An Introduction to Urban and Peri-Urban Forestry

Background

Urban forest is a broad definition covering a range of different types of tree cover and associated landscapes in urban environments.

This includes networks of trees including **forests, streets trees, trees in parks and gardens and trees in derelict sites.**

Urban forests are within the limits of urban development, while peri-urban forests are adjacent to a city.

When properly managed, urban forests can make cities safer, more pleasant, healthier, wealthier and more diverse and attractive.

This research highlights how urban and peri-urban forests provide significant benefits to cities and their inhabitants and are an important tool in climate change adaptation and mitigation. To offer these benefits, urban forests must be well managed, with flexible approaches, stakeholder engagement and regular review processes.

Policy Recommendations

THE IMPORTANCE OF URBAN FORESTS

Urban forests provide many benefits in the form of ecosystem services, across four categories:

- **Supporting:** soil ecosystems, photosynthesis, nutrient cycling, habitats for flora and fauna
- **Provisioning:** energy (fuelwood), materials (timber), water, natural medicines, food and drink
- **Regulating:** clean air, carbon storage, flood management, erosion control, water purification
- **Cultural**: human physical and mental wellbeing, recreation, sense of place, spiritual and religious connections

Urban forests can contribute to the achievement of the United Nations Sustainable Development Goals and reducing a city's carbon footprint.

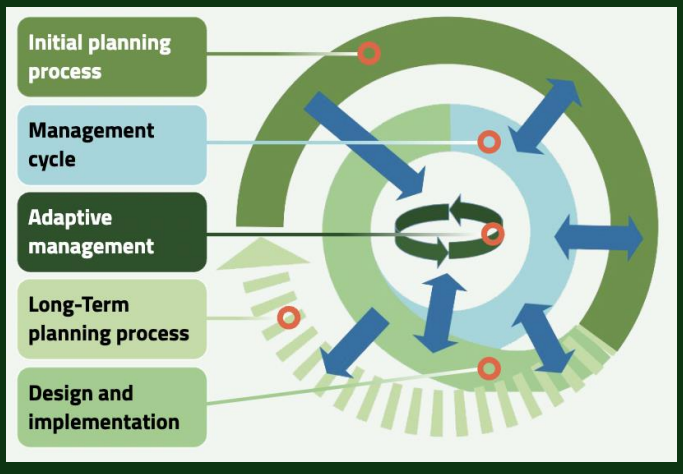
PLANNING, DESIGN AND MANAGEMENT OF URBAN FORESTS

Good planning, design and management are essential to maximising the benefits of urban forests and should take place throughout a forest's life cycle. Good planning should anticipate future urban developments and consider the resilience of these forests.

Indigenous species often provide greater ecosystem services and are better suited to environmental change.

Training for public utility companies is essential to prevent damage above and below ground e.g. from pipes and cables.

The planning of urban forests is an **interdisciplinary field**. Local governments, professionals, international institutions, forest owners, non-governmental organisations and communities all need to be involved in planning processes.



URBAN FORESTS AND THE FUTURE

- Urban contexts are complex and evolving, with cities changing very fast compared to the lifespan of trees
- Urban forests contribute to climate change adaptation and mitigation. They cool the air, provide shade, control storm runoff and high winds, in turn increasing soil quality and reducing erosion
- Large forest have greater effects, but smaller forests can contribute to adaptation
- Urban densification means trees have to compete for space and climate change impacts tree health through a lack of water and nutrients, increasing pests and diseases and more extreme weather events
- Urban trees are experiencing increased climate stress due to climate change
- Tree health is affected by urban processes, especially the effect of wind speed, shade, heat storage (and damage) and the presence of impermeable surfaces

Acknowledgement

This policy note was produced based on a course titled 'An introduction to urban and peri-urban forestry' produced for the FAO elearning academy by Clive Davies and Lotte Dijkstra, Newcastle University.

The free online certified course is available here: elearning.fao.org/course/view.php?id=1118

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