

THE WALKING URBAN FOREST

**A DYNAMIC
GREEN INFRASTRUCTURE
FOR OUR CITIES**

CARTA DI MILANO

**Strategic guidelines
for urban forestry**



16th European Forum on Urban Forestry
Milano, Italy 7 - 11 May, 2013

The Carta of Milan

Strategic Environmental Governance for Green Infrastructure and Urban Forests

Updated: 7th May 2013

[Draft by Rik De Vreese, Mark Johnston, Cecil Cornelis Konijnendijk, Anna Lawrence, Giovanni Sanesi, Fabio Salbitano, Paolo Semenzato, Clive Davies, Peter Duinker and Nevin Cohen.]

Rising awareness of the need to integrate environmental concerns into city planning represents a major shift in thinking from the 1970s focus on built infrastructure towards a whole-landscape approach. This approach is a powerful platform for delivering ecosystem goods and services to urban populations. The planning ideal is to care for the urban landscape as a common good and to enable close-to-nature living to support a high quality standard of life. The natural environment constitutes the structural fabric of the regional context for urban centres.

Starting around the Millennium previously separate discussions about urban forestry including its underlying principles¹ started to fuse with other disciplines dealing with the planning, design and management of urban and peri-urban open spaces. This fusion encompassed agriculture, agroforestry, planning & design, urban development, landscape architecture, biodiversity, sociology, environmental psychology, arboriculture, green business, and more within the urban context. The result of the discussion identified 'Green Infrastructure' as the best description of the comprehensive and functional interconnected

¹ The 10 urban and peri-urban forestry principles

1. A green city is a high quality city for all
2. Food security, the right to food and human rights are foundations towards MDGs.
3. A positive attitude towards nature, greening and forests coupled with good design and planning will lead all cities to green healthy conditions.
4. Citizens and urban dwellers are the warrant owners of the green city.
5. Local authorities are responsible to their citizens for putting in place a good governance process which will lead to actions that deliver the 10 principles.
6. Other national and regional authorities should promote any action facilitating the implementation of urban and peri-urban trees, forest and greening.
7. Participation, partnership and collaboration among public, private and civil society stakeholders are strategic requirements for an effective management of sustainable green city.
8. The green infrastructure of the city is a core part of the long term strategy of the city.
9. An investment in greening and afforesting a city provides a positive economic return to the community.
10. The green infrastructure is a natural capital that produces direct goods and services to urban dwellers

mosaic of natural and semi natural spaces.

The complex of environments which make up Green infrastructure should be viewed within an Integrated Environmental Governance system. This can be considered as the process through which all significant environmental consequences arising from policy decisions are recognized as decision premises. Hence through an Integrated Environmental Governance system (which includes many different stakeholders from government, civil society, academia and business) policy options can be evaluated on the basis of their effects.

“Green infrastructure” represents an integrating concept for planning, designing and managing the components of the urban landscape, ranging from single plants (including trees) to landscape-scale natural and semi-natural ecosystems. The green infrastructure approach embraces the intrinsic values of the landscape² as well as the ecosystem services that support the quality of life in towns and cities. Green infrastructure includes a formidable number of components such as urban forests, sustainable urban drainage, urban agriculture and agroforestry sites, green spaces, wildlife sites, access networks, green roofs, grasslands, gardens and parks, tree lines and hedgerows, single trees, greenways and blue-ways, watercourses and ecological corridors.

The European Commission has stated that Green Infrastructure is *“addressing the spatial structure of natural and semi-natural areas but also other environmental features which enable citizens to benefit from its multiple services. The underlying principle of Green Infrastructure is that the same area of land can frequently offer multiple benefits if its ecosystems are in a healthy state. Green Infrastructure investments are generally characterized by a high level of return over time, provides job opportunities, and can be a cost-effective alternative or be complementary to 'grey' infrastructure and intensive land use change. It serves the interests of both people and nature.”* According to this statement the Green Infrastructure approach can claim to be “the” paradigm for future city and regional policies as well as the driving framework for strategic urban and territorial planning.

Cities and city regions are complex socio-ecological systems. They profoundly affect the landscape in complex ways. Governance styles and processes, ranging from local community empowerment through to city-wide management, must account for the complexities of the Green Infrastructure

² “Landscape” means an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors (Council of Europe, European Landscape Convention Florence, 20.X.2000)

approach if they are to be successful. For these reasons, and in support of international directives (e.g., Millennium Development Goals, Global Compact, UN-HABITAT global campaign on urban governance, Rio Declaration on Environment and Development), a set of overarching strategic governance principles has been developed to assist policy and decision-makers, practitioners, scientists, citizens and associations, to adopt, understand and support the concept of green infrastructure as a vital part of and contributor to sustainable cities.

The European Forum on Urban Forestry, at its annual conference in Milan in 2013, adopted the following strategic principles.

1. **A SHARED VISION FOR THE FUTURE.** Beyond current urban and regional planning and policy-making, it is crucial for the long-term sustainability of cities to adopt a new vision of the future, namely that of Integrated Environmental Governance. This is a comprehensive approach aimed at reducing cities' ecological footprints while enhancing the quality of life of their inhabitants.

2. **LINKING SOCIETY AND ENVIRONMENT.** The scientific evidence is conclusive that a better environment leads to an improved quality of life for urban dwellers. Integrated Environmental Governance involves people working together to maximise the quality of limited green-space resources and participating the stewardship of the urban environment. Governance structures at higher levels have a responsibility to facilitate and to provide the resources allowing people to be stewards.

3. **EFFECTIVE COMMUNICATION STRUCTURES.** Communication works best when there is a widely understood, common language and vocabulary. Green infrastructure brings a new integrated language in the strategic approach to city and territorial planning. Integrated Environmental Governance establishes such a common language and fosters its use in a progressive communications process.

4. **AN ENHANCED KNOWLEDGE BASE.** Integrated Environmental Governance depends on continuous efforts in research and innovation to gain critical knowledge for sustainable management of green infrastructure and urban forests. It also acknowledges the fundamental importance of other knowledge sources such as citizen experiences, the arts, and spirituality. Green Infrastructure and Integrated Environmental Governance are not merely for experts: knowledge can and should be co-created so that Policy makers and practitioners, together with scientists and the citizens, should adopt and translate together scientific and technical knowledge in order to bridge the science,

policy and implementation gaps. The key to success in Integrated Environmental Governance is to cultivate and celebrate diverse knowledge and integrate them in the pursuit of creating and managing urban green infrastructure.

5. **A COMMON GREEN HERITAGE.** The Green infrastructure approach and Integrated Environmental Governance provide a framework for “the commons,” one that goes beyond traditional elements of the landscape such as forests, rivers, fisheries, and grazing land and embraces also the cultural sphere. Integrated Environmental Governance calls for the multifunctional benefits of green infrastructure to be considered a public good, even if the land on which it exists is privately owned.

6. **RINGING THE CHANGES.** Green Infrastructure is placed at the core of sustainable city and regional planning. Thanks to this assumption, it is the conceptual and operational framework to deal, in a sustainable way, with the environmental and socio-cultural changes that concern all people. Integrated Environmental Governance is a strategic approach to tackling the challenges posed by global change at the local level. Urban Green Infrastructure is a core part of a long-term strategy to address environmental and socio-cultural changes. It is a powerful tool in combatting the negative effects of global change.

7. **WORKING IN PARTNERSHIP.** By embracing Integrated Environmental Governance, people, together with government, organizations, the business community, NGOs, take great responsibility as stewards of the green infrastructure. Participation, partnership, and collaboration among public, private and civil-society stakeholders are pivotal strategic tools for managing a sustainable green city. Participants in collaborative processes must define locally appropriate rules which ensure the highest standards of participation in accessing and using the green infrastructure.

8. **RESPONSIBILITIES OF LOCAL, REGIONAL AND NATIONAL AUTHORITIES.** Leadership in establishing and operating an Integrated Environmental Governance system lies with the nested configuration of municipal, regional and national authorities: it is impossible for individuals to be the sole or even primary stewards of green infrastructure because of the large initial costs, the fact that green infrastructure very often spans jurisdictions and that is on private property. Regional and national authorities need to facilitate Integrated Environmental Governance with policies that support sustainable management of urban green infrastructure. Clear, equitable, and fair regulatory frameworks are essential at all governance levels, from local through regional and national to international.

9. **NATURAL CAPITAL AND GREEN INVESTMENT.** Green infrastructure produces multifunctional benefits that far exceed its capital and operating costs. . For example, enhancing nature's capacity in mitigating the negative effects of climate change and providing excellent places for practicing activities that can prevent physical and psychological diseases is far more cost-effective than "repairing" the rising cost of damages and finding technological solutions. In parallel, Green Infrastructure is a natural capital that produces goods and services for the community. Food and nutrition and high quality water are, among all, key products and valuable economic benefits provided by urban Green Infrastructure. The ecosystem services provided by the Green Infrastructure have direct and indirect economic advantages for the daily life of the citizens. Integrated Environmental Governance is perfectly suited to the pursuit of a green economy, which UNEP defined as "an economy that produces human well-being and social equity, while reducing environmental risks and ecological scarcities. In its simplest expression, a green economy can be thought of as a low-carbon, resource-efficient and socially inclusive." Investments in green infrastructure and urban forestry pay back enormous dividends in the form of improved goods and services for urban inhabitants. Many of these benefits have yet to be quantified, and some, like well-being and equity, are difficult to measure, suggesting the need for better social, ecological and economic analysis.

10. **HEALTHY BIODIVERSE AND MULTIFUNCTIONAL ECOSYSTEMS.** Green infrastructure provides crucial environmental services that cities and regions are often unable to provide with conventional (grey) infrastructure. It is the guarantee for biodiversity and contributes in fighting urban sprawl and soil sealing by providing healthy habitats and protecting permeability and connectivity. It includes areas where farming, forestry, recreation and ecosystems conservation all operate together in the same space. Integrated Environmental Governance is by definition oriented to a multifunctional approach and can deliver multiple benefits both to the societies and to the environment.

11. **CULTURE, JUSTICE AND EQUITY.** An essential requirement is to plan and design green infrastructure, and governance systems, to increase justice and not to exacerbate disparities, and to ensure that green infrastructure benefits accrue equitably to all. It is important to understand and appreciate the different perceptions of green that different racial and cultural groups may have; and it is essential to ensure that green infrastructure projects do not exacerbate spatial segregation or lead to displacement by increasing land values. Events, projects, and opportunities that highlight the environment and green landscapes are an

integral part of contemporary local culture and they can contribute in building bridges across the generations and groups. There are many different types and designs of green infrastructure, and that the design should reflect and be responsive to the needs of different groups. Integrated Environmental Governance considers “green” as a cultural strength: green infrastructure, by making urban management more cost-effective and sustainable, will contribute to social equity.

12. **URBAN RURAL RECONCILIATION.** Urban-Rural linkages are essential to sustainable regions: green infrastructure is designed also to enhance and support the economies of peri-urban and rural communities. Integrated Environmental Governance includes urban economic support for the management of watersheds supplying the city, urban agriculture projects that are joined up with rural farmers or wetlands management programs that produce cleaner water or flood protection for downstream rural residents. It considers as well the role of grey urban infrastructure in supporting peri-urban and rural green infrastructure (e.g., urban retail markets that support rural farm livelihoods).