

STUDY AREA DESCRIPTION

PADIȘ-MUNTELE MARE

ALBA & BIHOR COUNTIES, ROMANIA



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the European Union**

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1 INTRODUCTION

The study area brings together two mountain areas with distinct geographical personalities, united within the same orographic system of the Western Carpathians.

In Alba County, the communes of Albac, Arieșeni, Bistra, Câmpeni, Gârda de Sus, Lupșa, Poșaga and Scărișoara stretch along mountain valleys of the Muntele Mare range at altitudes of between 600 and 1,300 metres. The terrain is deeply fragmented, and households are scattered across the slopes, reflecting the traditional way of life of the local *moți* communities. Bistra alone encompasses 35 villages spread across its hills and valleys, Lupșa 23, and Câmpeni 22.

In Bihor County, the communes of Buntești, Câmpani, Drăgănești, Lazuri de Beiuș and Pietroasa occupy an intramontane basin that opens westward towards the plains, ringed by mountains that rarely rise above 1,000-1,100 metres. The surrounding karst landscape is rich in caves, springs and plateaus. The Padiș Plateau, within the Apuseni Natural Park area, offers more accessible terrain for grazing. A continental-moderate climate with high rainfall provides a reliable forage base for livestock, though it also shortens the alpine grazing season and raises costs for rural infrastructure.

At the same time, the area is one of the most important tourist attractions in the Western Romanian Carpathians, renowned for its spectacular karst landscape and for holding some of Romania's most remarkable speleological and glacial heritage sites.



Figure 1 Landscape of the Apuseni Natural Park (Photo Credit: Mihai Pop).

2 OVERVIEW

- ▶ **Municipalities:** Albac, Arieșeni, Bistra, Câmpeni, Gârda de Sus, Lușă, Poșaga, Scărișoara (Alba County), Buntești, Câmpani, Drăgănești, Lazuri de Beiuș, Pietroasa (Bihor County).
- ▶ **Geographical size:** 1,140.06 km² (756.88 km² in Alba County and 383.28 km² in Bihor County) — mountains and high hill area.
- ▶ **Human population:** 36,939 (2020 census) with a decreasing trend.
- ▶ **Number of livestock farmers (approx.):** Unknown.
- ▶ **Livestock farming systems:** Unknown.
- ▶ **Wild large carnivore species:** Brown bear (*Ursus arctos*), wolf (*Canis lupus*), lynx (*Lynx lynx*).
- ▶ **Brown bear population:** 50-65 individuals estimated in Apuseni Natural Park (757,8 km², AANP, 2024) with a density of 4.9 brown bears per 100 km² in Alba County, estimated using genetic analysis (INCDS, 2025).
- ▶ **Wolf population:** 10-50 individuals estimated in the Apuseni Natural Park (AANP, 2024).
- ▶ **Lynx population:** 10-50 individuals estimated in the Apuseni Natural Park (AANP, 2024).



Figure 2 Sheep arriving from the pasture in the evening. The electric panel is used only for the shepherd's hut. Electric fencing is not used for night enclosures in the Apuseni Mountains (Photo credit: Mihai Pop).

3 SOCIOECONOMIC CONTEXT

- ▶ The communes of the Apuseni Mountains rank among the lowest-income areas in the Western region, characterised by subsistence-level economies and a maximum dependence on CAP subsidies.
- ▶ With no urban centre or significant industrial base nearby, the local economy rests on animal husbandry, the exploitation of natural resources, trade, public services and small-scale local industry.
- ▶ The five Bihor communes form a distinct geographical and cultural space from the Alba group. They represent a well-defined ethnographic entity, retaining a strong tradition of villages specialised in particular crafts.
- ▶ Across the area, cultural identity is closely tied to animal husbandry, one of the oldest and most enduring occupations of the local population, shaped by the geographical and pedoclimatic conditions. Species raised include sheep, goats, oxen, cows, horses and pigs.

- Tourism has emerged as the most dynamic economy sector in recent years. However, agrotourism remains underdeveloped relative to its potential, with accommodation and complementary services still fragmented and poorly promoted.

4 FARMING CONTEXT

Agriculture persists as a semi-subsistence activity, centred on small family farms that engage in cattle and sheep breeding, milk production and the production of traditional dairy products. This structure faithfully reflects the pastoral vocation of the mountain landscape, where grasslands continue to be used both within household settings and through common property arrangements.



Figure 3 Fast food with porcino mushrooms at a shepherd hut (Photo Credit: Mihai Pop).

Main Challenges:

- **Farm fragmentation** keeps production costs high and limits access to organised markets. The average farm remains below the break-even point for investments in their own processing facilities.

- ▶ Progressive abandonment of less productive land risks shrub invasion of grasslands and degradation of the forage base in the medium term.
- ▶ The Romanian livestock guarding dogs are increasingly being replaced by Kangal and Caucasian breeds, though the bond between shepherd and dogs remains strong and highly relevant (Ivașcu and Biro, 2020).
- ▶ A lack of specialised shepherds has a significant impact on the farm size. Presently, most farms in the region remain family-owned and family-managed.



Figure 4 Sheep in the milking chute, ready to be milked (Photo Credit: Radu Popa).

5 LOCAL CONFLICT ASSOCIATED WITH LARGE CARNIVORES

Number of attacks:

- ▶ The main conflicts between local farmers and large carnivores involve wolves and, to a lesser extent, by brown bears. There have been no official reports of lynx attacks in the study area.

- ▶ Between 2023-2025, brown bears were involved in 13 livestock predations, resulting in 20 cattle killed.
- ▶ Between 2023-2025, wolves were involved in five livestock predations, resulting in 59 sheep and 19 cattle killed.

Social conflict:

- ▶ Social conflicts relating to large carnivores are mostly rooted in a lack of trust in public institutions, politicians, and resource managers. The negative attitude towards large carnivores is amplified by a perceived absence of support from authorities following damage incidents, the direct experience of loss, and fear of the bears and wolves (MMAP, 2019).
- ▶ The existing protection framework in local perception is largely associated with restrictions imposed by the Apuseni Natural Park, reinforcing a narrative in which conservation measures are seen as opposing traditional practices.
- ▶ A particular social conflict exists between sheepfold watchdogs and hikers, tourists and locals who use mountain trails. In the area, dogs that are effective against predators often exhibit aggressive behaviour towards humans.

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