

WAYS FOR PROMOTING RESILIENCE AND REHABILITATION OF AGING INFRASTRUCTURE

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8.6.2018



SYKE

Commentary

1. Resiliency in water services in Finland
2. Rehabilitation of aging infrastructure

Resiliency in water services

“Resilience is the ability of an economy, sector, or industry to withstand and adjust to unanticipated or unexpected shocks” (Esposito et al, 2018)

Resiliency in water services, aspects to be taken into account

- Water scarcity and effects of climate change
- Water quality
- Distribution network
- Sewer network
- Water treatment
- Wastewater treatment
- Rapid urbanization
- Data management
- Financing
- Water-smart society

WssTP – The European Water Platform

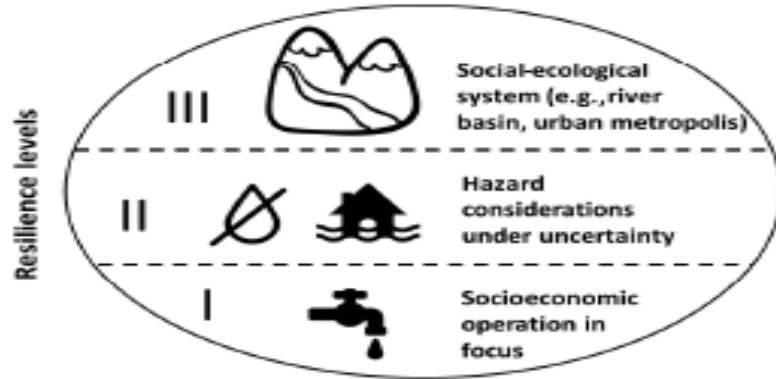
WssTP: The Value of Water (2016)

1. Reducing the impact of European society on our natural water resources by 50%;
2. Delivering the true value of water for our society, the economy and the environment;
3. Boosting the European water market as well as the global competitiveness of European water industries;
4. Securing society's long-term resilience, stability, sustainability and security with regard to water.

Measures needed in Finland

- Providing for more and more extreme weather events including heavier precipitation, floods and droughts.
- To cope with challenges a robust, flexible and resilient water infrastructure is needed.
 - Rehabilitation of aging infrastructure
 - From combined sewers to separate sewers
 - Awareness and good governance
- Multiple waters, good quality status of our water bodies and resilience all need to be supported by advanced multi-stakeholder governance.
- Real full cost recovery and systematic operation in asset management for water utilities.

Resiliency in water services



The urban water service: three levels of resilience (Johannessen and Wansler (2017)). In their discussion they present seven key principles or attributes of urban water resilience and related transitions that have derived from the results.

What is needed?

- Depends on society, country and culture
- Cost recovery, separated accounting for water services
- Transparency in pricing
- Asset management (e.g. proper network rehabilitation)
- Open information management
- Organized development planning
- Total Water Management (TWM)
- Integrated Water Resources Management (IWRM)

Discussion

- Resiliency in water services needs good practices in technology, economy and management
- Good governance can be applied in water services, and when properly adopted the resiliency in water services is easier to achieve
- Good governance does not concern only water utilities, but also all players in the water services chain; government, municipalities, private service and equipment providers
- Infrastructure in good condition is a prerequisite for resiliency in water supply and sanitation
- For supporting resiliency in water services, methodical tools can be applied; standards, management systems (IWRM, TWM), Water Safety Plan (WSP), Sanitation Safety Plan (SSP), water services development plans
- Full recovery financing by water fees is a principle that should be applied for investments and operation



THANK YOU!

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