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LIFE LATESTadapt INTERNATIONAL WORKSHOP REPORT

"Planning and operationalizing green infrastructure and ecosystem service concepts for improving urban climate resilience"

13-14 June 2023, Riga, Latvia

Venue: Ministry of Environmental Protection and Regional Development (MoEPRD), Peldu Street 25, Room 409

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This report fulfils the LIFE LATESTadapt Milestone Nr. 15 (MS15) supporting the implementation of T.4.1 Mapping and assessing green infrastructure and ecosystem services in climate adaptation context in demo municipalities.

General description

Aim of the workshop: to support transfer of knowledge and experience from all over the Europe in urban green infrastructure and climate adaptation planning, and to discuss the suitable approaches to be implemented by the LIFE LATESTadapt project.

Project specific activity: Milestone Nr. 15 (MS15) supporting the implementation of *T.4.1 Mapping and assessing green infrastructure and ecosystem services in climate adaptation context in demo municipalities.*

Participants: Workshop was attended in-person by 40 participants from Latvia, Estonia, Finland, Netherlands, Italy, and Belgium, as well as followed by online participants on live translation via Youtube, reaching on average 35 viewers at a time (see the list of attendees in the **Annex 1**).

The workshop agenda is available in **Annex 2**

The workshop recordings are available at:
https://www.youtube.com/watch?v=UmMIJaagjrg (June 13)
https://www.youtube.com/watch?v=azMschggrSY (June 14)

The workshop materials including presentations are available at:
https://www.bef.lv/latestadapt-project-international-workshop-materials/

Summary of the workshop programme

Session I: Introduction

The workshop was opened by Ilze Oša, Deputy state secretary (Ministry of Environmental Protection and Regional Development (MoEPRD), Republic of Latvia). This was followed by the first online keynote Anna Bruen (ICLEI European Secretariat), on "Nature-based solutions and urban greening to create climate resilient, liveable and just cities", introducing the NBS concept and providing a broad overview of the policy context and developments across Europe. Further, the LIFE LATESTadapt project and its planned demonstration cases on the implementation of NBS in stormwater management were presented by the project manager Tanel Mätlik (Viimsi Municipality). Anda Ruskule (BEF-Latvia) presented the LIFE LATESTadapt approach for applying the green infrastructure concept to develop urban greening plans in the three demonstration municipalities. The presentations were followed by the discussion on criteria for defining urban green space and NBS.

Session II: Urban Green Infrastructure - mapping, assessment, and planning

The session was devoted to the implementation of green infrastructure concept in urban planning from theory to practice. First, an online keynote "Urban Ecosystems, opportunities and challenges: an overview at the European Scale" was provided by Grazia Zulian & Federica Marando (DG-JRC D3), introducing to the EU wide process of mapping and assessment of urban ecosystems (urban MAES). Practical experience was shared by Daniel Hogendoorn (Department of Urban Planning and sustainability, City of Amsterdam) talking about the "Rigorous greening: a strategic principle for Amsterdam's urban development until 2050". Ivo Vinogradovs (University of Latvia/BEF-Latvia) presented the methodology for green infrastructure mapping, developed by the LIFE LATESTadapt project.

Session III: Urban Greening plans

The session started with presentation from Kati Vierikko (Finnish Environment Institute) introducing the results of the study on "Enablers and barriers for developing Urban Greening Plans in EU cities". Experience of Tallinn in applying greening solutions in urban planning was shared by Airi Andresson, (Green Transition Unit, Tallinn Strategic Management Office) having online presentation on "Adaptation activities according to the Climate Neutral Tallinn action plan". This was followed by working group discussion in which participants, divided into four group (representing different city profiles), explored the steps of developing urban greening plans as proposed in the EC guidance, reflecting on the preconditions, barriers, and opportunities at each planning phase. More in depth information on the discussion contents is described under the section *Summary of working group discussions.*

Session IV: Urban Nature-based solutions

The session was devoted to different aspects of implementing urban NBS from global to very local perspective. First, a keynote was provided by Prof. Nidhi Nagabhatla (United Nations University) on "Advancing Ecosystem Restoration for Climate Adaptation: Unleashing Nature-Based Solutions in Urban Planning and SDG Implementation". Very practical experience on the implementation NBS in urban environment was shared by Siim Reinla (Viimsi municipality) and Andris Ločmanis (Riga City Council). Alessia Chelli (University of Trento) presented findings of the study on "Cost-benefit analysis of urban nature-based solutions: a systematic review of approaches, scales, and outcomes".

The workshop was concluded with a panel discussion moderated by Annija Danenberga (Spatial Planning Department, MoEPRD, Latvia), involving Prof. Nidhi Nagabhatla (United Nations University), Kristīne Kedo (Spatial Planning Department, MoEPRD, Latvia), Jānis Ušča (City development Department, Riga City Council), Kati Vierikko (Finnish Environment Institute) and Daniel Hogendoorn, Department of Urban Planning and Sustainability, City of Amsterdam). Panellists addressed the main challenges and opportunities in introducing NBS in urban planning and practice. More in depth information on the panel discussion contents is described under the section *Summary of the panel discussion.*

The workshop was finalized by a site visit, including the LIFE LATESTadapt project demonstration site in Rīga.

Key messages from the discussions in the plenary sessions

- A key issue when working with urban green spaces, especially on strategic and policy levels – **how to define an urban green space.** There are many definitions and also the figures on the number of green spaces in a city vary highly, depending on what is considered a green space – either actual land cover, or only spaces that are classified as green spaces in planning documents, only public and municipality owned or also privately owned spaces etc. During the discussion, it was concluded that when defining a green space, it is crucial to consider both spatial scale and size. It was suggested that the term "urban natural spaces" could be used because this definition would include also blue infrastructure and automatically exclude e.g. artificial grass fields. Parks are also in a way natural, even though maintained by humans.
- How **to interpret green infrastructure and nature-based solutions** and how to clearly explain their differences? Nature-based solutions (NBS) have a specific aim/purpose, a problem that they are solving. Green infrastructure (GI) is a wider concept, more related to strategic planning. GI is a network of green spaces, and it is not necessarily created by NBS. But NBS can be part of GI.
- **Urban green spaces should be seen not only as recreational places**. Recreation is only one of many functions that are still not well known by the general public. More awareness-raising and education is needed.
- There are now many **economical justifications** of the positive effects and long-term benefits that implementation of NBS brings. They can support justifying NBS in city budgets.
- For the implementation of NBS **political support is crucial**. However, it varies highly and sometimes even "overnight" when political power changes.
- Current policy issue that will greatly affect the future of NBS and GI in EU – **Nature Restoration Law.** It is a very ambitious law proposal that puts nature and biodiversity in the center.
- A vital, yet challenging aspect of developing an urban greening plan – **implementing a monitoring system**. It might be partially linked to data availability and lack of systematic biodiversity monitoring. Sometimes some data is available, but the sources are scattered – it is challenging to bring together the available info in a united way and therefore to monitor changes.

Summary of working group discussions

The discussion was organized using the World Café method. Participants were divided into four groups representing four city profile: (1) large multifunctional city, (2) medium sized industrial city, (3) small (shrinking) town with a lot of green areas and (4) peri-urban growing town (see city profiles in **Annex 3**). After getting familiar with the profile, participants received a task to identify barriers and enablers/opportunities for development urban greening plans within four phases of the planning process as defined in the EC Guidance for cities to help prepare an Urban Greening Plan[1]:

1. Preparation for planning
2. Developing a long-term vision and goals
3. Action Planning
4. Developing a communication, education, and public awareness strategy.

Questions addressed by the groups:

- What are preconditions for successful implementation of the planning phase?
- What barriers and opportunities can be expected in this process?

Phase 1 – Preparation for planning

Planning steps addressed in the discussion:

- Secure a long-term political commitment
- Establish a working structure
- Establish a co-creation process

Key messages from the discussion

- Preconditions for successful Phase 1 (preparation for planning) are:
    - to have some legal requirements for using nature-based solutions/planning green infrastructure
    - Right political timing within the voting cycle
    - High level decision is needed (e.g. the local government decree/order)
    - Assessment from the outside to identify the problems
- Main barriers are:
    - Silo type and short-term thinking within the organisation and lack of cooperation
    - Capacity of planners and education
    - Competing interests and lack of interest from industry
- Main opportunities are:
    - Cross-sectoral collaboration and cooperation for common vision
    - Steering group created to coordinate the process
    - Cost benefit analysis conducted to show the benefits of solutions
    - Proper language used in communicating
- Funding is important – might be an opportunity or a barrier

[1] https://environment.ec.europa.eu/topics/urban-environment/urban-greening-platform_en

Phase 2 – Developing a long-term vision and goals

Planning steps addressed in the discussion:

- Developing a long-term vision and goals as per different city profiles, based on (1) visionary wishes/values, and by (2) identifying main environmental and societal pressures in order to justify choices of future actions to achieve the set goals

Key messages from the discussion

- ***Long term vision is necessary for all types of cities and towns***
- There are many wishes and values cities want to accomplish, therefore there is a need to prioritize and think systematically (by applying ecosystem-based approach)
- Focus on health when identifying future wishes for the different city profiles– both the city's natural qualities incl. species richness and human *(identified adjectives: Liveable; Towards health; Biodiverse; Attractive for green living; Nature-inclusive, Community focused; Welcoming; Restorative etc.)*
- Need to bridge urban and rural divide by cross-sector zoning at peripheries and by maintaining green connectivity
- Need to understand main pressures in local contexts, as a way to identify problem-areas
- Necessity to monitor the current knowledge of people, allow co-creation events to raise the overall awareness and contribute to the long-term commitments
- Challenges – who to involve, what is 'the right decision'; gaps in responsibility division. There is need to balance the economic interests versus nature-inclusive developments (NBS value creation)

Main conclusions specific to city profiles:

Large multi-functional city group tended to relate the long-term vision on the sustainability aspect and by working towards bridging the rural and urban divide with horizontal visioning approaches (e.g. Public Private Partnerships, Community-based strengthening).

*Medium sized industrial city grou*p approached to specify the long-term vision in relation to the necessity of increasing green space connectivity to foster city's wellbeing. At the core of implementing urban greening measures were noted discrepancies identified within the planning documents and the actual implementation gap.

*Small (shrinking) town with a lot of green area*s groups tended to actualize the importance of culture and community co-creation for strengthening the implementation of urban greening as means of creating a place an attractive place to live ('valuing the existing').

Peri-urban growing town group mainly addressed the need to justify actions within boundaries, and that NbS multi-functional design approaches may provide solid solutions for the various societal and environmental pressures that such city profiles face. Raising awareness, reestablishing green ecological

connections, and ensuring willingness for transformative action from the decision-makers were main facilitators identified towards successfully implementing the set objectives.

Phase 3 – Action Planning

The planning steps addressed in the discussion:

- Analyse the current state of nature and biodiversity
- Set indicators and targets
- Agree on priorities, actions, responsibilities, timelines, and financing

Key messages from the discussion

- Defining "green space" is one of the essential preconditions to assess the current state of urban GI as well as for setting of the maintenance and restoration targets.
- Participants of all groups (city profiles) agreed that that "green space" includes all kinds and sizes of green and blue areas in the urban environment, accessible as well as non-accessible to the public (e.g. private gardens).
- Satellite data (SENTINEL) can be used to assess the current state (baseline) of the urban green and blue areas. For analysis of the condition various indices can be applied (e.g., NDVI - Normalized Difference Vegetation Index, which quantifies vegetation by measuring the difference between near-infrared (which vegetation strongly reflects) and red light (which vegetation absorbs)).
- Participants of the "Large City" group added another important aspect in defining green space – its quality. However, the quality assessment cannot be based purely on remote sensing data - it requires field surveys. The Shannon index can be used to assess biological diversity. Furthermore, the connectivity and accessibility of the green space shall be assessed.
- One of the main challenges in maintaining and planning of urban green space for all city profiles is the development (planned built-up/industrial) areas, which currently can be rather green, holding high ecological values. Opportunities or possible mechanisms for preserving these areas include:
    - Discussing the change of the allowed land use type in the process of elaboration of the next development plan,
    - Introducing changes in taxation policy by decreasing taxes of the green space,
    - Introducing requirements for developers and architects on creating/ preserving green space. Such practice is applied in some municipalities in Estonia (e.g. Viimsii).
    - Scenario-building together with developers and citizens to find smart and commonly acceptable solutions for development of green space.
    - Tools like "Green Factor" can be used to integrate the green space in the development plans.
    - For peri-urban towns a nation strategy could be helpful defining these as a green space around the larger cities.

- Urban GI planning shall involve ecologists and landscape architects as well as the civil society from the very beginning to triangulate the data.

- The "Medium size city" group raised the issue of flooding risks and how it is dressed or influenced by different development plans. The areas of high flooding risks shall be prioritized in urban GI planning and restricted from built-up or industrial developments.

Phase 4 – Developing a communication, education and public awareness strategy

Key messages from the discussion:

- Although often overlooked, communication and education are vital aspects of urban greening as public acceptance (or the lack of it) can significantly affect the effectiveness of the plan.
- Communication activities in any city should focus on the concrete benefits people will gain and how the changes will influence you as an individual.
- Engagement level should be clearly defined and communicated – do we only inform citizens? Do we co-create with them? In case citizens are engaged, it is crucial to use the info gained (and clearly show how it is used), otherwise it might discourage participation in the future.
- It is best to involve citizens from the beginning of the process, not only inform them after – co-creation is the key.
- When communicating, a clear non-technical language should be used. Too complex language is often a barrier.

Main conclusions specific to city profiles:

Large multi-functional city

- In a large city, it is important to break down your audience – socioeconomic groups, cultural backgrounds, neighborhood specifics etc. Each group might need a different approach and focus.
- Opportunity for engaging people in a large city – social surveys. They allow us to collect the opinions of a larger part of society and also reach people who do not want to participate in more time-consuming engagement activities.
- Instruments that support practical greening plan activities performed by citizens should be encouraged. Such engagement activities improve sense of belonging, sense of responsibility.

Medium sized industrial city

- Important stakeholder: industry. Main barrier – lack of interest. Opportunities – tax reduction for sustainable stormwater management, certificate for sustainability, sustainability awards, events where industries share good experience, green ranking of companies (involve NGOs).
- Campaigns for citizens – how industrial pollution affects their quality of life and loss of biodiversity → call for action

Small (shrinking) town with a lot of green areas

- Opportunity – the scale of the town allows communication on a more personal level, development of more detailed plans, barrier – citizens might believe that the town is already green and there is no need for action.

- As some of the GI related issues are related to the new development, more communication between developers and municipality is needed. The town might ask for obligatory consultations with municipality for the developers.
- Also in small towns it is important to involve people in the maintenance of NbS, to listen to their ideas in order to strengthen the sense of belonging, the sense of responsibility and (emotional) ownership.

Peri-urban growing town

- Specific of such towns – large part of green spaces is privately owned (gardens).
- Main barriers - creating initial interest, main opportunities – family-friendly and interactive events for young families, social media campaigns (as suburban towns tend to have a younger population in Latvia), school projects.
- Important activities might be behavior change campaigns that invite people to maintain more biodiversity-friendly gardens. Some "green tax credits" might be offered for maintaining such gardens (economic motivation).
- Potential to use citizen science with acknowledgements/prizes for active participation – has worked well in other countries.

Summary of the panel discussion

What are the main challenges, barriers, and opportunities in implementing the EU urban greening policy?

- There are already some signs of transformative change in Europe - cities are taking responsibility for implementing greening solutions and there is increasing support from city authorities. However, barriers to the change arise from some past dependencies, e.g., sectoral division of responsibilities, which hampers the implementation of the greening policy objectives. Collaboration between different sectors still must be strengthened to reduce silos.
- The changing political environment as well as the instability of administrations disrupts the continuity and knowledge transfer of well-established initiatives. This barrier could be overcome by not relying on individuals, but by investing in organisational capacity and building a political discourse for urban greening.
- The political discourse in support of the NBS can be strengthened by a better understanding of where the envisaged NBS are positioned in the process of system change – whether they provide minor improvement (incremental value), whether they reform the system (reformative value), or whether they have transformative value.
- The complexity of the GI and NBS concepts and projects (and the various competencies and actors involved) also makes their uptake by the city administrations difficult.
- From the city development policy perspective, the urban GI planning would have to be addressed at a broader scale, e.g., metropolitan area. There is high land consumption pressure in peri-urban areas (as in the case of Riga), therefore we should look for a way to integrate GI planning of urban and peri-urban areas for preserving the green space and connectivity of the green corridors.

- Barriers in operationalisation of the greening policy and NBS are related to gaps in multi-level governance, which depends on capacities and competences (who can act) of the different administration levels.
- Multi-level governance perspective is needed as well for bringing down the high level (EU and national) policy statements on investing in the NBS down to the local municipality level. Guidance document and best practice evidence on how to implement them in practice would be needed. So far, the process from EU level statements to implementation at local level is way too long.
- The operationalizing NBS can be supported by several entry points in EU jurisdiction, e.g., adoption and implementation of the EU Nature Restoration Law, adoption of the NBS strategies in national policies as adaptation measures to climate change as well as by using EU funding for the post pandemic recovery, which promotes investments in NBS and urban landscape as driver of transformative change by boosting green economy and jobs and stimulating green and just recovery.

How to create more value out of NBS?

- The case of Amsterdam demonstrates the potential of public-private partnership for implementation of NBS. City of Amsterdam has created green space for providing ecosystem services at the same time giving an opportunity and space for entrepreneurs (e.g., for opening caffes), thus creating multiple benefits to society. However, such approach requires very early involvement of all actors and clear agreements.

Involvement of society

- Involvement and acceptance of society can be achieved through educational campaigns and easy understandable and practical information on implementation of NBS.
- The benefits of the NBS need to be better communicated to the public, including raising awareness of the importance of nature for people's quality of life. This includes spreading the word about the wealth of scientific evidence on the positive effects of nature on human health.
- To increase the recognition and acceptance of NBS in society, we need to change the way we talk about it. Also, the involvement of behavioural scientists might be desirable to stimulate behavioural change. The right wording and metaphors for explaining of NBS can be discovered by learning how local people talk about their connection to nature and what metaphors they use.
- While Urban Greening Plans are among the main expected results of the LIFE LATESTadapt project, the main outcome will be the process of the involvement of all stakeholders in developing the plans and finding the best solutions for urban greening.

Rapporteurs: Agnese Reķe, Anda Ruskule, in collaboration with MoEPRD representatives Annija Danenberga, Mārtiņš Grels

Appendices

Annex 1. List of attendees

Annex 2. Agenda

Annex 3. Working group discussion city profiles

Annex 4. Photographic report