

Toolkit - Resources for trainers

# Microproject - SDG Nr. 6

## A rain garden

### Learning Objectives

- Identify who you are targeting with this initiative in the local community
- Set up cooperation with the local community and local authorities
- Set up an information campaign and target to increase knowledge on ensuring availability and sustainable management of water and sanitation

### Description

A rain garden is a simple solution that limits the runoff of rainwater to the sewage system, and at the same time helps to care for plants during drought.

The rain garden can be built in a container or in the ground, both fed with rainwater collected from the roof, square or road. It is made of several layers: gravel, sand, earth and stones, which play a stabilizing role. Thanks to rain gardens, less rainwater flows into the sewage system as it is trapped in the filtration layers and then evaporated into the atmosphere.

In the central part of the rain garden, special "water-loving" plants are planted, which additionally purify the rainwater, which improves the quality of groundwater and surface water. The roots and rhizomes of hydrophilic plants capture pollutants such as heavy metals and biogenic compounds from the water. It is recommended to choose plants that can withstand periods of drought and flooding.



To create a rain garden, you do not need to use large spaces, because you can even build it in a box that must be placed under the gutter. The basic rule is to choose the right location. The garden should be in close proximity to the source of rainwater, most often just next to the gutter. The material from which the garden cladding can be made is mainly wood and bricks. The container does not have to be waterproof, because the inside is lined with foil. It is also important to place pipes inside the container that drain excess water to the outside.

Rain gardens can be built: at road lanes, in squares, at pedestrian and traffic routes, bicycle paths, parking lots or driveways to the property.

Advantages of rain gardens:

- Reducing the amount of rainwater flowing into the sewage system,
- Improving the quality of discharged rainwater,
- Improving the aesthetics of the environment, having a positive effect on the value of the property,
- Increasing biodiversity.

The project implementation influence the education of pro-ecological attitudes.

### **Possible roles of the trainees and skills needed**

- Discuss with participants issues related to sustainable management of water and sanitation.
- Discuss with participants the benefits of the rain gardens building, a specially in the urban space.
- Discuss with participants pro-ecological attitudes in this areas.
- Discuss and allocate roles with participants involved in this initiative implementation.
- The skills needed: problem solving, team work, creativity.



<b>Theoretical activity</b>	<p>The aim of the microproject “A rain garden” is to draw attention to the problem of low retention of rainwater, especially in cities, and the potential for their use.</p> <p>Make a list of which steps you need to fulfil in your context to implement the similar initiative.</p>
<b>Creative activity</b>	<p>The implementation of the project increases the inhabitants' awareness of the role of water in nature and human economy.</p> <p>The project aims to disseminate good practices in the field of rainwater retention in the urban landscape.</p>
<b>Innovation activity</b>	<p>The use and management of rainwater contributes to the achievement of Goal 6.4, which aims to increase the efficiency of water use in all sectors.</p>

## Sustainability

The implementation of this micro-project has a positive effect on the microclimate. Rain gardens in urban space:

- Improve the quality of life and improve the purity of water (groundwater and surface water),
- Reduce the amount of water flowing into the sewage system,
- They improve the quality of the drained rainwater.

