

BELGIUM

Local development

Location

Leader area Kempen en Maasland

Programming period

2014 – 2020

Priority

P6 – Social inclusion & local development

Measure

M19 – LEADER/CLLD

Funding (EUR)

Total budget 157 649

EAFRD 51 236

National/Regional 51 236

Private 25 177

Other 30 000

Project duration

2016 – 2019

Project promoter

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vzw

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Using LEADER support to promote innovative water management techniques among the farming community in Flanders.

Summary

The project supported farmers in the Kempen and Maasland areas in Flanders, Belgium, to convert their traditional drainage systems to level-controlled drainage. In this technique, water control structures are installed at strategic drainage outlets. The outflow of water from the drainage system is regulated by controlling the level of water at the drainage outlet according to the needs of the crop. This was quite a new technique in the region.



The project acted as a pilot scheme, financing the conversion on a number of parcels of land to level-controlled drainage. Guidance and advice were provided to the participating farmers via on-field demonstrations. A communication and awareness raising campaign was also a key component to the project.

Results

Nine parcels of 35 hectares of traditionally drained land were converted to level-controlled drainage.

The project demonstrated that level-controlled drainage systems can increase crop growth if applied correctly. The technique can lead to improved yields ranging from about EUR 100, up to several hundreds of EUR, per hectare depending on the crop.

Awareness about the technique among farmers is growing. This is illustrated by the fact that conversions to level-controlled drainage have begun in different parts of Flanders.

Lessons

- There is a need for the overly complex procedures for drain-permits in agricultural zones to be greatly simplified; for this, changes to the legislation would be required.
- Level-controlled drainage can provide substantial benefits compared to conventional draining systems. However, it is not a solution suitable for everywhere. Therefore, field visits will always be necessary before deciding whether or not to apply this technique.

Context

This project supported the farmers of the Kempen and Controlled drainage is based on installing a water control structure at strategic drainage outlets in the field. The water outflow of the drainage system is regulated by controlling the level of water at the drainage outlet. This technique allows farmers to regulate the drainage system from full, to partial, to no drainage, depending on the needs of the crop, which vary throughout the year. This technique was quite new in the region.

In addition, the project aimed to ensure the widest possible knowledge transfer about water management among the farmers in the Kempen and Maasland area. At that point, there were no subsidies for this technique, and due to the quite substantial cost of the initial investment, it was necessary to demonstrate the benefits of the system with some good examples. Throughout the project it was possible to gather data for research and modelling. This evidence base is a valuable tool to inform farmers and policy makers.

Objectives

The general objective of this project was to contribute to more efficient and sustainable water management in the PG Kempen and Maasland area. The operational goals set included:

- Conversion of some parcels of land that previously applied traditional drainage into level-controlled drainage in order to act as pilots;
- Providing advice and guidance to farmers that were interested in the technique via on-field demonstrations and press articles; and
- Facilitating knowledge transfer on level-controlled drainage through a communication and information campaign.

Activities

The project started with the selection of a sample of parcels of land that were drained conventionally and belonged to farmers who were willing to pioneer controlled drainage. The major part of the selection process took place during the first months of the project, however some of the parcels of land selected were replaced by others at a later stage.

An experienced drainage company was appointed to carry out the conversion to level-controlled drainage. Gradually, all selected parcels of land were converted at different times depending on the weather conditions and the crops.

In collaboration with, and under the supervision of, the Bodemkundige Dienst van België vzw (Belgian Soil Service NGO) a data-monitoring system was established on four of the converted parcels of land. The water levels were recorded twice a month and the data were analysed using a computer model which monitored the effects of level-controlled drainage. Throughout the project, enough data were collected to draw evidence-based conclusions on the impact of the level-controlled drainage on different kinds of crops.

During the entire project, efforts were made to spread knowledge about the level-controlled drainage technique. This was done by organising on-field demonstrations and by regularly publishing articles in journals and magazines. Different media were also used including television, brochures, newsletter, the setting up of a website, etc.



Main results

- Seven farmers participated in the project.
- Nine parcels of 35 hectares of traditionally drained land were converted to level-controlled drainage.
- The project demonstrated that level-controlled drainage systems can increase crop growth if applied correctly. The technique can lead to improved yields ranging from about EUR 100, up to several hundreds of EUR, per hectare depending on the crop.
- Awareness about the technique among farmers is growing. This is illustrated by the fact that conversions to level-controlled drainage have begun in different parts of Flanders.

Key lessons

- The departure of the initial project manager created substantial delays in the project implementation, which in turn required an intensive catching up effort by the new project manager.
- There is a need for the overly complex procedures for drain-permits in agricultural zones to be greatly simplified and for this changes to the legislation would be required.
- Level-controlled drainage can provide substantial benefits compared to conventional draining systems. However, it is not a solution suitable for everywhere. Therefore, a field visit will always be required before deciding whether or not to apply this technique.

Additional sources of information

www.agrobeheercentrum.be/Projecten/Drainage-Plus#.W_Uu_DhKgkl

www.bdb.be/Productendiensten/Onderzoekstudies/DrainagePlus/tabid/333/language/nl-BE/Default.aspx