

# Biodiversity and Ecosystem Services

Why biodiversity is important in cities? How do biodiversity and ecosystem services relate to your life?



## Understanding biodiversity

Biodiversity is the variety of life on earth, the plants and animals that form the ecosystems we live in and from. It is our life insurance and natural capital, making our planet habitable and beautiful.

Urban nature, including parks, gardens, cemeteries or woodlands, provides us with benefits such as cleaner air, better local climate, reduced noise and spaces for relaxation, inspiration, education, exercise and play.

The benefits that people obtain from nature are often referred to as ecosystem services and can be divided into four categories:

### ● provisioning services

Provisioning services include products that we obtain from ecosystems, e.g. food, timber and clean drinking water.

### ● regulating services

These are services derived from the ecosystem processes such as e.g. climate regulation, air purification, pollination or decomposition of organic waste.

### ● cultural services

Cultural services are generated through our personal interaction with nature and include educational, recreational, spiritual, historical, aesthetic and health values.

### ● supporting services

Supporting services are necessary for the production of all other services, e.g. photosynthesis or species habitat.

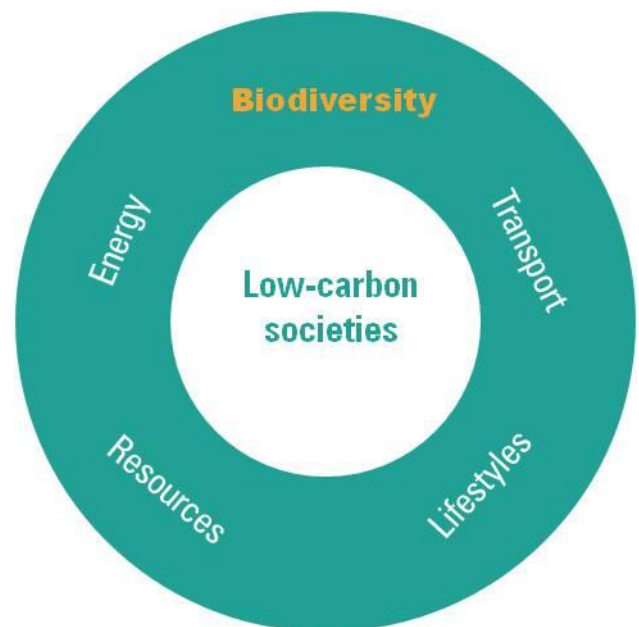
## Biodiversity and the big picture

Regions, cities and communities are complex, interconnected systems so we need to learn to look at the big picture.

How does biodiversity fit in there?

A rich urban biodiversity is not only a heritage we should protect. It is also our insurance policy against changing natural conditions, such as climate change. We depend on biodiversity for other resources we need, such as food, clean air or drinking water.

Competition for urban land often leads to a perceived trade-off between preserving nature and building new infrastructure. However, nature-based solutions, such as green facades that make buildings more energy efficient or wetlands for local runoff water management, include nature as an active component and allow for a creation of multi-functional urban spaces.





In 2011 the EU Member States committed themselves to halt the loss of biodiversity and the degradation of ecosystem services in the EU by 2020.

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### Bee Urban offers sponsorship of beehives to companies in the urban environment in Stockholm (Sweden)

Bee Urban was founded by two environmentally conscious biologists, Karolina Lisslö & Josefina Oddsberg whose purpose was to spread awareness about pollination and bees and their impact on the local as well as the global scale. The hives are placed primarily on rooftops around the city and cared for by Bee Urban while the honey goes to the sponsor.

For more information visit [www.beeurban.se](http://www.beeurban.se)

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### Searching for solutions

We have learned to take biodiversity for granted but this strategy is now backfiring. Faced with climate change and increased risk of natural disasters, decline of bee population that threatens our food systems and environmental pollution that impacts our health, we begin to realize that urban biodiversity matters.

There are many valuable initiatives that contribute to biodiversity preservation and restoration, ranging from city-wide blue-green infrastructure solutions to seed banks, from natural heritage protection to urban forests. However, there are also a number of controversial solutions such as biodiversity offsetting where the nature destroyed in one place is to be recreated elsewhere.

What will be your solution?

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### Friends First teaches homeless people agricultural skills in Brighton (UK)

Friends First is a charity working with homeless and vulnerable people in Brighton. Their project Growing Together teaches homeless people agricultural skills and equips them for a return to the workplace. It now encompasses a 6-acre rural farming micro-enterprise. Focusing on physical and mental well-being, the charity aims to end cycles of repeat homelessness and reintegrate men and women into their local communities."

For more information visit [www.bit.ly/1qZkdFu](http://www.bit.ly/1qZkdFu)

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ARTS is a research project which aims to benefit theory, policy and practice related to accelerating sustainability transitions.

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We are currently present in the following regions



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## Partners



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