

Application of the green infrastructure concept in the LIFE LATESTadapt project

Dr. geogr. Anda Ruskule
Senior ecosystem service and green infrastructure expert
Baltic Environmental Forum-Latvia

LIFE LATESTadapt International Workshop 13.-14.06.2023









Objectives

Mainstreaming green infrastructure (GI) and naturebased solutions (NBS) in local urban municipal planning for improving climate resilience of the cities and wellbeing of citizens.

The enhanced planning of GI and NBS will also produce additional benefits in terms of environmental quality and nature in urban space











Policy context

New EU Climate Adaptation Strategy (EC, 2021):

> Implementing nature-based solutions and blue-green infrastructure for supporting climate resilience

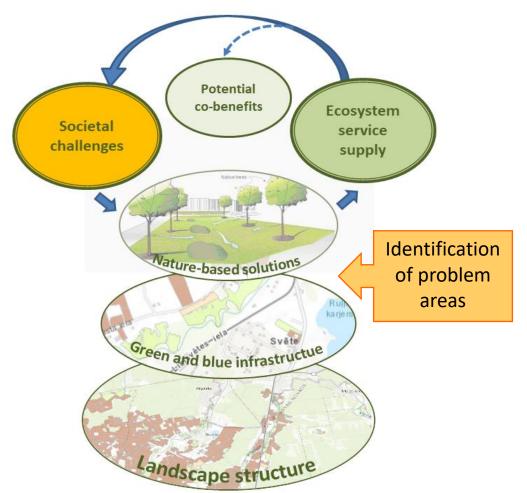
EU Biodiversity Strategy 2030

➤ An EU Nature Restoration Plan – commitment until 2030: Cities with at least 20,000 inhabitants have an **ambitious Urban Greening Plan**

EU Nature Restauration Law (proposal), published in 22.06.2022:

Member States shall ensure an increase of the total national area of urban green space of at least 3% (of the total area of cities and towns in 2021) by 2040, and at least 5% by 2050.

How we define urban green infrastructure and NBS

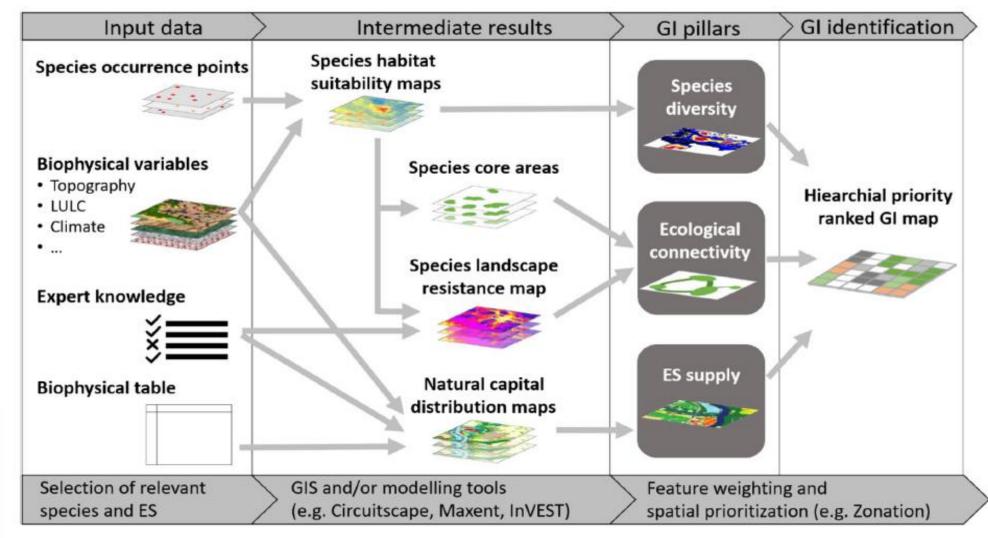


Urban Green Infrastructure – all kind or green and blue space in urban environment that has an ecological value and functions

Nature-based solutions – "actions to protect, sustainably manage and restore natural and modified ecosystems that address societal challenges effectively and adaptively, simultaneously providing human well-being and biodiversity benefits" (IUCN, 2016).

Source: Albert C., et al.2019. Addressing societal challenges through nature-based solutions: How can landscape planning and governance research contribute? Landscape and Urban Planning 182: 12–21.

Example of methodological framework for GI mapping

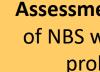




Urban GI mapping and planning in the LIFE LATESTadapt project

Stakeholder involvement

Mapping and assessment GI condition and priority sites for NBS



Assessment of suitability of NBS within identified problem areas



Co-creating policy and management options for improvement of GI

Elaboration of the maintenance protocol of NBS:

Rīga, Cēsis, Valmiera, Viimsi, Haapsalu, Võru, Rakvere, Narva

Development and adoption of the Urban Greening Plans:

solutions for adaptation to climate change, improvement of GI condition & connectivity (restoration)

UGP for Riga

UGP for Cesis

UGP for Valmiera

Urban GI mapping and planning in the LIFE LATESTadapt project

Mapping and assessment GI condition and priority sites for NBS



Assessment of suitability

of NBS within identified problem areas



Co-creating

policy and management options for improvement of GI

Compilation of spatial data:

- Land use/land cover
- other GI related nature features
- Socio-cultural values
- Problem areas

Assessment of GI condition & functioning:

- Land use/land cover
- other GI related nature features
- Socio-cultural values
- Problem areas

Spatial prioritisation of areas for:

GI protection

LATVIA

- Improvement/restoration
- Implementation of NBS

Input: catalogue of technical solutions for NBS

Modeling to identify suitable sites for placement of NBSs

Multi-criteria analysis:

- Contribution to solving of the identified problem
- Expected co-benefits
- Implementability (cost-effectiveness; property rights; compatibility with grey infrastructure

Series of meetings and workshops

involving representatives of municipalities, local communities, developers, landowners and researchers

Establishment of planning teams for each demonstration site ensuring representation of all interests

Participatory scenario building for NBS implementation





Results presented within an online map platform

Main challenges/ issues to be addressed

- Data availability
- ➤ Co-ordination of data flows and management systems (e.g., for storm-water management)
- > Conceptual/classification issues (e.g., how to define what is urban green space?)
- > Perception of urban GI/NBS by different stakeholders, resistance to innovations
- ➤ Need for a transformative change...













Anda Ruskule
Baltic Environmental Forum-Latvia
anda.ruskule@bef.lv