



**MOUNT
RESILIENCE**

Enhancing climate resilience in the Balkan Mountains

Climate change adaptation
in mountainous areas

Gabrovo, Bulgaria



MOUNT RESILIENCE



MountResilience supports European regions and communities located in mountainous areas to increase their capacity to adapt to climate change and to transition towards a climate-resilient society. The project is conceptualising, testing and scaling up climate adaptation and nature-based solutions to respond to policy and societal needs. Additionally, it seeks to influence citizen behaviours to effectively address specific climate impacts in mountainous regions.



Gabrovo is a mountainous city in north-central Bulgaria, shaped by forests, rivers, and its location near the Balkan Mountains. This landscape creates local microclimates that increase the municipality's exposure to climate change. Rising temperatures, longer droughts, humid winters, and more extreme weather are worsening heat stress, air quality, and the risks of forest fires and floods. With most residents living in urban areas, the **urban heat island effect** is growing, affecting health and quality of life.

Adapting to Climate Change

Climate risks:

Extreme heat, flooding



Using green infrastructures and rainwater to cool urban areas

To address these challenges, the MountResilience demonstrator mapped Gabrovo's green infrastructure and is working to improve it through a **new Green Infrastructure Strategy**. This strategy is being developed by municipal departments in cooperation with citizens, experts, and other local stakeholders through a participatory process that includes workshops and surveys. A key action is **rainwater harvesting**, collecting water from roofs of nearby buildings to irrigate urban green spaces. Together with **tree planting** and **more permeable surfaces**, this reduces runoff, cools the city, and supports efficient water management while keeping green spaces healthy under changing climate conditions.

Climate risks:

Flooding, wildfires and severe winds



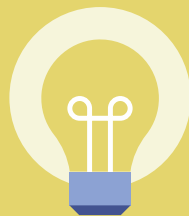
Enhancing preparedness for future climate emergencies

As climate risks become more frequent and unpredictable, Gabrovo is enhancing its capacity to anticipate and respond to natural hazards. To this end, the municipality is developing an **early warning and monitoring system** designed to address three key risks: floods, forest fires and strong winds.

The first step has been to identify the areas most exposed to these hazards. Building on this, Gabrovo is designing a monitoring system that uses digital tools such as sensors, thermal cameras, drones and artificial intelligence data analysis models to **support real-time observation of potential threats**. This system is intended to support municipal decision-making and provide citizens with timely information and alerts, thereby improving preparedness and response to these risks throughout the city.



How to achieve meaningful stakeholder engagement for climate adaptation?



MountResilience partners have held **workshops and surveys** to gather the views of local stakeholders on Gabrovo's climate adaptation needs and how a new Green Infrastructure Strategy could help. The city also used local events, like the **Uzana Polyana Festival**, to reach a wider audience, **raise awareness** of climate change and health risks, and collect input in an informal, accessible way. Engaging people early has helped build trust and support for the strategy and its actions.





Contact

Project contact:

mountresilience@unimi.it



UNIVERSITÀ
DEGLI STUDI
DI MILANO

Regional demonstrator:

Ilvina Iliycheva, i.iliycheva@gabrovo.bg

Svetoslav Mateev, svetoslav@mateev.com

Maria Radoycheva, maria.radoycheva@gabrovo.bg

Desislava Koleva, desislava@gabrovo.bg



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