

Natural Capital Germany – TEEB DE case study

Urban Forest Lübeck:

Natural forest brings benefits for citizens and is profitable for the city

Urban Forest enables natural processes to function, which provides important services from nature such as drinking water filtration, an area for leisure, nature education, and conservation. In addition, the timber marketing is operating profitably. The secret of success: Naturally sustained forests are leading to better timber quality and therefore also to higher prices. This presents a win-win- situation for nature and people.

Location:

Lübeck

Actors:

Science, Citizens, Associations, Municipality

Project description:

For 20 years there has been no major intervention in the Urban Forest Lübeck, due to their sustainability concept that allows natural processes to work. Forests are naturally efficient and adaptable, and they are working with low costs and little risks. Natural process based management means: foresters avoid interventions as far as possible, which could disturb or affect natural processes. The approximately 10 percent untouched area of the forest serves as a reference to solely observe and document the natural developments. Management of the 4000 hectare used for timber production must be as light touched as possible in order to maintain the natural state of the forest, so there is not a large difference between the reference and the timber area.

As a result, the Urban Forest Lübeck provides excellent conditions not only as habitat for numerous animal and plant species but also for people to enjoy it. The Urban Forest serves as an important recreational area with about 200 kilometers hiking and 50 kilometers horse-riding trails. In addition, it is used for environmental education with nature trails and there are over 70 guided tours per year. Furthermore, the forest is a popular hunting district with special venison and it has a wild life conservation area of over 2000 hectares.

"Lübeck's concept of 'Naturally sustained forest use' was developed following economic considerations", says Kurt Sturm, head of the Urban Forest Lübeck. "From my point of view, timber production is just as profitable, if the freely available production capacities of the forest are optimally used. If instead the forest was maintained by human power and capital, the added value would decrease significantly.

"According to the Urban Forest Lübeck they cover their maintenance costs through special timber marketing concepts. The "low interference" management conditions are







very supportive for the growth of the trees. Compared to heavily managed forests the Urban Forest has significantly lower expenditure costs and therefore it is still as profitable. Due to that concept Lübeck has an older tree population and therefore a bigger timber stock. They also avoid exotic species, like the very popular fast growing Douglas fir.

"We are able to concentrate our trading on single especially valuable trees, which are ready for production. The timber revenues are three times as high as the harvesting costs", explains Sturm. Therefore, the Urban Forest Lübeck can sell their timber for considerable higher prices compared to the German average. Already in 1998 the forest was certificated by the Forest Stewardship Council (FSC).

In average, 17 000 m³ of wood are sold per year. For instance, in 2011 Lübeck's forestry produced 250 000 \in profit – besides the other numerous services such as drinking water filtration, nature education, and conservation, which are hardly measurable in numbers.

The Urban Forest Lübeck is a showcase project for 'nature based' forest management. Many forest owners and users visit from all over the world to see the benefits of the alternative concept in relation to conventional forestry. Especially the citizens of Lübeck enjoy the unique atmosphere, which the diversity of nature brings along.

Ecosystems:

Forests

Ecosystem services:

| Provisioning service: | raw materials |
|-----------------------|------------------------------|
| Regulating service:: | local climate |
| Regulating service: | carbon storage |
| Regulating service | sewage treatment |
| Habitats: | for animal and plant species |
| Cultural service: | recreation |
| Cultural service: | tourism |
| Cultural service: | aesthetic pleasure |
| Cultural service: | spiritual value |
| | |

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"Natural Capital Germany – TEEB DE" is the national follow-up project to the international TEEB initiative (The Economics of Ecosystems and Biodiversity). It was commissioned by the Federal Agency for Nature Conservation (BfN) with funding from the Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB) in order to analyze the manifold values of nature and of the so called ecosystem services in Germany as well as the consequences of species loss also in economic terms and to make them visible. The project is coordinated at the Helmholtz Centre for Environmental Research (UFZ) within the period 2012-2015. More information can be found at: www.naturkapital-teeb.de