

URBAN ECOSYSTEM SERVICES



SVARTDALEN EXPERIENTIAL VALUE OF URBAN OLD-GROWTH FOREST

A new footpath and suspension bridge have made Svartdalen's old-growth forest, river gorge and waterfall landscape accessible to the local population in a way that highlights the value of "wilderness in the city". Svartdalen is an excellent example to demonstrate that investing in urban nature to preserve and enhance its natural qualities can yield a socio-economic return in only a few years.

THE SITUATION

The Svartdalen Nature Area and Park surrounds the Alna River and the Alna footpath (footpath 10D) from Kväernerbyen up to Brynseng in Oslo. The Nature Area is unique and rich in natural qualities, and is perceived as more of an old-growth forest than the ravines outside the city. The area is in great contrast to the surrounding densely populated areas, with industrial sites, roads and railways. Svartdalen provides a variety of ecosystem services and is an important habitat for many unique species. The river and the vegetation in Svartdalen also provide a variety of regulating services such as rainwater retention and flood prevention, as well as purifying the flowing water, local noise reduction, climate regulation, pollination and increased CO₂-storage. Furthermore Svartdalen is an important area for cultural ecosystem services such as recreation, learning, aesthetic experiences and place identity.

THE CHALLENGE

Svartdalen was divided into two parts and had areas that were inaccessible to users. To increase the use of the area, it was desirable to have a solution allowing free movement through the entire valley.

THE SOLUTION

To make this area more accessible to the public, 900 metres of new footpath and a suspension bridge were built in 2011, connecting the previously separate parts of the valley. This has made the area more attractive to users and, today, people frequently visit Svartdalen to go for walks, go jogging and go on other excursions.

ENJOYMENT VALUE

(cultural ecosystem services)

INVESTMENT

NOK 12 MILLION

900 metres of footpath and a suspension bridge along the mid-stretch of the Alna River

ADDED VALUE

NOK 2 MILLION
per year

Socio-economic added value of increased use

THE RESULT

The investment will be "repaid" in six years

THE METHOD

Measured in increased visitor hours per year:

Visits increased by 11,250 hours per year, at NOK 180 per hour



Oslo kommune



* Figures are based on Vista Analyses report "The value of urban ecosystem services: Four examples from Oslo", report no. 2014/46.

WHAT ARE URBAN ECOSYSTEM SERVICES?

ECOSYSTEM SERVICES ARE THE SERVICES AND BENEFITS PRODUCED BY NATURE THAT ARE ESSENTIAL FOR HUMAN LIFE

In an urban environment, ecosystems will be composed of a mosaic of green parks, lush backyards, allotment gardens, urban forests, wetlands, streams, rivers, lakes and old trees – all of which will improve the quality of life for city residents. In addition, urban ecosystems are important habitats for the rich biodiversity we find in the city. The Oslo area has the greatest number of different species in the country: 12,009 species have been found, of which 1,230 are considered threatened.

IMPORTANT SERVICES

Ecosystems provide us with a range of vital services that we call ecosystem services. These include provisioning services such as food, water and wood; regulating services such as flood control, water, soil and air purification; cultural services like recreation and learning; as well as supporting services such as primary production and a habitat for biodiversity. Well-functioning ecosystems are thus essential for peoples physical and mental health. Vegetation improves air quality by capturing

pollutants. Green areas provide opportunities for rest and recreation in a bustling urban environment, while also promoting physical activity. Many scientific studies have linked access to green areas to stress reduction and improved mental health.

MAJOR CONSEQUENCES

Any loss of urban ecosystems and biodiversity could result in significant costs in terms of reduced quality of life and poorer health for residents. In addition, the city will become less attractive for business and tourism. Natural ecosystem services, such as the purification of water, air and soil, as well as rainwater retention, can be complex and costly to replace, and in some cases it is absolutely impossible.



Pollination and seed dispersal



Water management



Counteract erosion



Local climate regulation



Water purification



Soil purification



Air purification



CO₂ uptake and storage



Noise reduction



Food production



Art/toys



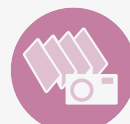
Fresh water



Recreation, mental and physical health



Aesthetics



Tourism



Education and cognitive development



Place identity and cultural heritage



Habitat for endangered species



Biological diversity