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POLICY RECCOMENDATIONS



Policy Recommendations to Promote Urban Biodiversity

Executive Summary
Urban biodiversity is increasingly recognized as a critical component of sustainable, resilient and healthy cities. The U.BI.TEACH project promotes innovative approaches to urban biodiversity education through higher education institutions, citizen engagement, local observatories, practical learning methodologies and the integration of biodiversity into climate action and urban development.

Building on these principles, this document proposes policy recommendations at local, national and European levels to strengthen biodiversity conservation, improve urban ecosystems, foster environmental citizenship and support the emergence of a skilled workforce capable of addressing biodiversity loss and climate challenges.

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1. Policy Context

Urban biodiversity encompasses the diversity of species, ecosystems and genetic resources found within cities and metropolitan areas. It contributes significantly to climate adaptation, ecosystem services, public health, social cohesion and environmental education. Urban ecosystems help mitigate heat islands, improve air quality, regulate water flows and support human well-being.

The European Biodiversity Strategy for 2030 emphasizes ecosystem restoration, green infrastructure and nature-based solutions, making cities key actors in achieving biodiversity and climate objectives.

The U.BI.TEACH project highlights the importance of:

- Innovative biodiversity education.
- Teacher competence development.
- Experiential and project-based learning.
- Citizen participation.
- Urban biodiversity observatories.
- Collaboration between universities, local authorities and communities.
- Green skills for future professionals.

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2. Recommendations for Local Authorities

2.1 Integrate Urban Biodiversity into Municipal Planning

Municipalities should:

- Develop Urban Biodiversity Action Plans.
- Establish biodiversity targets within city master plans.
- Require biodiversity assessments for major urban developments.
- Introduce biodiversity indicators into municipal sustainability monitoring.

Expected Impact

Improved ecological connectivity, habitat protection and climate resilience.

2.2 Promote Nature-Based Solutions

Cities should invest in:

- Green roofs and walls.
- Urban forests.
- Pollinator corridors.
- Wetland restoration.
- Sustainable urban drainage systems.
- Biodiversity-friendly public spaces.

Expected Impact

Reduced urban heat islands, increased habitat availability and improved ecosystem services.

2.3 Establish Urban Biodiversity Observatories

Inspired by the U.BI.TEACH Urban LAB.O concept, cities should create local biodiversity observatories involving:

- Universities.
- Schools.
- NGOs.
- Citizen science groups.
- Local administrations.

These observatories should monitor biodiversity trends and support evidence-based policymaking.

2.4 Foster Citizen Science and Community Participation

Local governments should support:

- Biodiversity mapping initiatives.
- Community gardens.
- School biodiversity projects.
- Citizen monitoring programmes.
- Urban ecological restoration campaigns.

Expected Impact

Enhanced environmental awareness and stronger community ownership of biodiversity initiatives.

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2.5 Biodiversity-Friendly Procurement

Municipal procurement policies should require:

- Native species planting.
- Reduced pesticide use.
- Ecological landscaping standards.
- Biodiversity criteria in public works contracts.

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3. Recommendations for National Governments

3.1 Embed Urban Biodiversity in Education Systems

National authorities should:

- Integrate urban biodiversity into curricula at all educational levels.
- Support interdisciplinary environmental education.
- Develop teacher training programmes based on competence models similar to those promoted by U.BI.TEACH.
- Creation of a biodiversity-literate society and future workforce.

3.2 Create National Urban Biodiversity Strategies

Governments should establish:

- National targets for urban ecosystem restoration.
- Biodiversity monitoring frameworks.
- National guidance for municipalities.
- Financial support mechanisms for local biodiversity action plans.

3.3 Strengthen Higher Education and Research

National policies should support:

- Urban biodiversity research centres.
- Living laboratories.
- University-community partnerships.
- Research on climate adaptation and ecosystem services.

This reflects the U.BI.TEACH vision of positioning higher education institutions as hubs of environmental innovation.

3.4 Provide Dedicated Funding Mechanisms

Governments should establish:

- Green innovation funds.
- Municipal biodiversity grants.
- Urban restoration programmes.
- Incentives for biodiversity-friendly urban design.

Priority should be given to disadvantaged urban areas with limited access to green infrastructure.

3.5 Develop Urban Biodiversity Data Systems

National agencies should create:

- Open biodiversity databases.
- Geospatial monitoring platforms.
- Standardized urban biodiversity indicators.
- Citizen science integration tools.

Such systems would support evidence-based decision-making across governance levels.

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4. Recommendations for the European Union

4.1 Mainstream Urban Biodiversity Across EU Policies

The European Commission should ensure stronger links between:

- Biodiversity Strategy 2030.
- European Green Deal.
- Climate Adaptation Strategy.
- Cohesion Policy.
- Horizon Europe.
- Erasmus+.

Urban biodiversity should become a cross-cutting priority across funding programmes.

4.2 Support Urban Biodiversity Education Networks

Building on U.BI.TEACH achievements, the EU should fund:

- European biodiversity learning platforms.
- Cross-border teacher training.
- Biodiversity competence frameworks.
- Student mobility programmes focused on urban sustainability.

Expected Impact

A common European culture of biodiversity education and action.

4.3 Create a European Urban Biodiversity Observatory Network

The EU should establish interconnected observatories involving:

- Universities.
- Municipalities.
- Research institutes.
- Civil society organizations.

Inspired by U.BI.TEACH Urban LAB.O observatories, this network could generate comparable biodiversity data and support policy evaluation across Member States.

4.4 Increase Research and Innovation Funding

Future European programmes should prioritize:

- Nature-based solutions.
- Biodiversity monitoring technologies.
- Environmental education innovation.
- Urban ecosystem restoration.
- Citizen science methodologies.

4.5 Develop European Urban Biodiversity Indicators

The EU should establish a harmonized framework measuring:

- Habitat quality.
- Species richness.
- Ecosystem connectivity.
- Green infrastructure accessibility.
- Citizen engagement.

Comparable indicators would facilitate benchmarking among cities and countries.

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5. Cross-Cutting Recommendations

Governance

Strengthen cooperation among:

- Municipal authorities.
- Higher education institutions.
- Environmental agencies.
- Civil society organizations.
- Private sector actors.

Capacity Building

Develop continuous professional development programmes for:

- Educators.
- Urban planners.
- Local government officials.
- Environmental practitioners.

Digital Innovation

Promote:

- GIS-based biodiversity monitoring.
- Open-data platforms.
- Digital learning environments.
- AI-supported environmental management tools.

Social Inclusion

Ensure that biodiversity policies:

- Reach vulnerable communities.
- Reduce environmental inequalities.
- Increase equitable access to green spaces.
- Promote inclusive participation.

Conclusion

Urban biodiversity must be treated not only as an environmental issue but also as a strategic investment in climate resilience, public health, education and sustainable development. The U.BI.TEACH project demonstrates that higher education, community engagement and innovative learning methods can become powerful drivers of urban biodiversity conservation. By implementing coordinated actions at local, national and European levels, policymakers can create greener, more resilient and more inclusive cities while supporting the objectives of the European Green Deal and Biodiversity Strategy for 2030.

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