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Draft regional urban forest opportunity plan

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Draft Regional Urban Forest Opportunity Plan

Submitted by the Secretariat

Summary

This document was prepared by the secretariat under the project “Sustainable urban forestry as a cost-effective nature-based solution for green, resilient, and healthy development in the United Nations Economic Commission for Europe (UNECE) region” (Switzerland, ECE-E395).

It was presented to the 80th session of the Committee on Forests and the Forest Industry, which “recommended that the Draft Regional Urban Forestry Opportunity Plan be presented for possible adoption at the next Joint Session of the Committee on Forests and the Forest Industry and the European Forestry Commission”. In preparation thereof, the Working Party is invited to comment on the plan.

I. Introduction

1. Forests, trees, and other vegetation in urban areas make important contributions to the creation of resilient, healthy, and vibrant cities. As highlighted in the United Nations Economic Commission for Europe (UNECE) policy brief on Sustainable Urban and Peri-urban Forestry,¹ urban and peri-urban forests (UPF) provide important nature-based solutions for sustainable and resilient urban development. This includes essential contributions to climate action, public health promotion, biodiversity conservation, food security and economic development (see Figure 1). Indeed, the many contributions of urban forests to greener, healthier, and happier cities for all have received increasing recognition in recent years, such as the “Call for Action” of the 2018 World Forum on Urban Forests.²

Figure

The Potential of Urban and Peri-urban Forests



Source: United Nations Economic Commission for Europe, 2022.

2. Optimising the ecosystem services and benefits provided by urban and peri-urban forests requires a strategic approach to **Sustainable Urban and Peri-Urban Forest Management (SUFM)**, implementing policies and programmes from the local to the international levels. Efforts should be based on long-term planning to manage and expand urban and peri-urban forest cover in a manner that maximizes benefits for all. This depends not only on planting trees, but also ensuring that they are cared for and kept healthy over the long-term **and replaced when needed**. A cross-sectoral approach will be critical for building capacities in urban forest **management** and engaging with urban planning, public health, tourism, and other sectors. This cross-sectoral approach will contribute to many development challenges and objectives, including the Sustainable Development Goals (SDGs), Global

¹ UNECE, 2022. Sustainable Urban and Peri-urban Forestry. An Integrative and Inclusive Nature-Based Solution for Green Recovery and Sustainable, Healthy and Resilient Cities. Policy Brief. United Nations Economic Commission for Europe, Geneva. https://unece.org/sites/default/files/2022-02/Urban%20forest%20policy%20brief_final_0.pdf.

² WFUF, 2022. Call for Action. World Forum on Urban Forests. Website. <https://www.worldforumonurbanforests.org/take-action/wfuf-call-for-action.html>.

Forest Goals, climate action, disaster risk reduction, biodiversity conservation, landscape restoration and sustainable cities.

3. In the UNECE region, this includes important contributions to sustainable cities. The UNECE policy brief ‘Place and Life in the ECE’³ recommends a three-pronged approach to building more resilient, inclusive, and sustainable cities post-COVID-19, including: 1) tackling inequalities and development deficits; 2) strengthening the capacities of local actors (particularly local governments) and; 3) pursuing a resilient, inclusive and green economic recovery. **SUFM** has an important role to play in meeting all three components, with focus on the environmental qualities and resources of cities, as also highlighted by the Geneva United Nations Charter on Sustainable Housing.⁴ Post-Covid-19 recovery and rebuilding in cities could prioritise green, gender-responsive, and sustainable pathways, including a focus on enhancing local climate resilience using **SUFM** as a nature-based solution. Equitable access must be provided to urban infrastructure and facilities, including urban and peri urban green space and forests, with a specific focus on vulnerable groups, as also stressed in SDG target 11.7 on sustainable urban communities. Good governance and data-driven approaches for building urban resilience are also called for.

4. Forests around cities are an important component of the system and their long-term planning and management should consider socio-economic and ecological linkages between urban and rural forests and other ecosystems, including aquatic ecosystems. Locally appropriate approaches to maintain a balanced approach to the integrated management of urban and rural forests, recognizing these linkages and ecological corridors will advance sustainable forest management across this continuum over time and under changing conditions. Areas of inter-dependence between urban and rural forests should be recognized, and opportunities for mutual benefit of communities in both urban and rural zones should be harnessed, encouraged and enhanced.

5. When strengthening the contributions of **SUFM** to healthier, more resilient, and more liveable cities, it is important to work collaboratively and in a coordinated way, with a wide range of actors and stakeholders at various levels. An important aspect of this are the many different owners of forests, including local governments, national states, sub-national governments, not-for-profits, private owners and community actors. Local authorities throughout the UNECE region own millions of hectares of forests, but much less is known about the trees outside forests under local authority ownership. The frequently fragmented ownership of urban and peri-urban forests is a challenge for cohesive and strategic planning and management.

6. Due to forest loss and fragmentation in urban areas, there is often an urgent need for forest landscape restoration and tree planting. The National Policy Guiding Principles for Forest Landscape Restoration⁵ can assist in this effort. Providing an integrating framework that can be applied across a range of land uses to ensure that key ecosystem goods and services are available for future generations. Principles related to increasing awareness, developing supportive governance and greening non-forest sectors align with identified opportunities for action to strengthen **SUFM**.

7. This document outlines opportunities for action to enhance **SUFM** throughout the UNECE region, focusing on cross-sectoral and cross-scale collaboration between actors.

³ UNECE, 2021. Place and Life in the ECE – A Regional Action Plan 2030: Tackling challenges from the COVID-19 pandemic, climate and housing emergencies in region, city, neighbourhood and homes. Regional Action Plan. United Nations Economic Commission for Europe, Geneva. <https://unece.org/hlm/documents/2021/08/session-documents/place-and-life-ece-regional-action-plan-2030-tackling>.

⁴ UNECE, 2015. The Geneva UN Charter on Sustainable Housing. United Nations Economic Commission for Europe, Geneva. https://unece.org/DAM/hlm/documents/Publications/EN_Geneva_UN_Charter_on_Sustainable_Housing.pdf.

⁵ UNECE, 2022. National Policy Guiding Principles for Forest Landscape Restoration. Policy Guide. United Nations Economic Commission for Europe, Geneva. https://unece.org/sites/default/files/2022-08/NPGP-general-version2022%20_0.pdf.

A. Common Terms

8. For the purposes of this paper, the following definitions are used for commonly used terms:

(a) **Urban and peri-urban forest (UPF):** “networks or systems comprising all woodlands, groups of trees, and individual trees located in urban and peri-urban areas; they include, therefore, forests, street trees, trees in parks and gardens, and trees in derelict corners.”⁶ Thus, this definition includes areas falling under the Food and Agriculture Organization of the United Nations (FAO) definitions of “forest”, “other wooded land”, and “other land with tree cover”.⁷

(b) **Sustainable urban and peri-urban forest management (SUFM):** is defined as “the art, science, and practice of planning, designing, establishing, and managing urban and peri-urban forests to meet current needs and desires of society for the benefits these provide, without compromising the availability of these for future generations”.⁸ Although the focus is on forests and trees as determining components, **SUFM** also links to the wider green and blue infrastructure in urban and peri-urban areas, and indeed to trees, forests and communities in rural areas.

(c) **UNECE region:** refers to the region comprised of UNECE member States.

(d) **Local authority:** refers to authorities with legislative, judicial, and executive authority of local government units, such as cities and towns. This often refers to the smallest geographic areas distinguished for administrative and political purposes,⁹ although many cities may be comprised of multiple district or neighbourhood authorities with more limited mandates. Local authorities may refer to communities including, but not limited to, municipalities, cities, towns, townships, and villages.

(e) **Sub-national:** refers to the governance level of provinces, cantons, states and so on, excluding the level of local authorities.

(f) **Private sector:** refers to private owners and business entities, private institutions and other private ownership arrangements.

(g) **Civil society:** refers to non-governmental organizations, not-for-profits and similar entities.

(h) **Financial institution:** includes financial institutions and funding entities that provide access to capital in different forms.

(i) **Urban area:** comprises a city or town proper and also the suburban fringe or thickly settled territory that may be lying outside, but adjacent to, its boundaries.¹⁰

B. Overarching Principles

9. Urban and peri-urban forests are a nature-based solution and form part of the critical infrastructure of sustainable cities. To maximize ecosystem services over time, they should:

(a) Be resilient, sustainable, and multifunctional.

⁶ FAO, 2016. Guidelines on urban and peri-urban forestry. <https://www.fao.org/3/i6210e/i6210e.pdf>

⁷ FAO, 2023. Terms and Definitions; FRA 2025. <https://www.fao.org/3/cc4691en/cc4691en.pdf>

⁸ UNECE, 2022. Sustainable Urban and Peri-urban Forestry. An Integrative and Inclusive Nature-Based Solution for Green Recovery and Sustainable, Healthy and Resilient Cities. Policy Brief. United Nations Economic Commission for Europe, Geneva. https://unece.org/sites/default/files/2022-02/Urban%20forest%20policy%20brief_final_0.pdf.

⁹ UNECE, 2020. Who owns our forests? Forest ownership in the ECE region. United Nations Economic Commission for Europe, Geneva. https://unece.org/DAM/timber/publications/2008976E_lastWeb.pdf.

¹⁰ UNSD, 2017. Population density and urbanization. United Nations Statistics Division, New York. <https://unstats.un.org/unsd/demographic/sconcerns/densurb/densurbmethods.htm>.

(b) Be properly planned, designed, established and managed over time as part of an interconnected socio-ecological network, **both within the urban and peri-urban zone, and with trees forests and communities in surrounding areas.**

(c) Equitably provide benefits to all segments of urban populations.

10. While afforestation and tree planting are important, proper management and stewardship over time are critical to ensuring that urban trees can grow old and **are ultimately replaced, so that urban forests** provide the fullest range of ecosystem services.

11. To ensure this, **SUFM** must adopt the following approaches:

(a) **It is critical to plant the right tree in the right place, for the right reasons.** Urban forests are part of complex socioecological networks. Different designs of urban forests, with different trees, will yield different outcomes and benefits. Strategic long-term planning is critical to ensure that urban forests are designed to deliver on the desired benefits. This is particularly important in the context of climate change, and continuous research is needed to understand climate impacts on urban forests and to identify resilient species and ecosystem structures.

(b) **A strategic and structural approach to the sustainable management of urban and peri urban forests is required.** This includes appropriate and specific governance structures and processes, policies and programs from the UNECE regional level to the local (e.g. city) level. Urban and peri-urban forests are framed in a broad perspective of forests and trees as part of wider green infrastructure and nature-based solutions. The implementation of policies will require masterplans at the city level, but also, for example, policies and legislation at **regional**, national and sub-national levels.

(c) **Coordination and collaboration across sectors, boundaries and levels of governance must form the roots of SUFM.** To enable and ensure good cooperation, it is critical that mandates and responsibilities of relevant stakeholders be clearly defined. **Effective SUFM approaches will often require new jurisdictional partnerships and willingness to work across jurisdictions to achieve the degree of collaboration necessary for real progress to occur.** Cross-sectoral collaboration should recognise, consider and enhance the contributions of **SUFM** to urban development, economics, public health, and other agendas, and vice-versa. Community and forest owner participation is of fundamental importance, and inclusive approaches to planning, design, management and monitoring should be promoted and protected. This should engage private sector and other civil society actors as well. **Coordination should recognize linages to safety and security, such as the potential negative impacts of poor urban tree and forest maintenance practices.**

(d) **Greater awareness about the roles and benefits of SUFM and greater capacity to act will enhance outcomes,** including by helping to facilitate cross-sectoral collaboration. Knowledge also needs to be generated and mobilised in support of **SUFM** and linked to awareness raising efforts. Dedicated training and capacity building are needed as part of these efforts to ensure that skilled professionals can implement **SUFM** activities.

C. Vision and Goals

12. **Vision.** Opportunities for regional actions can be framed under the following overall vision for the UNECE Region:

(a) Urban and peri-urban forests are developed to deliver multiple essential ecosystem services that benefit local urban and peri-urban communities and contribute to national policy objectives, the SDGs, and global goals for climate action, disaster risk reduction, biodiversity conservation, landscape restoration, and sustainable cities.

(b) Urban and peri-urban forests are managed sustainably **and in ways that reduce the risks and disservices they could produce,** guided by national, sub-national, and city authority policies, regulations, strategies, and plans that are implemented with adequate resources over time, **including research, training and finance.**

13. **Goals.** The following overall goals would then direct future actions, to be delivered at different levels ranging from the UNECE regional to the local level:

- (a) Raise awareness of the benefits of **SUFM** and the need for sustainable resource management.
- (b) Strengthen governance, policies, regulatory frameworks, and financing for **SUFM** at the national, sub-national, and local levels.
- (c) Provide guidance for, and enhance the development and implementation of, masterplans, management plans and good practices in **SUFM**.
- (d) Strengthen technical and human capacities for the implementation of **SUFM** programs, **including research, training and finance**.
- (e) Build inclusive partnerships and participatory approaches for developing and delivering **SUFM** programs and initiatives **and link them to complementary programs and initiatives in rural areas beyond the urban and peri-urban sphere**.

14. Goals can only be realised through the joint efforts of a wide range of stakeholders, from the UNECE regional to the local level (e.g. the city or even city district level). **Synergies among ongoing international work programs and with efforts under relevant intergovernmental agreements should be considered.**

II. Policy Areas

A. Policy Area A: Awareness of benefits and sustainable management

15. **Goal A: Raise awareness of the benefits of **SUFM** and the need for sustainable resource management:**

(a) Although there has been increasing focus on the importance of greening cities, there is still limited awareness and knowledge about the current benefits of **SUFM** and its potential amongst many policymakers, local authorities, investors and professionals working in other sectors. There is also a need to raise awareness about **SUFM** amongst urban residents **and their rural counterparts** across the UNECE region.

(b) Under this goal, the focus is on identifying, assessing, and communicating the many benefits of **SUFM**. Proper assessment of ecosystem services and benefits provided by **SUFM**, both in monetary and non-monetary terms, will be an important component of advocating for **SUFM**. This includes contributions to climate action, public health promotion, food security, sustainable economic development and tourism, biodiversity conservation and disaster risk reduction, among others. Awareness raising is important as cities grow and densify, often placing urban trees and forests under threat.

(c) **Urban trees and forests can only achieve and provide their full range of ecosystem services and benefits when they have a chance to mature, which requires sound selection, establishment, and maintenance.** The growing interest in the greening of cities has resulted in numerous tree planting and afforestation initiatives. Although it is important to expand urban forests, it is just as essential that trees reach maturity which requires sound selection, establishment, and maintenance. **Thus, the importance of longevity and proper long-term management needs to be clear and considered when planning, budgeting, managing and monitoring urban forests, to ensure a healthy balance between resources and efforts dedicated to tree planting versus long-term management of existing trees.** This decision should be based on a clear understanding of the desired benefits and ecosystem services of urban trees and forests, and a clear plan that identifies the most efficient and inclusive way to achieve these benefits and services. This should recognize that **SUFM** success is linked to many factors beyond the numbers of trees planted. Long-term management of newly established and especially legacy urban forests not only produces green infrastructure but enhances and accelerates the growth and development of existing green infrastructure. Increasing awareness of long-term and sustainable management approaches is therefore another essential task.

Table 1

Goal A: Raise awareness of the benefits of **SUFM and the need for sustainable resource management**

<i>Target</i>	<i>Actions</i>	<i>Scope of Actions</i>
A.1. Awareness of the multiple and essential benefits of SUFM . The many benefits, provided through a series of ecosystem services, of SUFM forests, related to, among others, need to be highlighted and widely communicated amongst stakeholders. A special effort should be made to raise awareness amongst decision-makers in other sectors.	A.1.1. Compile and disseminate information on the essential benefits provided by urban climate action, public health, food security, biodiversity conservation, and economic development A.1.2. Implement campaigns and partnerships that promote the role and benefits of SUFM to the public at large, as well as decision-makers at different levels.	UNECE Regional, National, Sub-national, Local Authority, Academia, Private Sector, Financial Institution, Civil Society National, Local Authority, Private Sector, Civil Society
A.2. The benefits of urban forests are known in monetary and non-monetary terms. Standardised monetary and non-monetary valuation methods, based on e.g., good practices, will be needed for more comprehensive assessments of urban forests, their benefits, and the associated monetary and non-monetary values.	A.2.1. Identify, develop, and disseminate methods to value the economic, environmental, and social benefits of SUFM . A.2.2. Identify and communicate emerging market and non-market opportunities (e.g., including payments for ecosystem services) provided by SUFM . A.2.3. Conduct local, national, and regional evaluations of the economic and other values of SUFM to guide planning and investment.	UNECE Regional, National, Academia, Private Sector, Financial Institution UNECE Regional, National, Sub-national, Local Authority, Academia, Private Sector UNECE Regional, National, Sub-national, Local Authority, Academia, Private Sector
A.3. The need for sustainable management of urban and peri-urban forests is widely known. Urban trees and forests only start providing their full range of ecosystem services and benefits when they have a chance to mature. Rather than placing too much emphasis on tree planting, the importance of longevity and proper long-term management needs to be made clear to those involved.	A.3.1. Awareness raising and information provision, including from research and well-documented case studies, that emphasise the importance of successfully establishing trees and managing them over the long-term to ensure ensuring that they reach maturity. A.3.2. Promotion of successful long-term management of urban forests which results in healthy and mature trees that provide high levels of ecosystem services.	UNECE Regional, National, Sub-national, Local Authority, Academia, Private Sector, Civil Society UNECE Regional, National, Sub-national, Local Authority, Academia, Private Sector, Civil Society

B. Policy Area B: Governance, policies, and regulatory frameworks**16. Goal B: Strengthen governance, policies, regulatory frameworks, and financing for **SUFM** at the national, sub-national, and local levels.**

(a) Appropriate and specific governance structures and coordination processes, policies, and dedicated regulatory frameworks, with clear mandates, long-term goals and strategic directions are needed. These should enable, guide, support and align efforts to sustainably manage and expand urban and peri-urban forests as a nature-based solution and

recognized component of the critical infrastructure of sustainable cities. This includes **SUFM** policies that set clear visions and goals and have a longer-term focus, as well as the integration of **SUFM** objectives in national, sub-national, and local-level policies and strategies related to, among other, climate action, public health, biodiversity conservation, food security, economic development and tourism, urban development, and risk management. Where institutional mandates for **SUFM** activities are not clearly defined, or where they are dispersed, governance structures may need to be clarified or revised. **This should consider linkages to institutional mandates and governance structures in rural areas, to ensure coherent governance and management of green corridors and other linkages between urban and rural areas.** Management plans are also important for organising and directing **SUFM** activities. Technologies can help, for example, to ensure sufficient below- and above-ground space for trees. Given the challenging growing conditions that trees face in cities, it is essential that **SUFM** use appropriate technologies and current best practices.

(b) Financing of **SUFM** should be longer-term and reliable, with public finance playing a critical role. Private sector involvement and other types of funding are also important. Urban forests and trees should be included in asset management at the local (e.g. city) level.

Table 2

Goal B: Strengthen governance, policies, regulatory frameworks, and financing for **SUFM at the national, sub-national, and local levels**

<i>Target</i>	<i>Actions</i>	<i>Scope of Actions</i>
B.1. Policies and programs are in place for SUFM with clear visions, aims and objectives, and longer-term perspectives. These policies and programs should have a cross-sectoral focus and link up to climate action, biodiversity conservation, sustainable forest management, forest restoration , public health, food security, and urbanisation agendas, among others .	B.1.1. Develop and provide SUFM policies. B.1.2. Develop national-level objectives and targets for urban and peri-urban forest management . B.1.3. Develop a national SUFM policy, considering linkages to rural areas , and mainstream recommendations in sectoral plans and sub-national coordination mechanisms.	UNECE Regional National National
B.2. Regulatory frameworks are conducive to SUFM . The protection of urban and peri-urban forests in high-pressure urban settings is heavily dependent on the presence of appropriate laws, rules, and regulations.	B.2.1. Ensure that urban and peri-urban forests (UPF) are codified regulations. B.2.2. Strengthen protection for UPF through national, sub-national and local legislation and regulations. B.2.3. Strengthen regulations and incentives to align and coordinate actions of different actors, including those of private owners with national and sub-national SUFM objectives and targets.	National, Sub-national, Local Authority National, Sub-national, Local Authority National, Local Authority
B.3. Clear governance structures, institutional mandates and coordination mechanisms are in place for SUFM . Urban and peri urban forest management is a cross-sectoral activity and it is not always clear who is in charge or involved. Sustainable and effective programs need to be based on clear mandates and strong coordination	B.3.1. Identify key actors in urban forest governance and clarify institutional mandates and responsibilities – including mandates and responsibilities at the level of specific institutions. B.3.2. Integrate SUFM objectives into existing and relevant policies and coordination mechanisms (cross-sectoral, across levels of	UNECE Regional, National, Sub-national, Local Authority, Private Sector, Civil Society UNECE Regional, National, Sub-national, Local Authority, Private Sector, Civil Society

<i>Target</i>	<i>Actions</i>	<i>Scope of Actions</i>
mechanisms, including linkages to rural areas.	governance, and both state and non-state), considering their socio-ecological and economic linkages to rural areas. For example, related to climate change adaptation and mitigation, disaster risk reduction, water management, public health promotion, tourism, biodiversity conservation, food security, and economic development. B.3.3. Where needed, develop new coordination mechanisms for urban forest governance at the national, sub-national, and local level of governance, as well as for transboundary collaboration including linkages to rural areas.	UNECE Regional, National, Sub-national, Local Authority, Private Sector, Civil Society
B.4. Sustainable funding programs are set up for SUFM. Funding programs should include, where feasible, both public and private funds and focus on both urban forest expansion and the management of existing UPF and their socio-ecological linkages to rural areas.	B.4.1. Provide guidance on budgeting and financing SUFM. B.4.2 Ensure SUFM is integrated into existing public budgets, aligning expenditures across sectors where relevant. Budget allocations for SUFM should be predictable over time. B.4.3. Develop and replicate SUFM financing instruments to mobilize additional finance and meet specific needs. B.4.4. Align cross-sectoral efforts and action at the sub-national level with national policy objectives through national or sub-national financing mechanisms for SUFM.	UNECE Regional, National, Private Sector, Financial Institution National, Sub-national, Local Authority UNECE Regional, National, Sub-national, Financial Institution, Civil Society National, Sub-national, Local Authority

C. Policy Area C: Planning and management

17. Goal C: Provide guidance for, and enhance the development and implementation of, masterplans, management plans and good practices in **SUFM.**

(a) Urban forests can provide many benefits, but only if the right tree is planted in the right place for the right reasons, which requires careful long-term planning. Furthermore, urban forests will only provide the intended benefits if planted trees survive and grow to maturity. Management should ensure the longevity of urban trees, shifting the focus from planting to establishing and maintaining healthy mature trees **and ensuring their ultimate replacement.**

(b) Management plans are important for organising and directing **SUFM** activities. Technologies can help, for example, to ensure sufficient below- and above-ground space for trees. Given the challenging growing conditions that trees face in cities, it is essential that **SUFM** use appropriate technologies and current best practices.

(c) Management should be adaptive as conditions are rapidly changing. It is important to develop an urban forest that is resilient and constituted of a mix of tree species **and ages** that are adapted to climate change. Urban trees and forests should be supported by management standards developed by industry and government.

(d) Joint research should be promoted to support the above, creating important synergies and exchanging new knowledge, **while helping to identify and harness existing case studies.**

(e) **Management should ensure the longevity of urban trees, shifting the focus from planting to establishing and maintaining healthy mature trees.**

Table 3

Goal C: Provide guidance for, and enhance the development and implementation of, masterplans, management plans and good practices in SUFM

<i>Target</i>	<i>Actions</i>	<i>Scope of Actions</i>
<p>C.1. Planning and management can be based on sound understanding of the urban forest resource.</p> <p>An important first step is to assess the current state of the urban forest, followed by regular monitoring of change. Also important is to consider the local context and current SUFM applications. Developing standardised metrics for urban forest inventories and monitoring will be important.</p>	<p>C.1.1. Develop guidelines and tools for conducting urban forest inventories and monitoring.</p> <p>This may include guidelines and tools for integration into national forest inventories where this is not already the case</p>	<p>UNECE Regional, National, Sub-national, Local Authority, Academia, Private Sector, Financial Institution, Civil Society</p>
	<p>C.1.2. With input of cities, implement and coordinate data collection and monitoring of urban forests at the national (and sub-national) level, where possible, for scale efficiencies and in support of local authorities.</p>	<p>National, Sub-national, Local Authority, Academia, Private Sector, Civil Society</p>
	<p>C.1.3. Integrate urban forests in national (and sub-national) forest inventories.</p>	<p>National, Sub-national</p>
	<p>C.1.4. Conduct urban forest inventories and monitoring, in coordination with activities under C.1.2.</p>	<p>Local Authority, Private Sector, Civil Society</p>
<p>C.2. Strategic approaches drive the management of urban forests. Urban master planning and strategic management approaches are called for, based on clear guidance. This also requires developing sets of metrics and performance indicators to monitor program success.</p>	<p>C.2.1. Develop guidelines for preparing urban forest master plans at the local (e.g. city) level.</p>	<p>UNECE Regional, Local Authority, Academia</p>
	<p>C.2.2. Develop standardised national metrics and performance indicators for urban and peri-urban forest management.</p>	<p>UNECE Regional, National, Sub-national, Local Authority, Academia, Private Sector, Financial Institution</p>
	<p>C.2.3. Develop urban forest master plans to provide strategic direction and cross-sectoral collaboration for SUFM.</p>	<p>National, Sub-national, Local Authority, Private Sector, Civil Society</p>
	<p>C.2.4. Enhance the development of management plans that structure and guide SUFM activities.</p>	<p>National, Sub-national, Local Authority, Private Sector</p>
	<p>C2.5 Develop guidelines for nursery practices for urban tree planting, including genetic selection</p>	
<p>C.3. Good practices and suitable technologies in SUFM are widely used.</p> <p>Urban trees face very difficult growing conditions in cities, resulting in short life spans and a lower provision of ecosystem services. Good practices</p>	<p>C.3.1. Carry out joint research activities that support urban forest planning and management.</p>	<p>UNECE Regional, National, Sub-national, Local Authority, Academia, Private Sector, Civil Society</p>
	<p>C.3.2. Compile and disseminate examples of both good and</p>	<p>UNECE Regional, National, Local Authority,</p>

<i>Target</i>	<i>Actions</i>	<i>Scope of Actions</i>
and well-tested and novel technologies can help enhance the longevity and performative life of trees, and with that the sustainability of urban and peri-urban forest management . Research can help identify those practices and technologies that work, also under the new reality of climate change. This can relate, for example, to establishment and management practices, but also developing a resilient urban forest with a mix of suitable tree species.	<p>unsuccessful practices and technologies in SUFM.</p> <p>C.3.3. Foster the implementation of good practices and technologies in SUFM.</p> <p>C.3.4. Support the testing of good practices and technologies in SUFM.</p>	<p>Academia, Private Sector, Financial Institution, Civil Society</p> <p>UNECE Regional, National, Sub-national, Local Authority,</p> <p>Academia, Private Sector, Financial Institution, Civil Society</p> <p>National, Sub-national, Local Authority,</p> <p>Academia, Private Sector, Financial Institution, Civil Society.</p>
<p>C.4 Risks or disservices of green infrastructure in cities such as allergies, invasive species, safety and security risks are reduced or avoided. While urban trees and forests can provide many benefits and services, they also may generate costs and disservices (negative outcomes), for example by exacerbating allergies, or posing a risk to health, safety and property, for example from falling trees or park designs that may create a higher risk of crime.</p>	<p>C.4.1 Plant trees species that are adapted to climate change, not invasive and not allergenic.</p> <p>C.4.2 Carry out regular checks on the health of planted trees</p>	<p>National, Sub-national, Local Authority, Private Sector, Civil Society</p> <p>National, Sub-national, Local Authority, Private Sector, Civil Society</p>

D. Policy Area D: Technical and human capacities

18. Goal D: Strengthen technical and human capacities for the implementation of **SUFM** programs.

(a) **SUFM** is an interdisciplinary and highly complex field that integrates knowledge and skills on the interactions between cities and forests, trees, and people from a wide range of fields. Growing trees in often harsh urban environments requires professionals that have been educated and trained in dedicated **SUFM** programs. Although there are university, vocational, and technical education and training opportunities in fields such as arboriculture, horticulture, forestry, and landscape design, comprehensive **SUFM** programs are lacking. Where stand-alone programs are difficult to set up, **SUFM** aspects need to be integrated into existing programs, **which may include complementary programs in surrounding rural areas.**

(b) This recognizes that (i) development of successful **SUFM** programs demands educated and experienced practitioners and (ii) rural and urban forest development represents an important area for economic growth. **SUFM** employment and professional development can be expected to grow and influence over time.

(c) **SUFM** also needs people who can provide ‘green leadership’ within public sector agencies, businesses, not-for-profits, and community groups.

Table 4

Goal D: Strengthen technical and human capacities for the implementation of SUFM programs

<i>Target</i>	<i>Actions</i>	<i>Scope of Actions</i>
D.1. Dedicated SUFM training and education in place in most UNECE countries. Building capacities (technical and human), including a well-educated SUFM workforce will support the implementation of SUFM programs. SUFM should become regarded as a recognised profession that attracts talent.	D.1.1. Support the development of training materials (including curricula) and the organisation of training (including vocational and academic). D.1.2. Develop formal education and training of SUFM professionals.	National, Sub-national, Local Authority, Academia, Private Sector, Civil Society National, Sub-national, Academia, Private Sector, Civil Society
D.2. Strong networks for SUFM present at the regional and national levels promote knowledge sharing and collaboration. Collaborative networks of urban foresters and affiliated professions, as well as other stakeholders including those working in rural areas, can promote shared learning, knowledge exchange, and collaboration. Communities of knowledge and practice will strengthen SUFM across the UNECE region.	D.2.1. Initiate and strengthen networks of SUFM experts and affiliated professionals at the regional and national level that support knowledge exchange, collaboration, and capacity building. D.2.2. Promote the development of professional associations specifically for SUFM. D.2.3. Organise conferences and events that help build communities of practice and knowledge.	UNECE Regional, National, Sub-national, Local Authorities, Academia, Private Sector, Civil Society National, Sub-national, Local Authorities, Academia, Private Sector, Civil Society UNECE Regional, National, Sub-national, Local Authorities, Academia, Private Sector, Civil Society

E. Policy Area E: Inclusive partnerships and participatory approaches.**19. Goal E: Build inclusive partnerships for the development and delivery of SUFM programs at different levels.**

(a) To integrate SUFM into other relevant policy domains and thereby maximize its potential as a nature-based solution, SUFM should be a cross-sectoral undertaking, involving government, private sector, and civil society stakeholders. This should consider and reflect socio-ecological and economic linkages to rural areas. SUFM is seldom the domain of urban and peri-urban forest management professionals alone: urban green spaces and trees can make essential contributions to climate, public health, biodiversity, urban planning, disaster management, tourism, and other policy domains. Affiliated professions such as architecture, landscape architecture, and ecology play essential roles, as do professions such as engineering, healthcare, and urban planning. Partnership and collaboration are needed across the SUFM life cycle, starting with the growing of trees and other plants in nurseries, considering socio-ecological and economic linkages to rural areas.

(b) Participatory approaches to SUFM, including fostering meaningful community stewardship, will contribute to successful programs as well. More inclusive place making within SUFM will build community buy-in, support, and engagement over the long term. Inclusive planning can also help to promote a more equitable distribution of urban forests and their benefits, including providing essential benefits to vulnerable groups.

Table 5

Goal E: Strengthen technical and human capacities for the implementation of SUFM programs

<i>Target</i>	<i>Actions</i>	<i>Scope of Actions</i>
E.1. Cross-sectoral and multistakeholder partnerships for the	E.1.1. Foster the development of cross-sectoral partnerships and	UNECE Regional, National, Sub-national, Local

<i>Target</i>	<i>Actions</i>	<i>Scope of Actions</i>
development and implementation of SUFM programs are widespread. SUFM involves a wide range of sectors, disciplines, and stakeholders, and strong partnerships are needed as a foundation for successful programs.	collaboration between governance levels for SUFM , including meaningful community stewardship and considering and reflecting linkages to rural areas.	Authority, Private Sector, Civil Society
	E.1.2. Strengthen public-private partnerships and collaboration for SUFM , including the engagement of businesses and landowners.	UNECE Regional, National, Sub-national, Local Authority, Private Sector, Civil Society
	E.1.3. Strengthen collaboration among the many stakeholders in the SUFM life cycle, including various affiliated and other professions (e.g., architects, planners, engineers, health professionals) and nurseries to support the provision of sufficient supplies of climate-adapted species.	National, Sub-national, Local Authority, Academia, Private Sector, Financial Institution, Civil Society
E.2. Inclusive and participatory approaches are common in SUFM . It is important to address the environmental equity aspects of SUFM , ensuring that everybody can benefit from urban forests and has a chance to participate in SUFM decision-making and activities.	E.2.1. Ensure that SUFM programs address and prioritise environmental equity aspects and that their benefits are inclusive also of the most vulnerable groups in society (such as low-income groups, people with disabilities).	UNECE Regional, National, Sub-national, Local Authority, Private Sector, Financial Institution, Civil Society
	E.2.2. Foster inclusive partnerships and opportunities for participation in SUFM decision-making and activities, including community stewardship.	UNECE Regional, National, Sub-national, Local Authority, Private Sector, Civil Society
	E.2.3. Enhance community stewardship, management and place making of urban forests, by promoting direct involvement of residents in sustainable urban and peri-urban forest planning, management and stewardship, and by including residents of rural communities when relevant linkages exist.	Local Authority, Private Sector, Civil Society
E.3 Synergies among ongoing international work programs are unlocked.	E.3.1 Align international efforts and actions.	UNECE Regional, National
	E.3.2 Avoid duplication of the same actions and financing at the international level and exchange learnings.	UNECE Regional, National

III. References

Figure
The Potential of Urban and Peri-urban Forests (French)

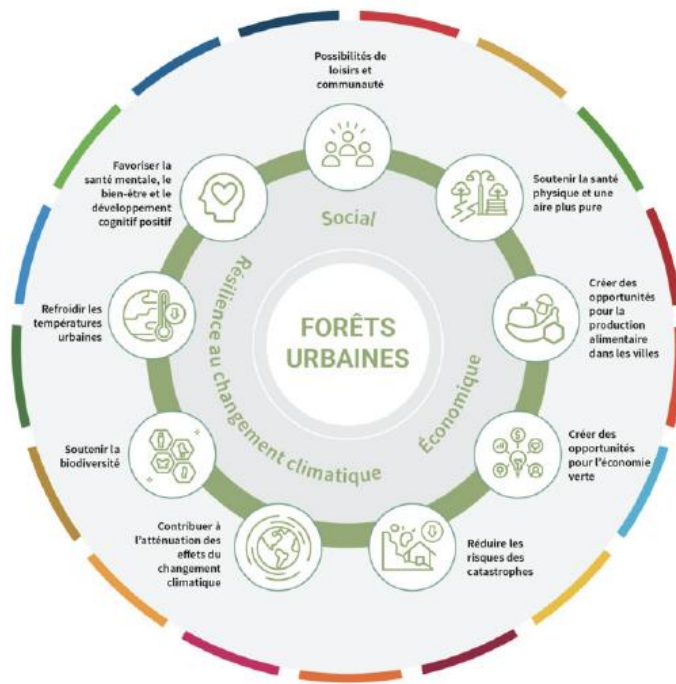


Figure
The Potential of Urban and Peri-urban Forests (Russian)

