Covid-19 crisis impact on WSS sector in Danube River Basin- summer 2021 findings

Roundtable: Second year of COVID-19 crisis – impacts and mitigation measures in the WSS sector
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Covid-19 crisis in 2020

- Quick transition from normal to emergency situation - affecting social life, mobility, tourism, business and education.
- Extreme pressure on the health system.
- Lockdown measures – labor shortages, supply-chain disruption, cost increase and revenue decrease.
- Different approaches of national support for business and citizen.
- EU GDP (-6,2%) for 2020.
- 2021 – still unclear, expected GDP (+4.8%), but inflation rise (+2.2%)[2]

Country [1]	GDP growth in 2020 (%)	GDP per capita in 2020 (current US$)
Albania	-3,3	*5 215,3*
Bosnia and Herzegovina	-4,3	*6 031,6*
Bulgaria	-4,2	*9 975,8*
Croatia	-8,4	*13 828,5*
Kosovo	-6,9	*4 287,2*
Moldova	-7,0	*4 551,1*
Montenegro	-15,2	*7 686,1*
North Macedonia	-4,5	*5 888,0*
Romania	-3,9	*12 896,1*
Serbia	-1,0	*7 666,2*
Ukraine	-4,0	*3 726,9*
European Union	**-6,2**	***33 927,7***
World	**-3,6**	***10 925,7***

Crisis impact effect diversity:

- Digital and healthcare industry – positive impact;
- Chemicals, construction, food & drink – expected V-shaped recovery;
- Sectors depending on contact and interaction – substantial hit by the crisis for extended period

[1] **World Bank data**, https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG, https://data.worldbank.org/indicator/NY.GDP.PCAP.CD

[2] **European Commission data**, https://ec.europa.eu/info/business-economy-euro/economic-performance-and-forecasts/economic-forecasts/summer-2021-economic-forecast_en

Available surveys

- Council of European Municipalities and Regions (CEMR), 2020: **COVID-19`s impact on local and regional finances**;
- Network of Associations of Local Authorities of South-East Europe (NALAS), 2020: **South-East European Local Governments in Post Covid-19 Socio-Economic Recovery**;
- Desye, B., 2021: **COVID-19 Crisis and Water, Sanitation, and Hygiene: Impacts, Challenges, and Mitigation Strategies**;
- Social Science in Humanitarian Action (SSHAP), 2020: **Key considerations: COVID-19 in informal urban settlements**;
- U.S. Global Leadership Coalition, 2021: **COVID-19 Brief: The Impact of Water, Sanitation & Hygiene (WASH) in slowing the spread**;
- International Finance Corporation (IFC), World Bank Group, 2020: **The Impact of COVID-19 on Water and Sanitation**;
- Global Water Operators` Partnership Alliance (GWOPA), 2020: **Managing the unexpected - European Public Water Utilities Facing the Coronavirus Emergency**;
- KPMG, 2020: **Cities and local government – COVID-19 and municipal infrastructure**;
- Danube Water Program, 2019: **Water and Wastewater Services in the Danube Region: A State of the Sector Report 2018 update**;
- German Agency for International Cooperation (GIZ) and The Centre for Development and Promotion Promo Idea – Strumica (Promo Idea):
- Analysis no. 1 - "**Compendium of good practices and the lessons learned of the responses of the LGs and PUCs in the 6 Western Balkans economies in the provision of water and sanitation services during COVID-19 crisis**", December 2020;
- Analysis no. 2 - "**Compendium of good practices and the lessons learned of the support provided by the Ministries, Regulatory authorities, IFIs/ Donors and other stakeholders to LGs and PUCs in the 6 Western Balkans economies to maintain the provision of water and sanitation services during COVID- 19 crisis**"; January 2021.
- Analysis no. 3 - "**Assessing the financial impact of COVID-19 on the operation and performances of PUCs in the 6 Western Balkans economie**s"; February 2021.

WS sector in front of Covid-19 crisis

WS sector globally:

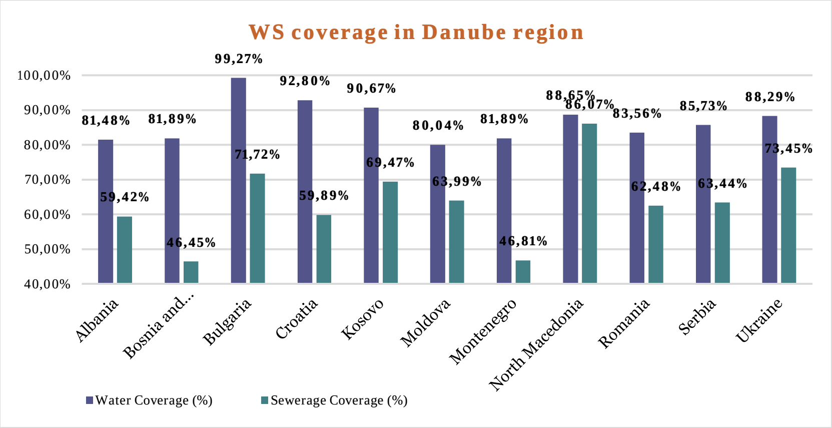
3 billion people across the world do not have access to reliable water and soap supplies;

26% of Health Care Facilities had no basic water services, 20% had no sanitation service, and 16.7% had no hygiene service;

62% of fecal sludge and sewerage is not properly managed;

Global trends – global warming, increasing number of people living in water stress areas (2 billion), rapid urbanization, emergence of megacities, aging infrastructure.

Water sector infrastructure gap will require an additional $114 billion investment in developing countries each year up to 2030.



WS sector in Danube region:

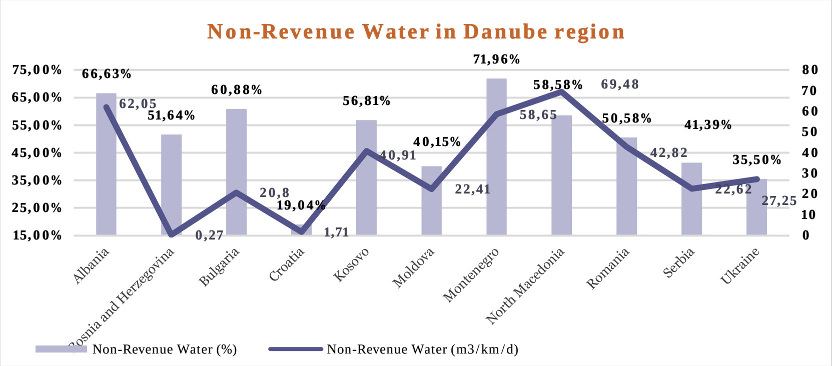
More than 80% of the population is connected to public water supply;

High Non-revenue water levels, in some cases exceeding 60% / 40 m3 per km per day

Less than 2/3 are connected to sewerage networks;

Differences between urban and rural service provision;

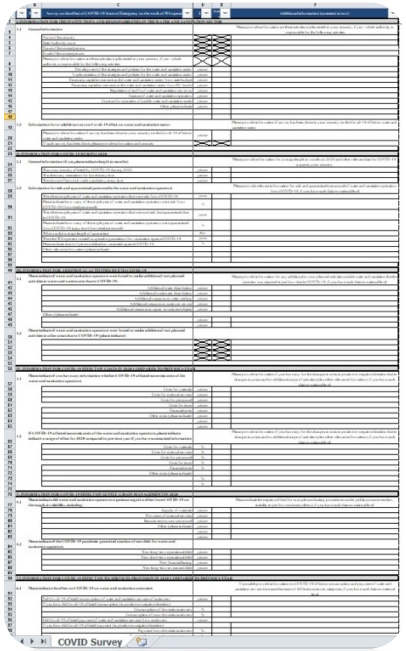
Different WS sector institutional arrangement – responsible entities / in-line ministries / tariff regulation / regional vs local service provision



Danubis Water Platform (http://www.danubis.org/)

Covid-19 impact on WS operators in Danube region

- Target groups - line ministries, economic regulators and water sector associations;
- Countries surveyed - Albania, Bulgaria, Kosovo, Moldova, Montenegro, North Macedonia, Serbia, and Ukraine;
- Methodology – desk and internet research / quantitative research trough questionnaire;
- Information requested – qualitative impact (Yes/No, and effect in %) as well as open answer information:
- Effect in 2020 compared to previous year;
- Data analysis complement to reports on this topic already prepared by other IFI, specifically GIZ - Compendium of good practices and lessons learned of the responses of LGs and PUCs / Compendium of good practices and lessons learned of support provided / Assessing the financial impact of COVID-19 on the operation and performances of PUCs.



Performance and work conditions

WS operators were affected by the crisis with sick or quarantined personnel (between 0,3% up to 22%);

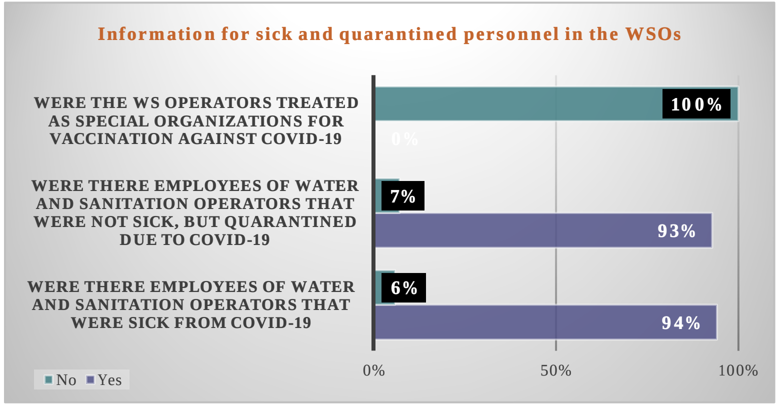
Average quarantine period - 14 days, with some variations between 10 up to 15 days.

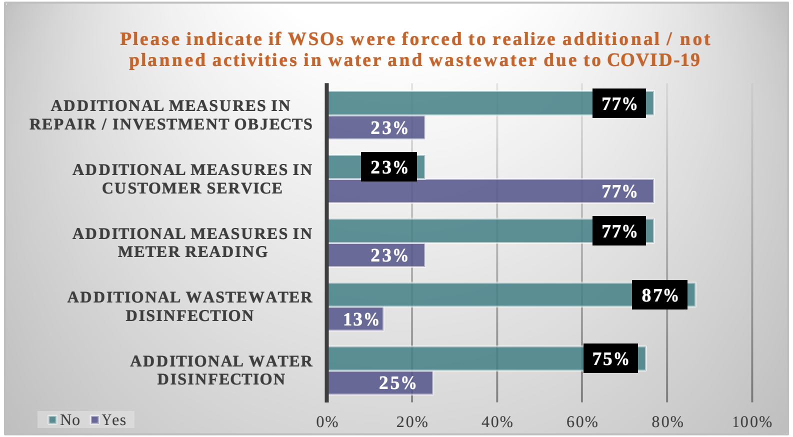
Even though personal and public hygiene is top priority during epidemic crisis, WS operators were not treated as special organization for vaccination against Covid-19 (although some reached more that 90% vaccinated personnel);

Customer service area was mostly affected by the need to introduce additional activities (77%). Less than ¼ of the responses demonstrated additional activities in meter readings.

Covid-19 had minor effect on need for additional water disinfection: drinking water (25%) and wastewater (13%).

Regular maintenance of the water supply and sewerage network was performed on a smaller scale.





Performance and work conditions

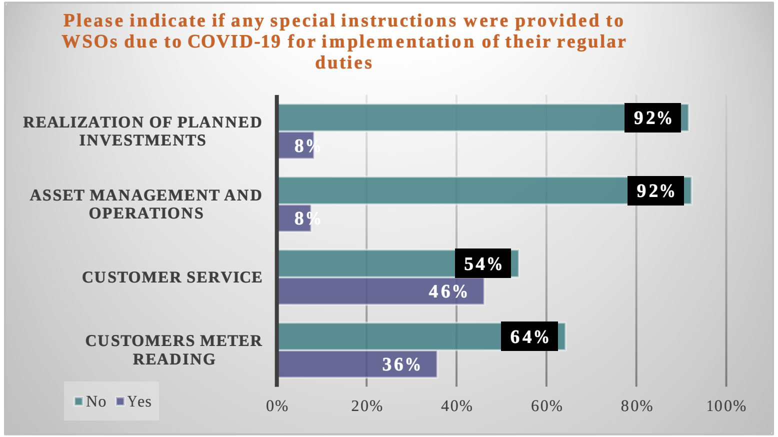
In small cases additional measures outside regular provision of WS services have been imposed by the local governments, mostly related to disinfection of public areas and building.

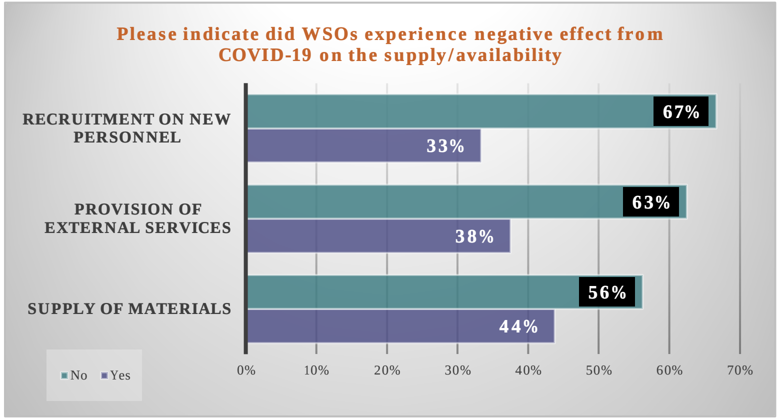
In most of the cases surveyed, WS operators were not provided with any special and formal instructions how to implement their regular duties during Covid-19. Most of the cases - customer service and meter reading.

56% of the surveyed entities reported that there were no negative effect on supply with materials, 63% reported no issues with provision with external services, and 67% for recruitment of new personnel.

2020 Covid-19 crisis affected physical and mental health, regular staff organization, on-site duties and customer contact in the WS sector.

Re-arrangement of all regular activities was needed as well as introduction of remote communication channels, but the crisis did not require major changes in terms of activities, standards and supply-chain management in the sector.





Effect on costs

Costs for materials in 2020 have been reported to be decreased in 80% of the country profiles, with cost reduction varying from -3,6% up to – 52%.

Costs for external services and costs for personnel were reported in all country profiles with increase, varying between 5% - 22%.

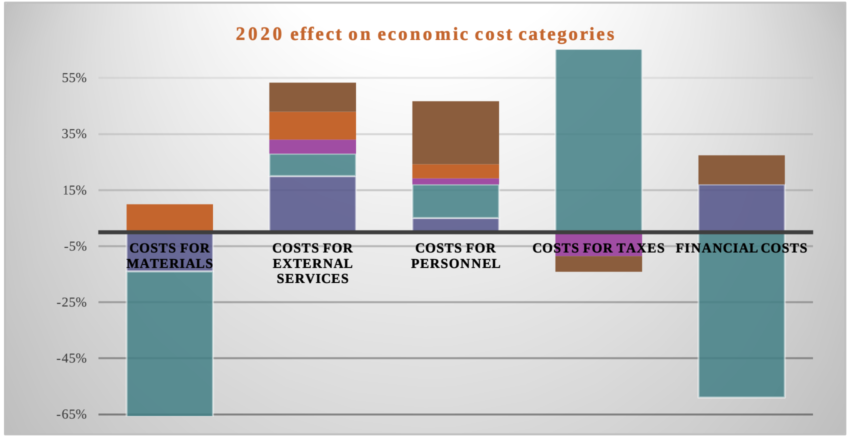
Information provided for costs for taxes and financial costs is heterogeneous.

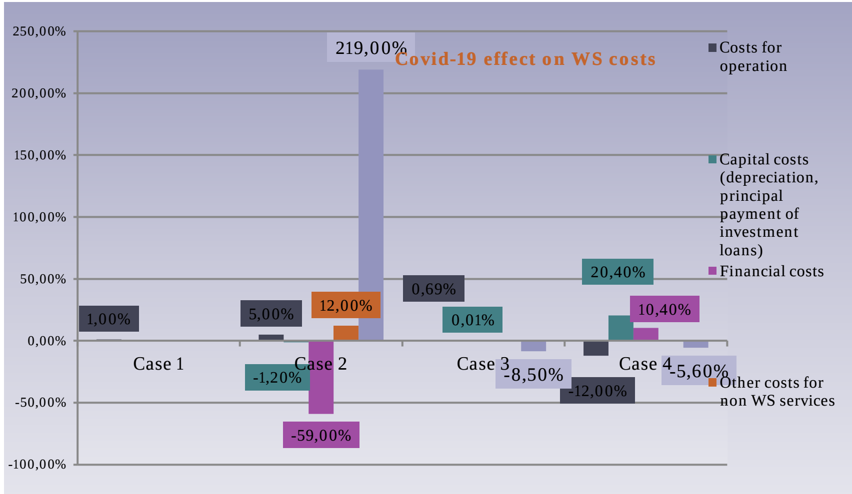
Total costs for operation have been increased on small scale between +0.69% up to +5% in three of the country profiles.

Partial information has been provided for capital costs, and is related mostly to depreciation costs: vary from -1.2% to +0.01% in two of the country profiles.

2020 had low inflation levels (0,7 for EU), and the Covid-19 crisis had short-term effect on the costs of WS operators, mostly due to the provision of additional protective materials and equipment, as well as work premises disinfection.

Data available dose not suggest that Covid-19 crisis has independently affected regular WS costs.





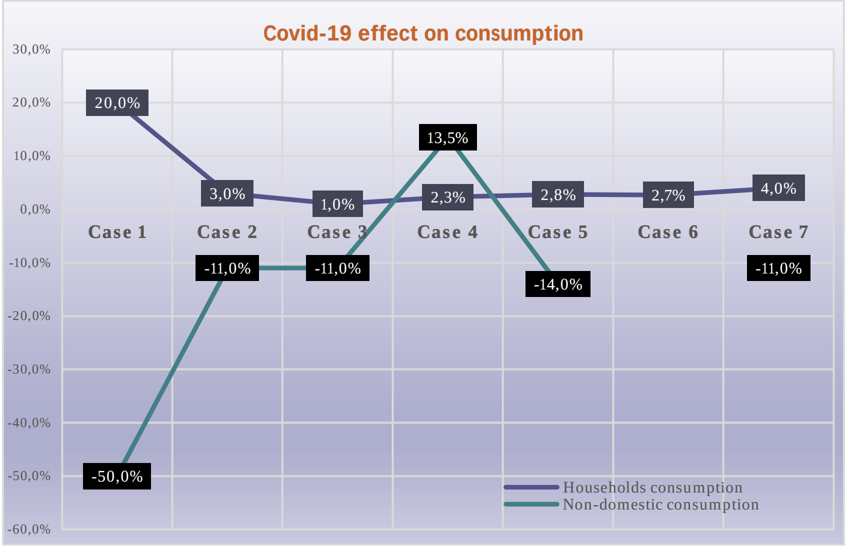
Effect on consumption

Household consumption has been increased between **+1% and +4%** in 2020 compared to previous year in 7 of the country profiles analyzed, and with extreme case of 20% in one country profile.

Non-domestic consumption (budget and business) was reduced in 2020 compared to 2019, between **-11% up to -14%** in five country profiles analyzed, and with extreme case of 50% in one country profile.

Global predictions (IFC): industrial water demand will fall by an average of 27% due to COVID-1.

GIZ survey: no significant changes in consumption, but due to low level of remote services and metering (11%), hindered communication and physical access to meters and customers, data is not accurate.

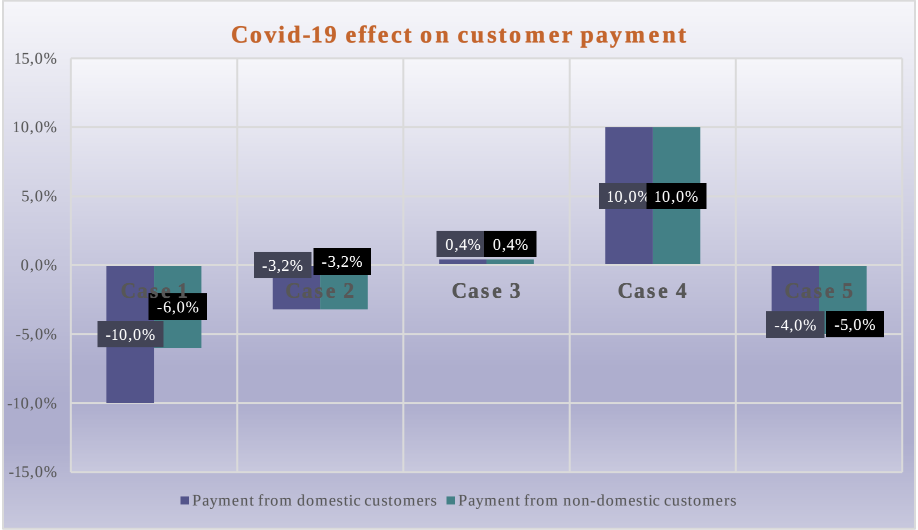


Our data confirms expectations that Covid-19 crisis affected positively household and negatively non-domestic consumption. However WS consumption has been affected in various and different ways, depending on the:

- **anti-Covid-19 measures that were imposed;**
- **profile of economic activities and tourism;**
- **concentration of the population in urbanized areas;**
- **level of reliability and details of the information maintained by WS operators.**

All of these significantly differ between regions and countries, therefore misleading conclusions may arise.

Effect on customer payment



Changes in payments from domestic and non-domestic customers follow same trends in the country profiles surveyed.

Results in the countries are quite different and vary from reduction of - 10% for domestic payments / - 6% from non-domestic up to increase with 10% for both categories payments, although not all countries had information for different customer categories.

GIZ survey provided that majority of respondents (61,3%) stated that there had been a noticeable tendency for a decrease (between 5-20%) in the number of paid bills.

Covid-19 crisis in 2020 increased existing social and economic deficits in the countries, and therefore affected WS sectors by boosting existing problems with low payments and debt collection levels.

Targeted support measures (where applied) during the crisis had also impacted annual effects.

Support measures for payment

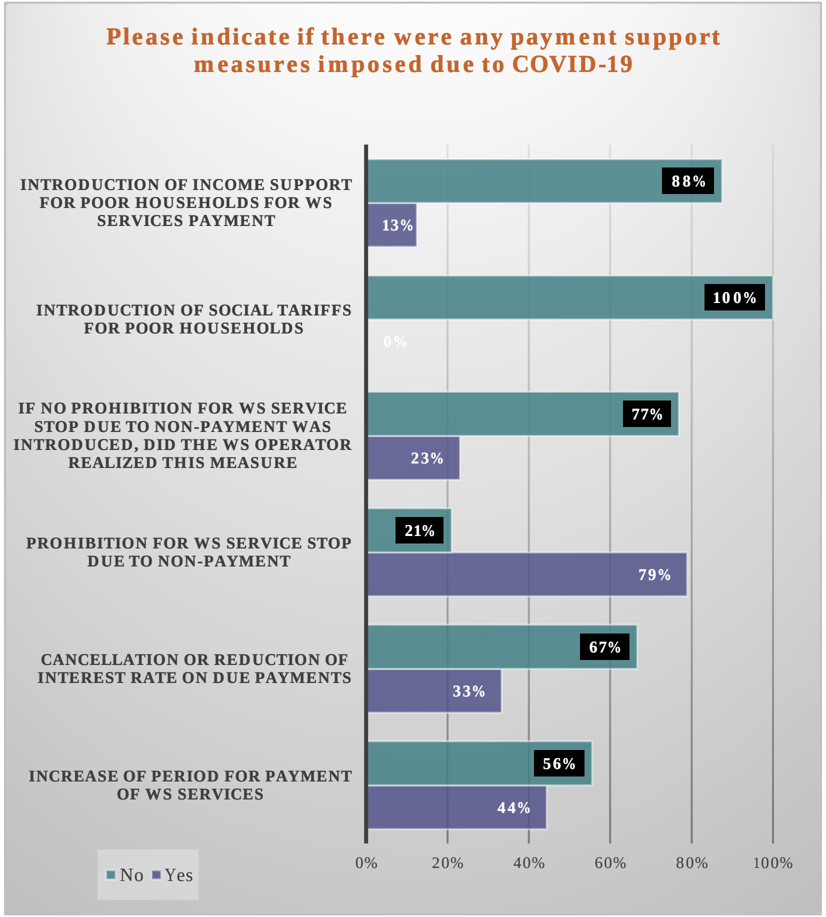
Prohibition for WS service stop due to non-payment (79%) – most commonly applied measure to support customers (it was commonly applied by operators even without official restriction).

Period for payment of WS services has been increased in 44% of the cases, and *interest due for non-payment* has been canceled or reduced in 33%.

No information was reported for *introduction of social tariffs for poor households*, but in small scale income *support for poor households for payment of WS services* has been introduced (13%).

In most of the cases support measures have been introduced by the state, or by the local governments and municipal operators, depending on the sector organization and regulation (national / local level).

Support measures were mostly aimed to reduce economic barriers to WS services during epidemic crisis, rather to support financially the operators by assuring regular customer payments.



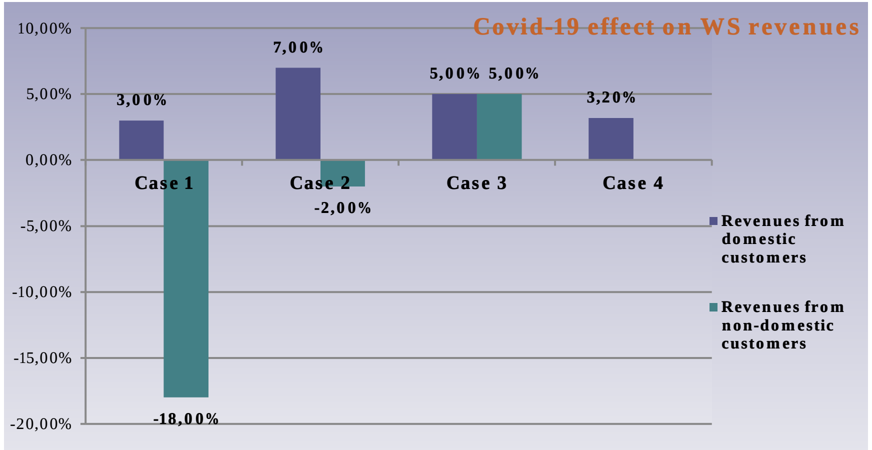
Effect on revenues

Overall increase of revenues from domestic customers – comparable with reported increase of domestic consumption.

Divergent results have been reported for revenues from non-domestic customers.

Global predictions (IFC): WS utilities around the world expect to see revenue collections reductions of 15% on average as a result of the COVID-19 crisis.

GIZ survey: the observed decrease in revenues fluctuates between 5-20%, i.e. more than 60% of respondents have pointed out such revenue loss.



Effect on revenues in 2020 is closely related to the changes in WS consumption and customer payment.

Apparently Covid-19 affected both, but data collected from our survey provide divergent results, and therefore we lack grounds to consider that overall crisis has lead to significant and long-term impact on the sector.

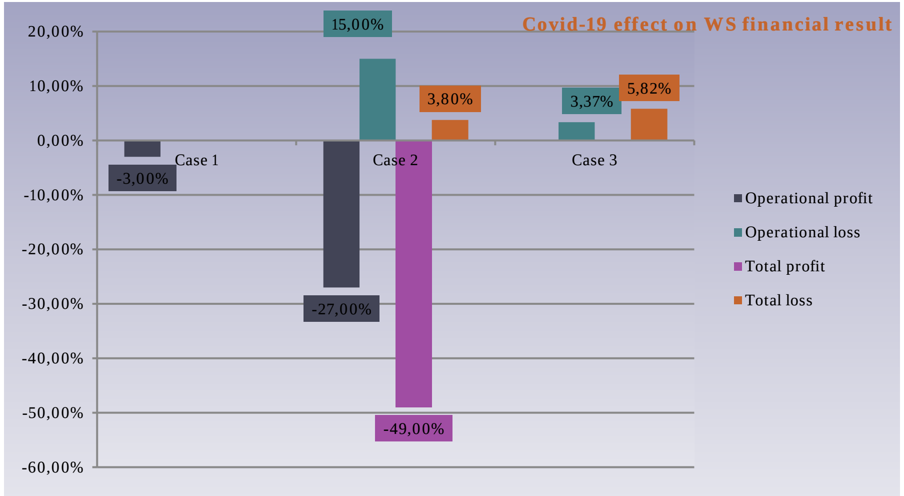
2021 data needs to be analyzed in order to access whether any negative impacts may be worsened and deepened.

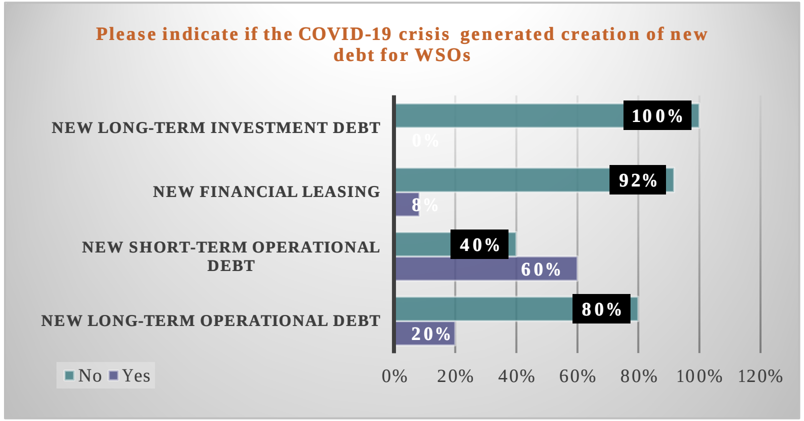
Effect on financial results

Two national cases present reduction of operational profit of WS operators on national level between -3% up to – 27%, mostly due to reduction of billed volumes. Total profit on national level for WS sector for the second case has been half reduced (– 49%).

At the same time information from two countries states that operational loss / total loss on national level has been increased with levels between 15% / 3.8% and 3.37% / 5.82%.

Covid-19 crisis led to generation of new short-term operational debt (60% of the answers). In much small scale operators generated new long-term operational debt (only 20% of the cases).





Cumulative effect of increased costs for protective materials, disinfection and staff, and decreased revenues due to lower consumption and customer payment delays has lead to profit reduction and financial losses for WS operators.

Short-term loans have been taken to support regular activities.

2021 data needs to be analyzed in order to access whether any negative impacts may be worsened and deepened.

Effect on investments

Main reason reported to affect investment implementation is quarantine and inability for the project team to realize on-site activities (58%); followed by lack of supply with materials / external services (45%) and reduced revenues (46%).

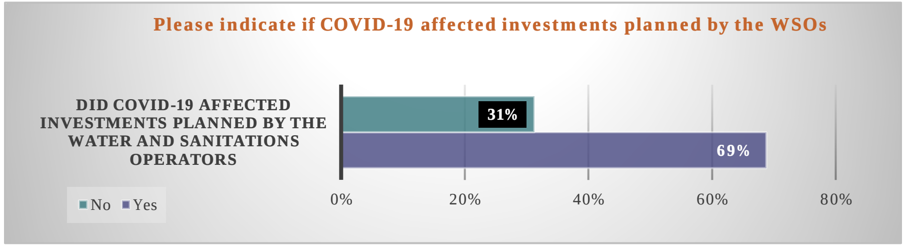
Less effect caused by delayed institutional response (25%) and cost increase (17%).

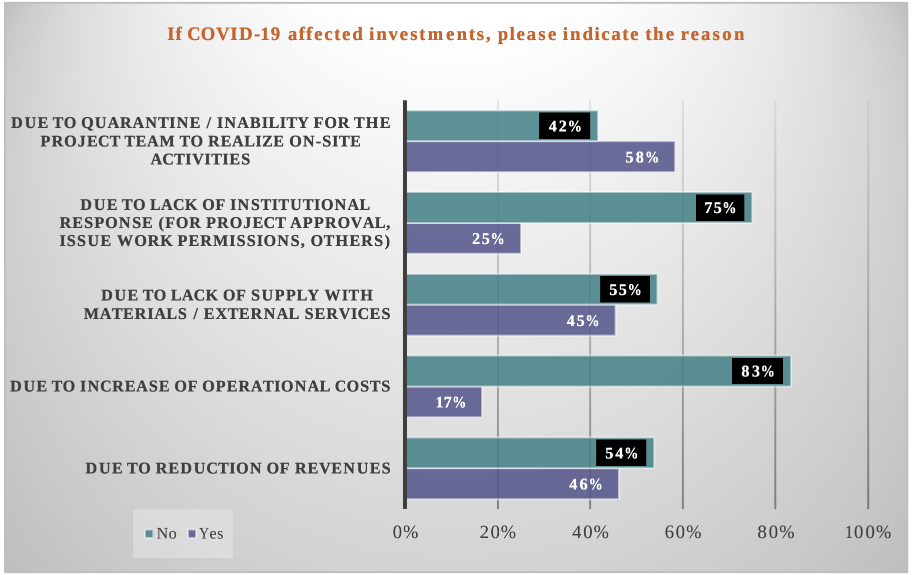
Reported level of investments implementation between 27% up to 70%.

CAPEX delay is usual response in times of financial problems. We should keep in mind however that:

- **different governance, management and tariff regulation models are applied across countries,**
- **different WSOs responsibilities for investments in the countries surveyed are available,**

All of these should be considered in data analysis for Covid-19 effect on investments.





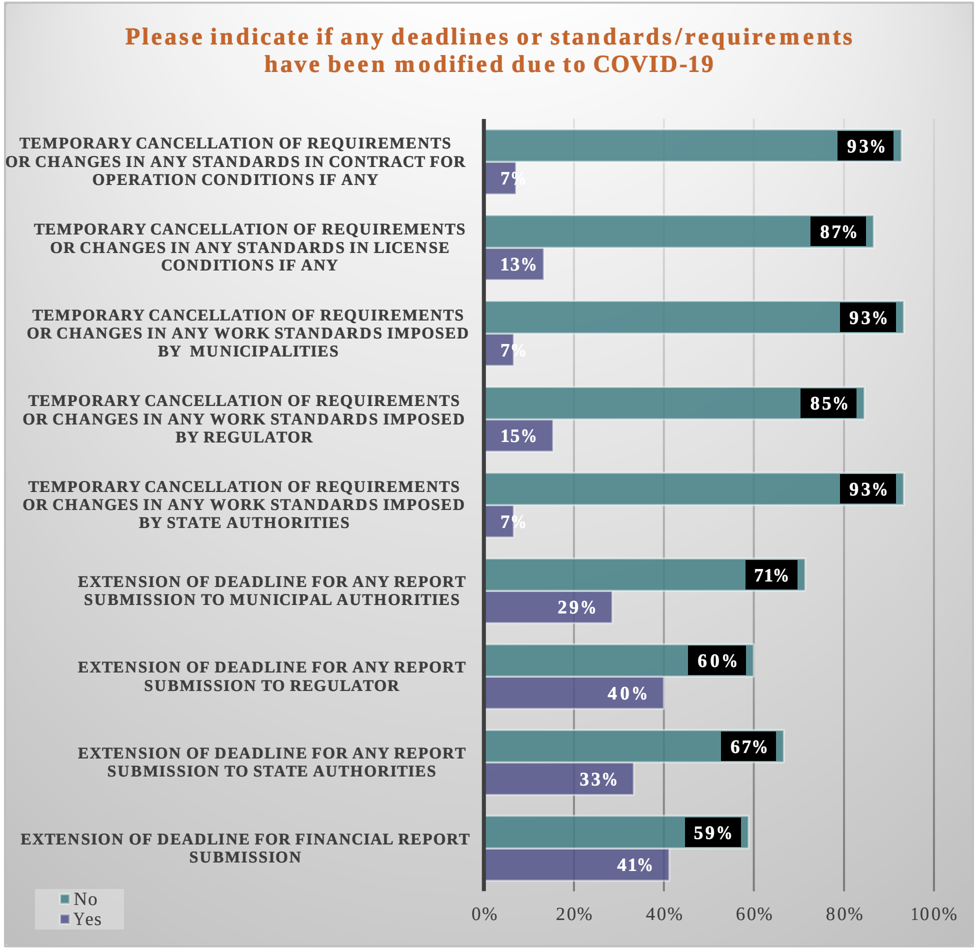
Support measures: changes in requirements

Most common measures applied to ease the work of WS operators were extension of deadlines to submit financial reports (41%) and regulatory reports (40%).
Extensions of deadlines have been provided on smaller scale for the requirement to submit any reports to state (in 33%) and municipal (29%) authorities.

The requirements and standards for the regular work of the WS operators were not modified or reduced during the Covid-19 crisis. Regulators have provided temporary cancellations or changes of requirements in the work standards in 15% and in the license conditions in 13% of the cases surveyed.

Data provided shows that Covid-19 did not lead to temporary cancellation of any standards and requirements, and only deadlines for certain tasks have been delayed.

This argument further confirms that the crisis had minor effect on general work organization of the WS operators.

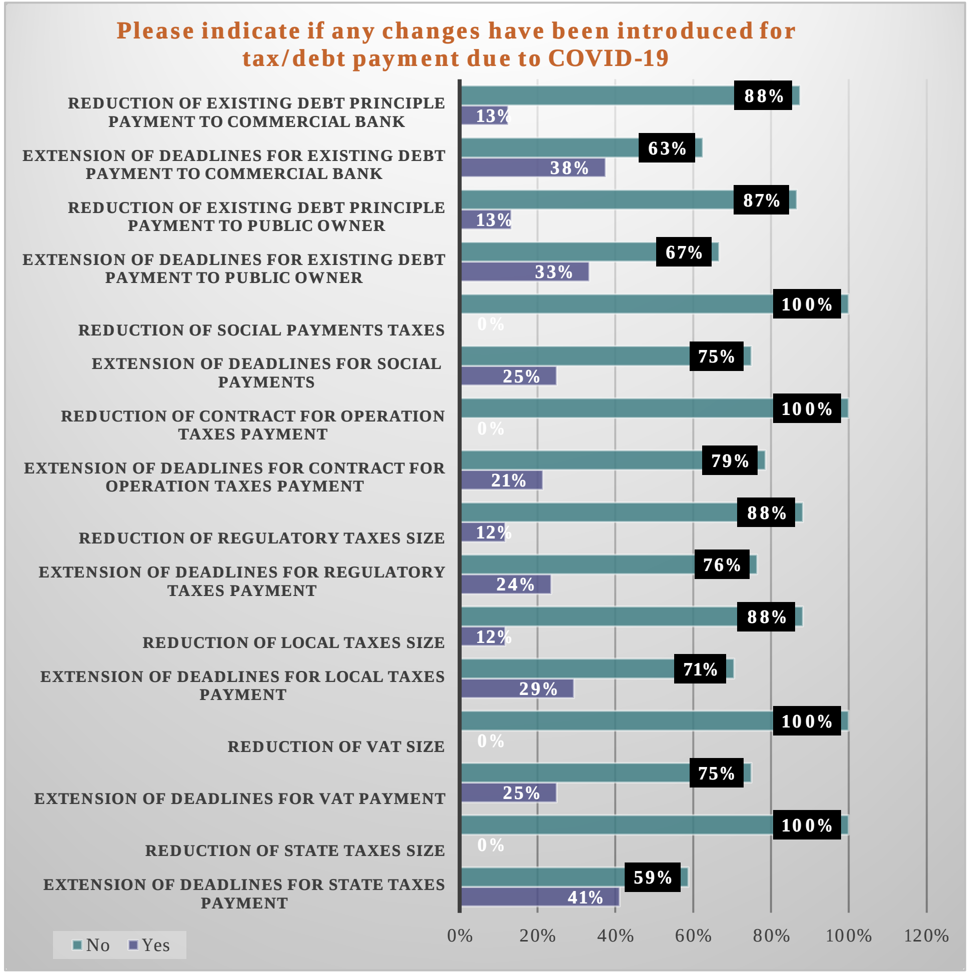


Support measures: changes in tax/debt payments

Most common measures applied in terms of extension of deadlines for payment have been introduced for state taxes and debt payments to commercial banks and public owners, followed by measures for local taxes (in 41% - 29% of the cases).

At the same time most common applied measures to reduce tax/payment size have been applied for debt principle payments to commercial banks and public owners, as well as for local and regulatory taxes (in 13%-12% of the cases).

Data provided shows that support measures during Covid-19 crisis were directed mostly to extend deadlines for tax payments, rather to reduce financial burden to companies during crisis.

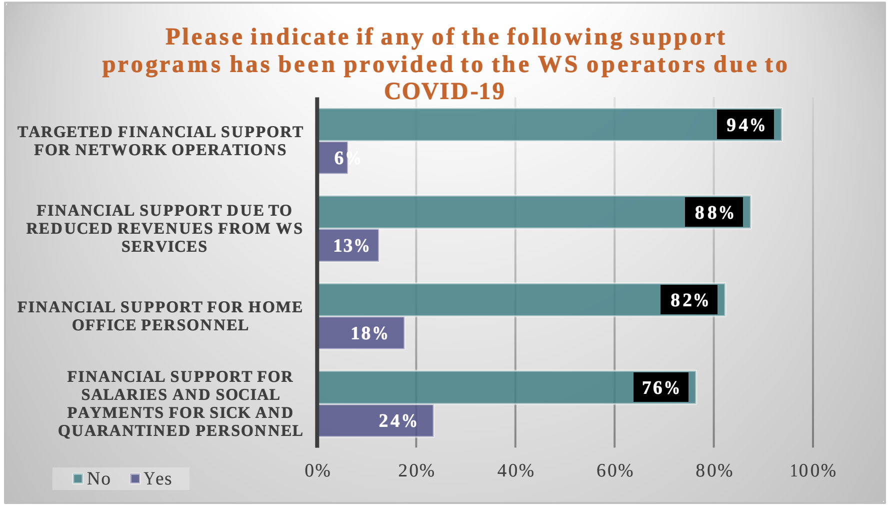


Support programs

In 24% of the cases the entities responded that some form of financial support for salaries and social payments for sick or quarantined personnel have been provided, and in 18% of the cases such support has been provided for home office personnel.

In some of the cases such support has been provided as operating expenses to the WS operators by local governments, in other cases target programs have been applied for risk group of employees.

In fewer cases WS operators have received financial support due to reduced revenues from WS services (13%) and any target financial support (6%). Examples include state program for economic recovery or target subsidies for medium and small companies from relevant state agency.



Data provided in our survey as well as other surveys confirms general conclusion that WS sector was not treated as priority one even during epidemic crisis when personal and public hygiene was extremely important.

Only few cases demonstrate target financial support to WS operators outside general measures to support staff payments.

Recommendations: Unification of standards and common requirements at multinational level

Surveys and analysis on the Covid-19 effect on WS sector in different countries are extremely troubled due to different management, governance and regulation models applied.

Significant differences are currently available in main aspects of WS sector including:

- Tariff setting process (common principles for tariff and cost structure, cost reporting and planning, justification process, involvement of stakeholders);
- Business and investment planning (common requirements for business plans / programs, principles of capital costs reporting and planning);
- Performance monitoring and benchmarking (common requirements for KPIs definitions and standards, procedure for accounting and reporting);
- Relationships between tariffs and quality of services.

Introduction of common requirements will lead to more unified organization of the WS sector in different countries and will put WS service providers as well as all other stakeholders in more similar conditions and will allow for more accurate cross-border analysis and benchmarking of WS sectors.

At the same time such common practices will strengthen WS services provision as will lead to more solid planning, coordination and public communication of costs, activities and tariffs in the WS sector, and may reduce political influence and populism.

Recommendations: Increase of capacity and competence of WS providers

While centralization of WS sectors in some European countries have been applied or is currently on-going, WS sector is still fragmented in many others. GIZ survey in 6 West Balkans countries: 41% of the companies serve less than 5000 customers.

Small-scale entities cannot introduce good international practices and sophisticated management models, but are more or less able to provide basic maintenance or keep the “status quo”. Covid-19 crisis clearly showed that small-scale service providers cannot guarantee reliable service provision in such difficult times, as they usually lack required capacity and expertize and rely heavily on external support, which in crisis times is unreliable.

As consolidation processes are discussed or applied in many countries worldwide and in Europe, Covid-19 crisis is a good opportunity to reconsider continuation of local and small-scale WS services provision, prepare robust analysis of its regional and demographic policies and territorial division and suggest optimization of the process.

WS consolidation is usually considered on minimum number of population served or provision of services inside certain administrative region, other factors also should be considered, such as common water sources and/or WS assets serving multiple local municipalities or regions; local relationship and attitude; type and form of asset and operator ownership; level of state involvement in making decisions in WS services at local level; potential tariff changes and many others.

Recommendations: Introduction of proper asset and financial management as well as customer service practices in WS sectors on national level

WS sector is capital intensive one, with long asset useful life (pipelines more than century sometimes). Wrong decisions at the beginning of the investment phase, as well as wrong maintenance may have negative impact over decades and may need considerable efforts to correct.

Therefore WS sector need to introduce general life-cycle asset management principles and methods, as well as specific good international practices for WS asset management (including network sectorization, reactive and preventive maintenance, physical and commercial water loss reduction, asset and investment planning).

Covid-19 crisis reminded the WS operators of the importance of introduction of digital solutions for network management, although it has been clear for long time that such need to be introduced:

- ✓ Smart metering solutions for water at system entry through telemetry or SCADA solutions;
- ✓ Remote asset management through SCADA systems;
- ✓ GIS systems with reliable information for WS assets;
- ✓ Effective field activities management;
- ✓ Remote metering of customers` consumption.

Recommendations: Introduction of proper asset and financial management as well as customer service practices in WS sectors on national level

Still many WS operators do not provide proper and detailed financial accounting of different types of costs, and there is huge gap between the economic and technical departments in the entity.

Covid-19 crisis showed that providing sound financial information for different types of economic cost categories (individually by the companies and aggregated data on national basis) and analysis of how any external factors (such as Covid-19) have influenced costs is difficult task in the WS sectors of the countries surveyed in the Danube region, and therefore information is either not available, or with lower than needed quality.

Therefore it is obvious that WS sector need to introduce detailed requirements for accounting and reporting costs and assets in compliance with basic economic cost categories and types of services. Harmonization of general principles across countries will support long-term sector resilience.

As Covid-19 crisis impacted normal social activities and introduced lockdown and measures for social distance, companies have been forced to introduce quickly new types of customer service through digital solutions, but are still lagging behind the standard manufactures, service suppliers and traders (efficient digital solutions and channels).

Recommendations: Performance monitoring and benchmarking

Key Performance Indicators (KPIs) are systematic and consistent ways of measuring an organization's performance against others in the same industry. More and more authorities introduce KPIs to monitor performance, but there is no common standard. Information should be reported and calculated in similar formats (as you cannot compare "apples" and "pears").

Covid-19 crisis showed that WS sector across countries lacks reliable and homogeneous data, and therefore benchmarking is not possible.

Introduction of KPIs monitoring on national and/or local level will allow each country to evaluate current conditions of WS services provision. Each operator can be benchmarked against other companies of similar size. Aggregated national results can be benchmarked against other countries. Annual trends can be observed to demonstrate the effectiveness of decisions taken and practices applied.

Performance monitoring can be introduced both at local/regional and at national level in any WS sector regardless of its structure, organization and governance scheme.

Apart from legal benchmarking (by asset owner or sector authority), voluntarily sector benchmarking can and should be introduced, so the companies can compare their results internally and share good practices and ideas.

Recommendations: Business planning

Business planning is considered crucial for any kind of economic activity as the business plan summarizes all operational and financial objectives of the entity and provides all the detailed plans and programs with corresponding budgets demonstrating how these objectives can be implemented – or the business plan provides the road map of the current position to the desired final destination.

WS sector in the Danube region lacked crisis management plan before the start of the Covid-19 crisis. Therefore the sector lacks long-term planning and is vulnerable to any unexpected events.

If common requirements and standards for business planning are introduced, including preparation, consultation and approval, and long term planning is effectively introduced, WS sector resilience will be supported.

WS operator business plan should include in-depth analysis of the current status (service area, assets, customers) and forecast the future development of needs; sound and realistic forecasts of the operational and investment costs needed to respond; existing and future legislative requirements as well as asset owner standards and requirements; detailed risk and crisis management protocols should be considered, in order to formulate strategic objectives and detailed program how these objectives will be reached and what can go wrong.

Recommendations: Education and capacity building, support and coordination

Many of the surveys of the Covid-19 effect on WS operators showed that most of the companies were not prepared to provide home office for their employees. Lack of IT infrastructure is only the “visible” reason, but many others exist - not effective organizational structure, job requirements, employee`s performance assessment protocols and overall HR strategies.

Covid-19 crisis have reminded competent authorities that the current work organization of the WS operators needs to be reconsidered not only in the areas of asset and financial management and customer service, but also in the aspect of organizational structures and HR management. Therefore in-depth analysis and surveys are needed in those directions.

Programs for support and capacity building are essential if we are willing to change the status quo. In order to improve sector resilience and sustainability, solid asset management, financial management and customer service solutions and practices need to be integrated at all levels of entities` organizational structure, decision making and business planning.

Positive fact is that all surveyed countries have WS sector associations. GIZ survey provided excellent cases of good practices of WS sector associations in North Macedonia, Montenegro, Kosovo, Bosnia and Herzegovina, Albania and Serbia, as well as compendium of documents outlining the impact of the COVID – 19 crisis on PUCs and LGs in the target economies.

Final words

Even during Covid-19 crisis, WS sector was not treated as priority one. No particular measures were introduced to support the operators and/or customers of WS services.

Therefore significant efforts and communication by the stakeholders are needed to change attitude and perception by national authorities, politics and public towards WS sector.

At the same it is obvious that WS sector does not apply good practices and modern solutions, lacks long-term planning and is vulnerable to crisis.

Therefore current operators` organization and performance needs to be revised, updated and modernized.