



Farmers tackling drought and flooding

Promotion of voluntary sustainable water management measures

A Belgian regional project called {beek.boer.bodem} – “stream.farmer.soil” – aims to tackle drought and flooding in the Aa river catchment area and restore the balance between agriculture, water and nature. The project raises awareness on these issues, and informs, inspires and guides farmers and other land managers on a range of sustainable water management measures that they can implement on a voluntary basis.



The project area covers the valleys surrounding the Aa river in the province of Antwerp where 600 farmers are active. Due to climate change, in recent decades this area has experienced a combination of prolonged periods of drought and heavy rainfall and flooding. Leen Vervoort, farm advisor and project coordinator: “The lowlands in the valley are characterised by fertile, flood-prone peatlands and in higher lands, the soils are sandy and tend to dry out quickly. Water management is therefore a real challenge.”

Therefore, in 2019, the partners of {beek.boer.bodem} set up this project in order to re-instate harmony between water, farming, and the soil through the application of realistic, sustainable water management solutions. Leen continues “Our aim was to develop a set of concrete, small-scale agricultural measures which can reduce the risk of flooding, improve water quality and make farms more resilient to climate change.” Cooperation and collaboration between different stakeholders in the area is also an important part of this project.

Agricultural land and nature management organisation Boerennatuur Vlaanderen vzw is project leader, project partners include the province of Antwerp, the agricultural practice centre for dairy cattle and fodder crops, nature conservationists and land management and agricultural organisations. The idea was to bring farmers and nature managers around the same table with policy makers to identify solutions to limit the consequences of climate change.

So the first stage of the project did exactly this. The project gathered many local stakeholders to discuss relevant measures that improve soil quality and water quality and quantity and that are particularly adapted to local conditions and also to local regulations. Next, the experimental agricultural measures were tested by participating farmers. The project is now working on upscaling and promoting them to farmers in the area, informing and raising awareness, encouraging their voluntary uptake.



The measures include crop rotation with alternative climate-robust crops such as grain forage and sorghum or incorporating wood chips from local landscape management to improve the organic carbon content in the soil, use of cover crops, field borders, a grass-herb mix in the cultivation-free zones, and monitoring of organic matter content. For the more sensitive zones close to water-draining canals, the project recommends placing weirs in ditches, use of herb-rich grassland and a conversion of conventional drainage to a level-controlled one. For the wettest lands measures include alternative ways of clearing ditches, grassland in rotation, herbal leys and nature-friendly river banks.

Paul Van de Water who is a farmer involved in the project has installed a weir: "The plants next to the ditch are more resilient to drought periods when the weir is kept closed during most of the year".

Farmers are informed about the measures through information and demonstrations. "By exchanging knowledge and field practices, they have become enthusiastic about the measures and are implementing them on a voluntary basis. More farmers are showing an interest in getting involved. Both in 2020 and 2021 we held a 'Climate Farmers Demo Walk/Market' which was attended by many farmers, nature managers, landowners and policymakers. We presented the full range of innovative water- and soil management measures and those who had already experimented with them shared their experience from the field" – Leen says.

{beek.boer.bodem} offers support in the field, tailored to the farmer, nature manager or land owner. This includes site visits, to get to know the wishes and needs of the owner and to investigate the possibilities of the land management. The project also provides support in installing and monitoring infrastructure, and provides information funding possibilities. The project recently ran an open call where farmers could apply for this support in developing their water management.

20 farmers are currently involved, applying a number of the possible measures, ensuring the improvement of water and soil quality, making crops more resistant to extreme weather conditions and better maintaining the groundwater supply. This ensures viable agriculture, reduces flooding and at the same time improved the impact of agriculture on the landscape.

Leen tells us: "Our work is still on-going, we have received new funding and our project region has been scaled up: from catchment of the river Aa to a bigger catchment area. We will keep supporting farmers and other land managers when implementing measures for water management, building a learning network."

The project was selected as one of the winners in the "Finest Rural Development Project Contest 2021" organised by the Flemish Rural Network.

More information

Contact: Leen Vervoort leen.vervoort@boerennatuur.be

Project info:

- <https://www.boerennatuur.be/beek-boer-bodem/>
- [Finest Rural Development Project Contest 2021](#) (in Dutch)

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