

FACTSHEET PILOT INVESTMENT

Optimise rain water storage at Kakat Pond

Where was it implemented?

Hungary, Kunhegyes

Category of measure

Pilot Investment

Type of measure

Investment

Target group

general public (potentially affected citizens)

Problem

Before the Pilot Investment implementation there were partly insufficient capacity regarding rural rainwater and excesswater storage next to Kunhegyes Town. The stormwater system within the town has been developed, that caused much higher discharge coming from the territory of the municipality. Due to this process the risk and possibilities of the inundations rose.



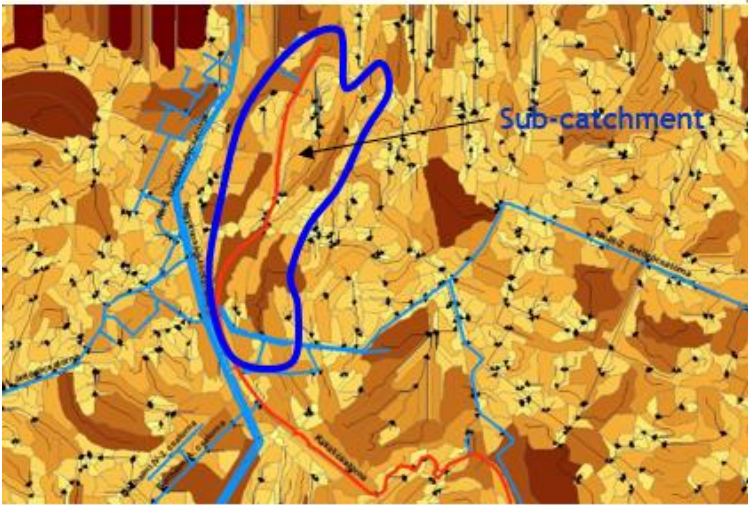
Drone photo of the executed storage area

Description and aim / Message

The retention basin is created to mitigate the negative effects of heavy rain in the catchment area. This type of water management facility is a side storage that means the storage area is parallel along the main canal. The recipient of the stormwater system of Kunhegyes is the Kakat channel. The main aim of this storage is to cover the the whole discharge coning from the territory of Kunhegyes.

The capacity of the storage area is almost 12.000 m³, its length is 550 meters The depth of the water in the storage area can reach 2 meters. The storage has two structures with which the water level is controlled.

So with this facility, the effects of heavy rains (pluvial floods) can be reduced more easily, controlled more accurately and safely.

Effect of measure	
<p>With the implementation of the pilot investment, pluvial hazards and risks are practically reduced. Now, there is a watermanagement facility that ensures the storage and drainage of the whole volume of a heavy rain event.</p> <p>The transnational effect of this investment is illustrated by the implementation of the experiences into the RAINMAN Toolbox. We show how the knowledge gained on storage areas in lowlands has been put into practice.</p>	
DESCRIPTION OF IMPLEMENTATION	
Implementation 06/2019	Effect horizon medium / long-term
Initiator / responsible Middle Tisza District Water Directorate	Involved stakeholders Municipality of Kunhegyes
Lessons-learned	
Main success factor: <ul style="list-style-type: none"> - Personal contact with the skaeholder group (citizens of Kuhegyes, farmers, etc) - Practical result of the investmen contributes to a more safe and sustainable pluvial flood situation in the catchment. 	 <p style="text-align: center;">Runoff map of the sub-catchment</p>
Main challenge: <ul style="list-style-type: none"> - preparation of the plans for getting the water management and environmental permission. - Organization and inspection of the execution 	
Synergies / beneficial aspects: <p>The impacts and benefits of the investment are</p> <ul style="list-style-type: none"> - mitigates the peak of flood, - gathers the excess water faster from the catchment without inundations, - decreases the hours of operation at pumping stations - mitigates the effects of heavy rains in the urban areas (inundations) - covers the right level of the recipient (the outflow won't be influenced) 	
Conflicts / Constraints: <p>Since it was not sufficient storage capacity in the sub-catchment, there used to be inundations, which caused problems for citizens and farmers.</p>	
Key message to others starting with a similar task	Contact
<p>The retention basin is created to mitigate the negative effects of heavy rain in the catchment area. Such an investment has to be based on the pluvial risk assessment, and runoff analysis.</p>	<p>Middle Tisza District Water Directorate titkarsag@kotivizig.hu</p>
Further information	<p>http://rainman-toolbox.eu/how-to-cope-with-heavy-rain-risk/our-stories/hungary/</p>