

Traditional itinerary sheep farming in Trás-os-Montes: a useful tool for land management

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Summary

Trás-os-Montes, Northeastern Portugal, is one of the most disfavoured areas in the country and in the EU. It is a mountainous region where sheep farming has had a great socioeconomic value throughout time, particularly due to the fact that alternative economic activities are very scarce at both the local and regional level. Traditional sheep farming is based on long-established knowledge and practices. Its main feature is itinerary grazing over the local territory. Flocks range around all over the unfenced and “free” plots of different landowners, according to old uses of land management. So, sheep use natural resources that otherwise would be useless.

Keywords: sheep farming system, natural resources utilization.

Introduction

In Trás-os-Montes, sheep farming has had a great socioeconomic value throughout time. With both the economic losses and decline of other agricultural activities (for example, cereal crops) and scarcity of alternative productions, sheep farming keeps being the main source of income for many families in the region. In this paper, we focus briefly on practices of land use; management of pastures and use of natural resources; local rules concerning both grazing, land use and related social conflicts; and the raisers’ rationale for keeping the sheep farming system.

Material and methods

Trás-os-Montes is located in Northeastern Portugal and, officially, it is one of the seven Portuguese agrarian regions. It is composed of several plateaus above 700 m and various mountains with peaks between 1 000 m and 1 500 m. The plateaus are crossed by the deep valleys of the Douro river and its tributaries (Taborda, 1987). Since the region has several plateaus, mountains and deep valleys, there is some regional climatic diversity. In order to picture Trás-os-Montes roughly, both scientists and technicians commonly use the words “Terra Fria” and “Terra Quente”, whose literal meaning is Cold Land and Hot Land. The former is related to mountain areas, with a cold and prolonged winter, and a brief hot summer; the latter relates to a warm and dry summer, and mild winter (Ribeiro, 1995). Trás-os-Montes covers 12 282 km² (14% of the national area) with 33 municipalities, grouped into two territorial statistic units: Alto Trás-os-Montes and Douro. Alto Trás-os-Montes, in the north, is the most mountainous area, where livestock is particularly important; and Douro, along the river Douro, in the south, is mainly famous for its vineyards and Port wine.

In the national context, Trás-os-Montes is one of the most depopulated and least favoured areas. The population has been decreasing since the 60's. The region has 5% of the total Portuguese population, with a density of 36 inhabitants/km², far below the national average, 110 inhabitants/km². With 3% of the Portuguese GDP (Gross Domestic Product), the per capita GDP of the region is about two thirds of the national value. Agriculture is a major economic activity and the agricultural population (196 960 inhab.) represents 44% of the population of the region.

Due to the key role of sheep raising in the local agricultural economy, in 1990 we carried out research work concerning the sheep farming system in the municipality of Bragança, aiming at a thorough study of traditional animal husbandry (Barbosa, 2000). Since then, we have extended the study area to the entire Trás-os-Montes region, and have followed the regional evolution of the sheep farming system. Between 1990 and 2002, we have interviewed more than 400 shepherds. These "land managers" are responsible for the raising of nearly 400 flocks, which amounts to more than 5 000 heads.

The recent evolution of sheep in the Trás-os-Montes region

Livestock has always played a major role in Trás-os-Montes agriculture. As a result of this fact, we can find several local breeds of sheep, goats and cattle. The importance of sheep farming, however, is increasing

Obviously, the orography, soil and climate highly condition grass production but sheep raising in Trás-os-Montes is not seriously affected by these factors. Likewise, both the regional socioeconomic conditions and traditional farming favour sheep raising. Local high concern in sheep farming can be inferred from the evolution of regional livestock (Table 1).

Table 1. Number of females (ewes, goats and cows) in the years 1989 and 1999.

	1989	1999	var. (%)
Ewes	223 894	273 101	22
Goats	96 998	64 170	- 34
Beef cattle	22 321	17 556	- 21
Dairy cattle	30 760	25 604	- 17

Source: INE (2001)

In the last census (1999), the number of sheep in Trás-os-Montes amounted to 11% of the national total. In the period between the two earlier censuses, the number of ewes increased, while the number of goats and cattle decreased.

Traditional itinerary sheep farming, land management and utilization of natural resources

Traditional itinerary sheep farming is an extensive system; and land use management, rules about itinerary grazing by sheep, animal husbandry techniques and their adaptation to environmental conditions and social relationships are based on long-established indigenous knowledge and practices (Barbosa & Portela, 2000).

Land fragmentation is one of the causes of this sheep farming system. Land is divided into small plots and the farms are small. According to the last census, Trás-os-Montes has 70006 farms and 457 881 ha of SAU. The average arable land per farm is 6,54 ha; and the

average number of plots is 9,97 plots per farm. Most plots (67%) are under 0,5 ha; being 35% of these plots under 0,2 ha.

In these conditions, only a very small number of shepherds (we have found 3 cases) own land plots that are capable of feeding their own flock and there are many other raisers who only possess a few small plots, clearly insufficient to sustain the animals. So, the whole village territory is a potential grazing area, vital for feeding sheep, which make use of all the natural resources available in the territory. As the flocks move along over the local territory, this itinerant grazing must be accepted and regulated by land owners.

These conditions create a complex sheep farming system, in which, sheep farms depend on external feed and social actors. The five essential components of the traditional sheep farming system are under constant interaction, which is represented in Figure 1. Itinerant grazing is the main feature of the system and it conditions sheep husbandry techniques as well as the other components. It occurs over the local territory, including commonland and private plots: uncultivated land and fallow fields, oak- and cork-oak groves, as well as vegetation under canopy (e.g. olive groves, almond and chestnut trees). Both farming subproducts and wastes of cereals, horticulture, vineyards or others, are also used as feed. Thus, sheep take advantage of natural resources that otherwise would be useless.

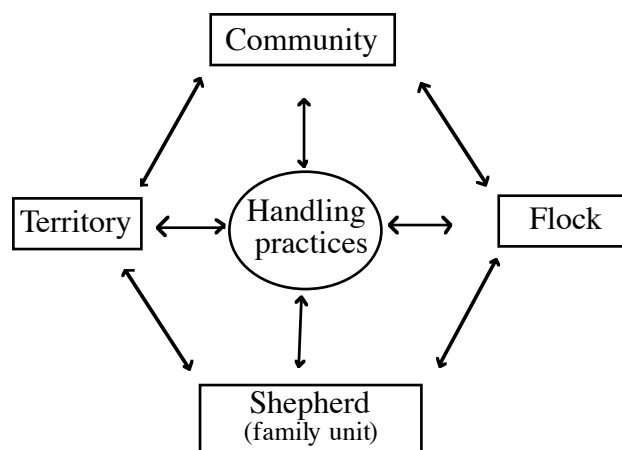


Figure 1. Traditional sheep farming system model (condensed).

Flocks range around all over the unfenced and “free” plots of different landowners, according to traditional practices of land management. So, sheep farming is highly dependent on “external” feed and social actors, mainly neighbours.

Sheep farming is an activity that involves all the family members, in two senses: work and heritage. The work is shared by all the members and the young people learn from their parents how to lead and handle the flock. The knowledge as well as the affection for these animals are handed over to the shepherd by his parents at a tender age. There are very few shepherds whose parents were not shepherds. Leading the flock from plot to plot and over the commons is an unattractive job, due to conditions such as: bad weather in winter and grazing during the night in summer; which may account for the very few wage -shepherds. Despite that, when speaking with shepherds, the affection and fondness for sheep is outstanding.

The main breeds that make up the regional flocks are local ones. In Trás-os-Montes there are six different local breeds which are raised for milk production or slaughter, according to the characteristics of each breed. In the North, flocks are used for slaughtering,

while in the South milk production is dominant. Breeders value their rusticity and ability to adapt to the environment and to endure long walks (from 4 to 6 km a day), as well as their capacity to survive when food is scarce. Several attempts to introduce more productive races failed because animals were raised according to the itinerary system and consequently they did not reach their normal production levels.

Most flocks have between 100 and 200 animals. In 1999, among the farms with more than 100 sheep, only one fourth registered more than 200 animals. Generally speaking, the sheep belong to the shepherd but there are other forms of ownership. In some villages, such as Gralhas and Rio de Onor, there are “communal flocks”, i.e., flocks which are led, sometimes in rotation, by sheep owners. These flocks are made up of animals belonging to various owners and they are driven up by one or two shepherds. Some decades ago there were many flocks owned in partnership. Today, very few of such flocks exist (we identified 5) although “à guarda” sheep in some flocks still exist. These are neighbours’ animals that are integrated into the flock, in exchange for feed or access to grazing fields. We found this specific partnership in 11% of the flocks that we studied.

As mentioned, the whole village territory is a potential grazing area. However, land use by sheep is subject to utilization rules, which are either community-based or established by local authorities. Basically, these rules aim to protect crops and cultivated fields and to control eventual damage.

Informal rules, which are community-based (and unwritten) are related to old customs. For instance, the flock cannot drive into cultivated land before harvesting, or into fields that are marked with “balizas” (specific signs, such as a stick with a tiny flag, which indicate that the owner does not allow the free access to the plot). In villages where multiple cropping system is put into practice, flocks must not move near the plots where cereal is grown.

The formal rules tend to be established by local authorities and/or farmers’ organizations (in Southern Trás-os-Montes). These rules are mainly related to grazing, sheep housing, leading the flock and damage compensation. In some villages, rules may even demarcate plots or specific areas for every shepherd in the community. The rules made by farmers’ organizations force shepherds to previous identification and the payment of a fund that aims to pay land owners and to make improvements in village territory, such as rural roads, watering places, fences, and others.

The forms of land use, which include free access and socially-regulated use of the land, are based on exchange relationships, allowing shepherds to use resources that would otherwise remain unused. Shepherds tend to establish good relationships within the community, which implies coping with tensions and maintaining links with landowners on the basis of shared interests. Traditionally, the shepherds’ strategies lie in the exchange of services and in the offer of products from the flock. Thus, despite their “self-insufficient landowners” status, they manage to produce meat, milk and cheese of high quality, which are appreciated by consumers. Moreover, production costs are low, specially as far as feeding is concerned.

Conclusion

The above mentioned data allow us to conclude that the Trás-os-Montes traditional itinerary sheep farming is a relatively complex system. Within it, the very concept of farm, as a “closed frontiers” unit, is questioned. In fact, the flock is more dependent on external resources and social actors than on the own farm itself.

Sheep use natural resources that otherwise would be useless and provide, at low cost, high quality products. Besides the use of natural resources, itinerary sheep farming plays a

key role in the maintenance of both the agricultural landscapes and the socio-economic environment of the rural territory. Traditional itinerary sheep farming, with its land utilization rules, plays an important role as a useful tool for land management.

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