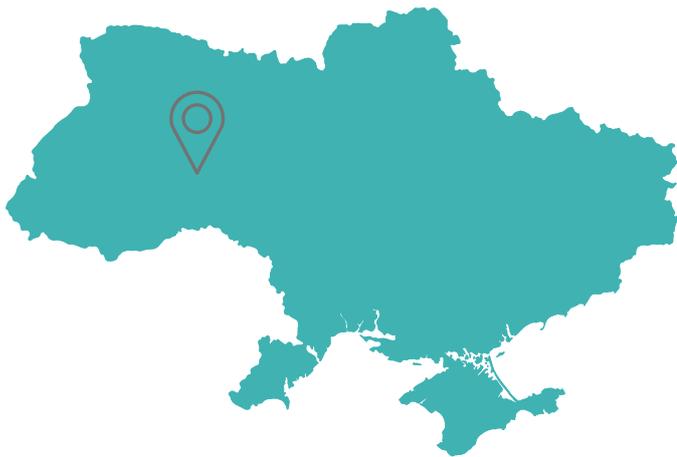


# The Alley 12.7 Project. Nature-based Solutions against flooding and heat islands along the Southern Bug River



VINNYTSIA, UKRAINE

## CHALLENGING TIMES, CREATIVE SOLUTIONS

Vinnytsia is a city in central Ukraine, located on the banks of the Southern Bug river. Like many cities around the world, Vinnytsia is facing many environmental and climate-related challenges. The city's climate is changing, its summers are becoming drier and the occurrence of climate-related hazards, particularly heat waves, is increasing.

The urban sprawl has altered the city's natural landscape, creating negative conditions, such as "sealed" surfaces, which foster the formation of heat islands and floodings. The city's development also has negative impacts on the water quality of the river. Despite these conditions, there are still some relatively well preserved natural patches along the river banks.

Embedded in Vinnytsia's urban development plan, the Alley 12.7 Project aims to develop nature-based solutions (NbS) to preserve the river bank, considering its natural conditions, as well as its current and potential use.

## AN INNOVATIVE APPROACH IN UKRAINE

The Alley 12.7 Project seeks to create a holistic harmonious environment along the left bank of the Pivdennyi Buh River, also known as the Southern Bug River, within the city of Vinnytsia. Through an interdisciplinary and participatory approach, the project aims to find options for proactive response and adaptation to climate change that integrate the community's vision of sustainable development and protect the biodiversity within the area of intervention.



The Alley 12.7 Project area in Vinnytsia

## THE GAP FUND'S SUPPORT

The Gap Fund's intervention studied the prerequisites for effective nature-based management of the Alley 12.7 project. The intervention included:

- 1 Collecting data and analysing climate change, climate impacts and the project area itself.
- 2 Developing two alternative pre-designs for the Alley 12.7 implementation, including climate impact and financial and economical analysis.
- 3 Developing stakeholder involvement and management strategies.



NbS

137 250 m<sup>2</sup>

Project intervention area

SCENARIO 1  
(NATURE)

5.9 M€

Investment budget

SCENARIO 1  
(NATURE+  
RECREATION)

5.3 M€

Investment budget

Preafesibility

Idea

Implementation

60 000

People directly benefited

Sector

Project stage

## THE INTERVENTION AT A GLANCE

Two scenarios for the development of the Alley 12.7 project were identified based on the assessment of the current state of the area. Both scenarios focus on preserving the natural character of the Southern Bug River Valley and on protecting the most valuable and most sensitive areas to climate change.

Scenario 1 "Nature" includes the renaturalisation of transformed and anthropogenic biotopes, while Scenario 2 "Nature + Recreation" also foresees their parallel use for recreational purposes.

For more detailed information on the project sites and solutions corresponding to the two scenarios, visit the interactive web map.

The difference between scenarios lies in the varying degree of involvement, the use of the territory, and infrastructure development. The decision shall be made by the stakeholders.



Kaspych cliffs, meadows near the cliffs along the river

## SCALE-UP POTENTIAL

The project's innovative approach seeks to drive evidence-based environmental research to increase the resilience. The selected sites are representative of the city's geography, so each design solution can be expanded to maximize the replicability of the chosen approach in different areas of the Vinnytsia or in other Ukrainian cities with similar characteristics.



Embankment of the river junction of Tyazhliv and Southern Bug River

## NEXT STEPS:

Following the Gap Fund's intervention, these recommendations can help to bring the project Alley 12.7 closer to implementation:

- Conducting a valuation of the ecosystem services in order to fully evaluate the proposed scenarios and make the best decisions.
- Conducting follow-up studies, such as geomorphological, geologic and hydrological surveys, impacts of noise pollution, heat island and climate change sensitivity studies.
- Developing a communication strategy for the project to coordinate subsequent participatory events.
- Discussing the strategic positioning of Alley 12.7 and assessing various parameters to select solutions for the identified thematic areas

## TA PARTNER AND BENEFICIARY



Агенція просторового розвитку

Spatial Development Agency, Vinnytsia



Вінницька міська рада

Vinnytsia City Council

## TA IMPLEMENTED BY



Agency ZVIDSY

## THE GAP FUND IN A NUTSHELL

Since its launch in 2020, the City Climate Finance Gap Fund provides technical assistance to cities in low and middle income countries to support the early preparation of climate-smart infrastructure projects, including energy, transport, waste and nature-based solutions (NbS).

Find more about the project on:



For additional information, please contact: [gapfund\\_technicalsecretariat@eib.org](mailto:gapfund_technicalsecretariat@eib.org)

Summary of the Pre-feasibility study on the Climate Component of the Alley 12.7 Project, implemented by the Agency Zvidsy with the support of the Gap Fund in partnership with GIZ and the Municipal Enterprise Agency for Spatial Development (Vinnytsia).



THE GOVERNMENT OF THE GRAND DUCHY OF LUXEMBOURG  
Ministry of the Environment, Climate and Sustainable Development

