



## Cultural Ecosystem Services – A gateway to raising awareness for the importance of nature for urban life

Cultural Ecosystem Services (CES) are the non-material benefits people obtain from nature. They include recreation, aesthetic enjoyment, physical and mental health benefits and spiritual experiences. They contribute to a sense of place, foster social cohesion and are essential for human health and well-being. Although everyone benefits from CES, their impact on urban life is mostly intangible, and as a result difficult to measure and quantify. However, in contrast to other ecosystem services such as carbon sequestration and water or air purification, which require advanced scientific knowledge to be recorded, CES are directly experienced and intuitively understood by people from all walks of life who come into contact with nature.

This factsheet illustrates how CES offer a gateway to raising awareness of the wide range of ecosystem services provided by nature, their importance for quality of life and human health in cities, and their role in encouraging urban environmental stewardship.



## What are cultural ecosystem services?

The Millennium Ecosystem Assessment (MEA) and The Economics of Ecosystems and Biodiversity (TEEB) initiative classify ecosystem services into four main categories: provisioning services, regulating services, supporting services and cultural services.

The difference between cultural ecosystem services (CES) and other ecosystem services is that they are primarily driven by human experience (see table 1). The close connection between citizens and CES offers a valuable opportunity for increasing awareness of the multi-func-

tionality and interconnectedness of different ecosystem components and their significance for urban quality of life. Their deeply personal meaning can also provoke strong reactions from communities in response to development decisions that in some way affect the delivery and experience of CES. Nevertheless, the importance of CES is often overlooked during urban planning and they seldom feature prominently within political decision-making. Incorporating CES into urban planning and policy-making could help to increase awareness of nature as a critical component of human health and well-being.

Table 1: Some of the cultural ecosystem services provided by nature, adapted from The Economics of Ecosystem Services and Biodiversity (TEEB) ([www.teebweb.org](http://www.teebweb.org))

|  |  |
|--|--|
| <b>Recreation, relaxation, health</b>                  | Nature provides urban citizens with areas to exercise and relax and therefore contributes to mental and physical health and well-being.  |
| <b>Tourism</b>   | Nature, particularly protected areas and wildlife, plays an important role in supporting tourism. Ecosystems and biodiversity are therefore an important source of employment and income generation. |
| <b>Aesthetic appreciation and cultural inspiration</b> | Nature has been a source of inspiration throughout human history and is intimately connected to culture, influencing language, art and religion.   |
| <b>Spirituality and sense of place</b>                 | In many cultures, nature is closely connected to spirituality and traditional customs which contribute to a sense of place, social cohesion and belonging.   |



## A gateway to environmental stewardship and urban sustainability

Research by URBES partners has indicated a link between CES and civil society's engagement in environmental stewardship. Residents' experiences of, and attachment to, natural areas, can motivate people to learn more about their surroundings and take action to preserve or restore the environment.

Similarly, a study from Michigan, USA, analysing residents' attitudes to the removal of 10,000 street trees in Ann Arbor, found that citizens who were in close proximity to the tree loss were more enthusiastic about engaging in environmental stewardship by joining in a community

tree planting effort or similar initiatives. They also demonstrated a stronger appreciation of urban nature and its contribution to an enhanced sense of well-being. This example serves to demonstrate how CES can help to channel citizen participation in monitoring and management programmes to help ensure the continued provision of other vital ecosystem services, such as clean water and climate regulation. CES may also facilitate a more comprehensive and inclusive dialogue about sustainability by emphasising the multiple ways in which nature can be relevant and appreciated by people, and by demonstrating how these different values are often interdependent.

# New York City – Incorporating CES into urban planning and management

Multi-functionality of urban ecosystems is a key planning and management priority in New York City. New York City has a higher percentage of public space than any other city in the United States. Almost 40% of the city's 11,300 ha of parkland are natural areas – wetlands, salt marshes, forests and beaches – which are home to a wide range of rare and endangered plant species. While these ecosystems are vital for the provision of drinking water, climate regulation and flood prevention, they also provide numerous cultural benefits by providing spaces for social interaction, recreation and community projects. They also increase neighbourhood stability and safety, as green spaces have been shown to create neighbourhoods where there are fewer violent and property crimes and neighbours tend to support and protect each another.

The importance of CES is being increasingly recognised by New York City planners who are aiming to improve the management of ecosystems in the city by acknowledging the link between environmental and human well-being. PlaNYC, New York City's 20-year economic and environmental sustainability plan, aims to increase citizens' access to open spaces, with the goal of making sure that all citizens are able to reach a park within a 10 minute walk. PlaNYC is also supporting civic engagement by encouraging a vibrant urban gardening movement, which is contributing to social well-being, while at the same time supporting biodiversity. Urban gardening also increases resilience by fostering inhabitants' sense of place and attachment to city areas and mitigating the negative impacts of climate change by, for example, reducing the urban heat island effect.

## Urban parks as providers of cultural ecosystem services

An URBES study on citizens' use and perception of urban parks in four European cities – Berlin, Stockholm, Rotterdam and Salzburg – revealed different understandings of the CES provided by parks. Parks were primarily seen as recreational assets, though the importance given to various types of recreation differed between cities. The top three reasons for visiting parks according to survey participants were 'going for a walk', 'getting fresh air',

and 'enjoying a peaceful environment' (see figure 1), all of which are closely linked to the need for relaxation and thus related to physical and mental well-being. This comparative study shows how context and human perception are likely to change the relative importance of different CES and demonstrates that citizens generally value nature highly in terms of its contribution to mental and physical health and well-being.

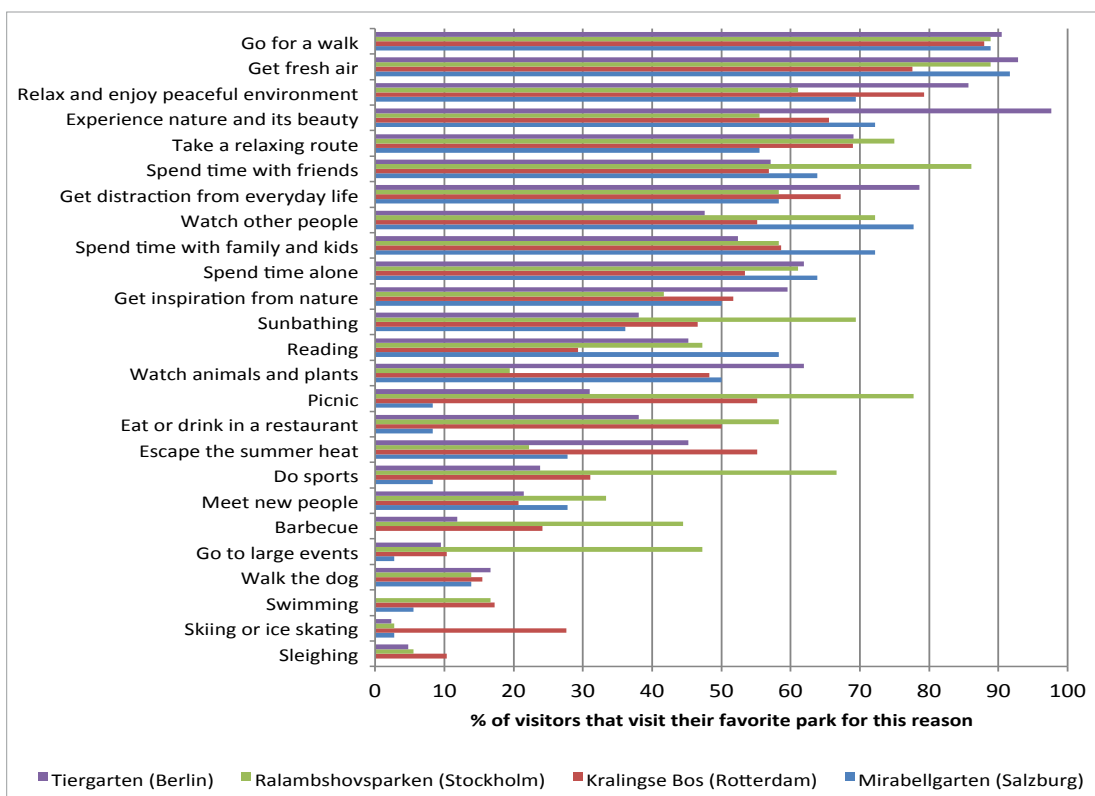


Figure 1 Activities carried out in the most popular parks in four European cities

## Underestimated opportunities for CES in shrinking cities

There is great potential for incorporating CES into urban planning and management in shrinking cities. Land abandonment and urban shrinkage influence the economic value of land, usually by reducing it substantially. Cities can alter this negative dynamic by adopting a CES approach. Research on shrinking cities in eastern and western Germany (Leipzig, Halle, Chemnitz, Rhine-Ruhr area) and Central and Eastern Europe (Katowice, Bytom, Lodz, Donezk) has identified a range of CES which can be provided by vacant or abandoned land, including recreational and health benefits, aesthetic values, social cohesion

through community gardening activities, and educational opportunities generated by urban biodiversity.

A similar study on vacant lots in New York City found that more than half of the surveyed abandoned spaces were covered by trees and other vegetation. It also found that vacant spaces were more likely to be used for community gardens in lower income, denser neighbourhoods, demonstrating their role in providing recreation and food production opportunities to communities of high social need and with limited access to open spaces.

## Promoting urban sustainability through CES

In order to acknowledge the importance of CES for urban citizens, policy-makers and planners must be aware of the link between biodiversity, ecosystem functions and people's experiences of nature. Urban planning and management must take into account how biodiversity loss not only has a negative impact on the provision of food and water and the regulation of climate, but also on citizens' mental and physical health and well-being. Conserving biodiversity in ways that promote positive nature experiences can encourage environmental stewardship while also ensuring the successful implementation of conservation plans.

Furthermore, highlighting the range of CES that can be provided by vacant and abandoned land, while taking into account the socioeconomic context and the needs and values of residents, can help to transform negative perceptions of these areas.

Incorporating the diverse monetary and non-monetary values of CES within urban planning and policy will help to ensure that citizens' needs and concerns are included and more comprehensively addressed within planning processes, and that the basic principles of environmental justice are upheld. CES are an important element of the transition towards more inclusive, just, environmentally aware and sustainable urban societies.

### References:

- Andersson, Erik, et al. "Cultural ecosystem services as a gateway for improving urban sustainability." *Ecosystem Services* (2014).
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### Project donor



For further reading please visit [www.urbesproject.org](http://www.urbesproject.org)

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This factsheet is part of a series of factsheets produced by the URBES project.

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