



NATURED

Nature-bAsed soluTions for a jUst Resilience in thE Adriatic-Ionian cities

Integrating Nature-based Solutions in urban planning frameworks for climate resilience: insights from the NATURED project

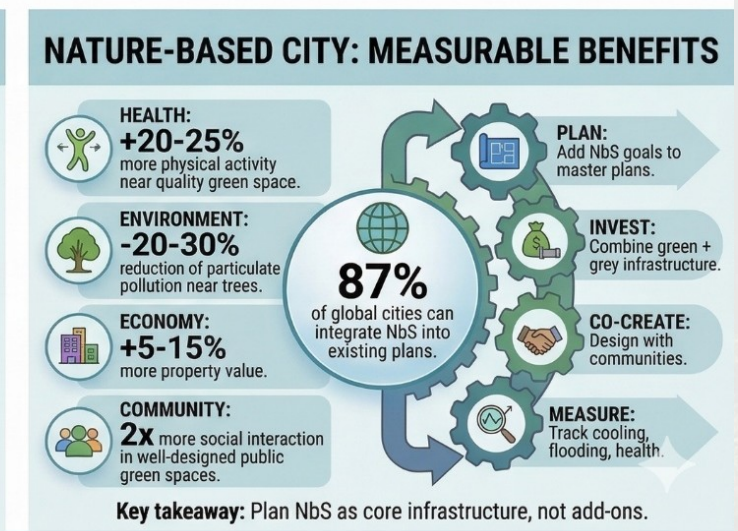
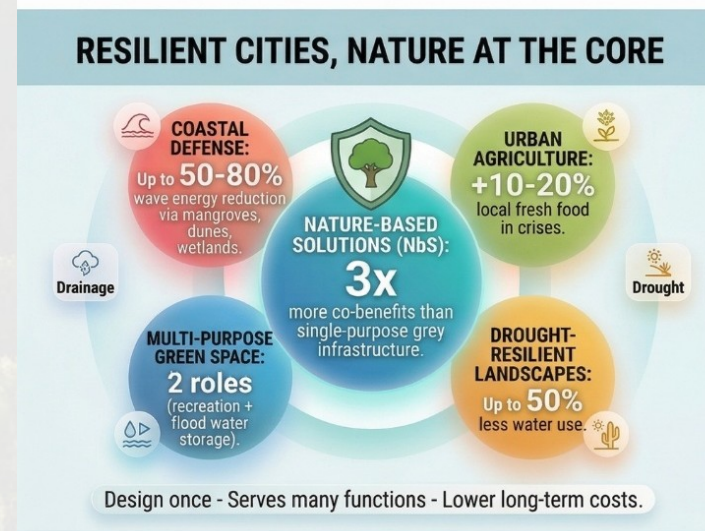
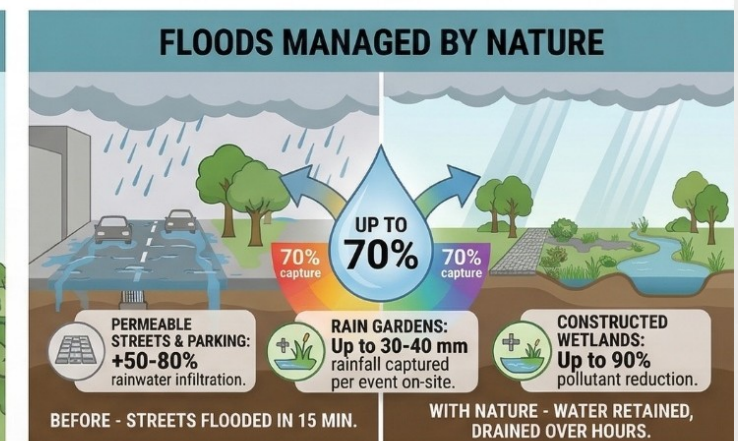
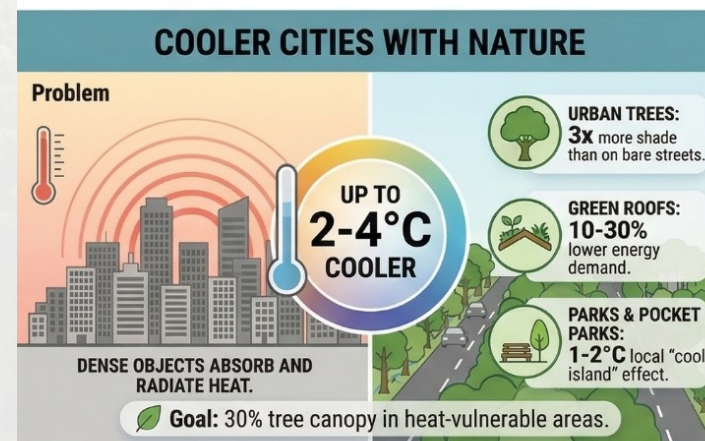
Nature-Based Solutions in Action: Scaling Innovation Across Europe
Virtual event - 17 September 2026



SETTING THE CONTEXT

Climate issues are exacerbated in cities, where hazards/vulnerabilities (heat islands, surface floods) and exposures (e.g., people, buildings, infrastructural assets, cultural heritage) are high.

Nature-based Solutions (NbS) are considered a promising adaptation option for their effectiveness, sustainability, multifunctionality, and added value to cities and citizens.





OVERVIEW OF THE PROJECT



Nature-based solutions
for a just Resilience in the
Adriatic-Ionian cities



EUR 1.269.913,13

Total EU funding:
€ 1.079.426,13 - (85%)



12 partners (+ 3 associated
partners)



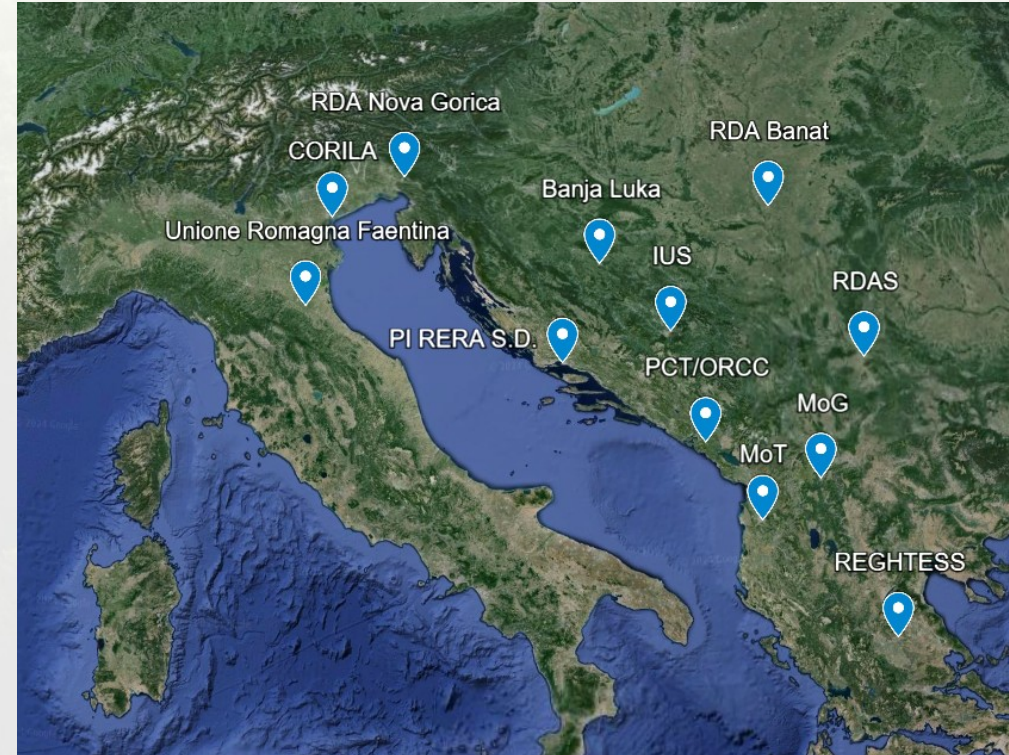
30 months

01 July 2024 – 31 December 2026

OVERALL GOAL: To enable policymakers to prevent climate change effects in urban areas by adopting Nature-based Solutions for climate adaptation

2 technical/scientific partners
5 municipal administrations
5 regional development agencies

11 municipalities involved
(directly or supported by regional
development agencies/scientific
partners) in 9 ADRION countries





OBJECTIVES/ACTIVITIES

- Providing **training** activities to improve partners' understanding of climate risks and NbS benefits in urban areas.
- Developing **evidence** through mapping climate hazards/vulnerabilities that can support planning decisions.
- Developing joint **strategies** and **action plans** for integrating NbS into governance frameworks and planning instruments.
- Involving citizens for **co-creating** NbS portfolios for climate adaptation.
- Defining criteria for **revising Public Works Plans** to incorporate NbS projects into future public investments.
- Implementing **demonstrative NbS** in each city.



STEP 1 - TRAINING

3rd Transnational seminar “Challenges and opportunities for nature-based solutions planning and implementation”

18/03/2025

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[embed]<https://youtu.be/AYVZPX-PGT8/>[/embed] ...

READ MORE »

2nd Transnational seminar – Climate change and cities: flood risk and resilience

18/03/2025

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[embed]<https://youtu.be/wIAAz5sUeJk/>[/embed] ...

READ MORE »

1st Transnational seminar – “Climate change and cities: urban microclimate and heat adaptation”

18/03/2025

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[embed]<https://www.youtube.com/watch?v=mlI53salxOg/>[/embed] ...

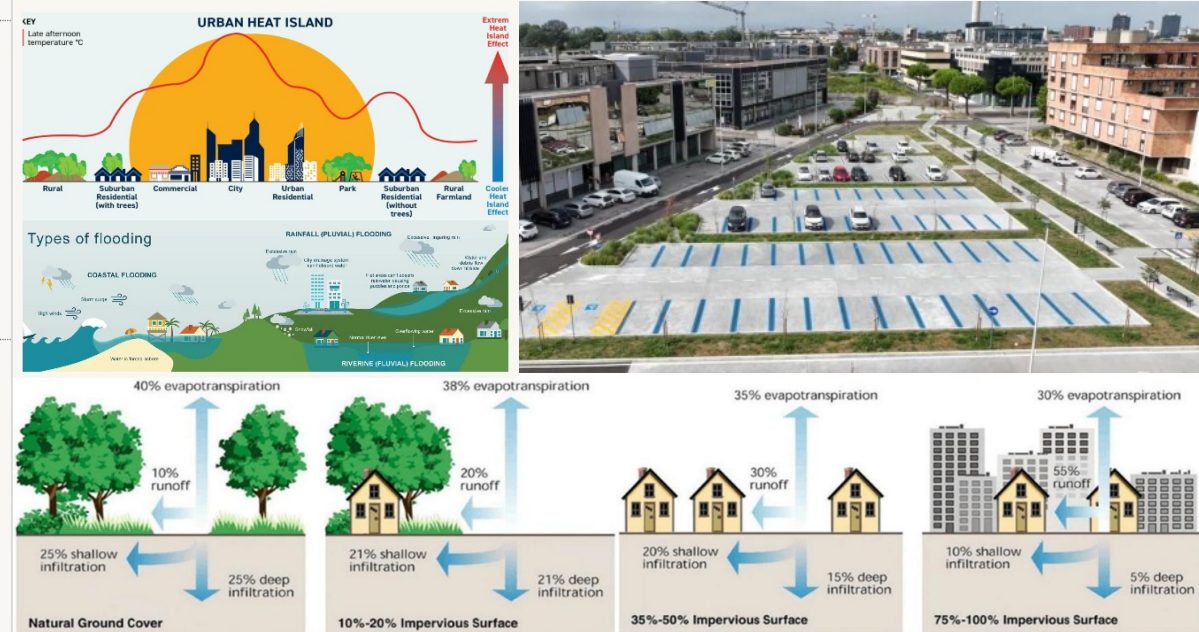
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Narrative report on the complex interactions between climate and cities

11/09/2025

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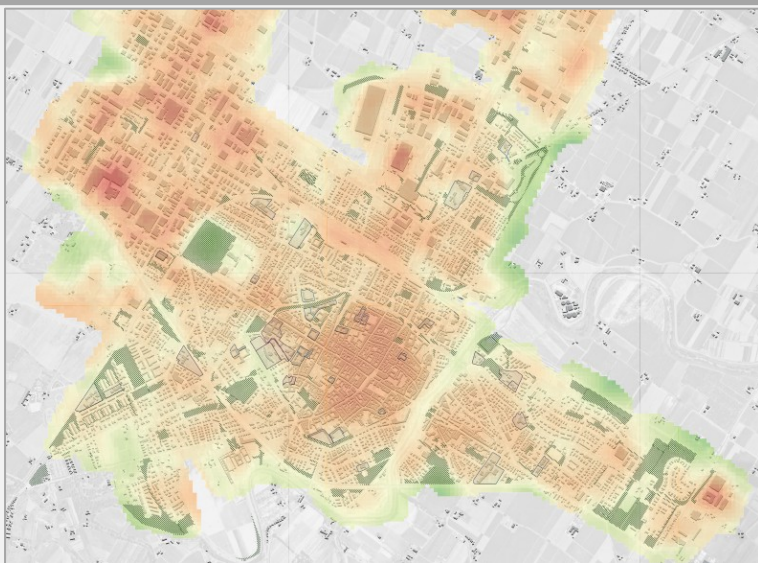
This narrative report provides readers with key information to understand how cities react to critical ...



<https://natured.interreg-ipa-adrion.eu/library/>



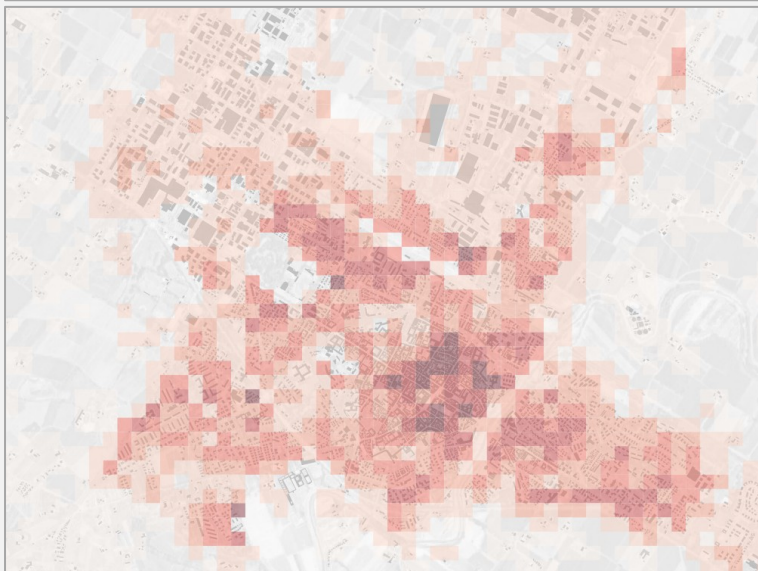
STEP 2 - EVIDENCE BASE



The example shown here is related to the city center of Faenza, Italy

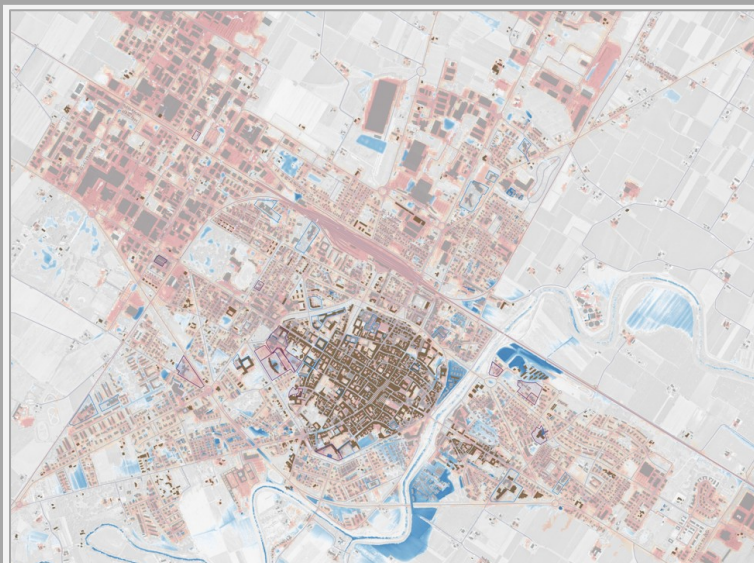
Propensity of urban areas to suffer from UHI effects

Urban Heat Island vulnerability
Synthesis indicator
1
0



Heat stress risk based on exposed residents

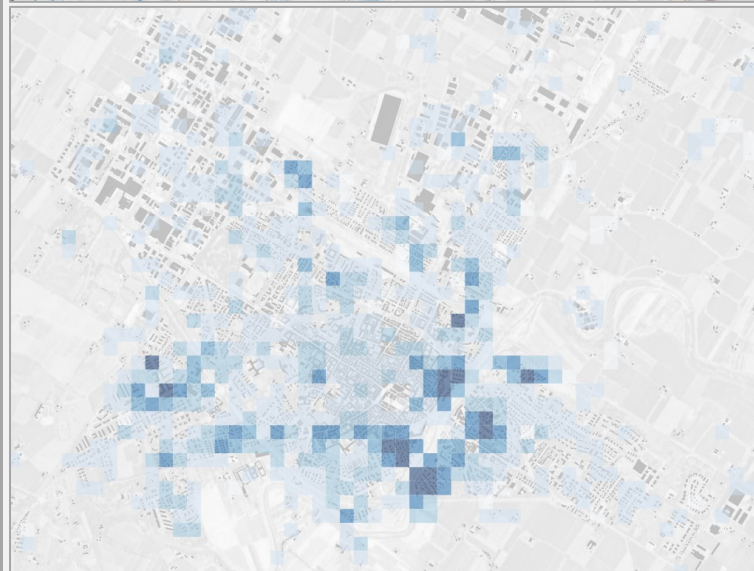
Minimum risk
Maximum risk



The example shown here is related to the city center of Faenza, Italy

Modelled flooded areas during an intense rainfall event

Imperviousness density
%
100
1
Flood extent (areas with >30cm of water depth in a 100mm/h pluvial event)
Water depth (m)
10,5
0,3



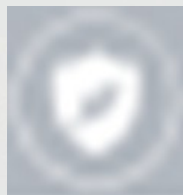
Flood risk based on exposed built-up spaces

Minimum risk
Maximum risk

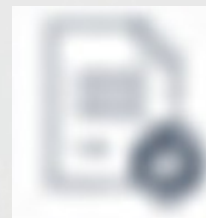


STEP 3 - STRATEGIC FRAMEWORK

A jointly developed strategy that can serve as a roadmap for the effective integration of NbS for climate adaptation within city decision-making arenas.



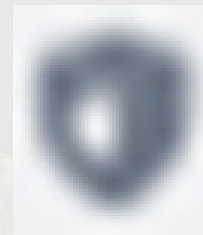
**GOAL 1: ENHANCED AWARENESS,
KNOWLEDGE, AND CAPACITY
BUILDING**



**GOAL 2: STRENGTHENED POLICY
AND GOVERNANCE FRAMEWORKS**



**GOAL 3: IMPROVED ADMINISTRATIVE
AND FUNDING ENABLING
FRAMEWORKS**



**GOAL 4: BOOSTED LEADERSHIP AND
VISIBILITY**



STEP 4 - ACTION-ORIENTED KNOWLEDGE

An action plan containing technical and locally co-created knowledge and NbS portfolios in each city, for paving the way towards the integration of NbS in public work plans and other planning instruments.



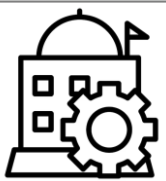
3. INTEGRATION PATHWAY INTO PLANNING DOCUMENTS	
Field	Description
3.1 Potential municipal Planning instruments and Public Work Plans where NbS can be integrated	Based on discussions with municipal representatives (technical and political) and the stakeholder debate outcomes: - Guidelines for the adoption of NbS in public and private projects will be realized in URF territory (<i>Resolution/public document n. 90/2025, approved on 26.06.2025</i>) - General Urban Plan (new/revised PUG) and Building Code (<i>in progress</i>) - Triennial Public Work Plan

3.1.2. NbS Portfolio Faenza								
NbS	Time-Schedule (Short y1-3/ Mid y3-7/ Long y7+)	Management Maintenance (Public/Private/Both)	& Roles	New Potential Green Jobs	Environmental Benefits	Social/ Cultural Benefits	Economic Benefits	Estimated (Low/Medium/High) Cost
Green roofs	Mid y3-7	Both for their respective responsibilities. Execution: private owners, housing cooperatives, and public institutions for public buildings like school, etc. Maintenance: usually private, with technical support; public buildings maintained by municipal services.		Architects, landscape designer; Green roof technicians/in stallers; Sustainable materials producers/sup pliers; horticulturists	Main climate benefits: Temperature regulation; Surface water flood mitigation. High provision of: Regulation of the water cycle. Medium provision of: Air quality improvement; Noise mitigation; Biodiversity (especially extensive green roofs); Pollination (especially extensive green roofs).	High provision of: Recreation, education, and gathering; Amenity value. Medium provision of: Health and quality of life; Employment. Additional notes from city debates: Potential to create a stronger sense of connection with nature in everyday life	High provision of: Energy savings. Medium provision of: Increased value of land/property. Additional notes from city debates: Lowered long-term infrastructure costs by reducing stormwater-related damage.	Installation costs*: Medium (30-100 EUR/m2) to high (> 100 EUR/m2). Maintenance costs*: Low (0-3 EUR/m2/year) to medium (3-10 EUR/m2/year). *Costs are generally higher for intensive green roofs and lower for extensive green roofs.

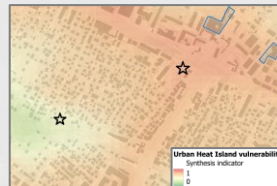


STEP 5 - CRITERIA AND STEPS FOR REVIEWING PUBLIC WORK PLANS

Currently in progress, application of evaluation criteria and steps for reviewing public work plans/programmes to integrate NbS in public work projects.



EVALUATING PUBLIC WORK PROJECTS TO IDENTIFY ELIGIBLE NBS TO BE INTEGRATED



USING VULNERABILITY/RISK MAPS, EVALUATING LOCAL ADAPTATION PRIORITIES IN PROJECT LOCATIONS



IDENTIFYING PRIORITY NBS TO ADDRESS LOCAL ADAPTATION DEMAND



MULTIPLE CRITERIA EVALUATIONS TO SUPPORT NBS PRIORITIZATION THAT ADDRESS LOCAL NEEDS AND PROVIDE CO-BENEFITS IN PUBLIC WORK PROJECTS



STEP 6 - TESTING PILOT SOLUTIONS

Currently in progress, each partner city is testing a **pilot NbS project**, co-defined during the previous steps. A plan for **replication** is expected.

- Testing innovative solution prototypes (e.g., green canopy cover structures)
- Testing integration opportunities (e.g., green wall installation in a public building currently undergoing refurbishment works)
- Testing administrative/procedural steps (e.g., public procurements, formal integration in the current public work plan and/or associated public investment cycle)





FINAL REMARKS

What is it all about?

Testing/applying a step-by-step approach to analyze, integrate, and mainstream effective and legitimate NbS for climate adaptation in urban planning practices and instruments.





FINAL REMARKS

Lessons learned:

Not all the pilot cases are equally advancing effective NbS integration.

- **Enabling factors:** strong commitment (possibly due to urgency of climate adaptation/past events, community demand, awareness/capacity of technicians and decision-makers) and opportunity/temporal alignment for integration into the plan's review cycles are the main “fertile ground”.
- **Limiting factors:** lack of local data for detailed characterization of vulnerabilities/risks; planning cycles that are not aligned often mean losing momentum for NbS integration; limited capacity/resources or willingness to take responsibility to innovate business-as-usual planning approaches, e.g., changing normative, instrumental, and political aspects/views for NbS implementation.



Thank you for your attention!

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