

Regional Report on Asset Management Practices in South-East Europe



Implemented by:



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
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Network of Associations
of Local Authorities
of South East Europe



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The project “Asset management for water and sanitation sector in South-East Europe”, funded by the German Ministry of Economic Development and Cooperation (BMZ) and the Government of Switzerland, is implemented by GIZ (ORF MMS) and the Network of Associations of Local Authorities of South-East Europe (NALAS). The main role in the implementation of the project activities is designated to the Local Government Associations from Western Balkans countries, coordinated by the Standing Conference of Towns and Municipalities from Serbia.

The project is focused on introduction of Asset Management methods in pilot municipalities in order to

improve efficiency and transparency in managing water and sanitation infrastructure in SEE.

This Regional Report on Asset Management Practices was produced in the period June - December 2014 and is based on the findings of the National Reports from surveys conducted in seven project countries on a sample of 32 municipalities and their public utilities. The National Reports present findings of existing Asset Management (AM) practices in each of the countries and comprise National Assessment Report (overview of AM practices on national level) and Case Study Report (in-depth information about AM practices in public utility).

WHY IMPLEMENT ASSET MANAGEMENT PRACTICES IN PUBLIC UTILITIES?

Public utility assets in SEE countries are managed by Public Utilities (PU) owned by local government (Municipality). Management of all aspects of providing water supply and wastewater services is **deeply influenced by the municipal authorities**. Most common reason to start implementing AM include:

- **Aging physical assets** - lack of financial resources for regular maintenance and capital investments for rehabilitation or replacement of deteriorated assets.
- **Lack of basic data** on characteristics and location of (buried) assets.
- **Unreliable network/system** that is subject to frequent failures - making it difficult to deliver quality service to customers.
- **No long term planning of capital investments** - based on balancing risks and consequences of asset failure with costs of investments.

REGIONAL FINDINGS presented in this report are focused on several aspects: from state of the utility aspect, legal and regulatory framework for planning of utility services and management of assets.

STATE OF UTILITY ASSETS

The biggest problem in water utilities is **old and deteriorated water and sewerage network** that has usually not been properly maintained and/or upgraded. Water losses are reportedly one of the main issues that have impact on revenue, increased operational costs, energy waste and wastage of water resources. In most PUs maintenance and rehabilitation are insufficient and annual network rehabilitation rates are low. The main reason could be found in insufficient funds, even for covering the operational costs.

minimal losses:

Zenica (B&H) with reduced losses to 27%

average losses:

mostly in all countries around 50%

maximal losses:

biggest one in Herceg Novi (MN) of 70%

LEGAL AND REGULATORY FRAMEWORK

Utility services in SEE countries are regulated by **relevant laws on utility/communal service**. Water and wastewater services are usually regulated separately: in some countries by **state regulations** (CRO, KS, MAC, SER) and in others (AL, B&H, MN) by **municipal regulations**. According to regulations the PUs are obliged to provide continuous and undisturbed utility services to all customers, to maintain good condition and functionality of utility assets, to maintain health and hygiene standards, etc.

INTITUTIONAL FRAMEWORK AND RESPONSIBILITIES IN PROVISION OF UTILITY SERVICES

The Municipalities are founders and owners of PUs, but the utility assets are in some cases owned by Municipality and in other by PUs (PUs are normally organized at the municipal level, with the exception of Croatia and Kosovo, where PUs are regional and owned by more than one Municipality). Responsibilities of municipalities include:

- **overall planning and development** in water and sewage sector (having some kind of **strategic development plans and spatial plans** which define the baseline for management of water resources, with directions and priorities)
- having respective departments in charge of communal services, as well as **communal inspectors**, who monitor functioning of communal services at the municipal level
- supervising the work of PUs over the **Supervisory Board** and the company's Assembly
- making decision on **water and sewage tariffs** upon the proposal made by PUs

Responsibilities of PUs include:

- organizing its work and activities in **providing water supply and sewage services** to all customers
- covering all **costs through the service tariffs**, in order for the public function to be completely fulfilled

PLANNING OF UTILITY SERVICES

Utility services are normally provided on the basis of **respective plans and programs**. Municipalities usually have their own strategic/development plans for the water and sanitation sector, which include strategic objectives for the longer period, for example 5-10 or even more years. There is also an obligation of PUs to make their mid-term and short-term plans regarding more specific operating activities as well as, usually, smaller investments. PUs in project countries usually make a 1-year or 3-year plans, or both.

PU plans:

annual plans (CRO, MAC); 1 and 3-year plans (B&H and SER); 3-year plan (KS); 3-5 year plan (MN)

Municipality plans:

usually in all countries there are 5-10 year plans

Plans mostly contain **measures and activities** to be done in the following years. In most cases, these plans could be understood as a "wish list", since the **necessary budget** for their realization is **not well and clearly presented**. Furthermore, plans of future investments are not the result of evaluation. Sadly in most cases, **planning of interventions** on the assets is done on an **ad-hoc basis**.

HUMAN RESOURCES

All parties involved in the process should have **sufficient amount of information and knowledge** about AM and its requirements. The responsibility of top management includes **monitoring the implementation** of plans and investments. Generally, maintenance and operational activities are mainly done **without writing procedures**, while staff skills and performance evaluation is rare. There are **insufficient trainings** of employees in the PUs, especially technical staff.

MANAGEMENT OF ASSETS

Asset inventory



Inventories of assets are very basic with limited data of questionable reliability. Categorising assets according to the type and characteristics and developing assets hierarchy is usually unknown method in most PUs.

Performance and condition monitoring, risk assessment



In order to help prioritize the most critical assets it is crucial that PUs have a clear knowledge of the condition of their assets and how they are performing as to assess the need for minor and major repairs, rehabilitation or replacement. None of the countries are implementing any kind of criticality/risk assessment methodology.

Maintenance



Not enough money is spent on preventive and regular maintenance in order to maintain the functionality and good condition of assets. Almost 50% to 75% of the total revenues are spent on salaries. Maintenance in many of PUs is performed when failure already occurs.

Records of failures



There is insufficient records regarding the number, type and location of the failures, breaks and blockages, including size and material of the pipe, soil type, installed repair materials.

DATA SYSTEMS AND INFORMATION TECHNOLOGIES

Challenges of water utility sector



Systematic, streamlined approach to AM (ISO 55000) is relatively recent. Major challenges utilities are facing in implementing AM include: budgeting limitations; maintaining the levels of service with aging infrastructure; availability of expertise, knowledge and awareness of AM; politically imposed constraints. For obtaining good results these specific approaches should be considered: external forces driving change; improved budgeting; strengthening internal capacity and expertise in terms of human resources, know-how and technology.

Information and Information Systems



Improved state in the area of information technology does not necessarily deliver effective AM practices. Adoption of information technologies alone may establish a solid base for further improvements. However without properly interpreted and accurate asset information full potential cannot be accomplished. With the use of information systems PUs are better equipped to analyse the shortcomings and commit to strategic planning in the future. At present, only a few utilities approached information systems from the AM perspective. Most have, or are planning to introduce some of the core information systems - so far one of the most noticeable problems constraining the effective deployment of information systems is a lack of information.

Building Practical Asset Registers



The necessary and important prerequisite for introduction of information technologies is data discovery. Collection of information about older asset is more difficult and may include field investigation, measurements, examination of archives, cadastral data, construction plans and other, more complex means of data retrieval. Asset information also has to be properly classified within a trustworthy Asset Register on which a usable information system can be built on. Data discovery and collection has to be complemented by verification of the data accuracy.

The State of Affairs



Successfully employed effective AM must be driven by good governance - a managerial decision and commitment to address the challenges and develop a strategic, systematic and streamlined approach to asset management. This also implicates that a change in perception of information systems is needed and not only to use AM in order to aligning the system functionalities with business requirements and facilitating decision-making.

GAP ANALYSIS AND CONCLUSION

The current situation regarding management of utility assets in Municipalities/ Public Utilities **cannot be considered satisfactory**. Investments are mostly carried out only when the functionality of the system is jeopardized (cannot provide for the requested or minimum level of service).

There is **very little understanding** among the Municipality and Utility staff of what actually the AM is and what kind of benefits it could bring. Introducing the AM concepts at all levels as well as assigning clear lines of responsibilities for asset management tasks is required.

Survey has shown that **planning processes** are **not very well organized**, they are mostly short-term and they do not provide a clear vision of the future needs and targeted achievements. Municipalities and Public Utilities should consider developing together a long-term Strategic plans for utility services, based on detailed analysis of the condition of the existing systems, the level of service it provides and future demand and requirements of all customers. Based on that an effective asset management mid-term plan can be developed. AM techniques such as condition assessment, risk assessment, valuation of assets and cost-benefit analysis should be gradually introduced into everyday activities of Utilities.

The reliability of the **existing data** is questionable. Existing databases usually present only inventories, they do not provide data analysis and it is very unlikely that they are used in any kind of decision-making process for the future investments.

Successful AM practice will allow utility managers to **proactively** rehabilitate or replace system components on a continual basis rather than waiting to repair failing or damaged assets when it is considerably more expensive and disruptive to system operations. The choice of the type of intervention should be determined based on the condition and performance of assets, whereas the priority and timing of intervention is determined based on criticality assessment.



NALAS Secretariat

Varshavska 36 A
Skopje 1000, Macedonia
Tel/Fax: +389 2 3090818
info@nalas.eu, www.nalas.eu

In partnership with:

