



Theme 5: Urban Growth & Environmental Stewardship

John-Rob Pool, Research Analyst, World Resources Institute
Paul Currie, Senior Professional Officer: Urban Systems, ICLEI Africa

The challenge of urbanisation



The challenge of urbanisation

- **Rapid urbanisation** – natural growth and migration
- **Young population** – demographic dividend
- **Unemployed population** – future of work? New economy?
- **Legacy of extractivism** – new economies & beneficiation?
- **Informal settlements & economies** – legitimate or shunned – how are these systems ‘formalised’ or legitimised by the city
- **Circular migration** – temporary jobs; questions of ownership and urban investment vs. remittances to ‘rural’ home.
- **Service delivery & infrastructure development challenges** – and opportunities
- **Socio-technical leapfrogging** – the opportunity to skip tech, learn from other cities and avoid lock-in to expensive/polluting/unsustainable systems.
- **Digital Leapfrogging** – ICT reshaping urban economies & distribution
- **Encroachment of built area into natural environments?**



Why Urban Nature?
What are the benefits?

Nature's benefits: **provisioning services** – products from ecosystems



Nature's benefits: **regulating services** – air quality maintenance & climate regulation



Nature's benefits: **regulating services** – water purification



Nature's benefits: **regulating services** – storm protection



Nature's benefits: **habitat and genetic diversity** –
intrinsic & functional value



Nature's benefits: **cultural services** – eco-tourism & sense of place



Nature's benefits: **cultural services** – recreation and sense of space



Physical – Psychological Well-being from nature's benefits



**How do we re-embed
nature in our human
settlements?**

**Two peer-to-peer platforms for
learning about and reincorporating
urban nature**

Cities4Forests



CitiesWithNature

Cities4Forests

INNER FORESTS

Clean air
Shade from sun
Urban wildlife
Higher property values
Recreation

NEARBY FORESTS

Clean air
Drinking water
Reduced flooding
Reduced soil erosion
Timber
Recreation

FARAWAY FORESTS

Carbon storage
Rainfall generation
Timber
Medicine
Biodiversity



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REVOLVE

What is on offer to partners in the Cities4Forests Network?

1. Access to technical assistance
2. Public engagement campaigns
3. A peer-to-peer exchange network

Cities4Forests

- Making the case for urban trees (tools, metrics for valuing trees)
- Special support and/or discrete projects for major opportunities
- Experience sharing/peer visits/study tours between C4F cities focused on urban forests
- Building trees/forests into urban infrastructure planning, investment, and governance structures
- Financing models and financing for urban forests and green infrastructure



- Guidance on how to consider the science and conduct economic analyses
- Special support and/or discrete projects for major opportunities
- Peer-to-peer visits and learning exchanges for source water protection
- Guidance on building partnerships and governance structures (e.g., with water utilities, downstream companies)
- Business models and financing approaches for nearby forests and natural infrastructure



Cities4Forests FARAWAY FOREST OFFERS

- Guidance in establishing “deforestation-free” procurement policies and plans
- Exposure to a “sister forest” program, where urban residents can participate in programs designed for mutual benefit and engagement.
- Assistance in helping cities meet their carbon commitments through sourcing sustainably certified, forest-based carbon credits.



Cities4Forests



Cities4Forests Declaration:

“Because urban areas are increasingly where people live and work, the public policies and procurement practices of cities—as well as the values, votes, and consumption patterns of residents—have enormous potential to support the conservation, restoration, and sustainable management of forests.”

“With our varying mandates and capabilities, collectively we commit to doing our part to achieving the following outcomes:”

- Understand
- Engage
- Innovate and Act
- Progress
- Share



CitiesWithNature

REGISTRY

Community
Hub

Knowledge
& Research
Hub

More than

50

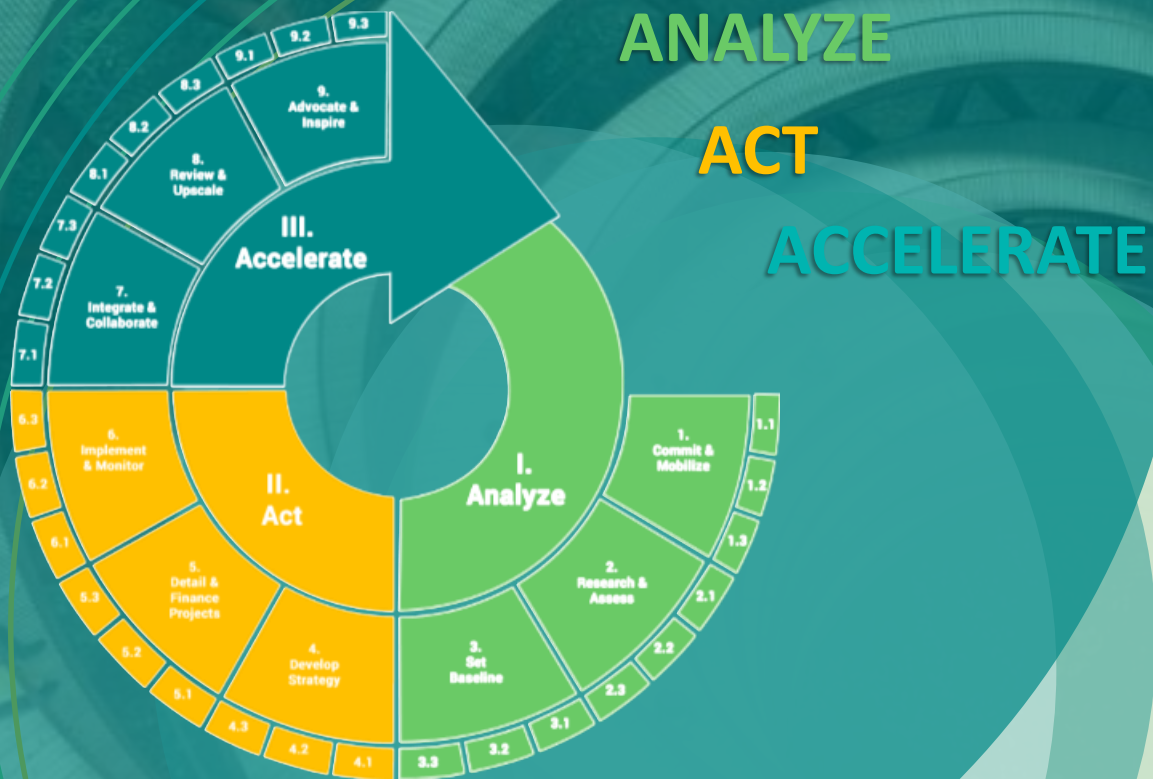
CitiesWithNature
Pioneers
committed to
taking action for
nature





CitiesWithNature

Registry: Nature Pathway



1st Pathway **THE NATURE PATHWAY**

Cities will be guided on a journey of exploration and inspiration, sharing with and learning from other cities

Tools from leading global organizations, as well as cities, will be integrated along the Pathway





NATURE PATHWAY



PHASE 1: ANALYZE > STEP 1 . COMMIT & MOBILIZE >

1.1 SECURE INITIAL COMMITMENT: < 1 2 3 >

Our city has made a political commitment to being a 'city with nature'.



YES
SHARE & INSPIRE OTHERS

PLEASE UPLOAD:

Official document(s) and/or statements by the Mayor and/or Council committing your city as a 'city with nature'

Your city's vision statement which includes a commitment to nature

Upload file

UPLOAD



Only PDF files can be uploaded.

Upload file

UPLOAD

Please use this block for sharing links to relevant videos and articles.

* By uploading this information, you affirm that you have the right to do so and agree that it will appear on your City's profile page.



NOT YET
LEARN FROM OTHERS

There are various ways in which your city can show its commitment, from signing declarations, such as the Durban Commitment to formulating a vision. Useful tools and examples include:

TOOLS:



[CBD Guidelines on Biodiversity and Tourism Development \(Part B, Chapter 2\)](#)



[ICLEI CBC Local Biodiversity Strategy and Action Plan Guidelines](#)



[ICLEI CBC Wetland Strategy and Action Plan Guidelines](#)

EXAMPLES:



[City of Cape Town Environmental Resource Management Department – Biodiversity Management Branch Strategic Plan 2009 - 2019](#)



[City of Melbourne: Nature in the City Strategy](#)



WHAT DOES THIS MEAN?



WHY IS THIS IMPORTANT?





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Selection of tools

THE VALUE OF NATURE IN URBAN LIFE

Nature provides diverse life-supporting and life-enhancing contributions to people in cities and towns. These gifts from nature make human life both possible and worth living. All cities critically depend on healthy interconnected ecosystems within and around them, so it is essential that nature is fully integrated into urban planning and development. There is a growing urgency for collective and large-scale action to protect the biodiversity in and around cities to prevent irreversible loss and damage to the natural systems we depend on.

KEY:

- UNESCO WORLD CULTURE HERITAGE
- WORLD BIODIVERSITY HOTSPOTS
- WORLD AGROBIOLOGICAL DIVERSITY HOTSPOTS
- WORLD'S LARGEST FRESHWATER ECOSYSTEMS
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- WORLD'S LARGEST FRESHWATER ECOSYSTEMS

INTERACT-Bio Integrated action on biodiversity
ICLEI Local Governments for Sustainability
CBC Cities Biodiversity Center

www.cbc-cio.org

GUIDELINES FOR AN INTEGRATED APPROACH IN THE DEVELOPMENT AND IMPLEMENTATION OF NATIONAL, SUBNATIONAL AND LOCAL BIODIVERSITY STRATEGIES AND ACTION PLANS

Convention on Biological Diversity
ICLEI Local Governments for Sustainability
CBC Cities Biodiversity Center

biodiverCITIES: A Primer on Nature in Cities

ICLEI Local Governments for Sustainability
Conservation for The Living City

The Economics of Ecosystems & Biodiversity

TEEB MANUAL FOR CITIES: Ecosystem Services in Urban Management

The Nature Conservancy

WATER FUNDS TOOLBOX

NATIONAL PARKS

LET'S MAKE SINGAPORE OUR GARDEN

SINGAPORE INDEX ON CITIES' BIODIVERSITY













INTERACT-Bio
Integrated action on biodiversity

Wallasea Island Wild Coast project

Wallasea: On the east coast of England

Aim: to combat the threats from climate change and coastal flooding by removing the sea wall and restoring 133ha mudflat, 29ha lagoons, 276ha salt marsh, 109ha coastal grazing marsh, 53ha saline lagoons, 15ha of rotational arable fields.





Wallasea Island Wild Coast project

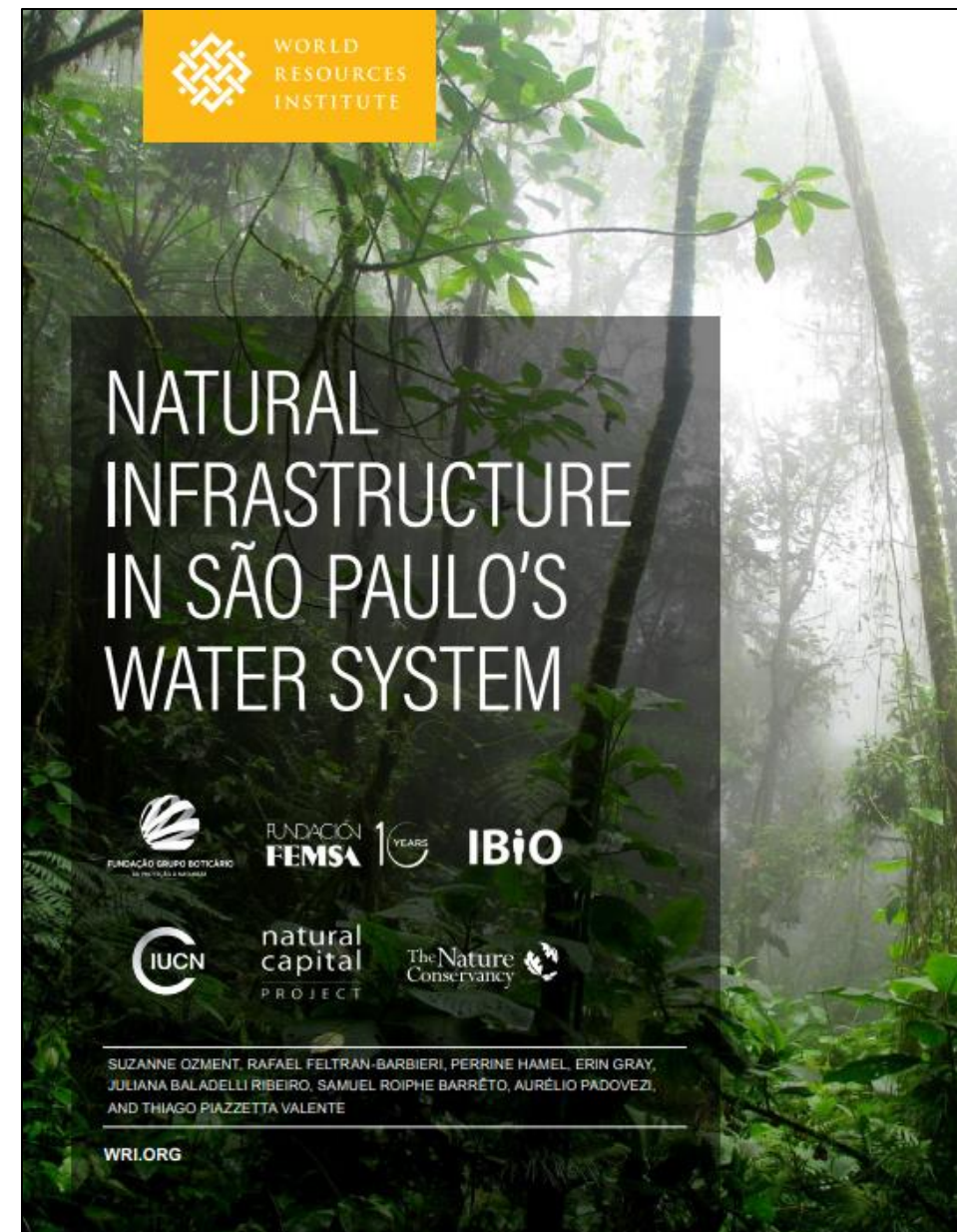
- *Costs:*

Physical implementation works of around £17.5m. Future work (possibly costing £12m. or more) to deliver and manage habitats. Management and administration activities are estimated to be on the order of £190,000 annually.
- *Benefits:*
 - ✓ Carbon sequestration £1.7 million over the next 50 years;
 - ✓ Avoided expenditures for flood defence infrastructure over 10 years (ca. £5 – £10 million) and from the avoided loss of built assets on Wallasea worth £3.1 million under moderate flood event scenarios;
 - ✓ 16.6 net jobs created in the local economy and up to 20.9 in the wider region over a 10-year period.

Cities4Forests

There is an Economic Case to be made to Protect Forests and Reap Downstream Benefits

[Natural Infrastructure in São Paulo's Water System](#), finds that restoring 4,000 hectares (nearly 10,000 acres) of forests could reduce sediment pollution by 36 % within 30 years, reducing turbidity by almost half and potentially boosting water supply when it's most scarce. All it takes is planting trees in the right places.



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And innovative financing is available to work on these projects

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RELEASE: Forest Resilience Bond to Help Fund \$4.6 Million Restoration Project to Mitigate Wildfire Risk in Tahoe National Forest

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Start-up Blue Forest secures funding for first privately financed forest fire bond

By JAMES RUFUS KOREN NOV 01, 2018 | 3:00 AM



Leigh Madeira, left, and Zach Knight, center, two founders of Blue Forest Conservation, tour an area near Yosemite National Park scorched by the 2013 Rim Fire. (Marcus Yam / Los Angeles Times)

In a remote corner of the Sierra Nevada, amid 8,000-foot peaks and deep river gorges, a financial experiment is about to begin.

Once this winter's snow melts, workers will cut down small trees and burn off undergrowth across 5,000 acres of the Tahoe National Forest. But those workers won't be paid by the U.S. Forest Service or any other public agency that typically funds forestry projects.

Instead, the roughly \$4 million will come from two foundations, an investment firm and an insurance company — which hope to make money on the deal.

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By **Brandon R. Reynolds** - November 6, 2018



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John-Rob Pool
Cities4Forests
World Resources Institute
Email: john-rob.pool@wri.org

Paul Currie
Cities With Nature
ICLEI Africa
Email: paul.currie@iclei.org

Thank you!