

REPORT

Agroecological Territories for Climate Action Project

Kosovo/Albania/Macedonia Part

Climate Awareness Association

January 2025



**Climate
Awareness
Association**

Berovo Workshop

Participants :

15 participants (Annex 2) took part in the workshop organized in Berovo from the sectors below:

- Organization of women in Pehchevo*
- Council of the City of Pehchevo
- High School “Aco Ruskovski”
- Municipality of Pehchevo
- Municipality of Berovo
- Rural Coalition

*Its main work and focus are women's human rights, economic empowerment of women as well as their social inclusion and health protection. The participants coming from this organization were women involved in wool processing and agro-production.

For this workshop, we took a very different approach compared to the first one in Podujevo. The participants had varying levels of understanding, which led us to adjust and adapt the format to better suit their needs.

The workshop revolved around the Climate Fresk methodology. Using the visual cards as a central tool made it much easier to pause, reflect, and engage in discussions about everything happening in the territory. This approach fostered more interaction and deeper understanding, allowing participants to connect the dots in a clear and impactful way.



Keys findings from the workshop in Berovo

Socio-Economic Context :

According to the 2021 census, Berovo Municipality has a population of 10,890 residents and is one of the smaller municipalities in our country. The ethnic composition is predominantly Macedonian (91.14%), followed by Roma (3.11%), Turks (0.55%), and smaller percentages of other groups. The town of Berovo serves as the municipal seat.

In recent years, there has been a notable trend of youth migration, with many young people leaving the municipality for opportunities abroad or in the capital, Skopje. This trend has resulted in an aging population, as older residents are left behind. Consequently, the number of unemployed individuals is relatively low, standing at 919, with most of them having only primary education or no formal education. However, many employed residents earn only minimal or average wages, necessitating supplemental income through activities like collecting wild fruits, rural tourism, and traditional product production.

This exodus leaves older generations predominantly managing farming and agricultural activities. The shift in demographics has created a generational divide in occupations, with younger residents largely absent from rural life.

Berovo has a single general medicine facility offering basic services such as X-rays, primary care, and gynecology. For specialized medical needs, residents must travel elsewhere. While healthcare services are affordable, private hospitals are also available.

Tourism is on the rise, with three hotels and about 50 recreational spots attracting visitors. However, this increase has negatively impacted the region's biodiversity. Industrial development remains limited, focusing mainly on wood and textile production. Waste management is a mixed picture—illegal dumping is prevalent despite a municipal management system. Public transportation is nonexistent, with only regional bus routes connecting towns, such as those between Skopje and Berovo.

The Public Utility Company (JKP Berovo), established by the municipality, manages waste collection and oversees the municipal landfill. Municipal representatives report 100% waste management coverage. In collaboration with Pakomak, efforts have been made to separate glass (green bins) and plastic (collection bells). However, the country is still in the process of preparing documentation and identifying locations for the development of regional landfills.

Geographic context :

Berovo Municipality, located in the eastern part of North Macedonia, encompasses an area of approximately 598.7 square kilometers.

The Malishevo region is a protected area known for its rich biodiversity, including unique plant species. Among these is *Drosera satif*, a carnivorous plant that feeds on insects. Its presence underscores the ecological significance of the region, which is under increasing pressure from human activities and environmental changes.

Energy context :

The primary source of energy in the region is wood, supplemented by electricity and coal. This reliance on wood reflects the traditional energy practices of the area, though it also exacerbates deforestation and environmental challenges.

Forestry and natural resources

The region has faced significant **deforestation** in recent years, driven by both human activity and natural disasters. Tree cutting is primarily undertaken to meet **heating demands** and supply raw materials to furniture production companies. Some trees are also removed to clear land for agricultural purposes or to install solar panels. However, this practice is not primarily aimed at expanding agricultural fields.

Forest fires have become increasingly common, with a notable surge in the past three years, resulting in extensive tree loss. Around **70% of the forests** in the region are **privately owned**, making coordinated conservation efforts more challenging. These fires are often triggered by drought and human negligence, further aggravating deforestation rates.

The biodiversity of the region is undergoing dramatic changes. Beneficial insects are disappearing, while harmful species like **Monilia—a destructive pest—are proliferating**. Local residents, producers, and other stakeholders have reported significant changes like the emergence of new plant diseases and previously unseen insect species. Additionally, the population of wild animals has declined, alongside a reduction in livestock numbers. These changes are primarily attributed to alterations in forestry, pastures, and other environmental factors.

The **vegetation** is deteriorating, and **growth cycles have shifted**, signaling broader ecological disruptions tied to environmental changes and human interventions.

In Berovo, the Nature Conservation Programme in North Macedonia has played a vital role in conserving the region's unique biodiversity and natural ecosystems. Through the promotion of sustainable use and management practices, the program has had a positive impact on preserving and enhancing biodiversity in the area.

Water

Water resources in the region are under strain. The **artificial Berovo Lake** serves as the **primary water source**, but its quality has declined significantly. Currently, the water is undrinkable due to high manganese levels, a problem that has only emerged recently.

Water scarcity is becoming more pronounced, with declining water levels in wells exacerbating the issue. While there are no active conflicts over water access, the declining quality and availability of water are pressing concerns for residents and local authorities alike.

Soil :

Soil quality has declined compared to the past due to several factors, including the extensive use of chemicals in agricultural production, deforestation, and land degradation. Additionally, occasional floods from the Bregalnica River and chemical contamination have further contributed to the deterioration of soil conditions

Air:

In the municipality of Berovo, there is no heavy industry, and no significant sources of air pollution have been identified. Therefore, air pollution can generally be considered a low-risk issue. However, during the winter months, air quality deteriorates due to outdated household heating methods, including the use of energy-inefficient stoves and improperly dried firewood.

Agriculture :

Agriculture in Berovo remains a critical economic activity, with key crops including potatoes, cherries, plums, walnuts, hazelnuts, tomatoes, and honey. However, the region has faced significant challenges in maintaining crop yields. **Pesticides are widely used** to sustain production levels, as organic farming alone is according to them insufficient to meet demand.

Farmers report limited benefits from government subsidy programs. While some have participated in these initiatives, the overall impact has been minimal. The region, once known for its **organic production**, has seen **a 3% decline**, partly due to rising costs and reduced outputs. These challenges have forced farmers to increase prices, further straining the local economy.

Livestock farming has also declined sharply. In recent years, **the number of livestock has decreased** from approximately 10,000 to fewer than 5,000. This drop has created a significant **shortage of cow milk**, despite Berovo's reputation for cheese production.

Irrigation systems in the region rely entirely on **water from wells**, which are increasingly under strain due to declining water levels. These systems are essential for sustaining agricultural activities in the face of mounting environmental challenges.

Climate change :

The region has experienced notable climate changes over the past three years. Short but intense **heat waves** have become a regular occurrence, alongside increased instances of hailstorms and reduced snowfall. **Rainfall patterns** have also **shifted**, with prolonged periods of drought interspersed with heavy rainfall, creating instability in weather conditions.

These climatic changes have contributed to the emergence of new challenges. More aggressive insect species, such as **tiger mosquitoes**, have appeared, posing health risks to residents. Lice infestations in children have also become more common. Diseases, like the flu, which previously lasted only a week, now persist for up to a month and occur even during summer months, reflecting changes in disease dynamics influenced by shifting temperatures.

Forestry fruit production has suffered due to temperature fluctuations and changes in vegetation. This decline has particularly impacted crops like raspberries, blueberries, and strawberries, leading to reduced availability and higher market prices for these fruits.

Participants wills from Berovo :

The participants emphasized the need for investment in sustainable practices, particularly in recycling agricultural and farming waste. For example, they pointed out that sheep wool is often discarded and left to degrade over time. They suggested introducing training programs focused on reusing or reprocessing such materials.

Additionally, they may require tailored support to adapt to climate change impacts, such as resilient crop management strategies, improved irrigation systems, and educational resources to promote sustainable agriculture in their specific territories.

Identified Limitations in the Workshops

The current format of the workshops is too long. Most of the invited participants do not have a full day available for this type of exercise.

During the workshop in Kosovo, we followed the initial methodology, but feedback indicated that the session was too long and somewhat repetitive. In response, we decided to opt for shorter workshops, replacing the mural with the use of cards as a tool for discussing the territorial challenges.

In Albania, we attempted to use the mural, but the format (reading and collaborative work around the cards on the table) was not suitable for the participants, mainly farmers who were reluctant to read. The exercise seemed too complicated in this context. We then adjusted by presenting the mural ourselves, explaining the concepts, and facilitating an open discussion about their territory and the challenges they face.

We recommend establishing a long-term partnership, so we are not just visiting for a single day. By coming multiple times, we can organize several half-day workshops, fostering a stronger connection and creating a more cohesive discussion group. Additionally, we suggest adapting the mural section by offering a simplified version or an alternative format, such as an interactive quiz, to better engage the participants.



