



URBAN LANDSCAPES AND CLIMATE CHANGE THE CONTRIBUTION OF LANDSCAPE ARCHITECTS TO IMPROVE THE QUALITY OF LIFE

Conference of the
European Landscape Convention
May 27th 2021

Climate Change

Protocols, Agreements and Treaties

Kyoto

1997

192 signatories

Paris

2015

196 signatories

Anthropocene effects

Over two thirds of the population in Europe live in towns and cities

Global warming - hotter cities

Rising sea levels - coastal towns and cities at risk

More extreme weather - high winds, lightning strikes,

Flooding - loss of life, land and property, disruption

Prolongued droughts - fires

Poor air quality - ill health

Pollution - pervading waste

ALL HAVE PROFOUND ECONOMIC CONSEQUENCES

Scientific Studies

**European Environment Agency
Urban Adaption in Europe**

**Eklipse Working Group Report
Nature based solution**

**United Kingdom's
Royal Commission on
Environmental Pollution**

Covid-19

Changes to the way we work

Need to reduce daily movements into cities

Reduction in car ownership

Need to redevelop neighbourhoods

Easy access to schools and shops

Easy access to open space and recreation

Need for access to nature, water, trees and plants

BRING THE COUNTRYSIDE INTO THE TOWNS

Poor Air Quality

Poor quality of life

which can be measured in

Illhealth

breathing problems, asthma, fatigue, obesity, heart disease
psychological problems, unemployment

Mortality

higher mortality and reduced longevity

Economic Loss

higher health care costs, lost productivity,
unemployment, petty crime, degradation

Case Studies

Role of Nature in Cities - Nature-based Solution

**Green/Blue Corridors - interconnectivity for
people and nature**

Water Management and Flood Prevention

Public Spaces

Urban Housing

Water in Cities

Tree Planting

Housing

Bon Pasteur, Strasbourg, France

Housing density 400 persons /ha
400 apartments with mix of private and
public housing

Landscape cost 3.5% of total budget





Nature-Based Solution (NBS)



Pollinator species
research project
LIVERPOOL UK

Nature-based solutions
are at the core of
climate change
mitigation and adaption,
public health and well
being and urban
regeneration



Ecological corridor to
reunite the city and nature
İZMİR TURKEY

Hard drainage-flood prevention

Hydroponic green façade

Natural pollinator's modules

Natural wastewater treatment

Parklets

Planting and renewal urban trees

Pollinator verges and spaces

Pollinators roof

Pollinators walls/vertical

Rain gardens

Shade trees (species to spread canopies)

SUDs

Trees Re-naturing parking

Urban Carbon Sink

Urban Catchment forestry

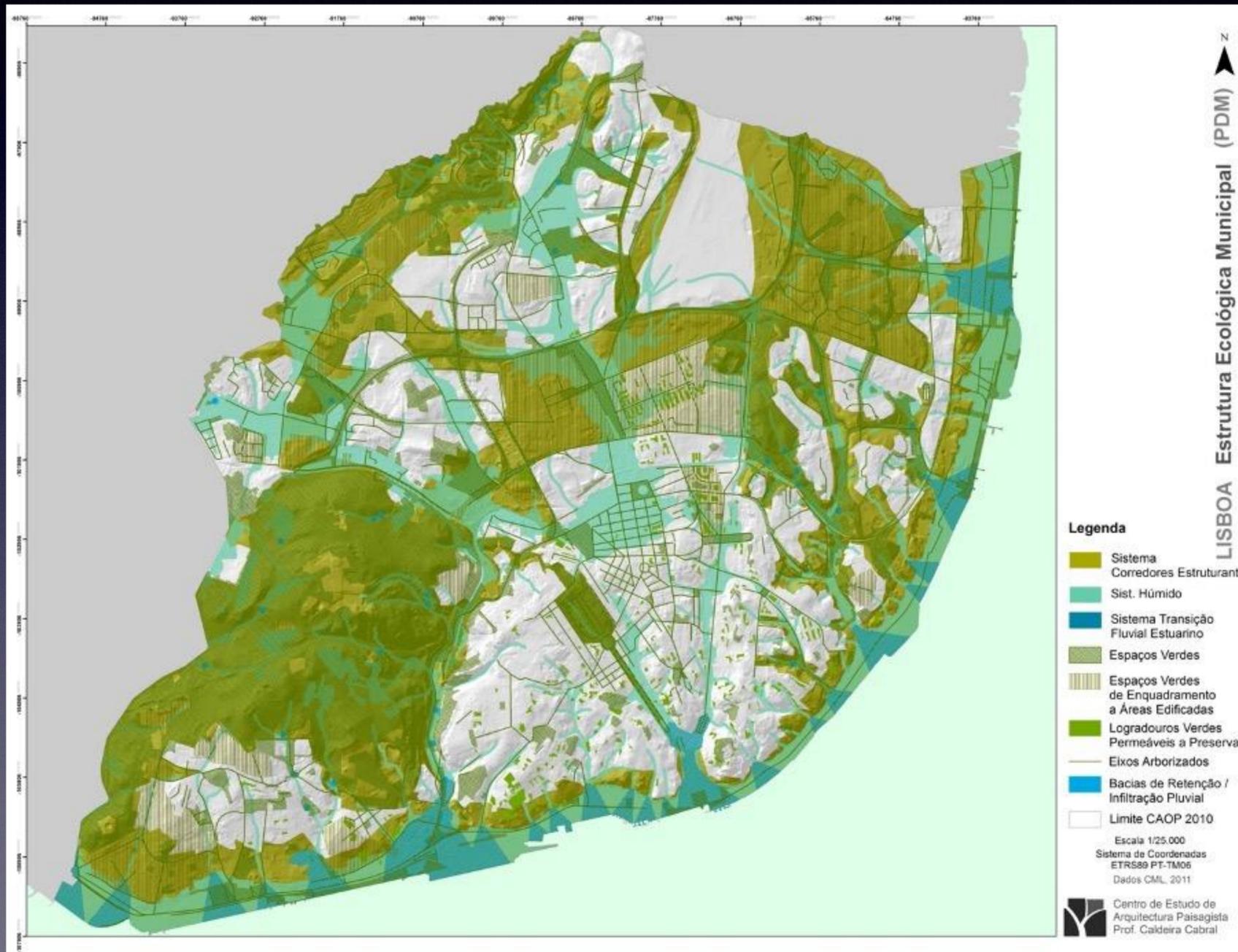
Urban orchards

Vertical mobile garden

NBS

wide range of effective solutions to mitigate climate change

Green/blue Corridors



Study of the ecological structure of Lisbon showing interconnectivity of natural areas.

Such studies can lead the way to greater connectivity establishing traffic free cycle and pedestrian routes

Water Management Flood Prevention

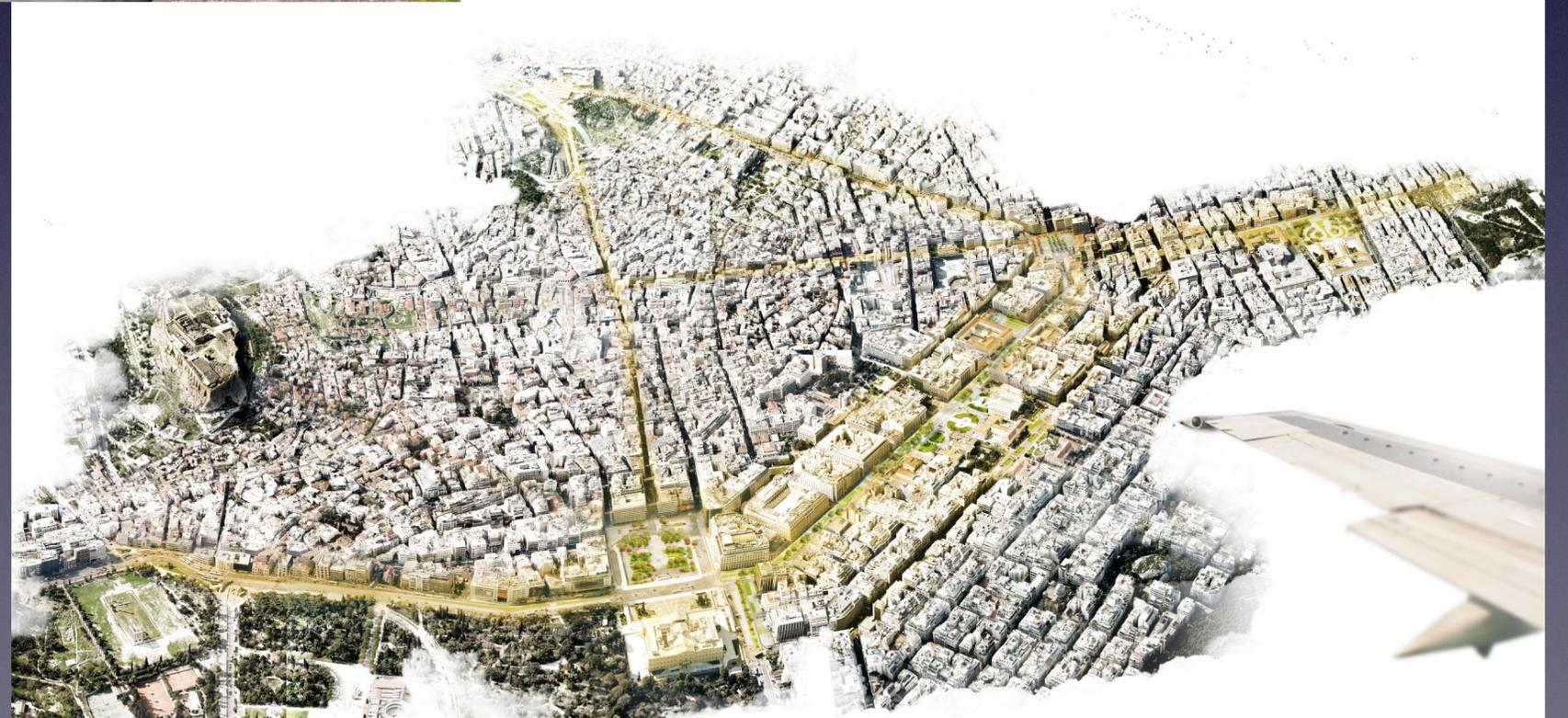


Public Spaces





new city centre **56 ha**



Climate Change Initiatives

- European Green Deal
- New Bauhaus
- **Urban GreenUP**
- Interegg
- COP25 and COP40

Probably less than 1% of the total budgets will be spent on landscape

More than 10% of the total budgets will probably be spent on professional fees

Opportunities and Problems

Huge opportunities investing in landscape to improve the quality of life for city dwellers at relatively low cost

Compared to building - landscape is very cheap

Could be achieved by increasing the average spending for landscape (to 2-3%) on all development projects

Reasons to be optimistic



An Example!



Conversion to woodland (mini-forest)

Cooler in the summer

Warmer in the winter

Lower building energy costs

Improved air quality

Increased Bio-diversity

Increased carbon sequestration

More usable open space

Cheaper long-term maintenance



Oak (pedunculate & sessile)	284 (423)
Willow species	266 (450)
Birch (silver & downy)	229 (334)
Hawthorn	149
Blackthorn	109
Poplar species (including aspen)	97
Crab Apple	93
Scots Pine	91
Alder	90

Sycamore*	15
Holly	7 (10)
Sweet Chestnut*	5
Horse Chestnut*	4
Yew	4
Walnut*	4
Holm Oak*	2
Plane*	1

KEY POINTS

Quality of life and wellbeing in cities is intrinsically linked to landscape and much more needs to be invested in providing for this.

Nature-based solution are cheaper, more resilient and sustainable.

Vehicle free green/blue corridors allowing the interconnectivity of people and nature, providing recreation space and wildlife vectors is the key to developing sustainable cities.

A detailed understanding of plant communities and ecosystems is an essential element of long-term green infrastructure planning.

Presented by

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