Social network

Inspiration & Learning

Ecological network

Costa & Added value

Bee Landscape
Road Map

Developing a Bee Landscape together

# What can you do?

*This brochure offers individuals or civic organisations more information on how they can support the habitat and populations of pollinating insects and why it is crucial to collaborate with other parties. This informational leaflet is part of the Bee Landscape Road Map, which describes the success factors for realising a bee landscape.*

## Alarming decrease in wild pollinators, many species endangered

Our wild pollinating insect populations (wild bees, hoverflies, and butterflies) are in distress. There are around 20,000 different species of wild bees worldwide, of which around 2000 species live in Europe! A global study by IPBES from 2016 showed that wild pollinators have declined in occurrence and diversity at local and regional scales in North West Europe and North America. In Europe for example, 9 per cent of the bee and butterfly species are endangered and 37 per cent of the bee populations and 31 per cent of the butterfly populations are declining.
Today, many people take initiatives to support the conditions for pollinators. They grow more flowers in their gardens or install bee hotels. Even such small measures soon attract more bees, butterflies, and hoverflies to the garden. Besides that, a more natural garden offers additional benefits (see text box).

Small, local measures for pollinators are important, of course, but a real difference can be made when more people and organisations take measures across a larger area. More and diverse measures can eventually result in a

## A natural garden offers multiple benefits

A natural garden is not just great for wild bees, other insects, and birds, you yourself will soon experience the other benefits as well:

- Fewer puddles; improved water drainage;
- A natural garden is more comfortable (less hot) during hot summer spells;
- It offers health benefits:
  - A green environment reduces stress;
  - It is beneficial for child development;
  - It stimulates to be more physically active;
  - It contributes to a sense of meaning and a sustainable lifestyle.

And also good to know: wild bees are not aggressive (as wasps can be) and generally don't sting.

A neighbourhood with many natural gardens and a nature-inclusive public green space maintenance policy results in other additional benefits:

- Reduced flooding in the streets during heavy rains;
- Lower temperatures during hot spells in summer;
- Less or reduced infestations of other insects such as the oak processionary caterpillar thanks to the presence of their predators;
- A flowering, green environment is always more inviting (walking/cycling trips).

landscape where wild pollinators find a sustainable habitat – a so-called Bee Landscape.

### Collaboration increases effectiveness

Nobody can turn the current landscape into a bee landscape single-handedly. It requires strong collaborations between civilians, organisations, public authorities, and businesses. All these parties can learn from each other and measures can be coordinated and aligned to safeguard their effectiveness. This will certainly increase the impact on our endangered pollinators!

**'A Connected Landscape'** is a ribbon of flower borders with, here and there, nesting places in e.g. stepping stones, and which connects different pollinator 'bed & breakfast' areas.

Small, flower-rich **'Bee Fuel Stations'** are spots where pollinators can quite literally refuel (forage: pollen and nectar) as they look for a new habitat.


A **'Bee landscape'** stimulates a dense and diverse pollinating insect population. It includes at least one bed & breakfast area. A bee landscape is also a collaborative partnership of multiple parties.

A **'Bed & Breakfast area'** is what we call a robust and more or less connected living environment where a broad range of pollinating insect species can live sustainably.



## How can residents create more natural gardens?

- **By planting indigenous plants, shrubs, and trees**
  It is best to plant species that also grow naturally in your selected area as the locally occurring pollinating insects are adjusted to these food sources. Cultivated species that usually grow elsewhere are often of less value to our local pollinators.

- **By ensuring that you have flowering plants from March to late October**
  All species of bees, hoverflies, and butterflies have their specific flying season in which they need to forage for nectar and pollen. Many of them are also specific when it comes to the type of flowers they forage from. Therefore, it is important to include many different types of flowers. Flowering plants in sunny spots are even more attractive to wild pollinators.

- **By creating tranquil spots within the garden**
  Leave dead leaves and stems of garden plants uncut/untrimmed until spring, and even keep several spots untouched. Pollinating insects find their nesting or wintering options in such spots.

- **By adding extra measures for pollinators**
  o Add a bee hotel. Wild bees like to nest in bee hotels and it is also great fun to watch their activities up close.
  o Pollinators also need water. If possible, you may want to create a (small) pond or place a water bowl with some small rocks or a water ornament.

- **By not using chemical agents in your garden**
  Chemical agents, also those that are not used for getting rid of insects, are harmful to wild pollinators. So avoid using such agents at all costs.

- **By being a green source of inspiration**
  A garden teeming with plants, flowers, and butterflies is any gardener's pride and joy. It also often becomes a source of inspiration and ideas for neighbours and visiting family and friends.

# Concrete activities

The Bee Landscape Road Map describes various success factors for the development of a bee landscape. One of the key factors in this is ensuring balanced development of the four 'returns' a bee landscape offers. Civilians and civic initiatives can contribute to all of these returns:

**Social network**

- Connecting people and knowledge within the network;
- Being alert to any opportunities offered in the municipal, provincial, or the Water Board's policies;
- Finding someone who is passionate about helping pollinators as a contact person with regional public authorities.

**Inspiration & Learning**

- Sharing knowledge about pollinators and ideas for (additional) measures;
- Organising or participating in field trips and inspiring lectures;
- Promoting the initiative and activities via websites, newsletters, and social media;
- Stimulating mutual and joint learning, experimenting, and evaluations.

*Tree driplines in Bennekom (photo: Nynke Groendijk)*

**Example**

## Planting of tree drip lines with bee-friendly plants by "Bloemrijk Bennekom" sets the example

"Bloemrijk Bennekom" is an initiative taken by several residents in the town of Bennekom, who wanted to do something to increase biodiversity in their own living environment. "We want to leave behind a world that is more beautiful and in a better condition
than it is now. And we want to do our part in achieving that." They joined hands after a meeting of Stichting Landschapsbeheer Gelderland.

**The Planting Tree Drip Line Action**
One of the actions they took involved planting the empty space around the trees planted in pavements, the 'tree drip lines', with flowering plants where wild pollinators can forage. The group of residents turned 50 drip lines into tiny flower gardens. The plants, the wooden rim, and the soil were paid for by the revenues from the "Ede doet" cheques. All the residents in Ede receive a cheque worth 7.50 euros that they can donate to a project of their choice.
"It's a great and easy way to finance a wonderful initiative like ours."

**People follow a great example**
Although the activity was a one-off, they now see that residents are also planting drip lines and creating greener façades. Naturally, all in consultation with municipal neighbourhood management. Other residents now even contact "Bloemrijk Bennekom" for advice. Residents are becoming more and more creative; one of them even connected two tree drip lines by removing and planting an entire row of paving tiles.



**Ecological network**

- Encouraging experiments and example projects;
- Stimulating the monitoring of the measures and/or the effect on pollinators;
- Supporting the monitoring through volunteers;
- Creating a map showing identified opportunities for bee-friendly measures;
- Adding input to this opportunities map (knowledge of the local area!);
- Stimulating the realisation of an execution programme.

**Costs & Added Value**

- Monitoring the effectiveness and efficiency of measures, as well as citizen support;
- Evaluating the costs and added value of the measures for pollinators;
- Monitoring and ensuring that the development of the different returns of the bee landscape (Social Network, Inspiration & Learning, Ecological Network, and Costs & Added Value) is balanced;
- Convincing and urging public authorities to allocate the required funding for their goal to improve the conditions for pollinators.

*Red and white clover (photo: Greg Larcombe)*

## How to start?

A Bee Landscape Road Map and an accompanying manual have been developed for citizens wishing to get started on developing a bee landscape. These tools can help new bee landscapes in the process of building up an effective social network and developing a sustainable landscape where pollinators can thrive. For existing bee landscapes and bee initiatives, these tools can help to assess and improve the development progress. Over the past years, a lot of knowledge on pollinators has also been collected and made available for people and organisations wishing to help improve the living conditions for bees and other pollinators:

**https://ipbes.net/assessment-reports/pollinators**
The assessment report of the intergovernmental science-policy platform on biodiversity and ecosystem services on pollinators, pollination and food production. S.G. Potts, V. L. Imperatriz-Fonseca, and Ngo H. T. (eds.).

**https://www.fao.org/pollination/en**
FAO's Global Action on Pollination Services for Sustainable Agriculture

**https://wikis.ec.europa.eu/display/EUPKH/EU+Pollinator+Information+Hive**
EU pollinator Information hive

Interesting subpages:
**https://wikis.ec.europa.eu/display/EUPKH/Actions+in+my+country**
Member States' initiatives to support wild pollinator populations

**https://wikis.ec.europa.eu/display/EUPKH/Get+involved**
Get involved: a series of technical guidance with recommendations for action for citizens, invasive alien species managers, local authorities and cities, farmers, businesses and public authorities.

Bee Landscape
Road Map

**Colophon**

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Visit BeeLandscape.org

**Accompanying knowledge products**

- Bee Landscape Road Map
- Bee Landscape Road Map Manual
- 4 Brochures Developing a bee landscape together, directed at:
  - Farmers
  - Businesses
  - Citizen/civic initiatives
  - Regional authorities

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