

Indicators for Measuring the Way of Providing the Decentralized Public Service of Water and Sewage

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Abstract: *In this article, we have chosen to focus on the water and sewage service, which is a vital, fundamental service for citizens' lives, its malfunction endangering the health of the population and their quality of life. We want to analyze how the local authorities in Suceava managed to provide decentralized water and sewerage services to the population, in a fair, efficient, competent and transparent manner. To be able to measure the efficiency of a public service and the degree to which the services public meet the strategic objectives, the existence of some performance indicators is necessary. Thus, in the article, we propose a series of indicators with the help of which we could measure the provision of the decentralized public service of water and sewerage. The indicators for the periodic evaluation of the performance of the public water and sewerage services, under the conditions of their decentralization, will provide a series of information necessary to formulate the right strategies regarding this service.*

Keywords: *Public decentralized service, rural area, service of water and sewerage, Tariffs for water supply and sewerage service.*

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1. Introduction

In a democratic state, the main purpose of the administration's operation is the provision of public services that satisfy the needs of the community.

Through decentralization, local authorities have received more and more responsibilities regarding the provision of public services and thus, they must demonstrate that they are capable of fulfilling them.

The mission of local authorities, as elected representatives of the community, is to serve the local community, to find the best legal solutions to solve the needs that arise among the community and to provide them with quality public services.

But, more often than not, the amounts of money that are available at the local level are much smaller than what is needed, so that for the local authorities, who, although they know very well the existing needs among the community, the spending of the money from the budget is restricted by various requirements. In this article, we want to analyze how the local authorities in Suceava managed to provide decentralized water and sewerage services to the population, in a fair, efficient, competent and transparent manner.

2. Analysis of the legislative framework for the provision of decentralized water and sewage service

In this article, we have chosen to focus on the water and sewage service, which is a vital, fundamental service for citizens' lives, its malfunction endangering the health of the population and their quality of life.

Decentralized water and sewage services are activities of public utility and general economic interest, under the authority of the local public administration and whose purpose is to ensure potable water and sewage services for all users in the localities. (Law no. 241/2006)

The public service of water supply and sewerage and wastewater treatment, in accordance with the provisions of special laws on the matter, is included in the scope of community services of public utility.

Currently, the field of community services of public utilities is regulated by a general law: Law no. 51/2006 for community services of public utilities, republished, with subsequent amendments and additions and a series of special laws regarding each type of public service, respectively, for

the water and sewerage service: Law no. 241/2006 for water supply and sewerage service, republished, with subsequent amendments and additions.

3. Authorities involved in the provision of public water and sewage services

The regulatory authorities, as the public administration authorities that have the right to issue regulations, rules, procedures and standards in order to provide the public service, are the central public administration authorities, namely: the National Regulatory Authority for Public Utilities Community Services, the Ministry of Development, Public Works and Administration, Ministry of Environment, Water and Forests, Ministry of Health.

National Regulatory Authority for Public Utilities Community Services - A.N.R.S.C. aims to regulate, monitor and control at national level the activities in the field of community water supply and sewage and wastewater treatment services. (National Regulatory Authority for Public Utilities Community Services, 2003)

The implementing authorities / institution (the public administration authority or the institution that is responsible for the provision of the public service) are the local public administration authorities and the operator of the water supply and sewerage service.

The authorities / institutions responsible for financing are both the operator of the water supply and sewerage service, as well as the authorities of the local public administration. Thus, the funding sources for this service are: for current expenses (personnel expenses, goods and services, other expenses), they are the own revenues of the water supply and sewerage service operator, and for capital expenditures - investments are both the own revenues of the operator of the water supply and sewerage service, as well as the local budget.

As regards the provision of public utility services, the local public administration authorities exercise exclusive competences regarding water supply and sewage, and sewage and wastewater and rainwater treatment.

The local public administration authorities can decide, in accordance with the provisions of art. 22 of the Law for community services of public utilities, on the way of managing public services, being able to provide the services both under direct management, based on a decision to put them under administration or under delegated management, based on a management delegation contract.

SC ACET S.A. is the institution subordinate to Suceava City Hall through which this service is provided. According to the data on the institution's website, the shareholders are formed by the Suceava County

Council, the municipalities: Suceava, Rădăuți, Fălticeni, Vatra Dornei, Campulung Moldovenesc and the cities: Siret, Gura Humorului and Solca, of which the majority shareholder is the municipality of Suceava with a share of 63.8054%. (The water supply and sewage service from Suceava, 2003). S.C. ACET S.A ensures the supply of high-quality drinking water to the inhabitants and, at the same time, takes the waste water into the sewage system, in order to purify it.

4. Indicators for measuring the way of providing the decentralized public service of water and sewage

As stated above, ACET S.A. Suceava is the regional operator that provides municipal water and sewage services in Suceava County.

We will give examples of indicators that could be measured to analyze the way of providing the decentralized public service of water and sewage.

A first quality indicator would be *the accessibility of the public service*, indicating the increase in the number of users and leading to an increase in the degree of citizen satisfaction with the decentralized public service of water and sewage.

To measure this indicator we can calculate the share of the population with access to the water network from the total population, the share of the population with access to the sewage network from the total population and water consumption.

1. *The share of the population with access to the water network from the total population*

$$A = \frac{Pa}{Pat}$$

A – Percentage of population with access to the water network

Pa – population with access to the water network

Pat – total population

2. *The share of the population with access to the sewage network from the total population*

$$C = \frac{Pc}{Pct}$$

C – Percentage of population with access to the sewage network

Pc – population with access to the sewage network

Pct – total population

3. Water consumption

$$Ca = \frac{Av}{Pa}$$

Ca – water consumption

Av – total annual quantity of sold water

Pa – population with access to the water network

Analyzing the evolution of these indicators over time, we can see an increase or, on the contrary, a decrease in the accessibility of the population to the water and sewage service, which would highlight the degree of citizen satisfaction with this decentralized public service.

The efficiency of public water and sewage services represents another indicator that can be analyzed. For this, the yield of a water network, measured and billed, and the total amount of water produced must be calculated. The loss of water in the network is calculated as the difference between the amount of water introduced into the network and the amount of water that is used by consumers.

Another indicator that can be analyzed is *the tariff* charged for the water and sewage service for domestic consumers. According to the legal provisions, A.N.R.S.C. endorses/approves prices and tariffs for water supply and sewerage services.

The service tariff represents the selling price of the public service, taking into account the cost of investments and that of inputs (raw water, energy, labor).

Starting from 2019, by the decision of ANRSC Bucharest, the price of water and sewerage in Suceava underwent changes, according to the data in the table below:

Table no. 1 The tariffs for water supply and sewage service in Suceava County, for the entire coverage area

Period	Tariffs for potable water Lei /cubic meter	Tariffs sewage – waste water treatment Lei /1 cubic meter
01.03.2023	7,29	6,70
01.01.2023	7,07	6,44
2022	6,01	4,69
2021	5,45	3,99
2020	5,18	3,89
2019	4,99	3,44

Source: Tariffs for water supply and sewage service are taken from ACET S.A site

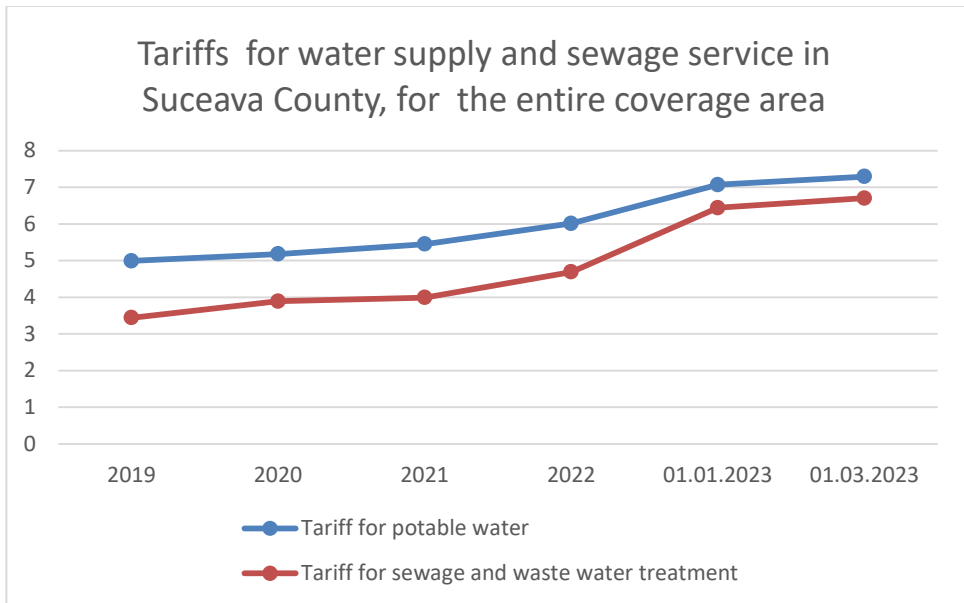


Fig. no.1 The tariffs for water supply and sewage service in Suceava County, for the entire coverage area

According to the data above, there are increases in the tariffs for potable water and sewage treatment services. Every year, the price was increased for each cubic meter of potable water and for each cubic meter of water discharged into the public sewer network, reaching a significant increase in a 5-year interval.

Another indicator we propose is to measure citizens' satisfaction with the water and sewerage service in their locality.

The definition of this indicator is the survey question "How satisfied are you with the state of the water and sewage service in your locality."

Unit of measurement: Response grid: very satisfied, rather satisfied, rather dissatisfied, very dissatisfied, do not answer - NO

Year / Range: January – March 2023

The following analysis highlights the answers of the 100 respondents from the city of Suceava.

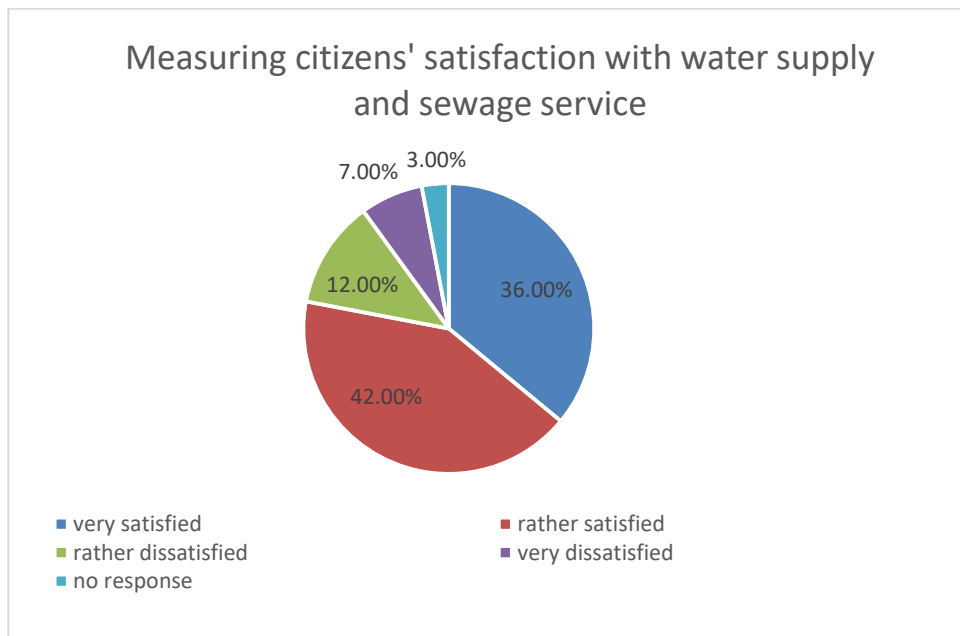


Fig. no.2 Measuring citizens' satisfaction with water supply and sewage service

We find that the functioning of the water and sewerage service currently covers the needs of the population, an aspect revealed by the positive answers of the respondents. More than 75% of those surveyed are therefore satisfied with the water and sewerage service.

5. Conclusions

In conclusion, in order to analyze the provision of the decentralized public service of water and sewage, a series of indicators can be measured, such as the accessibility of the public service, the tariff charged for the water and sewerage service, the loss of water in the network, etc.

Citizens' satisfaction with public service delivery can be measured by conducting opinion polls, in which the population will be asked how the decentralization of the water and sewerage service has led to improvements in the provision of this service.

Decentralization is one way to improve access to water supply and waste water sewerage services, however, it will only be effective when local authorities have access to the financial and human resources needed to deliver the desired services.

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