

STUDY AREA DESCRIPTION

PRESPA

(FLORINA), GREECE



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the European Union**

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1 INTRODUCTION

Located in north-western Greece, on the border with Albania and North Macedonia, Prespa is a unique biodiversity sanctuary. It is famous for its exceptional wetland ecosystem, which hosts the largest colonies of Dalmatian pelicans. Yet Prespa is more than just a wetland: its forested mountains and mosaic habitats support wolves and brown bears that have long roamed the landscape, coexisting with traditional human activities. Today, Prespa remains a vibrant region, where extensive pastoralism and fishing sit alongside sustainable farming and nature-based tourism, all contributing to local livelihoods and conservation efforts.



Figure 1. Morning mist over Prespa National Park (Florina Regional Unit, Greece), illustrating the park's rich mosaic of wetland and mountain habitats that sustain high biodiversity and ecological balance (February 2016; Photo credit: Maria Psaralexi).

2 OVERVIEW

- ▶ **Municipalities:** Municipality of Prespa.
- ▶ **Geographical size:** Approximately 515.4 km².
- ▶ **Human population:** 1,210 permanent residents (2021), continuing to decline.
- ▶ **Number of livestock farmers (approx.):** 96 livestock holdings (Agricultural Census 2021).
- ▶ **Livestock farming systems:** Cattle, sheep, and goats; predominantly extensive grazing systems.
- ▶ **Wild large carnivore species:** The brown bear (*Ursus arctos*) and the grey wolf (*Canis lupus*) have had a historical and continuous presence.
- ▶ **Bear population:** Estimated ca. 50 individuals.
- ▶ **Wolf population:** Estimated 2 wolf packs (ca. 10 individuals).



Figure 2. Bear cub of the year photographed within Prespa National Park (Florina Regional Unit, Greece) (Photo credit: Lambriani Anastasiadou, Management Unit of Prespa National Park and Protected areas of Western Macedonia archive).

3 SOCIOECONOMIC CONTEXT

- ▶ Prespa is a biodiversity-rich “laboratory of nature.” Its remarkable variety and richness of endemic species stem largely from the area’s history of geographical and political isolation. Difficult terrain and its status as a borderland restricted access until the 1970s.
- ▶ Traditional agriculture, stockbreeding, and fishing form the backbone of the local economy, gradually complemented by tourism. Farmers mainly cultivate the internationally recognised Prespa giant beans, which have long provided the main source of income, while fishing has also sustained lakeside communities. Tourism builds on the region’s cultural heritage, including historical and religious monuments, and its iconic wetland ecosystem, which supports the slow growth of nature-based tourism.
- ▶ Pastoralism faces mounting pressures. Local stockbreeders struggle to balance income needs with protected-area restrictions, limited access to resources, and coexistence with large carnivores. Nationwide trends of an ageing farmer population, low generational renewal, and limited employment opportunities amplify these challenges, driving youth outmigration.

- ▶ These demographic challenges are further worsened by climate change and a rapid drop in lake water levels, which have severely affected both the wetland ecosystem and local livelihoods over the past decade, placing traditional sources of income at risk.

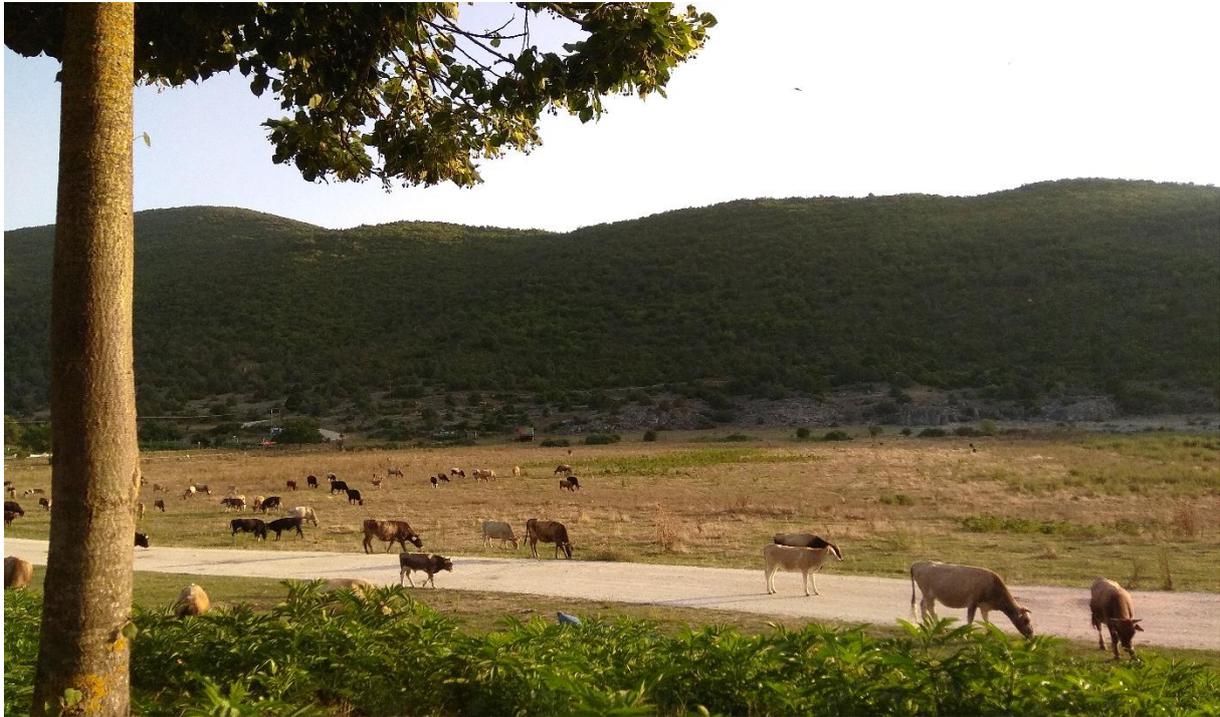


Figure 3. Indigenous Prespa shorthorn cattle grazing on the exposed lakebed of the Great Prespa Lake, near the village of Psarades (July 2021; Photo credit: Maria Psaralexi).

4 FARMING CONTEXT

Livestock farming in Prespa is traditional, extensive and low intensity, often integrated into mixed crop-and-livestock holdings. Extensive free-range grazing plays a significant role in the local economy and contributes to landscape management, maintaining open habitats and supporting biodiversity, particularly in wetland–mountain ecotones.

Despite its cultural and ecological value, the sector is in steep decline. In the Regional Unit of Florina (2009–2020), the number of cattle holdings fell by 40%, sheep by 25%, and goats by 35%. Many farms are abandoned annually.

Prespa is home to the rare, indigenous *Prespa Shorthorn cattle*. This breed is well adapted to mountainous and wetland grazing. Herds traditionally move to summer pastures in higher elevations.

Main Challenges:

- ▶ Limited access to markets and infrastructures (e.g. slaughterhouses, dairy facilities etc.).
- ▶ Protected-area restrictions linked to the national park status.

- ▶ Ageing farmer population, low generational renewal, continued outmigration.
- ▶ Predation by bears and wolves, causing economic strain and emotional stress on herders.
- ▶ Dissatisfaction with ELGA’s compensation scheme.
- ▶ Declining profitability, dependency on EU subsidies, and economic scandals (e.g. OPEKEPE).
- ▶ Restrictions from recent outbreaks of sheep and goat pox (2025) and PPR (2024).
- ▶ African Swine Fever is starting to affect carnivore populations, especially bears, indirectly influencing livestock predation patterns.



Figure 4. A mixed flock of sheep and goat grazing on the meadow pastures of Prespa (May 2025; Photo credit: Maria Psaralexi).

5 LOCAL CONFLICT ASSOCIATED WITH LARGE CARNIVORES

Number of attacks:

- ▶ ELGA (the Greek Agricultural Insurance Organisation) is a public benefit organisation responsible for compensating for agricultural damage caused by natural phenomena, including attacks by wild animals such as wolves and bears. In 2022, ELGA recorded 43 compensation claims in Prespa: 35 for bear damage to bean fields and eight for livestock losses caused by bears and wolves. However,

the actual number is likely higher, as many incidents do not meet ELGA's criteria or are never reported, due to widespread dissatisfaction with the scheme. On the upside, some farmers have started to invest in preventive measures, such as electric fences.

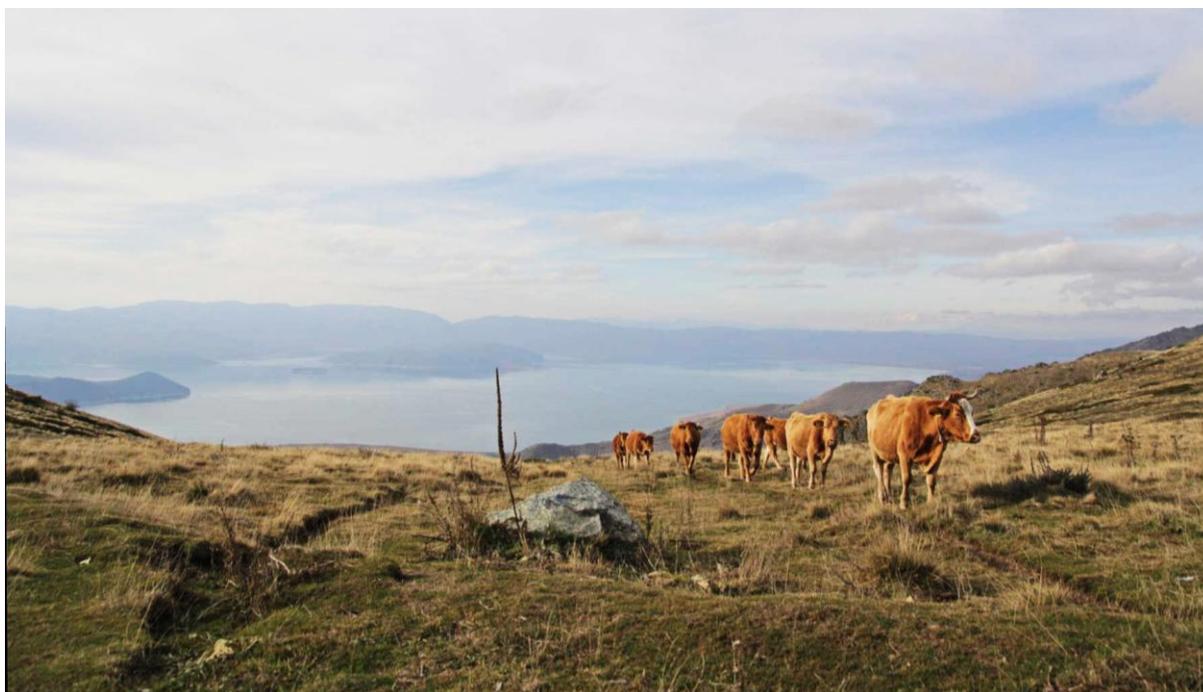


Figure 5. Cattle being moved to mountain pastures for the summer transhumance routes (Photo credit: Archive of the Management Unit of Prespa National Park and Protected areas of Western Macedonia).

Social conflict:

- ▶ Most attacks occur during free-range grazing, though predators may enter farm facilities. In May 2025, a bear with four juveniles destroyed a stable, dispersing the animals, many of which were never recovered. Such incidents have intensified negative attitudes towards bears.
- ▶ Poison baits killing shepherd dogs, leaving flocks vulnerable.
- ▶ During 2024-2025, African swine fever decimated the wild boar population, creating an abundance of carrion. Bears feeding on the carcasses appear larger, have bigger litters, and exhibit increased livestock depredation, which heightens tensions.
- ▶ Subsidy scandals have eroded trust in institutions, leaving breeders feeling exposed and falsely accused.
- ▶ Sheep-goat pox control measures (lockdowns, mandatory culling) cause prolonged anxiety and uncertainty.
- ▶ Wolves preying on hunting dogs are aggravating the conflict.

- Illegal killings of carnivores occur: bears are poisoned, wolves are shot, and there are cases of mother bears being killed for cub trafficking.

Overall, conflict remains intense and multidimensional, encompassing ecological pressures, economic losses, and deep social tensions.



Figure 6. Brown bear found dead from gunshot wounds near the village of Karies in Prespa (2014; Photo credit: Triantafyllia Gogou, Archive of the Management Unit of Prespa National Park and Protected areas of Western Macedonia).

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