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INTEGRATION OF NATURE-BASED SOLUTIONS INTO URBAN ECOSYSTEMS FOR SUPPORTS THEIR ADAPTATION TO NEW CLIMATE REALITIES

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Due to the inevitable processes of urbanisation, urban ecosystems are becoming more vulnerable to environmental problems such as climate change, air pollution and biodiversity degradation. According to preliminary studies, the integration of nature-based solutions into urban landscaping helps to improve the quality of life of residents and create sustainable urban ecosystems (Dudyak et al., 2024; Croce et al., 2021).

Greening of urban roofs and vertical surfaces, green bus stops and green parking help to combat the growth of urban heat islands, settle pollutants, reduce stormwater runoff, and provide energy savings in buildings (Oleshko 2023, Baro et al., 2023).

The creation of natural areas with native plant species (urban meadows) maximises local biodiversity and helps to create habitats for different species of flora and fauna. They also improve the cohesion of green infrastructure by providing ecological corridors for migration and interaction of different species.

Pocket parks, urban gardens, and parklets increase the accessibility of green spaces for urban residents, create opportunities for biophilic design, provide numerous ecosystem services, and contribute to the cultural and social life of different social and age groups.

In many cities, the implementation of nature-based solutions is carried out taking into account environmental, economic and social aspects and involves a wide range of stakeholders. This promotes active community participation in the planning and management of the urban environment, and increases the level of social responsibility for maintaining the ecological balance in cities in the context of climate change adaptation.

Thus, the integration of nature-based solutions into urban ecosystems helps to mitigate environmental impact, increases resilience to climate change, and contributes to social well-being and sustainable economic development.

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