

O2 - Best Practice Data Sheet

People and Water NGO, Slovakia

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Name of the Project: TORYSA FLOOD PROTECTION ZONE – Flood prevention by infiltration lines in Torysa village in 2002

Carrier of the Project: Torysa village

Country: Slovakia / Prešov region

Contact: Torysa Village, www.torysa.sk

Duration: study and construction from 2005-2007



Reference:

www.torysa.sk

Origin and Context of the Project

Historically, the structure of agricultural landscape in Slovakia was more diversified and more fragmented. From the time of the Wallachian colonization in the Middle Ages, the forms of landscape structure gradually evolved due to the cultivation of land on the contour. In this way, terraces evolved over the course of several centuries, which obviously formed an obstacle for the rapid drainage of rainwater.

In Slovakia it is said that there was a spring under every fifth balk. When the era of collectivization of agricultural land started in Slovakia, the first thing that was done was to destroy the balks and later the strips, and thus the springs dried out.

As a result of these changes in the agricultural landscape, during heavy rains, rainwater quickly drains away and carries soil and nutrients from the agricultural landscape with the risk of local floods. Anywhere in Slovakia, such risks of floods, soil dehydration, erosion and loss of fertility are suffered by agricultural land with slopes of more than 2%.



Agricultural land in the cadastral area of Torysa in the Torysa river basin Such was also affected by such problems.



The village solved this by a simple and effective measure, by implementing infiltration strips in some distance along the contour lines, they planted these with trees and finally resolved local flooding.

The project was implemented within community, with local unemployed people working on landscaping and planting trees. The total cost was minimal.

The total cost was 10 times cheaper than the original engineering solution, which intended to build a drainage canal, so that rainwater running down the slopes was captured in the canal and the floodwater was diverted to the Torysa River.

The recommended solution is to make contoured strips 50 m from each other, ideally interrupted every 20-30 meters, as it is unrealistic to make the strips completely horizontal in agricultural land. Interrupting the strips is important so that water cannot run down to the lowest point, which could cause great damage. The estimated cost per hectare is € 1,000. Together with planting trees it is up to € 2 000. We recommend planting the strips with trees.

Addressing local flood prevention is an innovative solution that is cheap, effective, efficient and comprehensive for the restoration of water, soil and nutrients in the area, while reducing the impact on the flood situation of large waters in the Torysa River. Rainwater retention helps to create appropriate moisture conditions for optimal growth of new vegetation.



Photo: Michal Kravčík