

Cities



and the Urban Forest: a Manifesto



**World Forum on
Urban Forests**
Mantova 2018

Why a Manifesto?

The livelihood and well-being of urban dwellers strongly depends on the ecological services provided by healthy natural ecosystems in and around cities.

For the most part, the rapid expansion of cities takes place without any real land use planning strategy, and the resulting human pressure causes highly damaging effects on forests and natural landscapes in and around them.

The main consequences of urbanization follow three main streams:

- Environmental: surrounding landscape fragmentation and habitat loss; higher frequency and vulnerability to extreme weather events including floods, droughts, landslides and extreme winds; increased vulnerability of soils to erosion and watersheds to degradation; exacerbated heat island effect within cities; increasing levels of air pollution.
- Economic: rising urban poverty; decreased resource availability; increased food insecurity; decreased supply and increasing cost of wood forest products for industrial and domestic use.
- Social and cultural: public disconnection from nature; loss of local identity; ethnic discrimination and exclusion of vulnerable groups; decreased opportunities for practicing physical activities and consequent increase of non-communicable diseases (e.g. cancer, cardiovascular diseases, allergies, obesity).

Urban forests and trees can help address these challenges and move towards a more sustainable and resilient model of urban development. Sustainable Development Goal 11 of the 2030 Agenda for Sustainable Development focuses on Making cities and human settlements inclusive, safe, resilient and sustainable as one of the key achievements for sustainable and equitable development. The New Urban Agenda, approved at Habitat III in 2016 also clearly mentions the contribution of urban forests and green spaces to sustainable urban development.

Many positive experiences from cities around the world prove how the choice of investing in urban forestry can substantially contribute to the quality of life of urban dwellers. A growing number of international organizations, research institutions and scientific bodies that deal with urban issues are focusing their attention on the key role that green spaces and trees can have in supporting the achievement of global sustainability goals. What is still lacking is a global approach to the issue allowing capitalizing on existing experiences, facilitating exchange and discussion between cities, and supporting the upscaling of good practices. Building on this, we felt that the time was right to launch a global process to gather existing experiences and boost action towards greener, healthier and happier cities for all.

This Manifesto is intended to be the first step in this direction.

Our vision

- We often only think of cities as built and artificial places, where architectures and infrastructures dominate the landscape, but we should not forget that cities are also ecological systems where human beings survive through a network of relationships with other organisms and the surrounding physical environment. It is the community of living organisms that, together with the anthropic influences and the physical environment, constitutes the character and dynamics of the landscape, i.e. the identity of the place. Cities are a spectacular invention of humanity but urban trees are the ones that mark time: they are an open window on the cycle of nature, which is also the cycle of our daily life.
- In Our Vision, urban and peri-urban forests and trees and green infrastructure will:
 - Play an important role in achieving the Sustainable Development Goals both locally, in urban and urban regions contexts, and globally.
 - Be recognized for their wide range of benefits and services to urban communities, including by improving environmental quality, enhancing food security, conserving urban biodiversity, mitigating climate change, stimulating green economy, preserving natural and cultural heritage, strengthening social cohesion, and providing environmental education opportunities.
 - Be considered as critical infrastructure for urban areas, on a par with utilities, transport and the built environment. Infrastructure does not appear by chance. It has to be planned, designed, created, managed, maintained and used. Green infrastructure, that includes, beyond urban forests, a wide set of natural and semi-natural areas, is no different.
 - Be viewed and managed as a whole and not considered as separate trees. Trees in peri-urban forests, parks, streets, private gardens and other public spaces are all part of the urban forest.
 - Be regarded as a strategic component of the landscape infrastructure aimed at harmonizing relations between cities and interconnected rural areas.
 - Be considered a strategic element of urban sustainability by enhancing community involvement and promoting environmental justice.
- Growing urban societies should also aim at protecting and restoring forests and tree resources between and around cities, enhancing rural-urban linkages through landscape planning and design, building interconnected regional eco-corridors, protecting healthy forest ecosystems for urban water supply, limiting unplanned urban expansion, and introducing a green infrastructure approach.

we should use urban forests
and trees to make our cities:

1 / Greener

Cities need forests, citizens need green spaces. Green is commonly associated to positive feelings and wellbeing and is considered the color of balance, harmony and growth. Green cities are strategic for the future of the communities and play a key role for the future of the environment, of the planet. Greening our cities has to do with ecology, economy, society, culture, architecture, psychology, education, health i.e. with all aspects of urban life. When a city invests in peri-urban forests, city parks, green and blue corridors, trees on streets and public squares, private gardens, courtyards, and other green spaces with trees, green roofs, green buildings, the resulting green infrastructure enhances the quality of places where people live, work and play. Trees and forest are the backbone of green infrastructure and, as a result are key actors in the urban landscape and essential elements of the form, dynamics and architecture of cities. In order to ensure that all citizens can enjoy the benefits of both existing and new urban green spaces city planners should pay attention to their equitable distribution and accessibility. The greener a city the more resilient it is.

we call for:

- **In 2015, Vancouver launched its “greenest city 2020 action plan” where: Clean Air, Green Buildings, Access to Nature, Green Economy, Local Food are driving goals for planning the future of the city.**
- **In 2004, China launched the “National Forest City” programme in order to respond to the increasing environmental problems due to fast and often unplanned urban growth. In 2020, 200 cities are expected to join the programme. The average annual new forest green cover per city amounts to 14,000 hectares.**
- **Bangui, the capital city of Central African Republic adopted a strategy and an action plan on the development of urban forestry as a tool to alleviate poverty and ameliorate the quality of life in one of the poorest countries of the World. Morocco built a national strategy on urban forestry and provided guiding documents accordingly.**
- Adopting a green infrastructure approach and Nature Based Solutions for planning, designing and managing our cities so to integrate and maximize the benefits deriving from trees and forests in cities and urban green spaces.
- Increasing the canopy cover of cities according to local potential.
- Allocating the right space to the right tree in order that these living organisms can feel that they are in their favorite place
- Increasing the availability and accessibility of green spaces for residents of every age, culture, attitude and ability
- Preparing guiding documents and supporting tools to serve a sound development of urban forestry and green infrastructure policies.
- Identifying special days celebrating trees and forests to strengthen the sense of nature or urban dwellers.

2 / Healthier

Claiming that we feel good when we are in a green space seems rather obvious. There is now clear evidence that the presence of green spaces and urban forests positively influences the health and well-being of citizens. We can think of urban forests and trees as a kind of *green physician* improving people's health both directly and indirectly, and almost free of charge. Well-designed and managed urban forests and green spaces substantially contribute in ensuring healthy lives and promoting well-being through disease prevention, therapy and recovery. Forests and other green spaces in and around cities provide ideal settings for many outdoor recreation and relaxation activities, thereby contributing to the prevention and treatment of non-communicable diseases, the reduction of stress and the maintenance of mental health. Urban forests filter and efficiently remove pollutants and particulates, which also helps reduce the incidence of non-communicable diseases.

We call for:

- **A 10 percent increase in urban green space in a community can postpone the average onset of health problems by up to five years.**
- **A study in London found that the number of medical prescriptions decreased by 1.18 per 1 000 people for every extra tree per km of street**
- **Children living in areas with good access to green spaces have been shown to spend less time in front of television screens, computers and smart phones and to have an 11–19 percent lower prevalence of obesity compared with children with limited or no access to green spaces**
- **In the United States of America, trees help reduce or prevent more than 670 000 cases of severe respiratory diseases per year and thereby save more than 850 lives annually).**
- Acknowledging the role of urban forests and trees as a positive component of human health and wellbeing - including recreation and sport – and incorporating it into national public health plans
- Recognizing and taking into account the savings in healthcare costs generated by urban forest ecosystem services in relevant policies and duly incorporate them in the financial accounts of governments
- Assuring universal access to quality, safe and inclusive urban forests and green spaces
- Designing health forests, therapeutic gardens and open spaces together with the health experts so to highlight the emerging properties of green spaces towards long-term healing opportunities.

3 / Happier

People love trees and they are happier when they are in green spaces. Urban dwellers use green spaces for relaxation, both individually and in groups, for social events and cultural performances. They jog, ride a bike, talk to friends, play with their dogs, read a book or walk hand by hand with their friends. They simply enjoy being outdoors in comfortable green places. Urban green spaces are preferred venues for informal and formal sporting activities and for the establishment of playgrounds. Strong social, cultural and religious values are often associated with urban forests and trees; many urban communities express strong support for tree planting and the conservation of existing trees and forests in both rich and poor areas of cities. Veteran trees and ancient forests often have strong cultural and social values: valuing and taking care of them is critical to the preservation of cultural heritage of urban societies. Moreover, their persistence over decades and centuries provides connections between old and young generations and helps people feel more attached to their cities. Although the moral, spiritual, aesthetic and ethical values associated with urban forests vary greatly between cities and cultures, they usually play crucial roles in the protection and conservation of urban forests. The availability of urban forests and other green spaces also provide natural or close-to-natural spaces for education on environmental-related issues.

We call for:

- **Being happier in the green is a state that can be easily reached by outdoor walks in urban green spaces at the doorstep. It can lead to a reduction in clinical depression of more than 30 percent compared with indoor activities while helping the development of socially equitable relationships.**
- **In Helsinki green spaces with trees are the backbone of the structure of the city and thousands of people spending free time there in a late spring sunny day fully justify this planning and governance decision**
- **In Colombia, greening initiatives offered manifold opportunities to restoring social and ecological resilience in urban areas and thus contribute to a lasting peace after 50 years of conflict.**
- Designing and implementing high quality public green spaces with equitable and easy access for all;
- Developing popular and educational tools promoting the importance and value of urban forests and trees as cultural heritage
- Ensuring that green spaces and urban forest are included in the political agenda as a mean of social and ecological resilience of the future cities
- Investing in shaping the socio-cultural ecosystem services provided by urban forests and green spaces through place making and place keeping initiatives.
- Strengthening the sense of identity of the community by social inclusive design and management programs on existing or newly planned urban forests.
- Supporting action research projects on the perception of the community with regard to the recreational and sociocultural values of urban forests and trees and the links between nature and happiness
- Ensuring an equitable distribution of benefits from urban forests across socio-economic and cultural groups in cities

4 / Cooler

On hot summer day the urban forest is a breath of fresh air. The shade of trees has accompanied human beings since the beginning of time and it is the most effective natural cooler. Trees mitigate the thermal extremes of the built environment much more effectively than air conditioning. Urban forest, trees and green spaces are by far the best way to reduce the heat island effect. The potential for urban forests to reduce the vulnerability of cities to climate change has clear implications for policies that encourage urban infill, high housing densities and the consequent potential reduction or loss of green spaces. As temperatures rise due to climate change, green spaces are likely to become increasingly important, especially for their direct ameliorating effects on urban microclimates and the decrease of urban energy consumption by shading and cooling. In parallel, urban forest and trees, as the pillar of green infrastructure, substantially contribute to the reduction of the urban heat island effects

We call for:

- **The net cooling effect of a young, healthy tree is equivalent to ten average sized air-conditioners operating 20 hours per day**
- **Shade from trees can reduce utility bills for air-conditioning in residential and commercial buildings by 15–50 percent**
- **Several countries and cities have established minimum green-cover standards for hospitals and convalescence homes**
- **Trees, urban forests, green roofs, green buildings and vertical forest and vegetation can help reduce urban heat island effects by shading building surfaces, deflecting radiation from the sun, and releasing moisture into the atmosphere. Shaded surfaces, for example, may be 11–25°C cooler than the peak temperatures of unshaded materials. Evapotranspiration, alone or in combination with shading, can help reduce peak summer temperatures by 1 to 5°C.**
- Establishing regional frameworks to support and incentivize the creation and sustainable management of urban forests and other green infrastructure components for climate-change adaptation and mitigation
- Preparing local and regional technical documents and guidelines on how to substantially reduce the heat island effect
- Adopting nature based solutions as technical standards for thermal regulation (both in hot as well as in cold seasons) of cities with the aim of reaching a high quality of life in urban contexts and reducing energy consumption.
- Ensuring that the integrated design and the co-management of green and grey infrastructure of cities are oriented to optimize human thermal comfort conditions (i.e. perceived temperature, balance humidity/hottest daily temperatures, indoors working and living conditions) by maintaining or enhancing the tree cover throughout the city
- Monitoring and mapping the heat island effect to provide a working dataset feeding the strategic planning of urban forests as a key mean to combat thermal extremes of cities.

5 / More diverse

Biodiversity has an intrinsic value and represents a key element of any landscape, including cities. Habitat fragmentation is the biggest threat to the conservation of wildlife and natural ecosystems in urban areas. Increasing and restoring the functionality and connectivity of urban and peri-urban natural landscapes can make a valuable contribution to the conservation of natural resources and biodiversity. In fact, the more heterogeneous, undisturbed and interconnected the green infrastructure is, the more resilient will be the ecosystems it hosts. Although all green spaces can contribute to biodiversity conservation, it is important to conserve as much of the original natural vegetation – grasslands, forests, wetlands and riparian corridors – as possible because these are unique habitats for native plants and animals. Diversity also concerns human communities. Urban forest and trees are fundamental for maintaining local “identity”, providing natural experiences for urban and peri-urban dwellers, creating diverse landscapes, and maintaining cultural traditions. They contribute to creating semantically positive landscapes for the preservation of the cultural diversity that characterizes most contemporary fast-changing cities. Taking care of urban forest and trees will help younger generations understand the value of nature, allowing them to enjoy all the social and natural aspects of diversity.

We call for:

- **An estimated 20 percent of the world’s bird species and 5 percent of the vascular plant species occur in cities**
- **There are approximately 200.000 trees in Amsterdam’s open spaces, and the mosaic of interconnected landscapes provides homes for 140 bird species, 34 mammal species, 60 fish species and six frog and salamander species.**
- **On average, 70 percent of the plant species and 94 percent of the bird species found in urban areas are native to the surrounding region.**
- Conserving and creating an heterogeneous system of natural green spaces within and around urban areas
- Developing strategies and guidelines for urban biodiversity conservation and management
- Promoting initiatives and schemes to harmonize national/ local policies addressed to better interconnect natural landscapes in and around urban areas
- Implementing school educational programmes addressed to make students discover, experience and value local biodiversity

6 / Cleaner

Well-managed and healthy urban forests have a positive impact on the maintenance and improvement of air and water quality in and around cities. Trees in cities can increase the quality of the air through deposition of pollutants on the vegetation canopy, sequestration of atmospheric CO₂ in woody biomass, and reduction of summertime air temperatures through shading. By decreasing air temperature, tree presence also indirectly contributes to contrasting the formation of secondary pollutants (such as ozone), as well as to reducing the use of air conditioning devices, with consequent savings in energy use and polluting emissions. Urban and peri-urban forests also contribute greatly to the sustainable management of water and water resources. By protecting soils, reducing erosion, mitigating the climate and supporting natural ecosystem processes, they are often crucial for protecting and conserving watersheds serving urban communities. By intercepting air pollutants, reducing sediment and filtering rainwater, they can also play key roles in increasing not only the availability but also the quality of water.

We call for:

- **Urban trees in the conterminous United States of America remove some 784 000 tons of air pollution annually, at a value of US\$3.8 billion.**
- **Trees within cities can remove fine particles from the atmosphere and consequently improve air quality and human health. In a comparative study conducted on 10 American cities, the total amount of PM_{2.5} removed annually by trees varied from 4.7 tonnes in Syracuse to 64.5 tonnes in Atlanta, with annual values varying from \$1.1 million in Syracuse to \$60.1 million in New York City. Most of these values were from the effects of reducing human mortality.**
- **Ninety percent of sediments and nutrients can be prevented from entering waterways by maintaining strips of riparian vegetation.**
- **In 50 years, one tree can recycle water to the value of US\$35 000.**
- Developing regional and national air quality strategies and agendas recognizing and including the contribution of urban forests and trees to the reduction and removal of air pollutants
- Doubling the air pollution filtering function of urban forests and green belts by increasing their size and optimizing their connectivity
- Sustainably managing peri-urban forests to ensure the conservation and functionality of the peri-urban watersheds, particularly those on which cities' water supply depend
- Supporting and preparing regional databases for tree/shrub species selection including both positive (efficacy of dry/wet deposition) and negative (e.g. BVOCs emission by trees) issues related to air pollution

7 / Wealthier

Investing in urban forests is a promising strategy for sustainably creating jobs, decreasing public expenditure, increasing income and boosting local green economies. In fact, the planning, design, management and use of urban forests can generate employment and business opportunities, for example in: nurseries; gardening; the production of food and other non-timber forest products, such as woodfuel and medicines; the timber and bamboo industry; tree-care services; tourism; landscaping; and forest management. The shading and windscreen effects of urban forests can help decrease energy consumption by reducing the need for artificial cooling and heating. The positive effects that green spaces have on the mental and physical health of citizens can generate further savings; the consequent decrease in the number of hospitalizations and the increased fast in the recovery for hospitalized patients are reflected in the lowering of public health costs. In addition, urban forests and trees increase property and land values, while also attracting investment, businesses and tourism. Finally, nature based solutions based on the implementation of urban forests and green infrastructure are often more affordable than traditional/gray approaches to urban development, thus representing an effective and convenient option in addressing urban challenges.

We call for:

- **UPF supports an estimated 15 500 jobs (1.2 percent of total employment) in Manchester City, in areas such as the processing of forest products, tree-related tourism, and professional forestry-related services.**
- **In New York City, every dollar spent on tree planting and care provides up to 5.6 dollars in benefits.**
- **The establishment of 100 million mature trees around residences in the United States of America is said to save about US\$2 billion annually in reduced energy costs.**
- **In the United States of America, the appraised values of homes adjacent to naturalistic parks and open spaces are typically 8–20% higher than comparable properties without such amenities.**
- **One study found that, on average, prices for goods purchased in Seattle (United States of America) were 11 percent higher in landscaped areas than in areas with no trees.**
- Developing guidance frameworks and eco-models tailored for cities and addressed to implement cost-benefits analysis in the assessment of the benefits derived from the presence of urban forests and trees, as well as green spaces
- Incorporating “turning grey to green” principles in urban development strategies
- Developing and implementing global/regional agreements and national/local policies and regulations to promote green economy models based on the sustainable management of urban forest and trees
- Creating funding schemes, incentives and private-public partnerships addressed to promote green jobs and opportunities in urban forests and green spaces
- Integrating actions about urban forests and green places in the frame of green economy and circular economy strategies in order to reconcile economic, environmental and social goals

8 / Safer

The combination of climate change, rapid urbanization, growing urban populations and high population densities is increasing the vulnerability of cities. People living in urban and peri-urban areas, in fact, face many potential risks to their health, well-being and livelihood, deriving from an increased frequency of events like landslides, floods, and wildfires. Many cities have embraced urban forestry as a way of both preventing and contrasting land degradation and soil erosion. Well-managed UPF offer opportunities for restoring degraded, neglected and abandoned lands and remediating degraded soils. The sustainable management of urban forests and trees is crucial in order to make urban and peri-urban areas potentially affected by wildfires safer, particularly as there is a noticeable increase in occurrence of fires in the proximity of built-up areas. Urban forests and trees can help minimize damaging runoff in urban and peri-urban environments and - by increasing soil infiltration - they can reduce the severity of flooding events. On the other hand, if not well designed and managed, forests and trees can also pose direct and indirect risks to citizens. This is the case of species producing allergens or providing habitat for human pathogens, as well as of mismanaged trees, which especially during storms can drop limbs and injure/kill people or damage vehicles and infrastructure. The presence of trees in urban areas has also proven to have positive social effects, increasing the safety of the urban community. In fact, the availability of quality green public spaces where to meet and socialize, increase social cohesion and enhance the sense of community. In addition, by hiding houses, street trees also reduce crime incidence, with consequent increased safety for all. Moreover, trees and green areas can increase sense of safety in inner-city neighborhoods by triggering positive psychosocial processes.

We call for:

- **After the failure of structural flood defences in New Orleans after Hurricane Katrina in 2005, the city has taken steps to increase the resilience of the city to sea level rise, hurricanes and flooding. There has been a clear shift from structural defences to more natural solutions utilising green and blue infrastructure based on Dutch experiences.**
- **In Northumberland, woodlands have been shown providing £1,200 per hectare in flood alleviation savings versus the cost of engineering a solution.**
- **The Mt. Tabor sustainable drainage system installed in Portland, Oregon uses terraces for stormwater processing with the lower areas processing the water for human consumption while the whole area is surrounded with walkways and promenades. The system effectively copes with storm events whilst using nature to clean road run-off and overflows into local rivers have been cut by 35%.**
- **A study conducted in Baltimore, United States of America, showed that a 10 percent increase in canopy cover was linked to a 12 percent decrease in crime**
- Implementing nature based solutions for increasing urban communities' resilience to extreme weather events, floods, stormwater runoff, landslides
- Developing guidelines on design and management of urban forests and trees for the reduction of the risks for people's health associated to their presence in the urban environment.
- Developing guidelines on planning and design of urban green spaces for increased social cohesion and reduced exposure of private buildings to crime and thefts.

Call for action!

The implementation of these actions requires an efficient and suitable governance to be in place. To this aim, proactive policies, strategic planning, and sound legislative framework system addressed to optimize the benefits provided by forests and trees in urban areas should be implemented and harmonized. In particular, policy support at international, regional, national and local levels should be oriented towards integrating urban forestry into urban planning, as well as to reducing land use conflicts between urban green and grey infrastructures.

Awareness of the functions and benefits of urban forests and trees should be raised through the implementation of actions addressed to increase advocacy, communication and public education, which in turn may increase urban forestry investment by diversifying funding resources. In parallel, knowledge and information exchange should be facilitated and promoted by strengthening urban forestry education and research activities in the region through the development of regional networking and cooperation, the organization of knowledge exchange events, the implementation of funding support and facilitating programmes promoting students and staff mobility.

Finally, common tools should be developed (including methods, models and indicators) to address research questions, fulfil educational needs and support the development and implementation of urban forestry solutions adapted to the needs of individual cities and countries.

- **Concrete actions that your city can take to become a greener, healthier and happier place:**
- **Plant and preserve orbital forests and woodlands around our cities**
- **Create and maintain quality urban parks and gardens**
- **Establish a network of green corridors (tree-lined avenues, street trees...) to connect urban forests, parks, green buildings, green and blue infrastructure and rural areas**
- **Maintain and increase permeable and green surfaces**
- **Convert neglected areas, brownfields and courtyards into green oases**
- **Promote community gardens, urban agriculture and urban food forests**
- **Transform perimeter walls and urban barriers into green façades**
- **Foster the use of nature-based solutions to address urban issues such as soil decontamination and stormwater management**
- **Increase the number of green buildings and vertical forests and encourage the installation of green roofs**
- **Promote and value veteran trees, ancient forests and historic gardens and parks as key elements of a city's cultural and natural heritage.**

We

- organizers of (and participants to) the
- 1st World Forum on Urban Forests call upon you, citizens, representatives of national and local governments, non-governmental organizations, and development and cooperation agencies, research and academic institutions, urban foresters, arborists, landscape architects, planners, botanists, agronomists, architects, geographers, sociologists, landscape ecologists, practitioners and other professionals in the public and private sector, to sign this manifesto, support it and disseminate its principles in your daily activities towards the achievement of Our joint Vision: Greener, Healthier and Happier Cities for All!

**the
Mantova
challenge**



**the
“Tree Cities
of the
World”
programme**



**World Forum on
Urban Forests**
Mantova 2018

the “Tree Cities of the World” programme

Since 2007, more than half of the world’s people live in cities (United Nations, 2014). Trees deliver key benefits that improve the livability of modern cities for urban communities. They clean the air and filter waters while cooling walkways, parks, and buildings with their shade. They improve business districts and increase property value while lowering crime and consolidating social cohesion. Trees also decrease the onset of non-communicable diseases thus reducing public health costs. Being in a leafy urban landscape improve people’s mood as well as learning patterns in children.

All these factors provide an important contribution to the improvement of living conditions in urban environments that are increasingly affected by a number of socio-economic and environmental challenges. Now more than ever, a quality urban environment requires trees to be an integral part of places where people live, work, play, and learn.

What is the “Tree Cities of the World” programme?

The *Tree Cities of the World* programme is an international recognition programme celebrating cities and towns committed to the creation of an enabling environment for their urban forest and trees to be maintained, sustainably managed and duly celebrated. Purpose of the programme is to:

- Provide core standards for community forestry programs around the world;
- Create a global network of communities willing to share and learn about best practices for successfully managing city trees and forests;
- Raise and foster city residents’ awareness on the key role of urban trees as core green infrastructure towards a more sustainable and resilient model of city;
- Improve the quality of life for city residents around the world by encouraging the establishment and sound management of urban trees and forests.

Joining the *Tree Cities of the World* programme represents a formal commitment by cities to meet the core standards to be recognized as *Tree Cities of the World*. Once it meets the standards, the urban community of the city receive the designation of *Tree Cities of the World*. From the largest mega-cities to the smallest villages, this recognition programme is meant to celebrate leadership and efforts in urban forestry at the community level.

Why is it worth for cities to join?

Joining the Green Tree City programme can:

- represent a first formal step towards the promotion and implementation of a *green vision* for the city;
- help raise local awareness on the importance of a sustainable and efficient management of urban forests and trees as a means to improved livelihood and well-being of the local community;
- facilitate the inclusion of the city in a global network of communities willing to share and learn about best practices for successfully managing city trees and forests;
- allow having the successful results of the efforts and investments done by a city towards improved sustainability and resilience formally recognized;
- increase the visibility of the city and, thus, improve tourism and businesses; and,
- provide access to guidance on how to meet the given standards and, thus, on how to create an enabling environment for urban forests and trees to maximize their contribution to the local livelihoods and well-being.

Which Cities can join the “Tree Cities of the World” programme?

Any entity of municipal government with the power and authority to establish and carry out an operational plan for the planting, care, and removal of city-managed trees can submit the application to join the programme and be acknowledged *Tree Cities of the World*.

How Can a city be recognized as a “Tree Cities of the World”?

To be acknowledged as a *Tree Cities of the World*, a city must prove that it meets the five core standards listed below:

Standard 1: Create a “Tree Board”

A clear, written statement by municipal leaders delegating responsibility for city trees management within the municipal boundary to a staff member (i.e., City Arborist), a city department (i.e., Forestry Section), or a group of citizens (i.e., Tree Board) is in place.

Examples:

- Village elders select seven residents to serve as the “Tree Board” to develop a planting plan
- City Sustainability officer is assigned the role of “developing a tree

- canopy plan” for the city
- [add international examples here...]

Standard 2: Set the Rules

The management of local urban trees and forest resources is centered on a set of best practices and industry standards, adopted as city policies that describe how work must be performed, urging and supporting the development of urban forests, where the rules apply, when they apply, and penalties for non-compliance.

Examples:

- City adopts International Society of Arboriculture Best Management Practices for all tree works
- Village Tree Board creates a list of best trees to plant and tree species to be protected
- Developers are required to preserve tree canopy during construction projects in the city
- [add international examples here...]

Standard 3: Know What You Have

An updated inventory or assessment of the local tree resource is available so that an effective long-term plan for the planting, care, and disposition of city trees can be established.

Examples:

- The city has a recent tree canopy assessment that leads to a goal for increasing canopy
- There is a tree inventory that shows a reliance on a small number of tree species being planted
- [add international examples here...]

Standard 4: Allocate the Resources

A dedicated budget is allocated annually for the routine implementation of the city plan for trees management.

Examples:

- The city has a budget that allocates the average annual maintenance cost for each city-owned tree
- Governments within a mega-city region assign a portion of regional transportation tax revenue to tree planting along roadways
- Create public-private partnerships for managing trees
- Create alliances with the health sector to use savings on health care to plant trees
- [add international examples here...]

Standard 5: Celebrate Achievements

An annual celebration of trees addressed to raise local awareness on the key importance of urban trees and forests and to acknowledge the contribution from private citizens and staff members to the implementation of the city tree programme is in organized. To this aim, a public recognition of city trees - using Arbor Day or other named events – would be key to communicating the importance of trees to the community.

Examples:

- City celebrates Arbor Day, with a public ceremony and festival;

- The local Tree Board distributed tree seedlings for residents to take home and plant;
- The city Sustainability Office manages a public relations campaign during one month with educational posters on all public transit that explain the benefits of trees and designating Arbor Month.
- [add international examples here...]

Who Is promoting the “Tree Cities of the World” programme

The *Tree Cities of the World* Programme has been developed and supported by Arbor Day Foundation (ADF) and the Food and Agriculture Organization of the United Nations (FAO) and is supported by a number of other partners. It aims to connect hundreds of cities around the world in a new network dedicated to sharing and learning from one another successful approaches to managing community trees and forests.

ADF has a long history of incentivizing positive behavior among communities in the United States through the *Tree City USA* recognition program. By setting core standards for municipal forestry programs, Tree City USA has grown since 1976 to connect 3,500 American cities and towns in a network of shared experience and practice. With the creation of a new vision statement in 2014, the Arbor Day Foundation seeks to help solve some of the world’s biggest challenges: poverty, hunger, clean water and air, climate change, and species loss due to deforestation.

FAO supports the development of urban and peri-urban forestry (UPF) actions, projects and strategic planning tools contributing to the promotion of a sustainable and resilient model of city development through the sound management of the trees and forests of the city and their integration in the planning of the urban environment. The FAO Forestry Department, through its UPF Programme, participates in the efforts to raise awareness and build knowledge about UPF by producing normative tools, putting information within reach, sharing policy expertise, providing a meeting place for nations, and bringing knowledge to the field.

Other partners include [to be further developed/discussed]