 5). The operators who had the responsibility to provide adequate water services were not able to raise sufficient financial resources. This related to the direct influence of local politics on water services. In the new situation, ROCs have become responsible to invest in infrastructure and are able to access EU funds. Furthermore, several new laws were adopted, including Law No's: 51/2006 on public services, 241/2006 on water and wastewater utilities and 273/2006 on local public finance. Because of these legal adjustments, the position of operators to develop an appropriate tariff policy, which is covering all costs, has been improving. Tariffs can only be approved by local councils if the method of tariff setting (based on full cost-recovery) has also been approved by ANRSC. ANRSC also has an important role in, for example, providing required permits, monitoring performance, and approving framework regulations and specifications (which are part of the delegation contract). The Tulcea case shows that although the relation between local authorities and the operator is better regulated, this did de-facto not yet result in a better cooperation. However, improvements are visible in other relations, for example, with the MoE. The regionalization process itself was largely a top-down strategy from the national government with little or no input from regional or local authorities. During the regionalization, the ROC and MoE started to cooperate in order to successfully complete the EU application. The MoE also used local experiences to make additional adjustments to the legislative framework (e.g. Government Ordinance 13/2008).

This shows that regionalization policy addresses the main sources of incoherence in the local-focused governance structure. Therefore, the new regional-focused governance structure is expected to be more coherent and to result in improved water services. The Tulcea case shows that this is not the case yet. On the contrary, the performance of the ROC initially decreased as a result of overtaking smaller operators. This situation is

expected to improve after the results of investments become visible: the application of Tulcea (€ 114 million) was approved in May 2008 and the one of Teleorman (€ 122 million) in August 2008. However, the time needed for actual services improvements is considerable and the process of mutual adjustment is still ongoing. According to a FOPIP I project team member tough debates are still going on regarding: the infrastructure to be included in the master plan; the lack of direct results; the tariff strategy; top management functions; and the actual process of overtaking. Actors in the policy network still need to adapt still to their new positions, objectives and responsibilities. This applies in particular to the ROCs. Most ROCs received support through Pre-FOPIP and FOPIP projects. These projects provided them with new instruments and helped to develop new strategies. According to the FOPIP I project team this support is still too limited to help the ROCs through this 'transition'. As the process of mutual adjustment is still ongoing, there is a continuing need to manage this transition. Otherwise, there is still a risk of failure and breakdown (cf. Van der Brugge and Rotmans, 2007).

## 6. Conclusions

To provide insights in 'why' and 'how' the regionalization took place, two case studies were analyzed using a model covering five governance elements. This model appeared to be useful in exploring and explaining the regionalization process. The Teleorman case shows that the former local-focused governance structure was characterized by incoherence within and between various governance elements. One of the major problems was that (5) resources and responsibilities for implementation were not consistent with the (1) levels and scales, (2) actors in the policy network and (4) strategies and instruments. This incoherence resulted in a lack of financial resources required to maintain and develop water infrastructure. To bring Romania's water and wastewater services in line with EU directives, large infrastructural investments are currently required. For these investments, EU funds have become available. To ensure that smaller towns would also benefit from these funds, national authorities decided to initiate a regionalization process. This process involved institutional reforms and support programmes. In conclusion, the main source of change has been Romania's EU accession. However, this could only trigger the regionalization, because the previous local-oriented governance structure was highly incoherent.

As various governance elements are interrelated, a change in one or more elements will evoke changes in all other elements as well. Romania's EU accession affected various governance elements by introducing a new governance level, new objectives and new resources. The regionalization subsequently evoked changes in all other elements as well. It is expected to result in a more coherent governance structure as it addressed the main factors

associated with the incoherent local-focused governance structure. However, the time needed for actual services improvements is considerable and the process of mutual adjustment is still ongoing. This implies that there is still a need for ongoing support in order to arrive at a coherent governance structure.

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