

About Urban Forests

Sur les forêts urbaines

Cecil C. Konijnendijk

@AnUrbanForester



**NATURE BASED
SOLUTIONS
INSTITUTE**

About This Talk

- How forestry became urban – and how ‘urban forestry’ came to be
- Governance and policy
- Planning and management – and evidence-based guidelines
- Expanding urban forests
- Perspective



How forestry became urban – & how *urban forestry* emerged

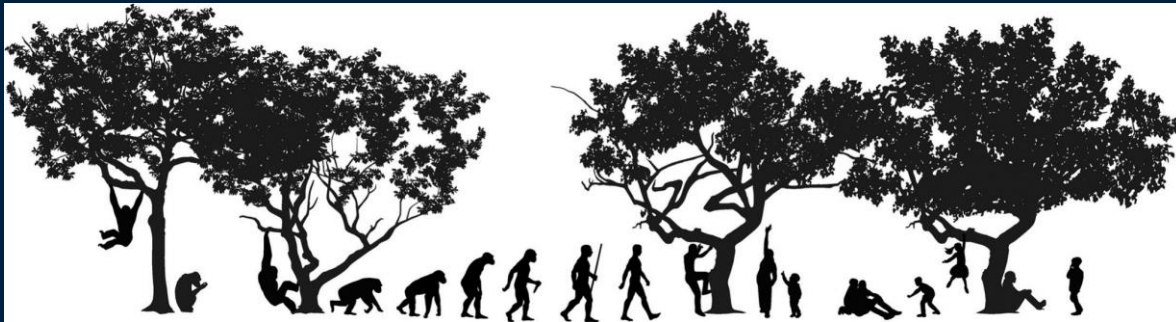
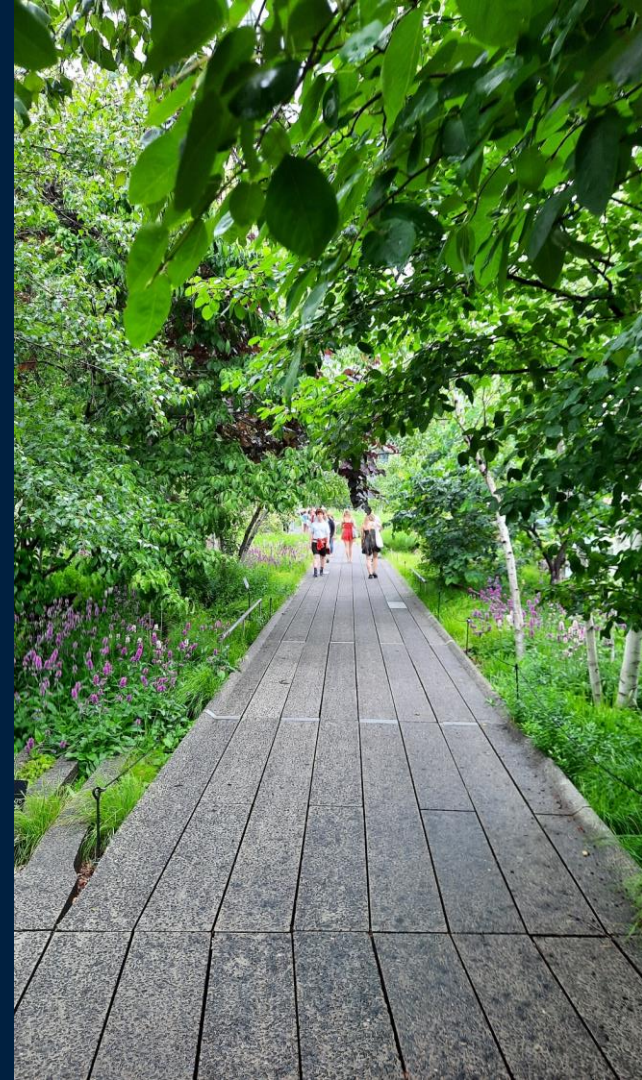
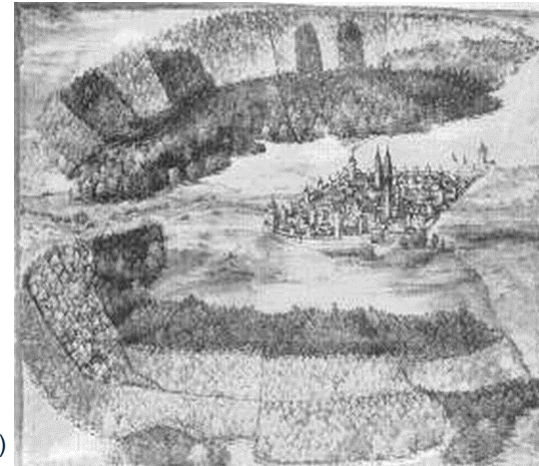
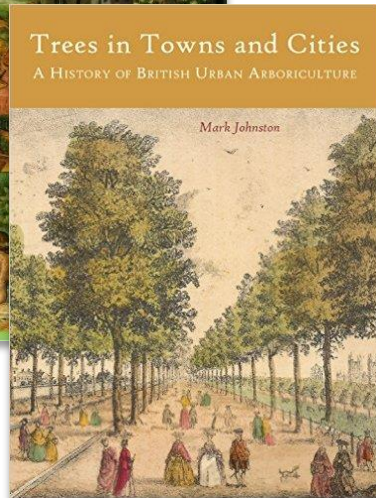
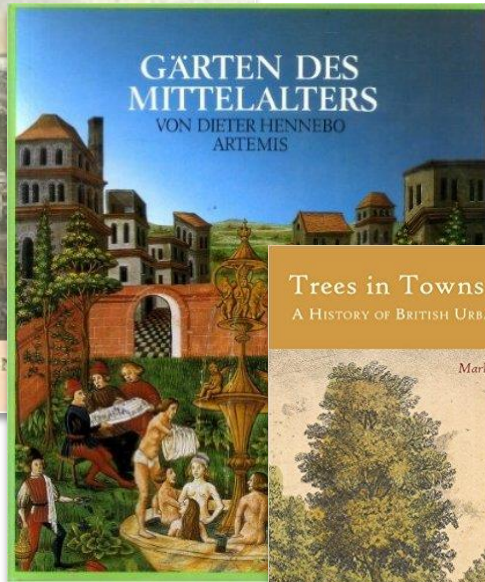
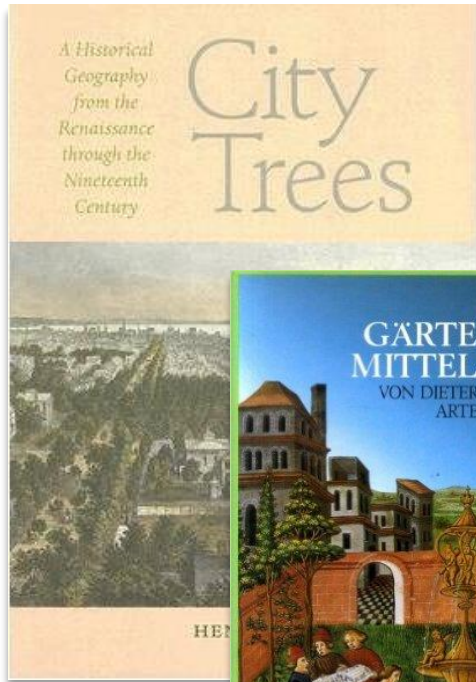


Illustration by Cathy Bedenbaugh, in Townsend and Barton (2018)



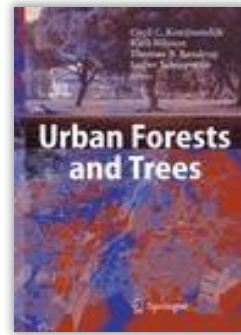
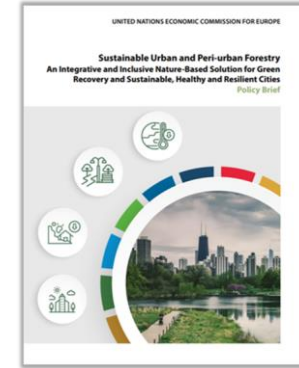


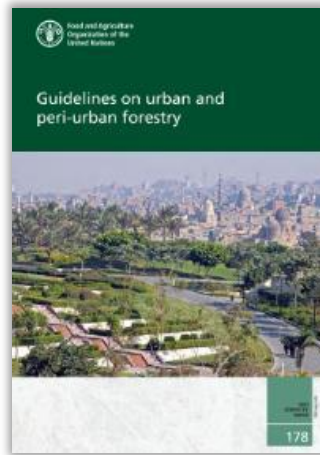
Source: Schama (1995)



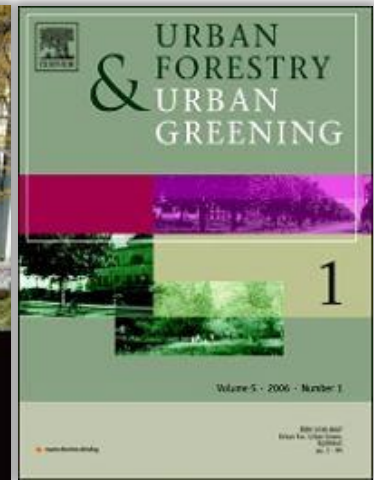
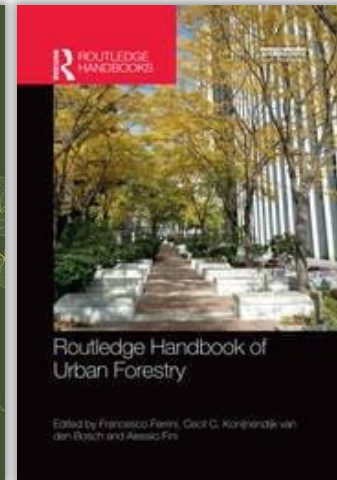
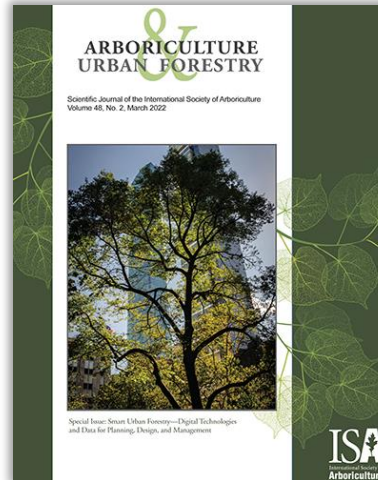
Key Characteristics of Urban Forestry

- **Integrative:** *all* tree resources; urban and peri-urban; planning & management
- **Strategic:** long-term vision, multiple use
- **Inter-/multidisciplinary:** wide range of disciplines/fields
- **Participatory:** stakeholder involvement
- **Urban:** urban conditions; meeting urban demands





World Forum on
Urban Forests



UBC Forestry

MASTER OF
URBAN FORESTRY
LEADERSHIP (MUFL)

Governance and Policy



INNER FORESTS

Cooler Cities
Less Noise Pollution
Access To Nature
Better Health

NEARBY FORESTS

Clean Water
Reduced Flooding
Less Soil Erosion
Recreation In Nature

FARAWAY FORESTS

Carbon Sequestration
Responsible Timber
Medicinal Compounds
Biological Diversity

3

GOOD HEALTH
AND WELL-BEING



6

CLEAN WATER
AND SANITATION



8

DECENT WORK
AND ECONOMIC
GROWTH



11

SUSTAINABLE
CITIES
AND COMMUNITIES



12

RESPONSIBLE
CONSUMPTION
AND PRODUCTION



13

CLIMATE
ACTION



15

LIFE
ON LAND



17

PARTNERSHIPS
FOR THE GOALS



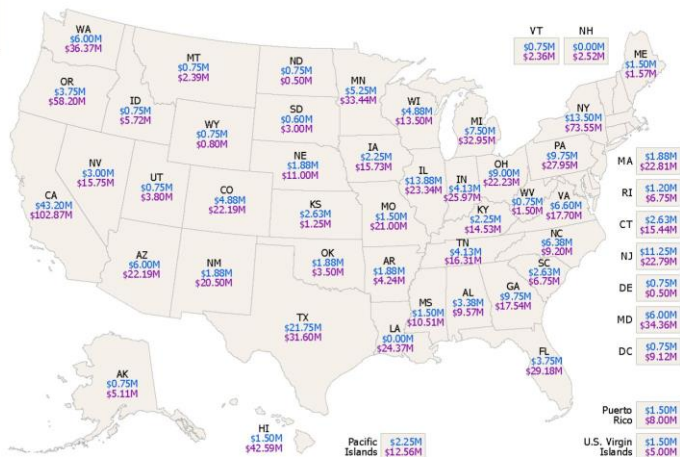


URBAN AND COMMUNITY FORESTRY GRANTS

Urban and Community Forestry FY 2023 IRA Grant Allocations in Millions of Dollars

USDA is an equal opportunity provider, employer, and lender.

The USDA Forest Service's Urban and Community Forestry Program awarded more than \$1 billion to fund projects that support urban communities through equitable access to trees and the benefits they provide. The funding was made possible by the Inflation Reduction Act.



FY 2023 IRA State Allocation - \$250 Million Total
 FY 2023 IRA Notice of Funding Opportunity Grants - \$1.13 Billion Total

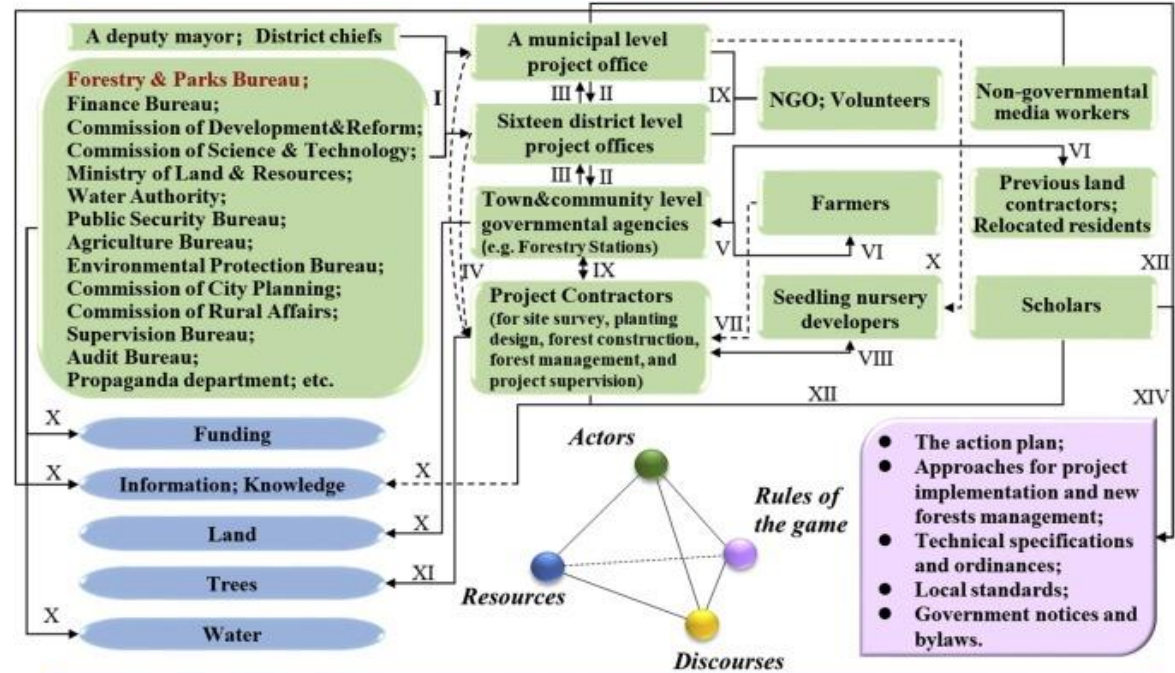
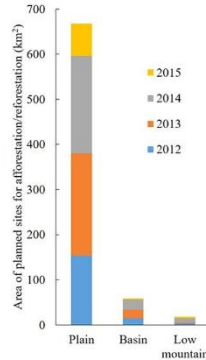
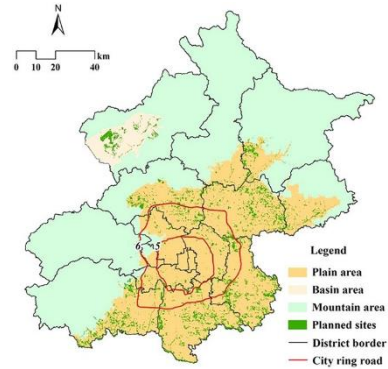
SAN MARINO REGIONAL URBAN FORESTRY ACTION PLAN



Original article

Beijing's 50 million new urban trees: Strategic governance for large-scale urban afforestation

Na Yao ^{a, b}, Cecil C. Konijnendijk van den Bosch ^b, Jun Yang ^c, Tahia Devisscher ^b, Zach Wirtz ^b, Liming Jia ^a, Jie Duan ^{a, d}, Lvji Ma ^{a, d}



A) Reverse the deficiency of forest cover in Beijing's plain area and set up a 'green' image for the capital city; B) Improve urban forests' ecological services in Beijing; C) Promote residents' livelihood and boost ecological civilization; D) Industry relocation, population decentralization, ecological restoration, landscape renovation, etc.

Planning and Management – and evidence-based guidelines



Vision & Principles

Enhancing Nordic leadership in urban green space planning and management – fostering the Nordic Green City of the Future

Working with the principles of:

- Proximity (including visibility)
- Connectivity
- Diversity
- Equity

 Nordic Council
of Ministers

Policy Brief

**Nordic Cities:
Green, Resilient, Healthy**

Fostering national policies and
initiatives for urban green space

Original Paper | [Open Access](#) | [Published: 26 August 2022](#)

Evidence-based guidelines for greener, healthier, more resilient neighbourhoods: Introducing the 3–30–300 rule

[Cecil C. Konijnendijk](#) 

[Journal of Forestry Research](#) (2022) | [Cite this article](#)

2827 Accesses | 1 Citations | 53 Altmetric | [Metrics](#)


300

metres from
the nearest
green space



Research Article

Nature connectedness connects the visibility of trees through windows and mental wellbeing: a study on the “3 visible trees” component of the 3-30-300 rule

Hansen Li, Matthew H. E. M. Browning , Mondira Bardhan, Mingyue Ying, Xing Zhang, Yang Cao & ...show all

Received 20 Dec 2023, Accepted 21 Mar 2024, Published online: 09 Apr 2024



[International Journal of Environmental Health Research](#) >

[Latest Articles](#)

[Submit an article](#)

[Journal homepage](#)

ISGlobal

Over 4% of summer mortality in European cities is attributable to urban heat islands



Increasing **tree cover** in cities to **30%**

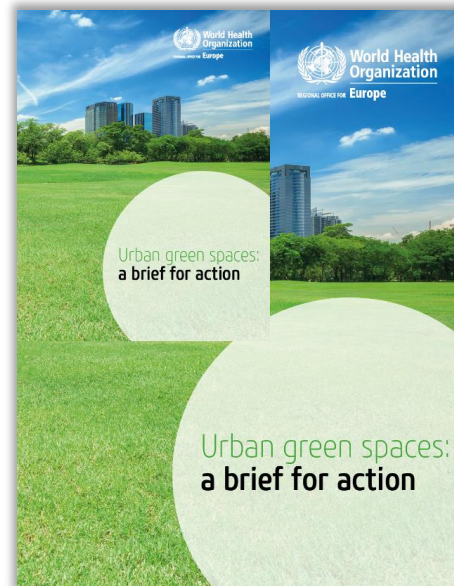


can reduce the **temperature** of urban environments by up to **1.3 °C**



and **prevent 1/3 of premature deaths** attributable to urban heat islands in summer

Source: Iungman T., et al., *The Lancet*, 2023.





Malmö stad



st.petersburg
www.stpete.org



NEWS > STORIES

The Urgency and Opportunity to Increase the Access of All Canadians to Urban Forests

09/22/2021

An interview with Dr. Cecil Konijnendijk on the 3-30-300 rule for creating greener and healthier cities to mark National Tree Day on September 22.

By Wilbert Vabé
Policy & Campaign Manager,
Reforestation at Nature Canada

The benefits of urban forests, defined as all natural and planted trees in or near an urban area, are well known. However, research finds that there is inequitable access to urban forests and green spaces. Urban tree canopy tends to be higher in higher-income neighbourhoods with fewer minority residents. Unequal access of low-income and racialized Canadians to urban forests results in unequal access to their benefits, creating an environmental injustice.

With the government of Canada committing to plant 2 billion trees (2BT) over the next 10 years, the expansion of urban forests and urban parks is a political priority. With about 82% of Canadians living in urban areas, designing cities to be more livable through greater urban forest cover is an important priority.



3-30-300 rule

This rule in urban planning argues that everyone should be able to see at least 3 trees from home, with a 30% vegetation cover in each neighbourhood and the nearest park being a maximum of 300 metres away

Visit shutpix.com for latest unknown facts



Centerpartiet

GROENLINKS



**CHA
MÉTROP
DES AR**

Héritages du
richesses d'a
solutions pou



Une étude explique la règle imparable des 3-30-300 pour avoir plus de chances d'être heureux 24 heures sur 24

PAR SARAH GARNIER MIS À JOUR LE 13/01/2023 À 17:12



3+30+300

The Threes Rule for Trees

Trees and green spaces make cities healthier and more vibrant. The 'Threes Rule for Trees' is an evidence-based rule of thumb that individuals, governments, businesses, and organisations use to improve urban forests in their communities.

threesrule.com or treesrule.com

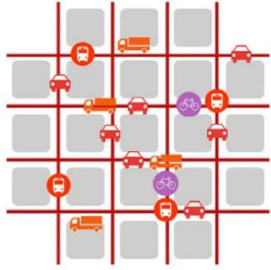
Expanding urban forests

- Infill forests
- Reclaimed forests
- Elevated forests
- Vertical forests
- Transplanted forests
- Wild forests
- Temporary forests



SUPERBLOCKS MODEL

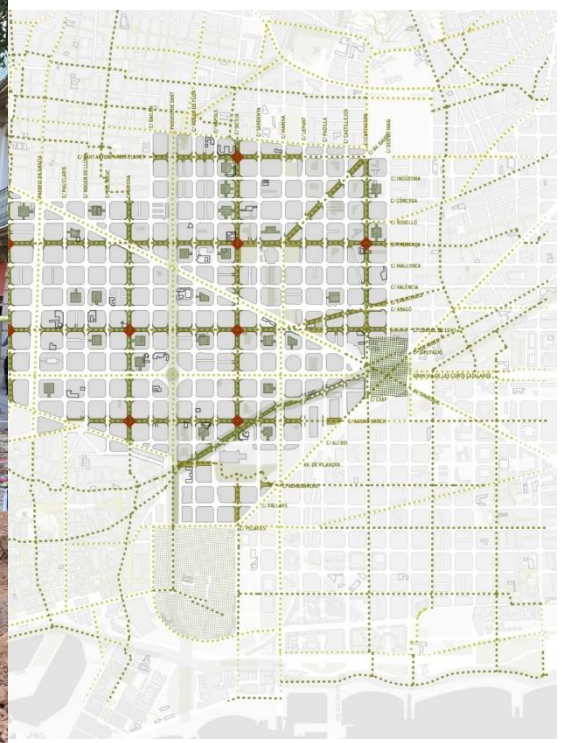
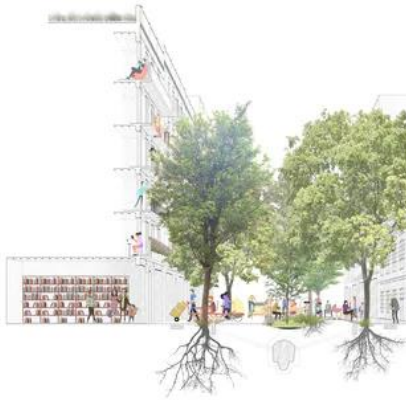
Current Model



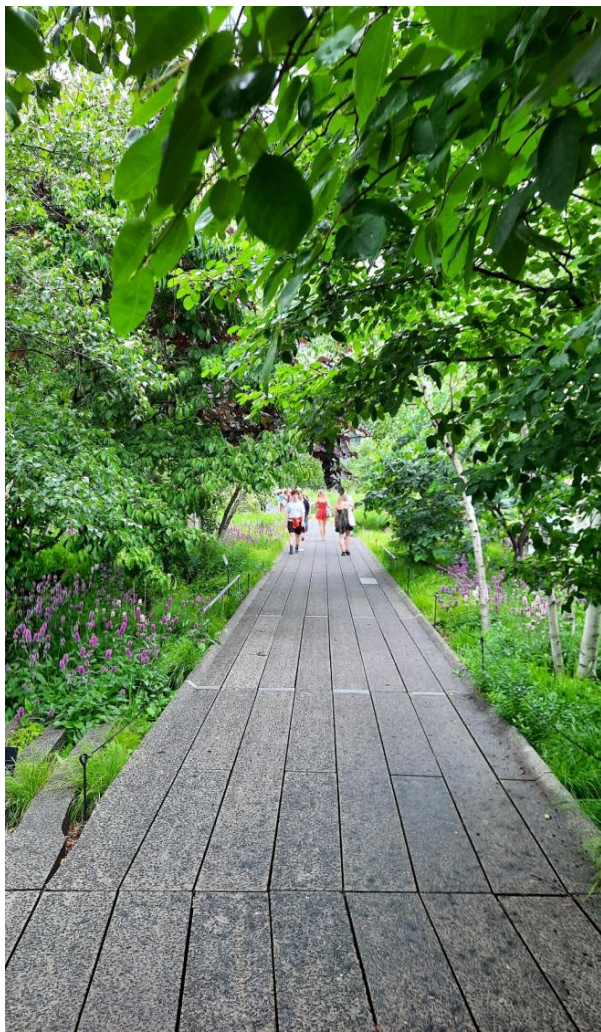
Superblock



- PUBLIC TRANSPORT NETWORK
- PRIVATE VEHICLE PASSING
- BICYCLES MAIN NETWORK (BIKE LANE)
- RESIDENTS VEHICLES
- BICYCLES SIGNPOSTS (REVERSE DIRECTION)
- URBAN SERVICES AND EMERGENCY
- FREE PASSAGE OF BICYCLES
- DUM CARRIERS



Source: Barcelona City Hall



<https://lc.nl/friesland/leeuwarden/Het-stationsplein-in-Leeuwarden-kleurt-groen.-Bekijk-hier-het-wandelende-bos-Bosk-vanuit-de-lucht-27665133.html>



URBAN SYMBIOSIS

VITAL SOIL AS SUPPORT FOR BIODIVERSITY & HEALTHY LIVING ENVIRONMENT

Project Plan

Creative Industries fund NL | Open Call Building out of the Soil

SYLVA ATELIER FOR LANDSCAPE ARCHITECTURE & URBAN FORESTRY | TERRA NOSTRA | NATURE BASED SOLUTION INSTITUTE
NATURALIS BIODIVERSITY CENTER | TU DELFT FACULTY OF ARCHITECTURE & THE BUILT ENVIRONMENT
THE HAGUE MUNICIPALITY

September 2022

creative industries fund NL SYLVA LANDSCAPE ARCHITECTURE URBAN FORESTRY NBSF NATURE BASED SOLUTIONS TU Delft BK Bouwkunde Den Haag

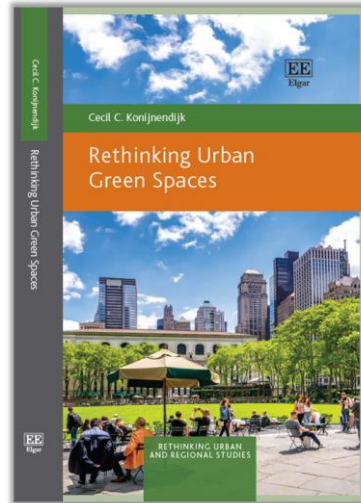
Urban Groves

(300)



Streetwoods

(30)



Doorstep trees

(3)



OBJECTIVES: SFI URBAN AND COMMUNITY FOREST SUSTAINABILITY STANDARD



OBJECTIVE 1:
COMMUNITY,
PEOPLE, AND
INDIGENOUS
PARTICIPATION



OBJECTIVE 2:
HUMAN HEALTH
AND WELL-BEING



OBJECTIVE 3:
PROTECTION AND
CONSERVATION OF
BIODIVERSITY



OBJECTIVE 4:
STEWARDSHIP OF
NATURAL RESOURCES,
INCLUDING AIR,
WATER AND SOIL



OBJECTIVE 5: URBAN
AND COMMUNITY
FOREST AND TREE
HEALTH AND
VITALITY



OBJECTIVE 6:
SPECIAL SITES,
INCLUDING
NATURAL AREA



OBJECTIVE 7:
CLIMATE-SMART
MANAGEMENT



OBJECTIVE 8:
URBAN AND
COMMUNITY
FOREST
PLANNING



OBJECTIVE 9:
MANAGEMENT AND
CARE OF URBAN
AND COMMUNITY
FORESTS AND TREES



OBJECTIVE 10:
DISASTER
READINESS,
RESPONSE AND
RECOVERY



OBJECTIVE 11:
CAPACITY BUILDING



OBJECTIVE 12:
URBAN WOOD
AND COMMUNITY
FOREST
UTILIZATION



OBJECTIVE 13:
COMMUNICATIONS



OBJECTIVE 14:
RESEARCH, SCIENCE,
AND TECHNOLOGY



**OBJECTIVE 15. LEGAL
AND REGULATORY
COMPLIANCE
INCLUDING
INDIGENOUS
PEOPLE'S RIGHTS**



OBJECTIVE 16:
REPORTING



Reflections

- Urban forests are of increasing importance
- Urban forestry draws upon forestry – but is more than that
- Evidence-based planning and management are needed
- Has the era of the *Forest City* arrived?

