

# D5.5. Assessment of stakeholder engagement in water-related nature-based solutions

By definition nature-based solutions (NBS) should be multifunctional and provide multiple benefits to society and citizens (Kabisch et al. 2016). Therefore, stakeholder engagement and public participation are crucial for successful planning and implementation of water-related NBS in cities. Stakeholder can be understood as individual or institutional, professional, economic or other actor that have an interest towards the case or project, may be (in)directly affected by the project or can have an effect on the project. During the ATENAS project each case city and Living Labs identified and mapped their stakeholders to make sure that the core actors are engaged in the process. Here we present some main findings of stakeholder engagement in three different Labs and who and how they were involved in the case studies.

## Living Labs of ATENAS

**Kivistö, Finland:** A new residential area of 45,000 inhabitants is planned as a part of the Kivistö suburban in the City of Vantaa (pop. 241 000). The aims of the case were to (i) develop a systematic and interactive approach to support multi-objective urban planning in general and (ii) to demonstrate the approach in the Kivistö sketch area in developing and evaluating alternatives for urban planning and decentralised stormwater management.

**Łódź, Poland:** The City of Łódź is the one of the biggest city of Poland. The rapid development initiated in the second half of the 19th century resulted in dense urban development, air, soil and water pollution, and the channelization of rivers. The challenge in the area is related to a permanent river turned into temporary stream due to limited urban runoff restitution amplified by geological conditions, pluvial flooding and drought. The actions concentrate on the upper catchment of the Łódka River, being an icon of the city and a symbol of its industrial past. ATENAS project analyses of options for increased water storage and infiltration in urban areas through participatory design and implementation of demonstrative NBS as community building action.

**Lyon, France:** The Yzeron catchment (150 km<sup>2</sup>) is located to the south-west of Lyon city, France. A fast progression of urbanisation is observed since the eighties. The water coming from combined sewer overflow devices is rich of sediments and pollutions, causing quality problems in the rivers. The porous ramp is an application to trap and adsorb the pollution, carried by the river flow increase during summer storm events. The system were tested at a demonstration level in the Yzeron river basin syndicate.

# Assessment of stakeholder engagement in Kivistö

An intense Multi-Criteria Decision Analysis (MCDA) based collaborative approach was applied in the Kivistö case to develop and evaluate NBS and stormwater management alternatives.

Main stakeholders were city authorities from different sectors. The process was realised in a close co-operation with the planners and experts of City Vantaa and Syke's MCDA experts. A dozen meetings were organised. Typically, 5-8 planners / experts from City of Vantaa participated in the meetings.

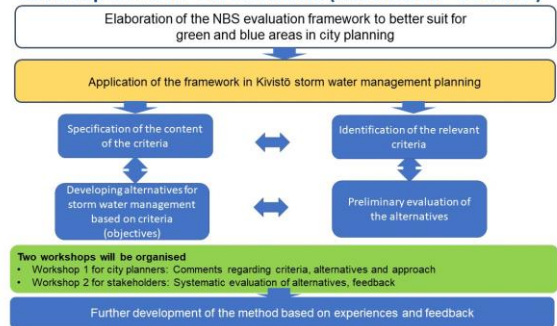
In addition to these meetings, a workshop was organised. Nearly 20 persons from different departments from the City of Vantaa participated in the workshop. The goals of the workshop were to discuss and further develop a preliminary evaluation framework and to assess the differences between preliminary alternatives against each evaluation criterion.

At the end of the workshop, we asked participants to give feedback on the event using a web-based survey tool.

In the last joint planning meeting, we asked for feedback on the approach from the planners and experts.

Due to changes in personnel in City of Vantaa we were not able to organise workshop for a wider public, which was the original plan.

## Roadmap of MCDA work in Kivistö (March 2020 - Oct 2021)



## Lessons learned

We succeeded to link MCDA to the real planning process, and city planners and experts from City Vantaa participated actively to the process and meetings.

The developed evaluation framework supported well discussions in the project team and was considered potentially useful also in the forthcoming projects.

In the workshop where we used the evaluation framework to facilitate discussions, both the strengths and weaknesses of the approach were realised, which is a good lesson for future projects.

Discussion in groups of several people took a lot of time, and there was not enough time to deal with all points.

The composition of the heterogeneous group was good, as it enabled different information and divergent perspectives.

The terms used should be understandable and concrete, for example socio-ecological and socio-cultural terms were perceived as difficult.

It was good that the alternatives were sufficiently different to stimulate discussion.

# Assessment of stakeholder engagement in Łódź

Several approaches were taken to ensure that diverse stakeholders are involved in the project in order to open up spaces for co-design and build co-responsibility and ownership of place among community.

Main stakeholders:

**Citizens** - residents of neighboring blocks and tenements involved during the project in the co-design, co-implementation and maintenance of NBS.

**Local leaders and activist** - people interested in creating blue-green infrastructure and learning from each other, using the potential and knowledge of communities, activists, institutions and companies (*i.e. Landscape Park Complex of the Lodz Voivodeship, Youth Climate Strike Lodz, Sports Fans' Association, City Guide, Revitalization School of Lodz, Social Tree Guardians, Energy for Cities, Yes for Lodz, Centre of Ecological Activities 'Źródła'*).

**City authorities** responsible for the management of blue-green infrastructure, spatial management, investments, coordination and supervising of public consultation and citizen involvement (*i.e. Department of Municipal Services, City Planning Office, Department of Ecology and Climate, Bureau for Social Participation*).

The assessment was based on the i) degree of involvement of residents at various stages of the project: participation in workshops, assistance in maintenance work on the square, interest in the investment itself, change in the square usage patterns after NBS implementation, and ii) cooperation with governmental and non-governmental entities at different stages of the project (support in implementation and maintenance of the NBS), involvement in other projects, conferences or workshops related to blue-green infrastructure (submission of new projects, participation in panel discussions, consultations).



## Lessons learned

Using several methods to engage residents (multi-topic workshops, in-home surveys) both in the DS area, its immediate vicinity and neighboring tenements is needed.

Inclusivity and openness are main requirements: Understanding and taking into account preferences of different socio-cultural groups.

Posting announcements about events and activities in places accessible to different residents.

Direct contact and continuous interaction with stakeholders at various stages.

Increase awareness, acceptance and knowledge exchange.

Despite, disrupted communication and involvement in the project at the beginning due to COVID-19 constraints (establishing indirect contact).





# Assessment of stakeholder engagement in Lyon

The river union of the Yzeron watershed (SAGYRC, <https://www.riviere-yzeron.fr/>) is funded by the partner municipalities. The union is competent for the actions to be carried out in the river bed and its surroundings, in order to ensure the protection of the riparian population against floods, the good ecological status of the river, in compliance with the WFD (2000/60/CE), and the management of the sharing of water volumes in case of drought.

The sanitation union of the Upper Yzeron Valley is funded by the partner municipalities (SIAHVY\*). It manages the drinking water, collective and individual sanitation services. It must ensure the proper functioning of the sanitation system and limit urban discharges during rainy weather into waterways, in compliance with the European directive 98/15/EC on urban wastewater.

The two syndicates work together effectively on the primary objective of the water resource management plan, which is to conserve every drop of rain that falls on the Yzeron watershed. This implies acting on the management of runoff in the slopes to limit their drainage by the sewerage systems. This action is completed by the treatment in the watercourses of urban discharges in rainy weather, not controlled. The coordination with the ATENAS project has made it possible to test a NBS in the river and to study a sectorization of the catchment area to manage the runoff with the help of NBSs (constructed wetlands, hedges, landscaping, spatial organization of land uses,...)



## Lessons learned

Shared analysis of the need to reduce the impact of urbanization on the quantity and quality of the water resource.

Regulatory objectives: to achieve good ecological status (WFD) of watercourses and to reduce the impact of urban waste (UWWTD). Partnership contracts signed between the research community and the testing of innovative solutions in the basin.

Financial and logistical support for the construction of the demonstration

Lack of knowledge about the operation and maintenance of NBS - Need for training to assist in decision making.

## Collaboration with experts and governmental authorities

Close collaboration between different sectors is crucial in most cases. One way to improve the situation is to use structured value-focused approach to develop alternatives and comprehensively and systematically assess the multiple benefits of NBS and thus make them more visible. The co-creative methods can bring different sectors and disciplines around the same table to discuss about common or competing goals. Based on our experiences on organizing co-creative and collaborative planning by using value-focused methods we listed few critical points that should be taken into account when preparing workshops and meeting. Critical points in preparing workshop and meeting with experts:

- Reserve enough time for discussion – avoid too optimistic and packed program
- Make sure that the composition of the group is heterogeneous enough to enable different information and divergent perspectives
- Groups should be small enough (3-4 people) hat everyone has enough time to present their own views
- Avoid using specific terms. Terms used should be understandable and concrete for all participants
- Make sure that alternatives are sufficiently different to stimulate discussion
- It is important to make it clear to the participants from which point of view they are making the assessment

## Inclusive public participation

### Invite and engage with the entire community

Sometimes engagement can fail effectively reach disenfranchised or disabled groups. Approaches to stakeholder engagement should be socially sensitive and inclusive. Targeted stakeholders could include low-income groups, women, children, the elderly, people with disabilities, minority groups, and those without formal land title, who may have been previously excluded.

### Listen local communities and respect sense of place

Sometimes the implementation of NBS can fail due to strong resistance of local residents or activists. People can have a strong fear or doubts towards the planned NBS despite the planners and city officers aims to improve environmental conditions. Instead of complains, be open and understandable towards their resistance. Listen their concern and respect their opinions. Empathy listening is a participation method that have been developed to support inclusive engagement.