

POLLINATOR-FRIENDLY FOOD FOREST, DORTMUND



Addressed SDGs:



> OBJECTIVES

Like many cities, the neighbourhood of Huckarde in the City of Dortmund, Germany, is facing social, economic, and spatial challenges. A former mining and steel industry hub, the city district underwent an economic as well as demographic change with residents moving elsewhere. The pollinator-friendly food forest project aims at socially inclusive spaces that foster interaction between the citizens and shape local identity through gardening activities. This project is open for all, irrespective of age, nationality, education or other, often socially separating factors, and delivers a wide range of benefits for the residents and nature.

> DESCRIPTION

The local NGO *Die Urbanisten* supported the creation of a food forest on 3000 m² of cleared land, owned by the Catholic Church of St. Urbanus, in Huckarde. A food forest is a cultivated urban forest that predominantly consists of edible plants and fruit-bearing bushes and trees.

In collaboration with a local scouts group and church community, several raised beds and planting shelves were planned, built, and planted. The first step consisted of clearing unwanted shrubs and adding more soil layers. The first layer, which was put down, was a natural, permanent humus fertilizer, followed by a cardboard layer to prevent regrowing weeds. The top layer was made of a 20-30 cm thick layer of wood chips. The whole layer pack is supposed to decompose and compost into forest soil that mimics topsoil. Some areas were treated with acid fertiliser to form slightly acidic soil that is best for low pH preferring shrubs and bushes.

So far, 35 soft fruit bushes, such as raspberries, blackberries, gooseberries, and 20 wild fruit trees like rock pears, elderberry, and cherry have been planted. Simple maintenance consists of regularly replenishing the soil with fresh wood chips and pruning branches. Pruned branches are usually dropped unprocessed where cut, following a method called “chop and drop”. All of these measures increase soil biodiversity, and pollinator-friendly plants improve the type and abundance of insects, which also attract birds. Moreover, fruits produced by the planted trees provide food for both humans and animals like squirrels. Experience from other

projects showed that the habitat is populated after one season. However, the percentage of population increase is hard to estimate since establishing a new, fully functional bio-habitat balance takes many years.

A food forest serves many functions and thus provides various benefits: apart from increasing local biodiversity, a food forest enables regular social interaction and community cooperation by growing food, all of which may improve people's psychological well-being. It has the potential to transform the consuming community into conscious producers.

The planning, design, and implementation of the food forest was done in close cooperation between local partners of the EU-funded proGReg project and the local scouts. At first, ideas and hopes for this project were collected from the pastor of the church and the scouts, after which an expert facilitated the development of the concept of food forest and permaculture. The concept was then presented to the public at an information event and a series of workshops were launched in 2020. This collaborative approach created a feeling of personal involvement among people, which in turn motivated local residents to care for and maintain the food forest in the long term.

Planting the urban food forest was mainly financed by the proGReg project, whilst the church covered the remaining costs. The budget spent so far ranges around 3,000 €: most of the costs were for soil preparation, raised bed material, construction wood, seeds, plants as well as cardboard and wood chip material. An estimate for calculating the soil improvement measures was: 1 m³ of compost covers an area of 10 m² (with a 10 cm compost layer), representing a weight of 800-900 kg. However, costs could have been reduced even more by asking local arborists to dump wood chips on the site or by propagating plants by cuttings.

Subsequent to the food forest project, *Die Urbanisten*, the *South Westphalia University of Applied Sciences* and their partners also started a citizen-driven non-profit organisation called *Naturfelder* to motivate and activate people's interest in founding voluntary associations promoting biodiversity. Unlike the food forest, *Naturfelder* is site independent. *Naturfelder* associations encompass

activists and experts in the fields of agriculture, permaculture and wildlife, whose goal is to together procure and convert suitable plots of land into flower meadows and insect habitats. Focus here is on actively procuring land, qualifying it with experts and creating concepts for individual sites. These associations also secure financing for converting sites into flowering meadows, while giving participants a chance "to make this place their own". Two suggestions based on the combined experience with the food forest and *Naturfelder* are: 1) if you only have active people, apply the *Naturfelder* approach, and work on finding and establishing sites; 2) if you have only one space, start with a food forest and let that foster community.

> CHALLENGES

Finding suitable spaces for the implementation of this nature-based solution (NBS) in Dortmund proved challenging. Specifically, the very limited availability of publicly-owned properties made local stakeholders enter into lengthy negotiations about lease contracts with private land and property owners. This resulted in a lot of tedious work to secure suitable properties for the project, postponing the co-design phase for a while. With limited alternatives, the project lead contacted daycare centres and a local school in Huckarde to offer implementing these NBS with young children and students as educational and pedagogical work.

While good ideas are easy to develop, finding the right sites and establishing active, ongoing commitment among project members is often more difficult. The COVID situation had also an important impact on the project, since it was in the initial stages when the pandemic broke out. A series of workshops with local citizens had to be cancelled. It also caused delays in on-site delivery of planting materials and planting interventions in the area. Citizen participation in the co-design was also limited due to COVID-19.

> OPPORTUNITIES

Luckily, Die Urbanisten had permission from the church to use the space for the food forest without having to follow any administrative procedures, such as signing a lease contract. This made things easier and allowed a faster start.

One of the success factors of the project was communicating the food forest concept directly to the church community and conducting educational workshops on building small raised beds in the community centre's yard. This allowed taking all the wishes of the users into account. Compared with other areas, the process was relatively uncomplicated and unbureaucratic. Through many discussions and queries, all wishes could be anchored in the concept. The church community's main concern was that there would be much more work for the community and scouts. Dispelling these concerns resulted in trust building and enthusiasm at being involved in the project.

> LESSONS LEARNED

The actual on-the-groundwork for the project took place in 2020. It was carried out by a very small group from the church community, due to the pandemic, which did not allow organising larger events. Efficient organisation of volunteers and combining working days

on-site in the food forest with days on which workshops are held encourages more people to participate in the project.

It is also useful to learn how to best design a food forest in advance; consulting with local permaculturists is highly recommended. In the case of the local food forest project, contact with an umbrella association was first made at a later stage of the project. These types of organisations could support and be helpful in refining the concept and outlining a communication strategy - all highly recommended in the first stages of the project.

When having problems in identifying suitable spaces for a food forest, it is better to start a public campaign and communicate the main goals so that participants can identify spaces during the co-design process.

> INSPIRATION FOR OTHERS

A food forest can be designed and implemented at almost any scale. Even an area of 50 m² is sufficient to apply such an idea. The effort invested in the design of the food forest does vary depending on the desired goals and abilities of the implementers.

FURTHER INFORMATION

All fact sheets were produced from questionnaires and interviews conducted by the ICLEI team. Contact ICLEI Europe for more information or access Oppla: <https://oppla.eu/casestudy/21617> and <https://oppla.eu/casestudy/21240>

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