

CASE STUDY ON TRANSHUMANCE

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Introduction

This case study explores the practice of livestock mobility, particularly transhumance, as a key component of sustainable land management and biodiversity conservation in highland landscapes. By examining my experiences as a shepherdess working across diverse regions of Europe, the study sheds light on the intricate relationships between livestock, the landscape, and the people responsible for their care. From the rugged terrain of the Alps in Switzerland, Italy, and Austria to the mountains of Palencia in Castile and León, and the dry plains of Extremadura in Spain, this study highlights the operational challenges and strategies employed to manage large herds of sheep across varied landscapes and contexts.

Transhumance, as practiced in much of Europe, involves the seasonal movement of livestock between higher mountain pastures during the summer and lower areas during the winter. This practice has long been essential in maintaining ecological balance and sustaining sheep flocks in a way that utilizes available resources effectively. It helps prevent overgrazing, supports biodiversity, and promotes extensive land management by utilizing high-altitude pastures in the summer and valley grazing in the winter. However, modern pressures—including climate change, economic strain, rural depopulation, and a shortage of generational renewal in the primary sector—pose significant threats to the viability of this practice.

In addition, as urbanization accelerates, the divide between rural and urban populations widens, leading to a growing disconnect between the value of traditional shepherding practices and the understanding of the benefits they offer to both the environment and society. Increasingly, rural communities feel marginalized, with insufficient political and institutional support, further complicating the efforts of shepherds to continue the practice of transhumance.

Context and Challenges

The regions highlighted in this study each offer unique but interconnected environments in which livestock mobility is essential to grazing land management. Shepherds in these areas face numerous challenges, from extreme climatic conditions to logistical complexities in moving large herds across diverse and often demanding landscapes. The lack of institutional support and the loss of cultural knowledge further complicate their work, making it even more challenging to ensure that livestock mobility remains sustainable.

Economic pressures continue to mount on shepherds, with high veterinary, feed, and labor costs. The financial strain is exacerbated by declining subsidies and government assistance for extensive livestock operations, as well as increasing land-use competition. These challenges are particularly pronounced in regions with a strong

tradition of transhumance, as the costs of maintaining livestock in remote areas often outweigh the returns. The absence of long-term support for these practices, coupled with the increasing difficulty in making a living from traditional forms of grazing, creates a grim outlook for the future of transhumance without significant policy intervention.

Alpine Landscapes: The Alps

Transhumance has been practiced for centuries in the Alpine regions of Switzerland, Italy, and Austria, where steep slopes and high altitudes create a demanding environment for shepherds. These shepherds navigate difficult terrain and unpredictable weather, including sudden storms and temperature shifts that can endanger both livestock and herders. In these high-altitude pastures, sheep graze in the highest zones, with the more accessible lower areas reserved for cattle. One of the primary challenges in these regions is protecting flocks from predators like wolves and bears.

In Switzerland, the Alps' transhumance system includes Winterweide, where livestock grazes in lower-altitude pastures during winter months. Winterweide provides critical grazing resources in winter while allowing high pastures to recover for the summer season. The practice of grazing under snow or in temperatures as low as minus fifteen degrees Celsius is common, often covering a vast area across villages, roads, and meadows. This system supports the flocks through winter, maintaining grazing even in harsh conditions.

Additionally, herding dogs like Border Collies and Kelpies assist shepherds in managing large flocks across steep and rocky landscapes, where natural obstacles make cohesive movement challenging. These dogs work under the shepherd's guidance to gather, move, and control the herd across difficult terrain, ensuring effective flock management. Livestock protection dogs (such as Maremma Abruzzese or Great Pyrenees) are indispensable for safeguarding livestock against predators. These dogs form protective bonds with the flock, offering essential protection in predator-rich areas and providing physical and psychological deterrence against predators such as wolves and bears. Shepherds invest considerable time and effort in training these dogs, as their effectiveness directly correlates with the bond they develop with the flock and their ability to identify threats.

Despite the challenges, the Alps represent an essential model for sustainable grazing, combining traditional practices with adaptive strategies for predator management and land regeneration. However, the lack of sufficient support from both political institutions and agricultural policies limits the ability of shepherds to continue these practices long-term. Efforts to preserve transhumance routes and grazing areas have been insufficient, leaving shepherds to face an uncertain future with fewer resources and growing challenges.

Mediterranean and Southern Spanish Landscapes: Transhumance from Southern Spain to the Northern Mountains

A notable example of transhumance in Spain is the seasonal migration from the southern plains of Andalusia and Extremadura to the northern mountains, such as the Montaña Palentina in Castile and León. Traditionally, shepherds in the south would move flocks from lowlands, where hot, dry summers make grazing difficult, to the cooler northern highlands. This movement allowed for optimal pasture use, providing a recovery period for southern pastures where summer drought limits regeneration. This practice has faced mounting challenges, particularly due to predation and the loss of traditional knowledge. In northern regions like the Montaña Palentina, the presence of large predators, primarily wolves, poses a significant risk. Predators threaten livestock, especially in remote and mountainous areas where shepherds are already contending with challenging conditions. The loss of generational knowledge, the lack of support from institutions, and low economic returns make it increasingly difficult to maintain traditional practices. The decline in transhumance also stems from a loss of cultural knowledge. Younger generations are less inclined to take up shepherding, and rural depopulation has reduced the workforce available to manage large herds.

Strategies and Solutions

Despite these challenges, adaptive strategies are helping shepherds maintain transhumance. In the Alps, grazing rotation is a vital tool for preventing overgrazing and supporting pasture regeneration. Managing grazing areas carefully allows shepherds to sustain their flocks on healthy land and preserve the landscape. Livestock guardian dogs remain essential for predator protection, with shepherds investing time in their training.

In both the Alps and in Spain's predator-rich northern mountains, livestock protection dogs are indispensable. These dogs form protective bonds with the flock, safeguarding against predators. Shepherds commit to rigorous training to make these dogs effective guardians. Revitalizing transhumance routes and collaborating with environmental groups, communities, and institutions are also significant steps in Spain and the Alps. Through knowledge-sharing and resource allocation, stakeholders develop balanced solutions that support land, livestock, and predator coexistence.

Institutional support remains crucial, with subsidies and programs encouraging younger generations to take up shepherding to sustain transhumance. Finally, shepherds across these regions advocate for the ecological benefits of transhumance, particularly in enhancing the resilience of highland ecosystems. Sustainable grazing practices, supported by policies recognizing traditional livestock mobility, preserve highland ecosystems. By continuing to support shepherds as stewards of the land, we can help secure the future of transhumance and the ecological balance it upholds in the Alps, Spain, and beyond.