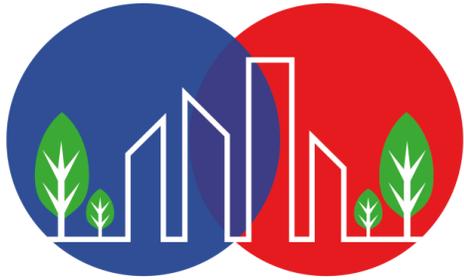


Urban Forests as a nature based solution (UF-NBS)

First Africa Forum on Urban Forests: 5th to 9th July 2021



CLEARINGHOUSE
中欧城市森林应对方案

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About

Nature based solutions contribute to sustainable development and resilience of urban areas

Coordinated by the European Forest Institute (EFI), the CLEARING HOUSE project brings together 26 partners from across the spectrum, including prestigious universities, national research institutes, international and national non-profits, SMEs, and botanical gardens.

Over the next four years, the partners will provide evidence and create tools that encourage rehabilitating, reconnecting and restoring urban ecosystems.

Together with 10 cities and urban regions, the project partners will develop an online application, a global benchmark tool, and guidelines that can aid in the design, governance and management of urban forests.

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Project Partners

- 1 European Forest Institute (EFI) (Coordinator)
- 2 Research Institute of Forestry - Chinese Academy of Forestry (CAF-RIF)
- 3 Fundacja Sendzimir (TSF)
- 4 Vrije Universiteit Brussel (VUB)
- 5 Humboldt-Universitaet zu Berlin (HUB)
- 6 Centro de Investigación Ecológica y Aplicaciones Forestales (CREAF)
- 7 Uniwersytet Lodzki (UniLodzki)
- 8 LGI Consulting SARL (LGI)
- 9 Università degli Studi di Bari Aldo Moro (UNIBA)
- 10 Luonnonvarakeskus (LUKE)
- 11 Universitaet Fuer Bodenkultur Wien (BOKU)
- 12 Hrvatski Sumarski Institut (CFRI)
- 13 Beijing Forestry University (BFU)
- 14 Fujian Agriculture and Forestry University (FAFU)
- 15 Guangzhou Institute of Forestry and Landscape Architecture (GZIFLA)
- 16 Zhejiang University (ZJU)
- 17 Shenzhen Fairy Lake Botanical Garden (SZFLBG)
- 18 Institut Bruxellois pour la Gestion de l'Environnement-Brussels Instituut Voor Milieubeheer (IBGE)
- 19 Urząd Miasta Krakowa (UMKrakowa)
- 20 Area Metropolitana de Barcelona (AMB)
- 21 BOS+ Vlaanderen vzw (BOS+)
- 22 Vlaams-Brabant (Vlaams-Brabant)
- 23 The University of Hong Kong (HKU)
- 24 Stadt Gelsenkirchen (Gelsenkirchen)
- 25 Association mondiale des grandes métropoles, Metropolis (Metropolis)
- 26 International Union for Conservation of Nature (IUCN)

Case Study Cities/City Regions

- beneficiary
- non-beneficiary
- 18 Brussels*
- 19 Krakow*
- 20 Barcelona*
- 24 Gelsenkirchen
- 27 Leipzig-Halle
- 28 Beijing
- 29 Hong Kong*-Ghuangzhou-Shenzhen
- 30 Hangzhou
- 31 HuaiBei
- 32 Xiamen

*Covenant of Mayors signatory



Nature Based Solutions (NBS)



IUCN

IUCN – “Nature-based Solutions are actions to protect, sustainably manage and restore natural and modified ecosystems in ways that address societal challenges effectively and adaptively, to provide both human well-being and biodiversity benefits.

A Nature-based Solution uses the tools that nature already provides to address issues resulting from poor land or resource use, climate change or societal challenges.

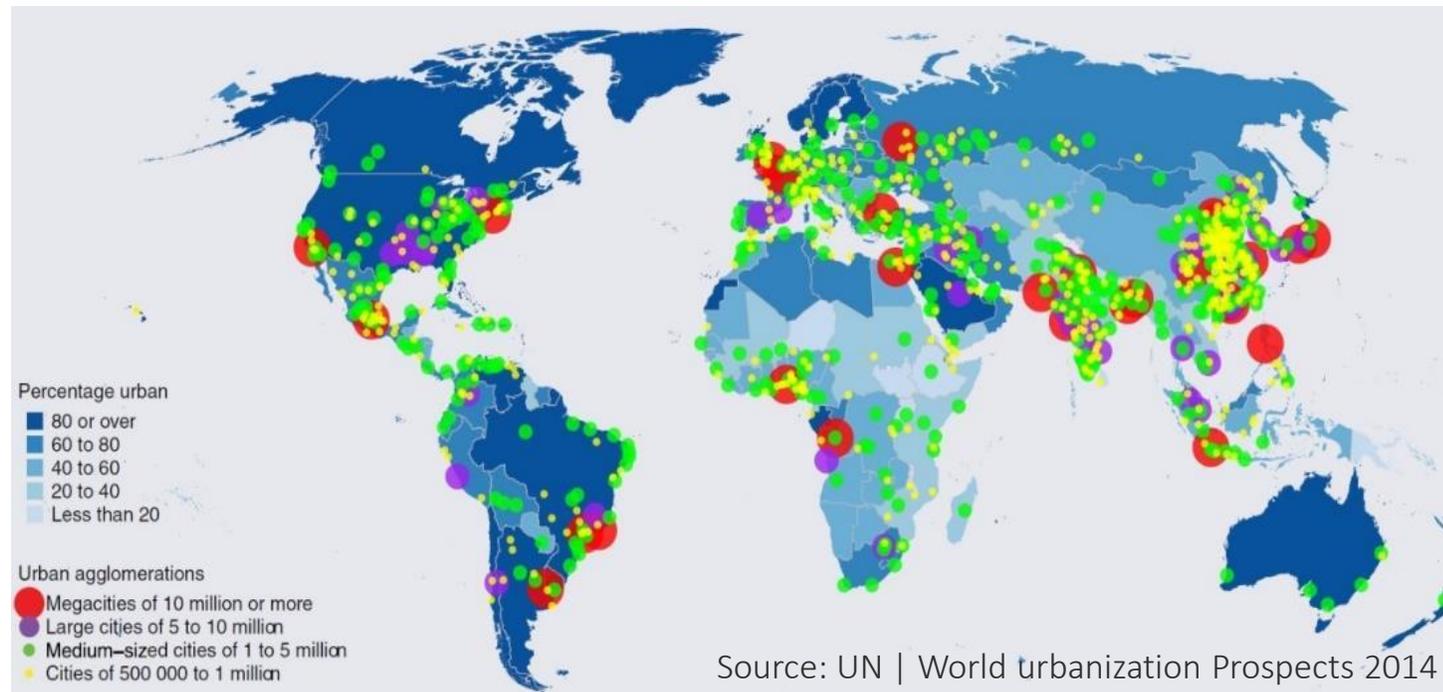
They are not a single action, but many”.

CLEARING HOUSE
project – urban forest
nature-based
solutions are a subset
of NBS that build on
tree-based urban
ecosystems



Cities and urbanisation

Cities are highly vulnerable to environmental change which is happening at an alarming rate! This has consequences to both our health and the economy



Cities are home to:

- >50% of the world's population (by 2050: 70%)
- >90% of global economic activities
- 65% of global energy consumption
- 75% of anthropogenic greenhouse gas emissions

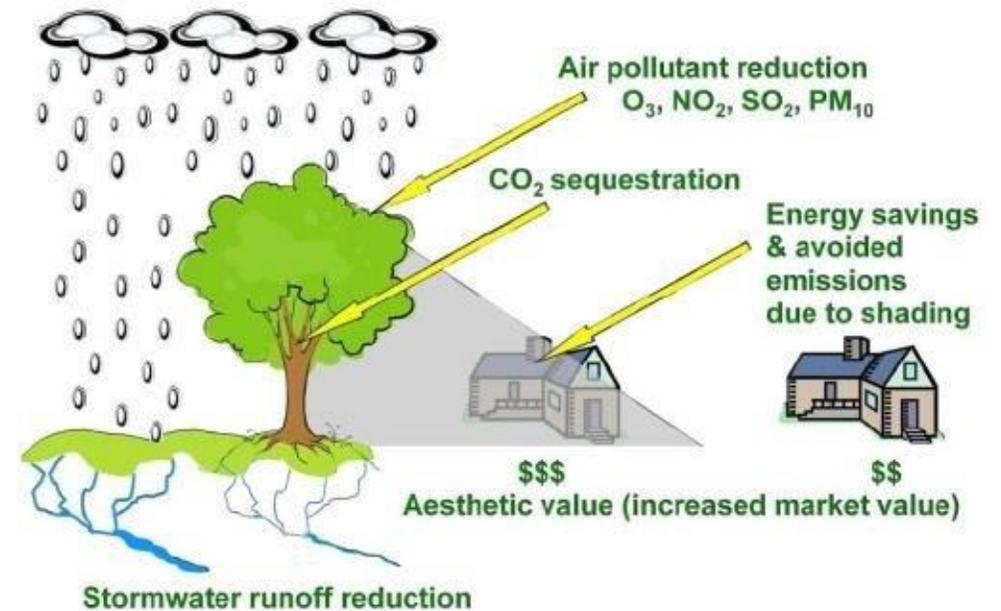


How can UF-NBS help cities and urbanisation

Knowledge across cities will help improve urban forestry strategies

- Historically trees and forests in urban areas have **been undervalued** in respect of the ecosystem services they deliver to urban societies
- In urban areas, existing policies and practice for the governance, management and conservation of trees and forests will **need to change in ways that provide a focus on enhancing ecosystem services and meeting new societal demands**
- Increasing our understanding of different approaches across countries and continents will facilitate **mutual learning and improve urban forestry strategies in the future**

Urban trees provide ecosystem services



Credit: iTreetools.org



CLEARING HOUSE project

The CLEARING HOUSE project is a Sino Europe collaboration. It lasts for 48 months - commenced on the 1st of September 2019 and concludes in August 2023.

Resources coming soon include

An innovative UF-NBS typology that follows semantic principles meaning that it can be expressed in a formal machine interpretable way.

Comparative research in ten cities

Public perception survey in Europe and China.

Case studies of UF-NBS projects in Europe and China on the Network Nature platform

Analysis of governance institutional and economic frameworks for UF-NBS



CLEARING HOUSE project

Business models and investment cases for UF-NBS

Four thematic guidelines to assist authorities decision-makers and civil society worldwide in delivering UF-NBS to their communities and local stakeholders

Online application for developing modelling and assessing you have NBS scenarios in urban development

Global benchmarking tool to compare UF-NBS in different settings

Resources coming later include





Four ways on how ‘considering’ urban forest as a nature-based solution can help

1. Elevates the role of trees above aesthetics and reinforces their role as critical urban infrastructure.
2. Makes possible the inclusion of urban forests in ecosystem assessments both in terms of ‘goods’ and ‘services’.
3. Enables urban forests to be included in the benchmarking of the IUCN global standard, which is of growing interest to governments, business and civil society.
4. In the longer term improves the governance, management and monitoring of urban forests.

<< Image left: Landscape Park Duisburg Nord, Germany demonstrates a number of practical application of urban forests as an NBS – for example in respect of the preservation of cultural ecosystem services and in biodiversity conservation.



Current Limitations

- UF-NBS remains a relatively new concept hence there is a need for knowledge and capacity building among engaged stakeholders.
- Whilst UF-NBS are not always recognised by name they are already evident in practice.
- The engagement of civil society (social groups, citizens) is still relatively low. This links to top-down governance of urban forests.
- Land availability for UF-NBS seems to be a universal problem

Future Opportunities

- Widening the scope of co-design processes to meet the needs of urban residents can bring multiple benefits including more security for urban tree cover.
- The engagement of the private sector still seems to be falling short of expectations. There is a need to identify and promote good practices, engagement and cooperation with the private sector. The long-term management of the urban forest is an opportunity in this regards.
- There is some evidence to indicate that an awareness of complementarity is being to take root. The management of water and air quality and tackling the urban heat island in Fushan Ecological Park in China is potentially replicable elsewhere.



UF-NBS in Africa

- CLEARING HOUSE has compared China with Europe and many of the issues identified appear universal albeit with cultural adaptations. We have found no evidence to suggest that UF-NBS when suitably adapted cannot be applied in any given situation. The principles of NBS as outlined by IUCN are universal.
- The guidelines for UF-NBS to be published in 2023 are intended for a global audience.
- Our team would be interested to hear of examples in Africa where UF-NBS is already being used in policy, planning or implementation.

Academic literature review of challenges for UF-NBS in Africa (2010 – 2021)

Support of sustainable development, decision-making, planning and design:

South Africa, Cameroon, Ethiopia, Egypt.

Conservation action:

Ghana, Nigeria, Kenya, DRC, Benin

Public/human health and well-being physical and mental:

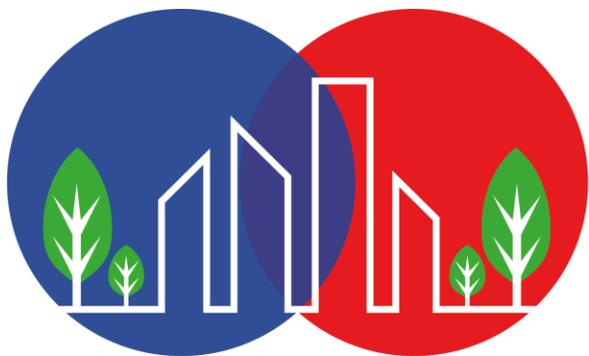
Ivory Coast, Morocco.

Mitigation and adaptation action:

Algeria



Thank you



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