

# Sustainable Urban and Peri-urban Forestry

## An Integrative and Inclusive Nature-Based Solution for Green Recovery and Sustainable, Healthy and Resilient Cities

Policy Brief



**Sustainable Urban and Peri-Urban Forestry:  
An Integrative and Inclusive Nature-Based Solution for  
Green Recovery and Sustainable, Healthy and  
Resilient Cities**

*Policy Brief*

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# Abbreviations and Acronyms

<b>CAD</b>	Canadian Dollars
<b>COVID-19</b>	Coronavirus Disease 2019
<b>EU</b>	European Union
<b>EUR</b>	Euros (Currency)
<b>FAO</b>	Food and Agriculture Organization of the United Nations
<b>ha.</b>	Hectares
<b>PM2.5</b>	Atmospheric particulate matter with a diameter of less than 2.5 micrometers
<b>SDG</b>	Sustainable Development Goal
<b>SUPF</b>	Sustainable urban and peri-urban forestry
<b>UNECE</b>	United Nations Economic Commission for Europe
<b>UPF</b>	Urban and peri-urban forest
<b>USD</b>	United States Dollars
<b>WHO</b>	World Health Organization

# Key Messages

## In an urbanizing world

- The contributions of forests, trees, and associated vegetation to climate change mitigation and adaptation, disaster risk reduction, public health and well-being, biodiversity conservation, and sustainable economic recovery and growth are increasingly important.
- Sustainable urban and peri-urban forestry (SUPF) is an integrative and strategic nature-based solution that can help develop green, sustainable, and resilient cities.
- SUPF goes well beyond the expansion of the urban tree cover via afforestation and tree planting; it requires long-term management of urban forest ecosystems to ensure that urban trees and forests are cared for and mature, and that the benefits they provide are optimized over time.
- Strong planning, through dedicated SUPF master plans or similar planning documents, can provide a critical foundation for sustainable long-term management and direction for implementation.
- Integrating SUPF programmes into city planning can significantly enhance their effective implementation.
- Strong assessment and monitoring of the progress and success of SUPF plans and programmes can play a critical role to help inform adaptive management.
- Strong collaboration, partnerships, and stewardship, including close collaboration with local communities can enhance SUPF outcomes.
- Peer learning and networking, public education, and awareness, benchmarking, and the exchange of good practices can all help to build partnerships for SUPF.
- National and sub-national authorities can support and enable local SUPF programmes through policy and legal frameworks; provision of data, information, and knowledge; and support for planning, implementation, and monitoring. This may be linked to international commitments, guidelines, knowledge, and funding.



# 1. Introduction: The Importance of Forests and Trees for Cities

Urban trees, forests, and green spaces have been increasingly recognized as important components of more liveable, healthy, and resilient cities. Functioning urban ecosystems help clean our air and water and to cool urban heat islands. They also help to support our well-being by shielding us from floods and landslides and providing opportunities for recreation. Indeed, the COVID-19 pandemic has been linked to increased appreciation of urban trees and forests.

This policy brief identifies opportunities for action to expand sustainable urban and peri-urban forestry (SUPF) in the UNECE region. SUPF is a cost-effective nature-based solution that provides many ecosystem services and benefits that contribute to sustainable development, climate action, biodiversity conservation, combating land degradation, and disaster risk reduction at the local, national, and global levels.

The brief highlights these services and benefits and outlines how urban and peri-urban forests can address the increased challenges faced by cities. This includes guidance for sustainable and inclusive planning, design, and management of urban trees and forests to optimize their benefits for all and over the long term.

The brief supports action as part of UNECE's Trees in Cities Challenge, launched at the United Nations Climate Action Summit in 2019. The Challenge is UNECE's voluntary global campaign engaging mayors and cities to localize action to combat climate change and foster urban sustainable and resilient development by implementing tree planting and adopting or strengthening urban and peri-urban forestry management practices<sup>1</sup>. It also offers guidance to cities on the implementation of the Geneva Declaration of Mayors, adopted by Mayors in 2020, and in particular on "making our cities greener."<sup>2</sup>



## 2. Sustainable Urban Forestry: Context

### The urbanization challenge

In the past decades, the UNECE region has become increasingly urbanized. Cities and urban areas now host about 73% of the region's population, which is well above the global average<sup>3</sup>. While urban areas provide many opportunities for work, education, and community, they also face many challenges. This section presents an overview of challenges that can be addressed or mitigated to varying degrees by adopting sustainable urban forestry as a nature-based solution.

Many cities are highly exposed and vulnerable to the impact of climate change, which threatens their populations, infrastructure, and ecosystems. Temperature extremes are increasing and heat waves are becoming more frequent. This raises heat-related mortalities and compounds existing urban heat island effects. It also increases energy needed for cooling, which in turn elevates both greenhouse gas emissions and expenditure on energy. This is a significant challenge among the countries in the European Union (EU), which account for more than a third of registered heat-related mortalities among the elderly, with 104,000 out of the 296,000 deaths recorded globally in 2018<sup>4</sup>. Mortality from heat waves is expected to rise sharply over the coming years<sup>5</sup>.

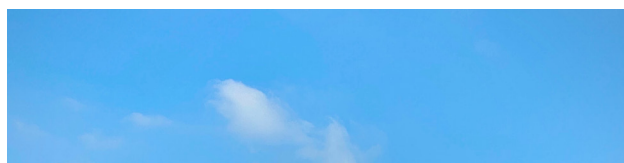
Similarly, climate change is increasing the frequency and magnitude of extreme precipitation events, which in turn increase the risk of landslides and flooding in urban and peri-urban areas. This threatens massive cumulative investments in public and private infrastructure and patrimony, accumulated over decades and centuries, which cannot be easily replaced in the face of the threat of climate change.

Urban areas also face major air pollution threats. In 2018, 34% of urban inhabitants of the 27 EU countries and the

cities lives in sectors with insufficient green space (per WHO standards for good access to green space). There are exceptions, with Moscow providing good access to green space to 90% of its population<sup>8</sup>.

The COVID-19 pandemic has posed an immediate and often devastating public health challenge of its own to cities, with urban areas recording an estimated 90% of all reported cases of the virus<sup>9</sup>. The pandemic has brought new challenges, with social distancing measures further restricting access to public spaces, particularly closed venues, exacerbating the access of city dwellers to already limited public green space.

Although the demand for urban woodland, parks, and other green space is growing, continuing urbanization, urban densification, and urban sprawl often result in the loss and fragmentation of urban natural areas<sup>10</sup>. In the United States, for example, an estimate four million urban trees are lost each year, or about 1.3% of the total urban tree stock<sup>11</sup>. Thus, there is an urgent need to effectively manage competing pressures of urban expansion while sustaining and enhancing urban ecosystems to preserve their multiple values. Urban trees and other vegetation are also under threat from impacts including climate change (including drought, extreme weather events, and increased wildfires), pests and diseases, and intensive recreational use<sup>12</sup>.



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