Seeds of Change: Citizens & Cities

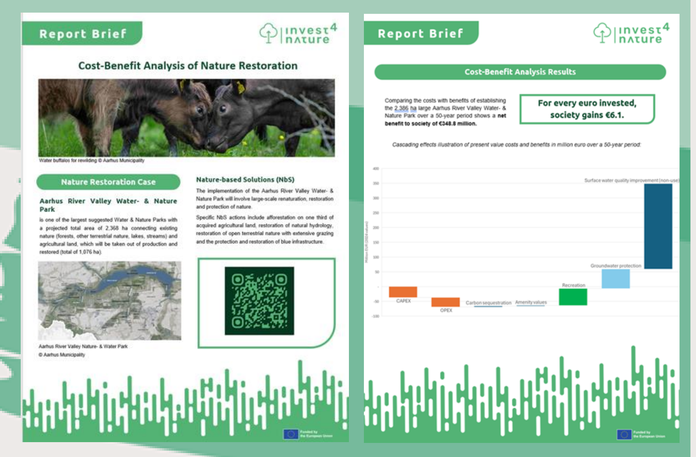
CITY OF AARHUS

NATURANCE

Funded by the European Union

Multifunctional Water- & Nature Parks for people and businesses

#naturancefestival



CITY OF AARHUS

KEY ISSUES

Upscale NbS to landscape level through Water- and Nature Parks.

Multifunctionality Protect drinking water, carbon sequestration, biodiversity, recreational opportunities, retaining nutrients and avoid pollution of surface and coastal waters.

Attract External financing and partnerships.

NATURE-BASED SOLUTIONS

Convert 8000 ha agricultural land into 11 Water- and Nature Parks.

Farmland to be converted into forest-landscapes and open/semi-open habitats with natural hydrology.

Voluntary participation from landowners.

Case Aarhus River Water- & Nature Park: For every euro invested, society gains 6,1 euro in return.

CITIZEN ENGAGEMENT

Co-financing by **private companies** and their **non-profit foundations.**

Customer and **employee** engagement in activities in nature.

Strong support by **City Council** for strategic implementation.

Support from **local population** and no objections from **farm community.**

LESSONS LEARNT

Relation-based partnerships take **time** and are based on **knowledge** and **trust**.

Investing in partnerships **pays off**.

Politicians are willing to **co-finance** NbS at **landscape scale**.

CHALLENGES & OPPORTUNITIES

Challenges

- Land **availability** for new nature restoration.
- External **co-financing** on open/semi-open habitats is difficult to attract.

Opportunities

- **National circumstances** & public attention on the **need for nature**.

5 February 2026

ACKNOWLEDGMENTS

Invest4Nature is a Horizon Europe project supported by the European Commission under grant agreement No 101061083

Nature-oriented River Work

#naturancefestival

Aichi Prefecture, Japan

KEY ISSUES

High flood risk: Steep terrain + intense rainfall cause fast rivers.
Environmental degradation: Concrete riverbanks damage habitats.
Loss of ecosystem connectivity: Vertical (upstream-downstream) and horizontal (river-land) links disrupted.
Need for local adaptation: National guidelines too generic for each river's unique conditions.

NATURE-BASED SOLUTIONS

Use of natural materials (stones, sand, wood, native plants).

Riparian & wetland restoration (habitats for insects, birds, fish, and other species)

River morphology restoration:

Recreate river features (pools, riffles, slow-flow áreas).

Ecosystem corridors: connect rivers with surrounding green spaces.

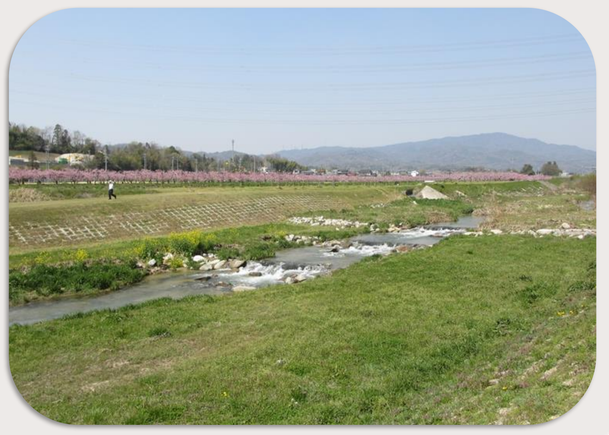
Adaptive management: monitor & adjust with natural changes.

CITIZEN ENGAGEMENT

Planning participation: Residents involved in project design.

Maintenance & restoration: Tree planting, habitat care, monitoring.

Awareness & stewardship: Builds connection to rivers and local biodiversity.



LESSONS LEARNT

Integrated planning is key to balancing flood control, biodiversity, and water use.

Collaboration across sectors and communities improves outcomes.

Adaptive management enables learning in changing river systems.

Regional governments are key in translating national frameworks into place-based NbS**.**

CHALLENGES & OPPORTUNITIES

Challenges:

- Working with dynamic river processes.
- Balancing safety and ecology.
- Sustaining long-term management.
- Adapting approaches across regions.

Opportunities:

- Enhancediodiversity restoration.
- Improved community well-being.
- SDG and climate policy alignment.
- Scalable and replicable model.

5 February 2026

ACKNOWLEDGMENTS

Aichi Prefectural Government, Environmental Policy Department

Regions4 Sustainable Development

URBAN KLIMA 2050

#naturancefestival

Basque Country, Spain

KEY ISSUES

- **Heat stress** and urban heat island effects
- **Pluvial flooding** due to intense rainfall
- **Loss of biodiversity** and ecosystem connectivity
- **Social vulnerability** linked to climate impacts

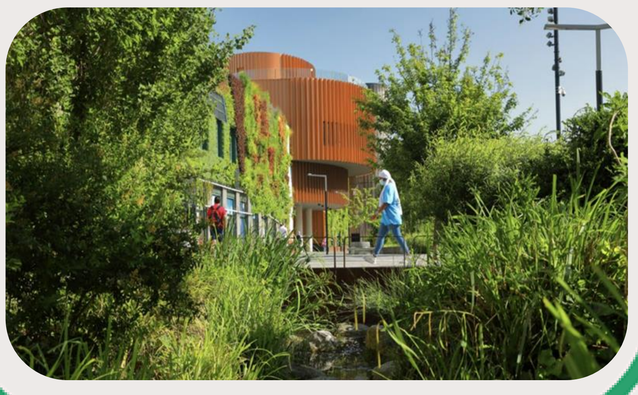
These challenges disproportionately affect **dense neighbourhoods**, elderly populations, and communities with limited access to green spaces.

NATURE-BASED SOLUTIONS

- **Urban green infrastructure** (parks, green corridors, permeable surfaces)
- **Nature-based water management** to reduce flood risk
- **Renaturation and ecosystem connectivity** between urban and peri-urban áreas
- **Cooling strategies using vegetation** to reduce heat stress

CITIZEN ENGAGEMENT

- **Co-creation processes** with local stakeholders
- **Citizen science platforms** to support monitoring and awareness
- **Public workshops, training sessions and local pilots**
- Empowerment of municipalities as **connectors between citizens and climate action**



LESSONS LEARNT

- NbS are most effective when **embedded in planning policies.**
- Citizen engagement works best when **supported by local and subnational authorities.**
- Pilot projects help move from **strategy to real change.**
- **Regional govs** helps translate long-term strategies into **concrete, city-level NbS actions.**

CHALLENGES & OPPORTUNITIES

Challenges:

- Aligning long-term NbS benefits with short political cycles
- Ensuring sustained citizen engagement over time
- Scaling pilots across diverse urban contexts.

Opportunities:

- Strong political commitment and public support.
- High replication potential across cities and regions.
- Mobilisation of significant public and EU funding.

5 February 2026

ACKNOWLEDGMENTS

Basque Government – Environmental Agency **Ihobe**

Regions4 Sustainable Development

Seeds of Change: Citizens & Cities

NATURANCE

Funded by the European Union

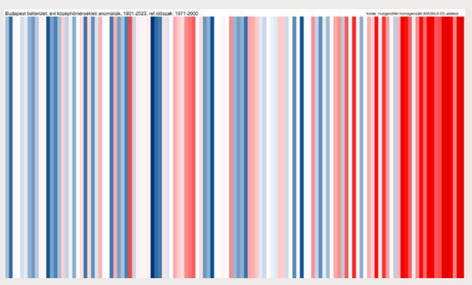
#naturancefestival

Let's create a nature-based city together

Budapest

KEY ISSUES

Warming climate:



Nearly one-third of green spaces are under the direct influence of city residents.

NATURE-BASED SOLUTIONS

NbS, like:

- Green balcons
- Green walls/fascades
- Green roofs
- Permeable pavements
- Small raingardens

can be easily added to private homes to improve microclimate.

CITIZEN ENGAGEMENT

Elements of the campaign were:

- easy-to-understand serie of articles published in SM and shared with the local governments' communication and/or green departmets
- events for multiplicators
- one-pagers about key messages
- 2 concrete actions

LESSONS LEARNT

- A lot of citizens are already aware of the importance of green infrastructure, but practical support is still needed
- Investments in awareness raising are crucial, and it has to be maintained on a 2-4 years of timeframe for better results

CHALLENGES & OPPORTUNITIES

SCAN ME

- Cooperation needs extra efforts, but
- Results in a much more wide reach and success.

ENERGIAKLUB
CLIMATE POLICY INSTITUTE
APPLIED COMMUNICATIONS

5 February 2026

ACKNOWLEDGMENTS

- For the technical background to GreenScape CE project
- To Municipality of Budapest for financial support

#naturancefestival

Milan’s First Phytoremediation Pilot at Parco Simoni

City of Milan

KEY ISSUES

- Dense metropolitan context with interconnected climate risks
- Soil contamination in former industrial areas
- Strong impacts on peripheral and vulnerable neighbourhoods
- Parco Simoni–Lopez: 53,000 m² former quarry and landfill
- Long-term closure, safety concerns and low trust
- Need to integrate NbS remediation with governance and social inclusion
- This action is part of Milan’s broader **Air and Climate Plan** and **Urban Resilience Strategy**

NATURE-BASED SOLUTIONS

- Milan’s first phytoremediation pilot
- Nature-based alternative to soil excavation
- Low-impact and potentially replicable approach
- 592 existing trees preserved
- Two-phase process (experimental + validation
- Long timelines (approx. 2024–2028Scientific monitoring (University of Milan–Bicocca)
- Not an isolated pilot
- Part of a wider city strategy urban regeneration
- Aligned with other interventions on degraded areas (e.g. **La Goccia**, **EUI-supported projects**)

CITIZEN ENGAGEMENT

- Citizen engagement as a core project pillar
- City Action Labs as governance and trust-building tools
- Focus on information, transparency and dialogue
- Experimengtal NbS with no guaranted results
- Co-design of future uses (not technical remediation)
- Engagement supports an “alliance over time”
- Shared care of a partially accessible site
- Dialoge and co-design of future uses and long-term functions
- Participation as shared care and protection
- Slow remediation process requiring long-term safeguarding
- Accessible planted areas needing active respect and protection
- **Participation = protection of the NbS process**

LESSONS LEARNT

- Trust and transparency as prerequisites for NbS
- Strong emotional and historical bond with the site
- Explicit opposition to soil excavation
- High environmental sensitivity among communities
- Scientific data + local knowledge improve legitimacy
- Early engagement reduces social and implementation risks
- Slow remediation process requiring long-term safeguarding
- Accessible planted areas needing active respect and protection
- Participation as shared care and protection
- **Participation = protection of the NbS process**

CHALLENGES & OPPORTUNITIES

CHALLENGES

- Long and uncertain remediation timelines
- High technical complexity
- Sustaining engagement over time and across diverse groups

OPPORTUNITIES

- Scaling up City Action Labs as a governance model
- Linking remediation to education
- Strengthening green corridors and urban ecological networks
- Enabling scalable, resilient and investable NbS

- Scalable governance model combining phytoremediation, scientific monitoring and City Action Labs
- Replicable approach for other contaminated and climate-vulnerable urban areas
- Transferable framework adaptable to different conditions

5 February 2026

ACKNOWLEDGMENTS

Commit2Green is funded by the European Union under the Horizon Europe Programme. The project is coordinated by ICLEI – Local Governments for Sustainability and involves eight European pilot cities testing different Nature-Based Solutions. Milan participates as a Pilot City and is the only pilot implementing phytoremediation in the context of soil remediation, with scientific support from the University of Milan–Bicocca.

#naturancefestival

Green Streets & Citizen Votation

PARIS

KEY ISSUES

Adapting streets to climate change

The City of Paris has chosen to pursue an ambitious greening policy to adapt to the city's climate challenges.

Decisions regarding the transformation of public space directly and permanently affect the living environment of Parisians.

Therefore, residents must be given an important role in shaping their city to ensure a quality of life that best meets everyone's needs.

NATURE-BASED SOLUTIONS

The greening and pedestrianisation of new streets all over votation

One of the key levers for climate adaptation is the introduction of vegetation in the streets to reduce the urban heat-island effect that Paris experiences during heatwaves.

The City therefore decided to develop a strategy to deploy this solution on a large scale. It was first tested and assessed in several neighbourhoods, which enabled the City to build strong technical expertise and a rapid operational capacity, supported by an adapted in-house organisation as well as a local public company.

CITIZEN ENGAGEMENT

Citizens Votation
+ 500 pedestrian & green streets ?

Citizen involvement in implementing this initiative took **the form of a local referendum** to decide on expanding the program to 500 streets.

Held in March 2025, the vote resulted in a majority supporting the continuation of this strategy.
However, it is important to note that participation was low.

LESSONS LEARNT

- A replicable action model and strengthened expertise within operational teams
- Development of a recent tool for citizen consultation
- A communication tool aimed at Paris residents
- Design of a pedestrian-friendly and green city, with careful monitoring of potential traffic displacement

CHALLENGES & OPPORTUNITIES

- Major renovation of public space involving all stakeholders (including utility operators and transport networks)
- Planning of upcoming construction works supported by dedicated communication for residents
- Increase in budgets allocated to the transformation of public space
- Strengthening of green and brown ecological corridor

5 February 2026

ACKNOWLEDGMENTS

VILLE DE PARIS

#naturancefestival

Sparrow Neighbourhoods

PARIS

KEY ISSUES

Biodiversity decline
House Sparrows reduction

Significant and rapid reduction in the population of the house sparrow, a species recognized as part of the capital's natural and cultural heritage and considered an indicator of urban ecosystem health.

NATURE-BASED SOLUTIONS

Sparrow Neighbourhood

As part of this initiative, the City of Paris partnered with the French Bird Protection League (LPO) to install 2,000 nest boxes across the city. This large-scale operation is designed to strengthen local house sparrow colonies.

A participatory science protocol, developed jointly with the LPO, enables residents of the 'Sparrow Districts'.

CITIZEN ENGAGEMENT

Participatory science program

Developed with the French Bird Protection League (LPO), the program invites residents of the 'Sparrow Districts' to take part in long-term monitoring of local sparrow populations.
Citizens contribute by:

- **Creating sparrow-friendly habitats** Workshops and practical guides help residents build and install nest boxes and other supportive features.
- **Reporting observations** Residents share data on nest-box occupancy across the different sites, helping assess the success of the initiative.

LESSONS LEARNT

- Stabilisation of the sparrow population in Paris
- Strengthening of cooperation between district town halls and technical departments
- Promotion of the initiative among local associations to ensure its long-term sustainability

CHALLENGES & OPPORTUNITIES

- A model that can be replicated for other species well identified by the public
- Promotion of participatory science Active engagement of citizens in a scientific approach
- Raising awareness of urban nature resource areas

5 February 2026

ACKNOWLEDGMENTS

LPO

VILLE DE PARIS

Nature-based stormwater management in Turku: using cost–benefit analysis (CBA) and citizen insights to build the case for wetlands & raingardens

Turku, Southwest Finland

KEY ISSUES

- **Rising climate risks in urban areas**: heavier rainfall, flooding, heat/drought periods, and biodiversity pressures.
- **Stormwater runoff** increased by paved surfaces and limited infiltration in suburban neighbourhoods.
- **Slow uptake of NbS**, linked to limited awareness of real costs/benefits and unclear implementation pathways, especially on privately owned land.
- In **municipal planning**, cost estimates are common, but **monetised benefit estimates are rarely included** early on, making it harder to justify investment in NbS.

NATURE-BASED SOLUTIONS

Assessed alternatives

- **Small wetlands + two-level channels** (incl. floodplains) on city-owned land to retain water, reduce flood peaks, and support biodiversity & recreation.
- **Yard-level greening / raingardens on private plots** to increase permeable surfaces and local retention.

Practical enabling tool

Raingarden Catalogue to lower the barrier for adoption (benefits, design guidance, suitable plants, and local service providers).

CITIZEN ENGAGEMENT

- **3 citizen surveys** + **expert interviews** to identify priorities, impacts, and values (incl. recreation and willingness-to-pay).
- **On-site survey of recreation users** to estimate how NbS may change visitation and recreation value.
- **Walking interviews and group discussions** at proposed sites to surface concerns (e.g., mosquitoes, child safety) and refine impact categories.
- **Contingent valuation** (payment-card): assessment of perceived monetary benefits of small wetland, with respondents indicating their willingness to pay for the NbS from predefined amounts.

LESSONS LEARNT

- **Wetlands perform strongly in CBA**: estimated net present value +€4.45M and cost–benefit ratio 0.16 (30-year horizon; 3% discount rate).
- The **largest monetised co-benefit was recreation**, showing why “non-market” benefits matter for investment decisions.
- **Private-yard greening is not cost-effective at full scale** under conservative assumptions—yet targeted uptake can work where households are willing to invest time/money.
- **Early-stage CBA + participation can strengthen legitimacy** and reduce possible conflicts.

CHALLENGES & OPPORTUNITIES

Challenges

- **Uncertainty** in monetising biodiversity and well-being; risk of double counting when benefits overlap.
- Benefit estimates rely partly on **perceptions** (limited ecological monitoring data for some impacts).

Opportunities

- **Use CBA as a finance-ready evidence base** to support NbS business cases.
- **Combine city investment** (wetlands) **with citizen-enabled action** (raingardens), supported by guidance tools (catalogue).
- **Transferability**: the methodology is being adapted for other European regions with content tailored to local needs and decision-making contexts.

5 February 2026

ACKNOWLEDGMENTS

RESIST (Regions for climate change resilience through Innovation, Science and Technology), a five-year project co-funded by the EU.

Developed with contributions from **the University of Turku** (UTU), **Natural Resource Institute Finland** (LUKE), and in collaboration with the **City of Turku** and **local residents**.

Rethinking Industrial Land Allocation through Broad Prosperity Principles

#naturancefestival

Waalwijk, the Netherlands

KEY ISSUES

- High pressure on industrial land for economic growth
- Climate adaptation challenges: heat stress, water management, biodiversity loss, air/soil quality
- Fragmented decision-making, focus on short-term economic value
- Limited space for nature in traditionally mono-functional industrial areas

NATURE-BASED SOLUTIONS

- Embedding climate adaptation and biodiversity criteria in land allocation
- Incentivising green-blue infrastructure on business plots
- Using soil, water and landscape benefits as conditions for suitable private developments
- Linking spatial planning with long-term ecological resilience

CITIZEN ENGAGEMENT

- Engagement of local businesses, land users, local community (workers)
- Involvement of regional stakeholders: water authorities, environmental experts, policy makers, researchers
- Translating societal values: health, climate safety, resilience into policy criteria
- Broad prosperity as a shared language between public and private actors

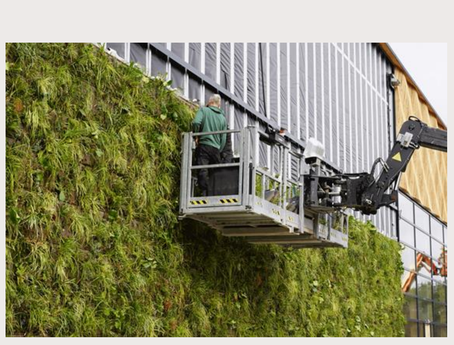
BROAD PROSPERITY SELECTION CRITERIA

General
Regional binding, creative use of space

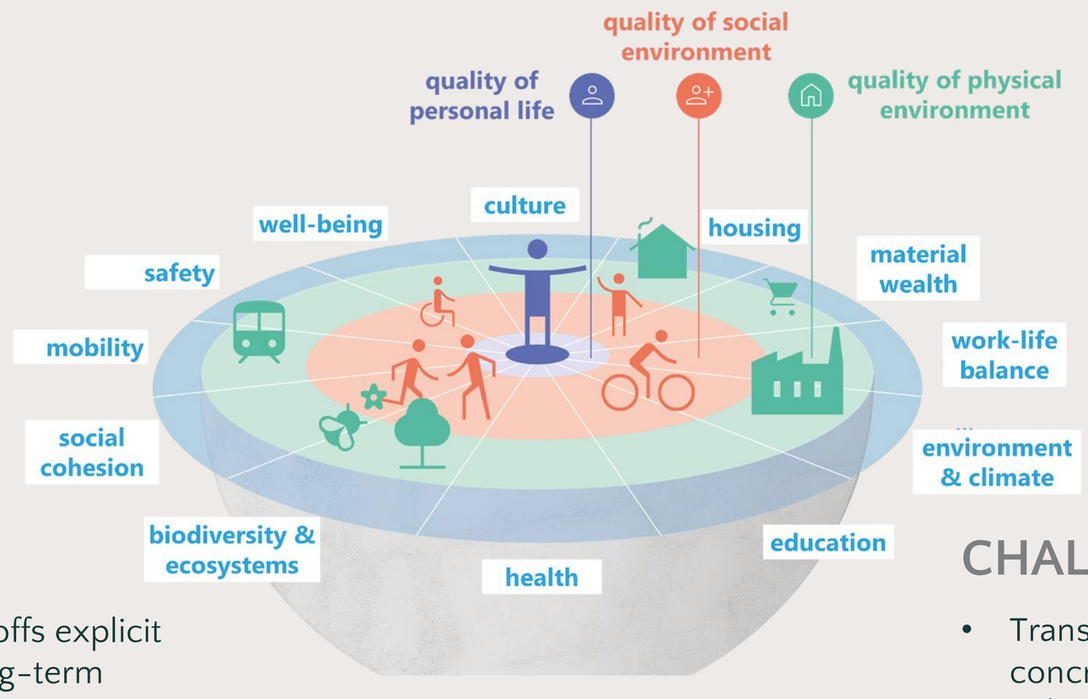
Mobility
Sustainable and multimodal transport (goods, people)

Adhesive Power & Talent
connection to education, personnel needs

Living Environment
physical & social binding, international labour, well-being improvement



Sustainable modes of transport



Green facades and parking spaces

LESSONS LEARNT

- Broad prosperity helps to make trade-offs explicit
- NbS gain legitimacy when linked to long-term economic resilience
- Policy instruments (like land allocation) can be powerful levers for change: selection criteria
- Early dialogue reduces spatial/social impact and reduces resistance

CHALLENGES & OPPORTUNITIES

- Translating abstract Broad Prosperity values into concrete criteria
- Balancing economic competitiveness with ecological ambitions
- Limited experience of businesses with NbS
- Replicability to other industrial areas and ports
- Stronger public-private cooperation
- Scaling NbS through institutional rather than project-based approaches

5 February 2026

ACKNOWLEDGEMENTS

- Broad Prosperity for land allocation is a national premiere
- Awarded No. 1 Logistiscs Hotspot of the Netherlands for 6 times in the last 7 years
- Awarded as Working Landscape of the Future (National Growth Fund): € 1M
- Funding acquired for emission free port and new business park landscape: €5M regional, €12M national, €460k EU and € 2.5M in the pipeline

Gemeente Waalwijk

Tilburg University

het pon | telos

Seeds of Change: Citizens & Cities

NATURANCE

Funded by the European Union

Explore Sustainable Financing Strategy to Scale up Nature based Solutions for Cool Milan

5 February 2026

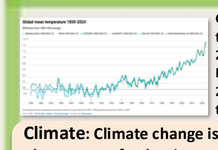
NATURETHON

CITIZENS GROWING NATURE-BASED FUTURES

COOL MILAN

CONTEXT

Urban Heat Waves/UHI/Impacts/ High Risk Areas in Milan



Global average temperature 1850-2024.
Due to climate change, 2024/2023/2025 are the three hottest years

UHI effect further intensifies the magnitude of urban overheating up to 5–10 °C during heat waves.

Climate: Climate change is increasing heat-wave intensity with synergetic effect with UHI phenomena, further increasing Milan's temperatures by 5–10 °C.
Milan has a humid subtropical climate with moderate annual rainfall. High humidity (71–86%) makes summer heat feel heavier.

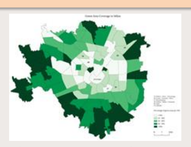
Environmental: Heat stress on urban vegetation, Loss of ecological performance, increased air pollution, hydrological imbalance, urban biodiveristy loss, heat stress for urban infrastructure. Milan stands at only around 12-15%(ISPRA) of green coverage, lagging behind leading cities such as Oslo, Helsinki.

Social: Milan's rapid urbanization and dense population intensify exposure to heat waves, especially for vulnerable groups with limited access to cooling. Heat stress undermines health and thermal comfort.

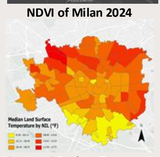
Economic: Heat waves drive up energy and healthcare costs, disrupt business activity, and reduce productivity. Tourism and small businesses suffer revenue losses, while heritage buildings face rising preservation expenses.

City of Milan:
Area :181.67 km²
Population: 1.37 million 2025
Population Density:
7,520.0/km²
Milan is officially divided into 9 administrative districts called *Municipi*

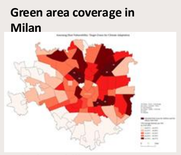
NDVI of Milan 2024



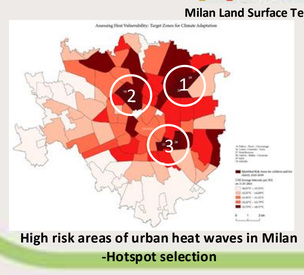
Green area coverage in Milan



Milan Land Surface Temperature



Vulnerability Target zones



High risk areas of urban heat waves in Milan
-Hotspot selection

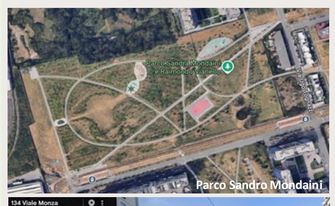
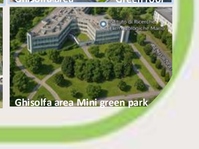
From the above three images, we can see in High Risk Area 1,2, and 3, the issues such as high temperature, less green area coverage, and most vulnerable groups are overlapped, so these three areas are the focus areas we use as examples to provide deep analysis and NbS solutions so as to replicate in the whole city of Milan.

Area 1: Padov-Turro-Crecenzago
Loreto-Casoretto-NoLo
Area 2: Sarpi, Ghisolfa
Area 3: Porta Romana
Umbria-Molise Calvairate

NATURE-BASED SOLUTIONS

Green spaces: street tree canopy, urban parks and forests, grasslands.
Green infrastructure: Green roofs and walls, permeable pavement.
Blue infrastructure: Ponds, rivers, streams, canals.

The 3-30-300 Rule
3 trees from every home.
30 percent tree canopy cover in each neighbourhood.
300 metres from the nearest park or green space.

Before NbS	After NbS
 Parco Sandro Mondaini	 Parco Sandro Mondaini — Urban Forest
 Viale Monza	 Viale Monza — Tree Canopy+Low Shrubs
 Parco Publblico Franco Verga	 Parco Publblico Franco Verga — Grassland+Trees+Pond to maximize cooling potential
Via Padova	Ghisolfa area
Open permeable pavement Via Padova	Ghisolfa area — Green roof
 Via Varsavia	 Ghisolfa area
 Green walls+tree canopy Via Varsavia	 Ghisolfa area Mini green park

USERS & STAKEHOLDERS

Public: Citizens, prioritized groups like elderly (65+), children, outdoor workers, outdoor enthusiasts, low-income households, travellers,commuters, students, people with disabilities and chronic disease, healthcare providers, marginalized communities.

Private Sector: Nature positive enterprises, giant corporates, SMEs(small and medium sized enterprises), market vendors, financial institutions such as banks and insurance companies and impact investors, tourism business sectors, real estate developers, construction companies, landscape companies, ground maintenance companies, property management company, renewable energy companies.

Government: Municipality of Milan (Comune di Milano), Metropolitan City of Milan, Lombardy Region, National Agencies such as ISPRA, Ministry of the Environment and Energy Security (MASE), Ministry of Infrastructure and Transport, Civil Protection Dept., Universities and research institute such as Politecnico di Milano. EU Programmes such as LIFE Programmes, Horizon Europe Projects, Covenant of Mayors, EUI, EBSI.

NGOs: Legambiente Lombardia, WWF Italia (Milan Chapter),Italia Nostra (Milan Section),Ambiente Italia (technical NGO/consultancy),Fondazione Cariplo,Local Community Associations, Urban farming associations (e.g., Orti Urbani networks), Terrapreta APS, Istituto Oikos.

FINANCING STRATEGIES

Innovation

Carbon Tax

A national carbon tax in Italy to price GHG emissions from SMEs not covered by ETS 1 and 2. While this requires national legislation, it creates stable, long-term solution to support local climate-adaptation and NbS investments. Polluters pay principle.

Large-Scale NbS projects

Access to large capital for long-term NbS
Investor attractiveness and enhanced credibility
PPP ensures long-term maintenance and performance of NbS

Security Token: Access to broader investor participation
Enhanced transparency and trust through blockchain technology
High liquidity / fast entry and exit/tamper proof (Tokenize Europe 2025)

Voluntary Carbon Market

Combine large scale NbS projects to achieve high level of carbon credit to be qualified for voluntary carbon market trading → Monitoring (Measurement), Reporting, and Verification (MRV) → Verra /Gold Certification on carbon credits → Voluntary carbon market Carbon Credit Trading → The revenue from carbon credit trading can be used to pay interest or dividend to investors, in addition to government payment

Medium Scale NbS projects: Integrated into large scale projects for financing adaptation

Small Scale NbS projects: Utility Token

Behavioral economics and Blockchain technology.
Drives local citizens' green behavior
Builds a local green economy around NbS/ peer-to-peer exchange
Decentralized community driven approach/bottom-up

CHALLENGES & OPPORTUNITIES

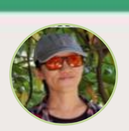
CHALLENGES	OPPORTUNITIES
Institutional: fragmented governance across municipal departments, slow permitting and regulatory rigidity, funding fragmentation, limited integration with private landowners.	Strong Policy Momentum and Political Alignment: Forestami, CLEVER Cities, Reinventing Cities,Piano Aria e Clima(PAC) – 'Air and Climate Plan', PUMS(Sustainable Urban Mobility Plan), one of the EU's 100 Climate-Neutral and Smart Cities by 2030.
Financing: Long term NbS projects involves significant investment, EU funding or government subisidy are far from enough.	Potential for Innovative and blended financing: EU funding, regional subsidies, municipal budgets, private-sector contributions, PES schemes, voluntary carbon market, tokenisation based on blockchain technology.
Social:uneven distribution of green space, competing uses of public space, low public awareness of NbS cooling benefits, community stewardship gaps, competing use of public space.	Strong Scientific Capacity: Politecnico di Milano (microclimate modelling, ENVI-met, urban forestry), Università degli Studi di Milano (urban ecology, plant physiology), CNR (climate modelling, remote sensing), ARPA Lombardia (baseline climate data).
Technical: limited space, impermeable surface, degraded soil,subsoil constraints,irrigation stress, microclimate variability, maintenance capacity,lack of standardized MRV for cooling benefits.	Transformable urban spaces: underused courtyards, school yards, parking lots, brownfields, railway areas, industrial edges, peri-urban agricultural belts
Citizen engagement: low awareness of cooling benefits, limited long-term stewardship culture, competing spatial priorities	Public demand: Citizen interest in green public space, CSR implementation of private sectors.

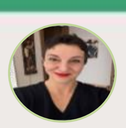
Blended Financing Strategy → Vertically Horizontally 360 degree → Centralized to Decentralized → Government-led to market supported

Awarded proposal

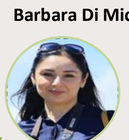
#naturancefestival

GROUP PARTICIPANTS & REFERENCES


Yanchao Wang


Barbara Di Micco


Stephen Asare Ntow


Mari Chakryan

References:

The 3-30-300 rule created by Cecil Konijnendijk
Konijnendijk, C. (2021). Introducing the 3-30-300 Rule for Urban Forestry and Greener Cities. Nature Based Solutions Institute.
NDVI of Milan
https://storymaps.arcgis.com/
Green area coverage in Milan
Milan Land Surface Temperature
Vulnerability Target Zones for climate adaptation
Maddalena Buffoli et al. (2025)Risk Assessment for Climate Justice in Milan: Definition of GIS-Based Model for Mapping Green Infrastructure, Urban Heat Islands and Their Impact on Vulnerable Age Groups

Seeds of Change: Citizens & Cities

NATURANCE

Funded by the European Union

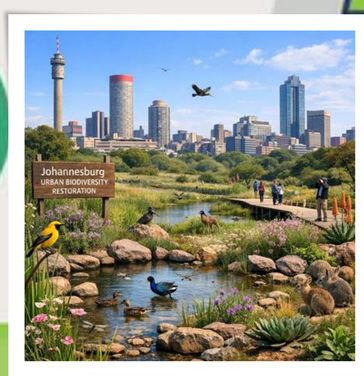
Johannesburg's Biodiversity Restoration

5 February 2026

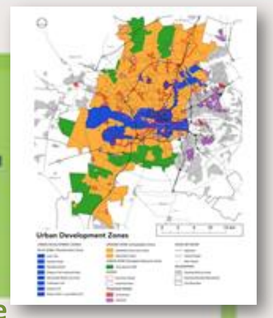
NATURETHON

CITIZENS GROWING NATURE-BASED FUTURES

Johannesburg, South Africa– Green City Champions



CONTEXT



Context: The Johannesburg Landscape

- **Economic Profile**: South Africa's economic hub with a massive informal, economy yet defined by extreme social inequality and unemployment.
- **Environmental Status**: A fragmented high-altitude grassland biome suffering from "urban heat island" effects, air pollution, and mining-related degradation.
- **The Need**: Rapid expansion and food insecurity require climate-resilient infrastructure and the restoration of natural "green belts" for stormwater management and cooling.

The Green Roots Philosophy: Community Empowerment

- Empowers communities to fully own and manage profitable local businesses, reducing aid dependency.
- Tackles poverty as the root cause of environmental issues like degradation and poaching.
- Aims for long-term sustainability, with an exit strategy so communities can thrive independently.
- Establishes a model for economic and ecological self-determination through inclusive farming initiatives.

NATURE-BASED SOLUTIONS

Proposed solutions

- Profits are reinvested to strengthen operations and support future growth.
- Ownership is transferred, giving full autonomy to a community-run cooperative.
- Goal: Achieve true economic independence and local food security.
- Scalability: Initial hubs generate capital to launch new locations.
- Sustainability: Moves away from NGO dependency toward a self-sustaining exit strategy.
- Impact: Creates jobs, improves environmental control, and provides a model for cities across Africa.
- Key takeaway: The model is "designed to be given away," focusing on local empowerment over long-term external management.

USERS & STAKEHOLDERS

Primary Beneficiaries:
- Township residents benefit from better access to fresh produce, green spaces, and local jobs.
- Youth and informal settlements gain training and ownership in sustainable farming.
- Local vendors in Diepsloot receive a reliable, affordable vegetable supply, supporting food security and micro-businesses.

Key Stakeholders & Partners:
Community-Based Organizations (e.g., Nhlalala Nature NCP) provide training and promote local ownership.
City of Johannesburg integrates grassroots initiatives with urban resilience and climate objectives.
Seriti Institute facilitates community engagement.
Clean Air Fund & Breathe Cities support climate-smart urban development.

PUBLIC	PRIVATE SECTOR	COMMUNITIES	NGOS	OTHER
City of Johannesburg Metropolitan Municipalicy (urban-planning), Joburg City Parks and Zoo, Gauteng Department of Agriculture, Land Reform and Rural Development, National Biodiversity institute (SANBI), and Department of Forestry, Fisheries and the Environment (DFFE).	Local restaurants and food retailers as produce buyers, grocery chain of food distributors, vertical farming technology suppliers, construction companies for infrastructure development, banks and financial institutions for project financing, real estate developers, SMEs and green enterprises (nursaries, landscapers, and eco-tourism businesses).	Local community members and residents (primary beneficiaries and users), Youth groups seeking employment/skills training, Low-income families facing food insecurity Urban farmers and community gardeners Community leaders and elders, Local schools and educators, and Students interested in sustainable agriculture.	Food & Trees for Africa, WWF-South Africa, Wildlife and Environment Society of South Africa (WESSA), Local environmental and urban greening organizations, Social development organizations, Community-based organizations (CBOs), and Climate justice and food security advocacy groups.	Academic & research institutions (University of Johannesburg and National Research Fund), Media & communication platforms for awareness compaigns, and International development organizations and donors.

FINANCING STRATEGIES

- Facilitate local co-ownership and reinvestment through community savings.
- Utilize municipal funds for urban resilience and green infrastructure.
- Engage key sectors for ESG and training initiatives.
- Attract investors focused on circular economies and youth employment.
- Sell hydroponic produce locally for sustainable income.
- Adopt a circular, self-sustaining business model.
- Partner with NPOs for shared resources and proposals.
- Build strategic partnerships for greater impact.
- Promote inclusive community wealth and decision-making.

CHALLENGES & OPPORTUNITIES

Johannesburg faces deep inequality, high youth unemployment, food insecurity, and environmental decline due to mining, urban sprawl, and inadequate infrastructure. The city is also vulnerable to climate risks, including water shortages and extreme heat. However, there are opportunities to address these issues by promoting a green economy, supporting urban agriculture, and restoring degraded ecosystems.

Elements to implement to address the challenges identified

GOVERNANCE	ENVIRONMENTAL	SOCIAL	ECONOMIC	OTHER
• Community-led stewardship partnerships for urban-farms and green spaces. • Participatory decision-making involving local residents in project design to met local needs • Partnerships with City-of Johannnesburg for policy integration. Alignment with city-level climate action plans and sustainingals.	• Vertical farming systems to maximize food production in limited urban space. • Planting Indigenous, climate-resilient species for urban cooling. • Developing agroecological food forests to enhance-biodiversity. • Restoring degraded and green infrastructure Invasive species removal and ecosystem restoration. • Water recycling and rainwater-harvesting. • Organic waste management	• Establishing community food hubs to ensure local food security. • Creating safe, Accessible green spaces for recreational well-being. • Community-led education programs in conservation and urban farming skills development workshops in intertropping and sustainable agriculture. • Youth employment and training opportunities.	• Creating local green jobs in conservation and agriculture. Revenue generation through fresh produce sales to local markets and restaurants. • Providing skills training and entrepreneurship opportunities for youth to reduce food costs through local production. • Support for local food entrepreneurs and small businesses.	• Establishing replicable framework for community-led urban greening. Pridging the gap between policy and implementation. • Integration of traditional ecological knowledge with modern farming technology. Ensuring local and indigenous knowledge directly informs co-design and stewardship. • Research partnerships with academic institutions.

Awarded proposal

#naturancefestival

GROUP PARTICIPANTS & REFERENCES

Name and surname	Photo	Academic and work experience	Team role
Francesca Mazza (Milan, Italy)		A multilingual landscape architect fluent in Italian, English, Spanish, and German, with experience across Europe. She integrates landscape architecture, urban ecology, and sustainability, focusing on biodiversity-driven design and Nature-based Solutions. Her international perspective and research commitment foster culturally sensitive, innovative approaches to sustainable rural and urban landscapes.	Team leader
Forgive Maluleke (JHB, South Africa)		B-Tech graduate in Nature Conservation, Founder & CEO of Nhlalala NCP, leading initiatives in indigenous tree planting, community awareness, renewable energy training, and clean-ups. Through grassroots campaigns, ranging from invasive plant removal to pollution-prevention workshops. He empowers communities to take ownership of environmental action and promote the link between ecological health and human wellbeing.	Representative
Saba Mirzahosseini (Turin, Italy)		PhD researcher at Politecnico di Torino and Links Foundation specializing in urban sustainability and Nature-based Solutions. She integrates engineering and data analytics to develop tools that connect policymakers and citizens in planning and monitoring. Her work includes leading social impact analysis for EU projects and creating decision-support tools that merge technology with social assessment to foster citizen-driven sustainable urban solutions.	Secretary
Borhan Sepehri (Kurdistan, Iran)		Urban designer and researcher focused on urban form, public health, and spatial equity. Editorial Review Board member of the Journal of Public Health Research, recognized for contributions to urban health and policy. His work covers X-minute cities, walkability, mental health, and pandemic resilience, using GIS, bibliometric analysis, and health impact assessment to build scalable frameworks for healthy cities. He advises municipalities, global innovation labs, and reviews for leading journals in planning, health, and sustainability.	Treasury

Stakeholders

Seriti Institute — A DEVELOPMENT FACILITATION AGENCY
Breathe Cities
forestry, fisheries & the environment — Department: Forestry, Fisheries and the Environment — REPUBLIC OF SOUTH AFRICA
Joburg — a world class African city
CLEAN AIR FUND
Joburg City Parks
Joburg ZOO

Seeds of Change: Citizens & Cities

NATURANCE

Funded by the European Union

C.A.R.E.
COMMUNITY ACTION FOR RIVER ECOSYSTEMS

TREVISO (IT) – RISORGIVERS LEGAMBIENTE TREVISO

5 February 2026

NATURETHON

CITIZENS GROWING NATURE-BASED FUTURES

CONTEXT

Treviso, the "City of Waters," is currently facing the degradation of its **springs (*risorgive*)** and wetlands. This decline is driven by intense **anthropogenic pressure** and **urban sprawl**.

- **Main Threats**: excessive land consumption, which reduces soil permeability, and illegal spills that contaminate the urban water network.
- **Biodiversity Loss**: These pressures, combined with the spread of **invasive species** like the Louisiana crayfish, are causing the decline of protected native species such as the freshwater crayfish (*A. pallipes*) and the European pond turtle (*E. orbicularis*).
- **The Opportunity**: To protect and enhance an urban area vital for the **connectivity of the Montello Hill - Sile River ecological corridor**.

NATURE-BASED SOLUTIONS

The project proposes concrete actions to transform environmental challenges into ecological strengths:

- **Ecological Restoration**: Strengthening the Montello Hill - Sile River corridor to ensure biological connectivity and counteract the effects of urban fragmentation.
- **Sustainable Water Management**: Using natural engineering to restore the springs and implementing green areas to mitigate the impact of spills and improve water filtration.
- **Habitat Protection**: Targeted management of invasive species to create safe havens for protected native species.
- **Social NBS**: Utilizing projects as a collaborative platform for citizens to design and grow nature-based futures
- **Citizen Science & Monitoring**: Implementation of monitoring walks and collective data collection outings to track water quality and biodiversity.
- **Sensory & Sound Experiences**: Sensory walks and sound walks to reconnect citizens with the river ecosystem and increase environmental awareness.

USERS & STAKEHOLDERS

The collaboration between experts, administrators, schools, and the community is the heart of the project

- **Knowledge Sharing**: In-depth meetings with experts to provide the community with the scientific tools needed for conservation.
- **Education & Family**: Students, teachers, and parents are key participants, turning environmental protection into a shared educational journey.
- **Art & Culture**: Active participation in artistic festivals, using art as a vehicle to communicate nature-based futures.
- **Core Team**: Legambiente Treviso and the Risorgivers group.
- **Active Participants**: Citizens engaged through the projects (ca. 2500 px)

FINANCING STRATEGIES

A **hybrid model** transitioning from local self-sustainability to European scalability:

- **Current**: Self-sustained through **donations**, **ethical crowdfunding**, and partnerships with private entities strictly vetted for **social and greenwashing** risks.
- **Perspective**: Transitioning toward **European Funds** (**LIFE**, **Interreg**, **Horizon Europe**) to transform Treviso into a replicable continental model.

CHALLENGES & OPPORTUNITIES

Challenges: : Balancing urban development with the urgent need to stop **cementification** and monitor water quality against **multiple stressors**.

Governance: Establishing a **"Community Pact"** and a **"Springs River Contract"** (*Contratto di Fiume di Risorgiva*) to involve local and regional public administrations and private entities in a formal consultation table.

Opportunities: Scaling the **C.A.R.E. model** as a European standard for river basin management in other spring-water territories. Leveraging **Community Action** (C.A.R.E.) to foster a sense of stewardship and transform Treviso into a resilient model of a "City of Waters".

Awarded proposal

#naturancefestival

GROUP PARTICIPANTS & REFERENCES

Core Team: **Legambiente Treviso** and the **Risorgivers** group.

Active Participants: Citizens engaged through to build sustainable urban futures.