D.T3.3.2 FUA-LEVEL COLLABORATIVE VISIONS ON CREATING ENABLING LOCAL FRAMEWORKS OF CUW USE

Subtitle

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CONTENT

INTRODUCTION

Summary of chapters 1-5. The description of stage of local strategies on circular urban water management preparation covering vision creation, goal and objectives setting.

1. Determination of the territory covered by the strategy

The Budapest FUA identified by the EU-OECD is the largest FUA in Hungary with 2.978 million inhabitants and 181 settlements. There is no legal entity representing and coordinating of functional urban area of Budapest.

As the water and sewage management is operating in the territory of Budapest and the supplier companies are owned by the capital city, the project team decided to focus on Budapest in the process of vison and strategy building.

Budapest – with 1.752 inhabitants and 23 districts - has two-tier administration. The municipality of the capital city (Budapest Board) coordinates several services and supplies for the whole city – e.g. public transport, water sewage and waste management, maintenance of green areas etc. and the 23 districts (Zugló Municipality Is one of them) have authority and scope in local services – e.g. public education, social and health services, local building regulations, maintenance of public spaces.

2. Stakeholder involvement

In 2020 two stakeholder meetings were organized in Budapest, 1 live meeting in January and 1 online in June.

Different sectors and experts were invited and attended on the meetings: NGOs, local authorities, neighbor settlements, Budapest districts and Budapest city administration, sectoral private companies, Budapest Technical University, sectoral suppliers, and media.

The same target group was invited to the knowledge transfer training.

The aim of the meetings and the training was to present the project, disseminate the knowledge on CUWM and open a wider discussion about the status and needs of urban water management in Budapest and neighborhood in aspect of climate change.

The first steps of common vision and strategy building started in the training and in the SG meeting in June with problem mapping, facilitated discussions and an online questionnaire on strategic visions and goals.

We have met different barriers in the vision and strategy building process:

- low level of engagement of the target group, only a few partners took part on all the events, new members needs basic info about the project and the process of involvement starts from point zero
- few feedback on the questionnaire after the meetings from the attendees -> we have to find a much easy way of online feedbacks and generate more small group meetings and interviews with key stakeholders
- finding and engagement of the key stakeholders e.g. climate and green needs more effort and personal networking capacity
- assigning the owner/taskmaster of the CWC local strategy is challenging as the project owner is the District 14 but the area of the strategy in the whole capital city Budapest

3. Baseline assessment

The synthesis of quantitative and qualitative assessment. The data and analysis essential for creation a common vision together with stakeholders.

The baseline analysis of Budapest is under development, here we provide a short summary of basic data and facts about the water issues of Budapest.

The city has 1.752 inhabitants and 23 districts, the total area of Budapest is 525 km2. The main river is the Danube, several smaller creeks are flowing in the river: Rákos creek, Szilas creek, Aranyhegyi creek. The highest flood on the Danube in Budapest was detected in 2013.

The average annual precipitation is 516 mm. The balance of the precipitation during the year shows strong volatility and the effects of climate are clearly identified in extreme heavy rains with flash floods and damages caused by storms and long drought periods, not only in summer but winter and spring drought is even more frequent.

The paved surfaces (asphalt, cement, stone) of the city are dramatically increased in last decades due to the increasing property sector.

The main water source of the city are the coastal wells in prohibited areas of the Danube. The quality of supplied drinking water is sufficient, 100% of residential buildings are connected to the water network and nearly 100% are connected to the sewage network.

By the opinion of participating experts, the highest potential of smart water management solutions is in the residential sector. However, green water management solutions like rainwater collection and greywater reuse are popular and acceptable for the citizens on theoretic level, their implementation is minimal.

4. Vision

At this stage of the planning process we can provide a very preliminary vision and strategic goals.

The first step was identifying the barriers and problems during the SGMs. The methodologies were facilitated discussions and problem mapping in the menti.com

Main barriers and problems:

- New buildings with huge roof surface and increasing paved areas often overload the sewage system. The problem is typical in the agglomeration and causes not only infrastructural or environmental but public health risks as well.
- The water management needs cross-border solutions between the settlements.
- The highest potential of CUW is in the residential sector, awareness raising, involvement and incentives are necessary to reach the goals.
- The economical and legal environment in Hungary doesn't help the innovative solutions like grey water or rainwater use. The payback period if investments is over 20 years, not enough motivation for the residents.
- Participants underlined the needs of cooperation of municipalities and common advocacy on policy level.

- Role of the capital city Budapest was highlighted in the discussion, but beyond the responsibility of the capital city, local solutions and local (building) regulations and codes were mentioned as key factors of CUW e.g. minimum requirements of water collection systems in new buildings and green roofs.
- Experts underlined that the obsolete infrastructure is a main barrier of investments.
- Grey water reuse was mentioned as a brilliant solution in micro settlement in rural areas without sewage system.

Main problems by the menti.com survey:

flash floods

drought periods

wastewater flow in natural water bodies

zero level of rainwater collection and use

watering plants with drinking water

weak water retention

heavy rains

too much paved surfaces

lack of capacity of the draining system

ground water flows in the basements of buildings

VISION

A preliminary evaluation of the feedbacks of the online survey shows the future of Budapest, where the technical infrastructure, urban-adaptable solutions (green roofs, grey water and rainwater collection) and natural areas contribute to the sustainable climate adaptive and harmonized water management system.

The municipalities play key role in the game of information and knowledge sharing, setting up new regulations, show good examples with pilots and institutional investments, and support the citizens in private projects.

5. Strategic goals and objectives

The process of identification of strategic goals will start on the next stakeholder meeting.

Next steps:

From identification of barriers and problems and summarized the results of the online the survey we can conclude and set up a common vision and strategic goals and discuss with the stakeholder group during the next meeting in October.