

STUDY AREA DESCRIPTION

CIUC-NEMIRA-VRANCEA

HARGHITA, COVASNA & VRANCEA, ROMANIA



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the European Union**

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1 INTRODUCTION

The Ciucului-Nemirei-Vrancei mountain region brings together the 11 municipalities included in this study area across a remarkably diverse geographical and cultural arc. It integrates three distinct mountain systems: the Ciucului, Nemirei, and Vrancei Mountains. Each of these systems is characterised by its own specific socio-ecological features.

Culturally, the region is equally varied. Communities in Harghita and Covasna counties have been strongly shaped by over nine centuries of Szekler presence. In contrast, Vrancea County preserves one of the most intact expressions of traditional Moldavian culture.

The landscape is predominantly cultural, with only few areas that have remained untouched by long-standing agricultural practices and the use of natural resources. The rural economy rests primarily on agriculture, while small and medium-sized urban centres rely largely on light industry, structured around small and medium-sized enterprises. In the mountainous zone, sustained grazing practices have created a heterogeneous landscape of secondary pastures and high conservation value meadows interspersed with mixed forests. Putna Vrancea Natural Park, situated in the south-east of the study area, is the only protected park in the southern Romanian Eastern Carpathians. Notably, the study area corresponds to the region with the highest brown bear densities in Romania (Pop et al. 2023).



Figure 1 Sheepfold in the Vrancea Mountains, located between the counties of Covasna and Vrancea (Photo Credit: Mihai Pop).

2 OVERVIEW

- ▶ **Municipalities:** Brețcu, Estelnic, Lemnia, Poian, Sânzieni (Covasna County); Ciucsângeorgiu, Plăieșii de Jos, Sânmartin (Harghita County); Tulnici (Vrancea County).
- ▶ **Geographical size:** 1326.5 km² (586.5 km² in Harghita, 505.9 km² in Covasna, 234.1 km² in Vrancea).
- ▶ **Human population:** 28,545 (2020), with a negative trend.
- ▶ **Number of livestock farmers (approx.):** Unknown.
- ▶ **Livestock farming systems:** Unknown.
- ▶ **Wild large carnivore species:** Brown bear (*Ursus arctos*), wolf (*Canis lupus*), and lynx (*Lynx lynx*).
- ▶ **Brown bear population:** Harghita County has the highest density at 27.4 bears per 100 km², followed by Vrancea County (17.5) and Covasna County (17.1) (INCDS, 2025).
- ▶ **Wolf population:** An estimated 5-8 packs (rough estimates based on data from the WOLFLIFE project (Chiriac et al., 2017; Gazzola, 2017), considering a mean number of 4 wolves/pack).
- ▶ **Lynx population:** Approximately 10-20 individuals (rough estimate based on data from the LIFELynx project (Sin et al., 2021)).



Figure 2 Shepherd with large guardian dogs in a winter farm in Haghita (Photo Credit: Tamas Adorjan).

3 SOCIOECONOMIC CONTEXT

The Covasna-Harghita area is strongly shaped by the Szekler ethnic identity. This ethnic homogeneity supports strong community cohesion, active organisational structures and a pastoral tradition that is well preserved at the institutional level. Tulnici, by contrast, lies within the ethnocultural space of Romanian Vrancea. The local built heritage reflects this: with traditional-style houses built of beams and covered with shingles, with colourful fabrics adorning the interiors.

The economy of these communities rests on three pillars: animal husbandry, logging and, to a lesser extent, subsistence agriculture, with nuances specific to each area. In the Ciuc area, animal husbandry is a primary occupation.

Tulnici remains the most isolated Territorial Administrative Unit in the group. Its economy is dominated by forestry, and the population has been continuously decreasing from its historical peak. At the same time, the presence of the Putna-Vrancea Natural Park creates opportunities for ecotourism.

In Covasna and Harghita, tourism has been the fastest-growing economic sector in recent years. However, despite the potential, agrotourism remains comparatively underdeveloped.

4 FARMING CONTEXT

Farming across the area is dominated by small-scale, family-based livestock systems (cattle and sheep) spanning three distinct sub-zones. In Harghita, harsh continental winters shorten the grazing season and increase reliance on stored fodder. In the Vrancea Mountains, farming is more fragmented and economically marginal, embedded in a remote, forested landscape with minimal market connectivity.

Sheep numbers have been increasing steadily across the area. Cattle herds, by contrast, are gradually declining nationally, although Harghita County is an exception: between 2022–2024, cattle, sheep, and goat numbers all increased, positioning the county consistently among Romania's top three for livestock numbers. At the same time, the sector is restructuring, with a shift towards larger holdings and a move from dairy to beef farming.

This positive performance is underpinned by two factors. First, the institutional capacity of local commons, which provide a well-established governance framework for collective pasture management. And, secondly, an exceptionally strong natural fodder base, with permanent grassland accounting for approx. 80% of the county's total agricultural land.

A major constraint, particularly in Covasna and Harghita, is the high level of predation by large carnivores.



Figure 3 A traditional „coliba“(sleeping box for the night) and a newly installed electric fence in Harghita (Photo Credit: Lajos Berde).

Main challenges:

- ▶ **The pressure from large carnivores** is a real constraint. The damage, which is mainly caused by bears, and to a lesser extent, by wolves, directly affects the profitability of cattle grazing and sheep breeding. Harghita and Covasna are among the counties most affected by brown bear damage (Pop et al., 2023).
- ▶ **Isolated farms**, not integrated into markets, are structurally fragile. Local markets are limited, access to processors is weak, and individual bargaining power is low.
- ▶ **Traditional grassland mowing systems are breaking down** due to the combined effect of several factors: changes in vegetation phenology, fluctuations in hay and labour prices, youth outmigration, and compliance demands linked to agri-environmental schemes. Many traditional farms can no longer manage these changes on their own (Babai et al., 2021).
- ▶ **Progressive abandonment of less productive land** (in Covasna and Vrancea), increasing the risk of shrub encroachment and medium-term decline in of the forage quality, while also bringing predators closer to farms and settlements.



Figure 4 An old shepherd milking sheep and goats in Covasna County (Photo Credit: Mihai Pop).

5 LOCAL CONFLICT ASSOCIATED WITH LARGE CARNIVORES

Number of attacks:

- ▶ The main conflicts between local farmers and large carnivores involve brown bears and wolves. There have been no official reports of lynx attacks in the study area.
- ▶ Between 2023 and 2025, brown bears were involved in 75 livestock predation incidents, resulting in 43 sheep and 46 cattle killed.
- ▶ Between 2023 and 2025, wolves were involved in 22 livestock predation incidents, resulting in 26 sheep and 1 cattle killed.

Social conflict:

- ▶ Social conflict related to large carnivores is largely driven by a lack of trust in NGOs and researchers, who are perceived as being absent from the lives of pastoral communities. Direct contact between them and farmers is almost non-existent.

- ▶ Compared to other areas, the trust in politicians is higher in Covasna and Harghita.
- ▶ A strong restriction narrative is present among local decision-makers and community members, who perceive any extension of protection as a direct threat to their rights to use resources.

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