

# THE DECLINE OF TRADITIONAL PASTORALISM IN EUROPE: UNDERSTANDING THE DYNAMICS THROUGH DISCUSSION GROUPS WITH SPANISH SHEPHERDS

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**Abstract:** Extensive livestock farming, a traditional practice in Europe, has emerged as a potential sustainable development strategy, particularly in regions experiencing rural depopulation. This approach is expected to generate multiple positive externalities. Notwithstanding the recent emphasis on its significance within the framework of novel European policies, the sector persists in its decline. The present research utilizes focus group methodology to examine the underlying causes of this decline from the perspective of shepherds. Two discussion groups were convened with farmers from the regions of Castilla y León and Castilla-La Mancha in Spain, thereby enabling a comparison of the practitioners' testimonies with the extant literature. The methodological approach employed herein underscores the significance of focus groups in elucidating the intricate socioeconomic dynamics that characterize traditional livestock communities.

The findings reveal multiple interconnected challenges, including but not limited to: low profitability derived from legal requirements and concentration of demand; increasingly complex access to pastures due to local and state regulations; significant barriers to entry, including economic requirements and bureaucracy; difficulties in work-life balance; bureaucratic obstacles to positive externalities; conflictive relations with the tourism sector; weak associationism; and limited technology adoption. This study makes a significant contribution to the methodological literature by demonstrating the efficacy of focus groups in unveiling latent dynamics within declining traditional sectors.

**Keywords:** Extensive livestock farming, Rural depopulation, Socioeconomic dynamics, Focus group methodology  
(JEL code: Q12, Q18)

## INTRODUCTION

Conventional extensive livestock farming has undergone a persistent decline in recent decades, with a shift towards intensification or abandonment (Berriet, 2018; Godde, 2018; Portús, 2020; Pinto, 2023). The correlation between the decline of conventional livestock farming, rural depopulation, and natural disasters has been extensively documented in academic literature (Durán, 2020; Mastronardi, 2021; Morales, 2020). The aforementioned livestock farming model has been demonstrated to engender several noteworthy benefits, including but not limited to reduced energy consumption (Bossis, 2012), enhanced resilience to climate change (Barron, 2021; Deleglise, 2019; Teague, 2015), and augmented biodiversity (Garde, 2014; Pinho, 2012; Tampaki, 2022).

It is paradoxical that, despite the growing recognition of the value of traditional livestock farming, its deterioration continues. According to data provided by the European Commis-

sion, the Common Agricultural Policy of the European Union allocated €104 billion to measures against climate change in the 2014-2020 period, with a particular emphasis on measures to reduce greenhouse gases, the consumption of inputs, and the commitment to resilient livestock. Consequently, he has placed greater emphasis on organic livestock as a pivotal element in the pursuit of sustainable development. The ongoing trend of intensification or abandonment underscores a substantial discrepancy between the objectives of implemented policies and their tangible outcomes on the ground. This discrepancy gives rise to fundamental inquiries regarding the efficacy of contemporary strategies for revitalizing the sector and the necessity of reevaluating intervention methodologies.

A number of studies have previously examined the friction between public policies and the traditional sector (Aubron, 2014; Gardin, 2013; Morsel, 2022). However, to the best of our knowledge, no research has been conducted that addresses the global causes of the decline of traditional livestock farm-

ing. This lacuna in existing knowledge may be attributable to the lack of concern that prevailed for conventional livestock farming until recently. This sector has undergone a transformation, shifting from a position of disrepute to its current status as a proponent of sustainable development, as asserted by the European Commission. However, despite the intentions of public intervention, we observe that the trend continues to decline. Therefore, it is worthwhile to investigate the dynamics within the sector that perpetuate this trend, despite the efforts of the administration. The exploration of the underlying causes of this decline is imperative to address the existing contradictions in public policies, identify and resolve the issues inherent in livestock farming, and ensure the long-term viability of this sector for the pursuit of balanced and environmentally sustainable economic growth.

The present research utilizes focus group methodology to examine the causes of this decline, using Spain as an analogous example to the European context, drawing upon the direct experiences and perspectives of farmers. The present research is situated within the scope focused on sheep and goat farmers residing in two distinct Spanish regions. The “autonomous communities” of Castilla y León (CYL) and Castilla-La Mancha (CLM) are notable for their distinctive cultural characteristics. The objective of the research is to utilize focus groups to address the following challenges: (i) to understand the dynamics that drive intensification or abandonment; (ii) to contrast academic perspectives against practical realities; and (iii) to understand the discrepancy between the objectives of current policy interventions and their results.

The decision to utilize focus groups as the primary research method is of particular importance in light of the intricate social and economic dynamics that are in play. This methodological approach enables the capture of collective narratives and shared experiences, the identification of points of consensus and conflict within the community (Kitzinger, 1994), and, when applied to the context of traditional livestock farming, the comprehension of policy and intervention perceptions and experiences at the local level. It also facilitates the identification of unexpected themes and interactions that might be obscured in individual interviews. The results obtained will facilitate the fulfillment of the existing knowledge gap, thereby enabling the development of an approach to the general problems of traditional livestock farming and providing the basis for future research.

The significance of these findings lies in their practical ramifications. A comprehensive understanding of the dynamics underlying the decline of traditional livestock farming is imperative for the formulation of public policies that impact the sector. The findings of this research provide a rationale for the observed decline and, from the perspective of livestock farmers, offer potential solutions to long-standing problems. This contribution is not only pertinent to the livestock sector; it is also germane to the broader set of environmental policies and the pursuit of the Sustainable Development Goals in Europe.

The article's structure is as follows: the theoretical framework addresses the literature that has been reviewed in relation to extensive livestock farming, presents the analogy between

the Spanish and European contexts, in addition to providing data on the structure of livestock farms in Spain and in the two regions studied; the methodology delineates the design of the focus group; the results section presents the positions of the farmers obtained through the focus groups; the discussion section contrasts these results with the literature; and finally, the conclusions section presents the most relevant findings, the main recommendations arising from the results, the limitations contemplated, and the future lines of research.

## THEORETICAL FRAMEWORK

### *Literature Review*

A review of the extant literature indicates a general consensus on the economic and ecological unsustainability of intensive livestock farming (Díaz Gaona, 2021; Mena, 2017) and the dependence of extensive livestock farming on public funds (Lienard, 2014). Non-market benefits, defined as externalities, are typically not subject to analysis, particularly in regions experiencing economic decline (Scoones, 2023).

The product's appeal is further enhanced by the inclusion of additional features. It is more independent of livestock feed markets (Franco, 2012; Leithold, 2011), lower energy consumption (Bossis, 2012), the resilience of extensive livestock farming in the face of climate change (Barron, 2021; Deleglise, 2019; Teague, 2015), and drought (Nettier, 2010), reduction of dependence on subsidies (Gaspar, 2009; Lasanta, 2019), in addition to a greater benefit to biodiversity (Garde, 2014; Pinho, 2012; Tampaki, 2022). Consequently, it is not surprising that sustainability is linked to extensivity, as indicated by the perspective of future farmers (Damico, 2022).

In Europe, widespread rural depopulation has led to the revegetation of abandoned land (Harkoma, 2020; Mastronardi, 2021; Vlami, 2019). These areas can be recovered by traditional livestock sectors (Álvarez, 2016; Celaya, 2022; Díaz Gaona, 2019; Lasanta, 2019; 2022). This is a highly desirable outcome, as livestock farming helps to prevent natural disasters related to such abandonment (Pateiro, 2020).

However, despite its many advantages, the observed trend is toward greater intensification and unsustainability (Godde, 2018). The extant literature identifies a number of factors that contribute to this phenomenon. According to Czajkowski (2021) and Santiago (2022), psychological barriers are defined as the absence of psychological incentives for farmers to opt for extensivity. Legal restrictions, such as the Common Agricultural Policy in Europe (Vicente, 2019), as well as food and meat industry requirements (Aubron, 2014; Gardin, 2013; Morsel, 2022), are also relevant factors in this context. Problems with social representation, such as social cohesion, lack of voice in regional governments, and weak cooperation among livestock farmers (Fernández, 2012), have been identified. Operational difficulties, including access to pastures and common land (Galán, 2022; Schils, 2019), the lack of generational and labor replacement (Ruiz, 2020; Sendyka, 2018), and competition from other sectors, where the proliferation of tourism has led to a decline in livestock farming (Jiménez, 2019), have also been identified. In Spain, there has been an

observed gradual disappearance of a sector, as well as of traditional livestock practices such as transhumance (Portús, 2020; Ríos, 2013; 2015). Extensive traditional livestock farming has only been able to remain, fundamentally, in ignored and marginal areas (Bertaglia, 2007).

Confronted with this challenging circumstance, novel prospects have emerged, presenting potential solutions: Recent technological advancements have led to the development of innovative "virtual fence" systems, which have been shown to enhance grazing practices within designated territories (Anderson, 2014). Additionally, recent studies have identified methods for detecting calving in wild animals (González Sánchez, 2021) and have incorporated the Internet of Things to facilitate the study of crucial livestock parameters (Mishra, 2023). The evolution of the legal framework has given rise to novel opportunities, such as the transition from conventional livestock farming to organic livestock farming, which is subject to more stringent regulations (Horriillo, 2020; López i Gelats, 2020). The increasing demand for quality products, which is concomitant with consumption, enables the provision of superior quality products that are associated with animal welfare and that are increasingly supported by the growing population (Resano, 2018; Stampa, 2022).

### *Spain as glimpse of Europe*

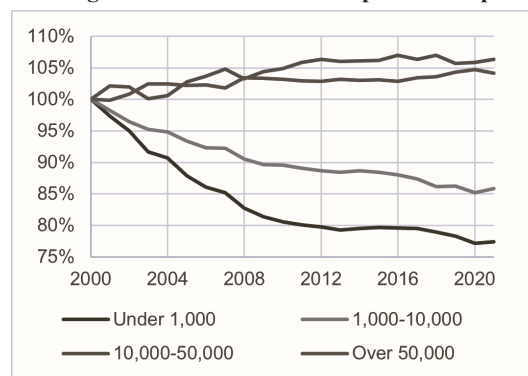
Spain was among the Western European countries that later initiated the process of industrialization. It was not until the latter half of the 20th century that Spain could be considered as transitioning from an agrarian society to an industrial one. However, during the final decades of the previous century, significant political efforts were made to assimilate Spain into both the European Economic Community and, subsequently, the European Union. These endeavors aimed to mitigate the disparities between the Spanish and European contexts. Consequently, the reality in Spain can be indicative of the general trend in the European Union. The recent structural transformation of the economy, the demographic and territorial weight of the country (as it represents more than 10% of both), and the fact that it belongs to the "Mediterranean countries" make it an example of a bridge between the most developed and the least developed countries within the European Union. Consequently, the Spanish reality can be regarded from a regional perspective. The concerns surrounding the decline of traditional sectors, such as extensive livestock farming, can be extrapolated to the European Union as a whole, and perhaps even to the entire continent.

### *Depopulation in rural areas.*

While the population began to concentrate in cities from the mid-20th century onward, Spain has experienced a decline in its rural population since 2000 (Fig. 1). The municipalities most adversely affected by this phenomenon are predominantly villages, defined as those with a population of less than 1,000 inhabitants. The growth exhibited by small towns (10,000–50,000) and large towns (>50,000) is more consistent, with medium-sized towns demonstrating popula-

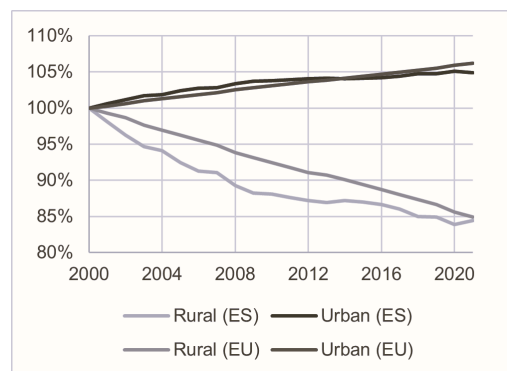
tion growth in comparison to other larger municipalities. A comparison with the dynamics in the European Union reveals significant analogies (Fig. 2). A comparative analysis of the definition of "city" across different national contexts reveals emergent trends. Notably, the rate of rural population loss exhibited an initial surge at the onset of the observed period. However, this dynamic has since stabilized, resulting in a demographic profile that closely mirrors that of the European Union.

**Figure 1. Variation in municipalities of Spain**



Source: Own elaboration. SOURCE: INE (Spanish National Institute of Statistics) and World Bank.

**Figure 2. Variation of rural and urban population in Spain and EU.**

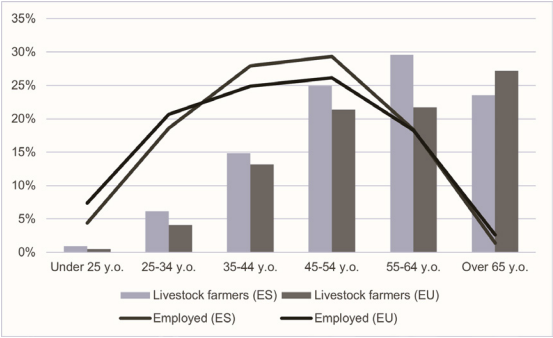


Source: Own elaboration. SOURCE: INE (Spanish National Institute of Statistics) and World Bank.

### *Aging of livestock farmers.*

The average age of heads of livestock farms in Spain is advanced. Disaggregating the data by age range, we find that the largest group of livestock farmers is between 55 and 65 years of age (Fig. 3). This data contrasts with the dynamics of the labor market, which shows its highest values between 35 and 55 years of age. This labor market shows few differences with that of the EU, except for a later entry and an earlier exit. The dynamics with respect to the aging of farm managers, however, are more drastic in the case of the EU. The majority age group is above 65 years of age. The differences in the dynamics between Spain and the EU are not many, although we observe that in Spain there are more young farmers.

Figure 3. Comparative between employees and livestock farmers in Spain and EU, by age rank



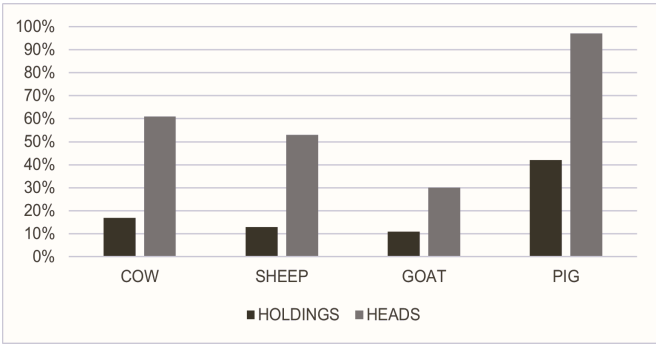
Source: Own elaboration. SOURCE: Eurostat

Traditional and extensive livestock: a statistical approach

Agricultural statistics do not yet collect data in a standardized way that would allow the characterization of the sectors as extensive or intensive. However, the size of the farm in TLUs allows us to make a first approach to the problem. TLUs is a unity that compares different species of livestock, creating a unitary standard to measure the size of livestock managed by a farm. TLU for dairy cows is 1, for goat and sheep is 0.1 and for pig is 0.3. We have selected the value of 100 TLUs to find out which sectors have larger farm sizes. This value of TLUs greater than 100 means that holdings have more than 100 cows, 1000 goats or sheep, or 333 pigs. We record the results for Spain (Fig. 4).

According to the number of holdings the most intensified sector is the pig, followed by the cow, sheep and goat. According to the number of heads, we see that almost all the pig sector is intensive, in cow it is over 60%, in sheep it is around 50% and in goat it represent 30% of the total goat livestock.

Figure 4. Percentage of holdings >100 TLUs and livestock heads, by animal



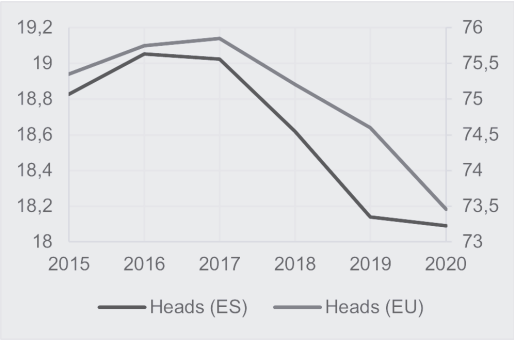
Source: Own elaboration. SOURCE: INE

Decline in livestock activity in the sheep and goat sector

The decline in livestock activity can be approached from the perspective of the loss in the number of livestock heads. In the case of sheep and goats in Spain, we observe a plunge from 2017, when the number of sheep and goats was 19 million, to values close to 18 million, which means a loss of almost one million (Fig. 5). With respect to the European Union, the drop has been from nearly 76 million to 73.5, which is two and a

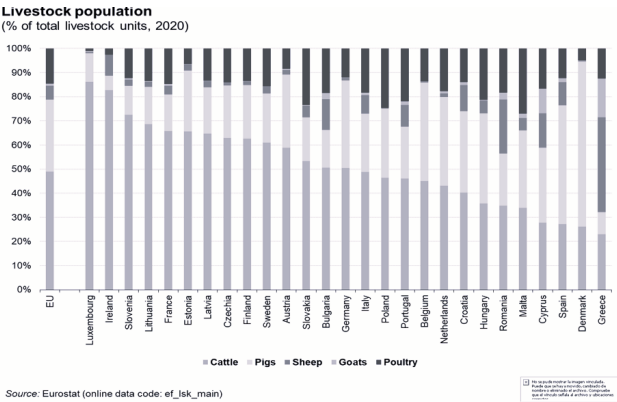
half million. These cattle are not equally important for all EU countries, but are particularly relevant in southern Europe (Fig. 6).

Figure 5. Evolution in number of sheep and goat heads (millions) in Spain and EU



Source: Own elaboration. SOURCE: Eurostat

Figure 6. Distribution of livestock sectors in EU members

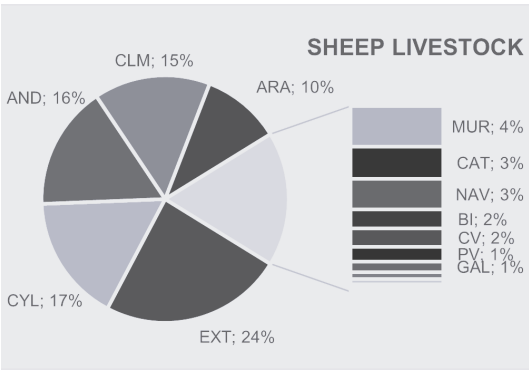


Source: Own elaboration. SOURCE: Eurostat

Regional distribution of livestock

In Spain, the territorial distribution of the sheep and goat sector is heterogeneous for historical, cultural, economic and climatological reasons. The following graphs show the regional distribution of sheep (Fig. 7) and goats (Fig. 8). For sheep, only three regions account for 57%: Andalusia, Castilla y León and Extremadura. For goats, Andalusia and Castilla-La Mancha together account for 55% of the total. We show the location and extension of these regions on a map of the country (Fig. 9).

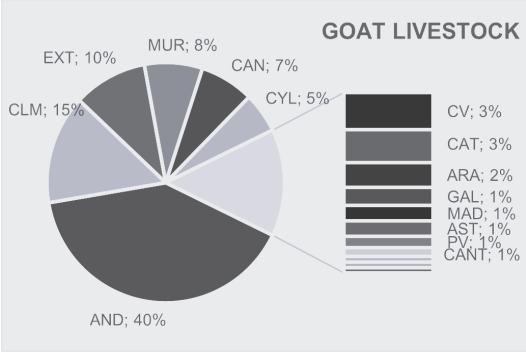
Figure 7. Territorial distribution of sheep.



Source: Own elaboration, SOURCE: INE



Figure 8. Territorial distribution of goats



Source: Own elaboration. SOURCE: INE

Figure 9. Regions of Spain

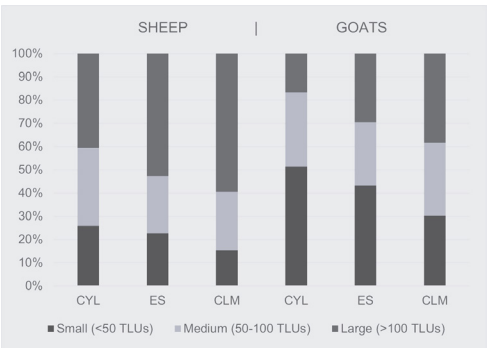


Source: IA generated map.

Characterization of sheep and goat farming in Castilla-La Mancha and Castilla y León

To facilitate the analysis of the sector's dynamics, a group of livestock farmers from Castilla-La Mancha and Castilla y León was convened. These regions were selected due to their significance at the national level. The configuration of agricultural establishments exhibits disparities across these regions, with a divergence observed between the two sectors (Fig. 10). In accordance with the findings presented in Figure 4, a heightened intensity is observed within the sheep sector, wherein the predominant segment consists of farms with a population exceeding 1,000 head (>100 TLUs). The goat sector is characterized by the predominance of small (CYL) and medium (CLM) sized farms in terms of production. The regional dynamics indicate a lower concentration of livestock in CYL compared to the national average, while CLM exhibits larger farms.

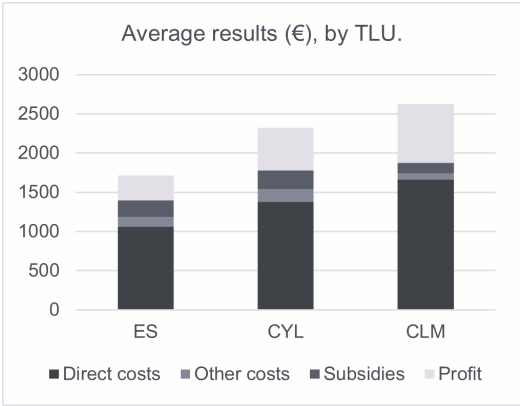
Figure 10. Distribution of holdings by size



Source: Own elaboration

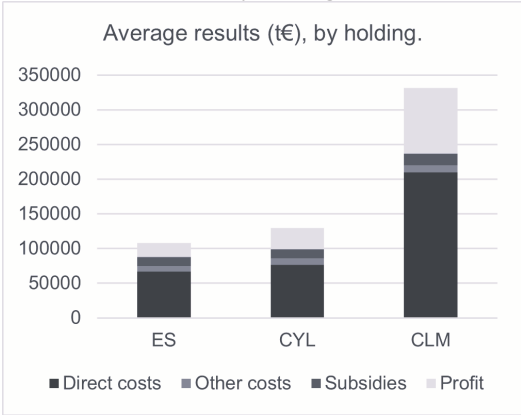
The following graphs illustrate the productive structure of the farms. In this study, we have combined both species (sheep and goats) to provide the average economic results for each livestock unit and for each farm. As illustrated in Figure 11, the product sold in CLM has a higher price. Nevertheless, the production costs of these products are marginally higher than those of CYL. The elevated price level enables higher profits and reduced subsidies. This phenomenon appears to be attributable to the consolidation of farms into larger entities (Fig. 12). This consolidation facilitates returns to scale and potentially grants greater bargaining power in price determination, given the economies of scale associated with larger operating scales.

Figure 11. Average results, in euros, by TLU



Source: Own elaboration

Figure 12. Average results, in thousands of euros, by holding



Source: Own elaboration

MATERIALS AND METHODS

The focus group

The present study utilizes focus groups as the primary research method, aligning with Wilkinson's (1998) approach to qualitative research in the social sciences. The selection of this methodology was made on the basis of its capacity to engender collective narratives, unveil group dynamics, accentuate shared challenges and divergent perspectives, identify patterns in language and action, and characterize group dynamics

through discussion analysis (Kitzinger, 1994).

Participant selection procedure

The population under discussion is composed of traditional sheep and goat farmers, specifically those residing in the regions of Castilla y León and Castilla-La Mancha. The recruitment procedure has been executed through prior contacts and associations in the sector.

Two focus groups were convened for the purpose of data collection:

- Castilla y León (n = 11).
- Castilla-La Mancha (n = 6)

The sessions were conducted in May and July of 2023, employing a combination of remote and in-person formats. The participants represented a wide range of age groups, varied experiences with livestock, and geographic locations within their respective regions.

Data collection protocol

The data recorded for the participants included region, profession, age, sex, and breeds. The sessions were recorded with the express authorization of the participants, with the aim of transcribing and analyzing them later. The storage of this data has occurred in secure corporate spaces of the University of Castilla-La Mancha, with access exclusively restricted to the research team.

All participants have been anonymized through the implementation of pseudonymization, whereby each participant is assigned a code consisting of the Autonomous Community followed by a random ordinal.

Structure of the focus group

The focus groups were structured around six thematic blocks.

•Introduction: where the reasons for the meeting and the research project are exposed: analysis of the socioeconomic sustainability of traditional livestock farming. The methodology used is also exposed.

•BLOCK I: Traditional livestock farming as a business.  
oProblems of the sector.

oBenefits of the permanence of the sector.  
oStrengths.

•BLOCK II: Circular economy.  
oEnvironmental sustainability.  
oOrganic livestock.

•BLOCK III: Social economy as philosophy.  
oParticipation of society in traditional livestock farming, and vice versa.  
oNetworks and associationism.

•BLOCK IV: Integration of tourism.  
oPotential extra income from tourism.  
oViability.

•BLOCK V: New technologies.  
oInternet commerce.  
oUse of online platforms that favour associationism.

•BLOCK VI: Perception of traditional livestock farming.  
oPastoralism in society.  
oPastoralism in the rural world.  
oSelf-perception.

oPerspectives of the activity itself.  
oSocial recognition.

•Closing: thanks to the participants, also with a view to subsequent discussions to continue the research.

Ethical considerations

The study was conducted in accordance with the ethical principles that govern research in this field. These principles include the voluntary participation of study participants, the provision of informed consent for the recording of sessions,

Table 1. Data from interviewed farmers

CASTILLA Y LEÓN				CASTILLA-LA MANCHA			
CODE	SEX	AGE	LIVESTOCK	CODE	SEX	AGE	LIVESTOCK
CYL#1	H	50-60	SHEEP	CLM#1	H	30-40	GOAT
CYL#2	H	50-60	SHEEP	CLM#2	H	30-40	GOAT
CYL#3	H	50-60	SHEEP	CLM#3	H	60-70	GOAT
CYL#4	H	40-50	SHEEP	CLM#4	H	50-60	SHEEP AND GOAT
CYL#5	H	50-60	SHEEP	CLM#5	M	40-50	GOAT
CYL#6	H	60-70	SHEEP	CLM#6	H	50-60	SHEEP AND GOAT
CYL#7	M	-	SHEEP				
CYL#8	M	20-30	SHEEP				
CYL#9	H	-	SHEEP				
CYL#10	H	50-60	SHEEP				
CYL#11	H	50-60	GOAT				

Source: Own elaboration

the anonymization of data, the minimization of power differences among study participants, the use of open-ended question formats, and the promotion of internal debate among study participants.

The methodological approach that has been developed emphasizes rigorous documentation through the use of session recordings and simultaneous note-taking. This ensures comprehensive data capture while maintaining participant confidentiality.

## RESULTS

### *Livestock farmers' narrative*

The analysis of the focus groups yielded several key issues regarding the challenges and the current state of extensive livestock farming in Spain. The results of the study are organized into seven main categories that emerged from the participants' speeches.

### *Business viability and administration challenges*

A predominant concern that was expressed by participants from both regions pertained to the substantial administrative obligations imposed on farmers. Participants from both Castilla y León (CYL) and Castilla-La Mancha (CLM) underscored the substantial impact of bureaucratic requirements on their capacity to prioritize livestock-related activities. As several CYL participants have noted: "I think the biggest problem we're facing right now is bureaucracy." "They take more time away from paperwork when it could be fixed with much less paperwork."

Administrative complexity poses significant challenges for new entrants to the sector. The implementation of new measures for product traceability is viewed by CLM participants as a potential source of additional, unnecessary impediments. Despite the provision of subsidies, participants indicated that they are inadequate given the initial investment required. CLM expressed its concurrence with the measures for accessing the sector. However, at a certain juncture, one of the participants underscored the imperative of universal rights, asserting that "everyone should have the same rights." Additionally, subsidies are contingent on variables such as the Pasture Eligibility Coefficient, which introduces uncertainty among farmers regarding their eligibility for these benefits. As one CLM participant noted: "I have 1000 hectares, just 20 have been taken into account, and the subsidy is charged according to the pastures."

### *Market structure and price formation*

The research revealed significant concerns about the concentration of market power in the meat industry. According to the participants' descriptions, a monopsony structure is in effect, wherein slaughterhouses and meat processors effectively control prices. This phenomenon stands in stark contrast to the past, when a more balanced market environment was the norm, characterized by the presence of multiple buyers and sellers. A CLM farmer elucidated: "The one who sets the price is the

trafficker. The price is set by the same person who is going to buy it from you."

Furthermore, participants noted the absence of price differentiation between intensive and extensive livestock products, despite evident differences in quality. Similarly, the surplus of calves on dairy sheep farms exerts a substantial influence on market prices, as these animals are regarded as a by-product that must be disposed of in order to reduce feed expenditures. Consequently, the absence of market recognition for conventional livestock farming methodologies adversely impacts the financial viability of the industry.

### *Generation succession and labor problems*

The findings indicate a severe crisis in generational succession. The majority of participants expressed a negative outlook regarding the future of their children in the family business. Their concerns primarily stem from the perceived inadequacies of the working environment and the perceived lack of financial stability. Consequently, professionals recognize that their chosen field is not perceived as attractive to individuals outside the sector. A CLM participant has noted: "I have joined by vocation. I'm finishing the year and efforts haven't given me anything, well, to eat all year. But that's it."

The implementation of a hiring initiative has the potential to mitigate these conditions. However, the challenge of securing sufficient labor exacerbates this predicament. One CYL participant noted: "Don't look for what you're not going to find—nor expensive, nor cheap, nor good, nor bad." Another CLM said: "People to help you, there is no one." The underlying factors contributing to this phenomenon are the conditions of the trade, which are subject to the needs of the livestock. This aspect is difficult to reconcile with labor legislation. Additionally, the costs associated with the trade are a contributing factor: "1200 euros per month, plus social insurance... you give it to the sheep and you will see how they will produce more than with the shepherd." "It is unadvisable to seek that which is not to be found—that which is neither expensive nor cheap, nor good nor bad". In the context of CYL, it is noteworthy that immigrants who self-identify as shepherds primarily do so as a means to acquire the necessary documentation that facilitates their residency status.

According to the CYL participants, other measures that facilitate conciliation are identified, including public fences. These are expansive, clearly delineated, and publicly owned spaces where cattle can be left for extended periods. One of the participants made the following observation: "We had to request (...) that the administration helps us to maintain clearing and to maintain public fences in the municipalities where there is livestock".

### *Environmental management and sustainability*

The participants exhibited a profound comprehension of their role in environmental management, particularly in the context of fire prevention and biodiversity maintenance. However, they noted an increasing restriction by the administration on access to specific pastures, which, paradoxically, can

be detrimental to environmental conservation. The emergence of these novel impediments, unobserved in previous eras, has rendered the utilization of these pastures more costly or directly obstructed it, a phenomenon that has adversely impacted the capacity to engender positive externalities. A CYL participant noted: "You didn't have to apply for anything, in the past. Burns were made and the sites and the forest were kept clean and there were never fires."

### *Social economy and gender equality*

The research revealed limited development of social economy initiatives. Despite the existence of certain forms of partnership, such as quality seals and agricultural chambers, co-operative endeavors have historically proven unsuccessful in both regions. The participants attributed these failures to management issues and a lack of trust. "Cooperatives (...) they are worthless," said one CYL participant, and another from CLM asserted: "(The cooperative I was in) did not work." Some recognized their potential value if they are properly managed, however, one CLM participant noted: "You need an administrator, and we are farmers. We do nothing but produce (...). You would have to hire someone else." In both regions, they concluded that perhaps the problem lay specifically in the sheep sector.

With respect to gender, the findings suggest a conventional participation of women in the sector, albeit frequently unobserved in official records. Recent administrative initiatives have been implemented with the objective of enhancing the visibility and formal participation of women in the sector.

### *Tourism integration and technological adaptation*

The integration of tourism activities was met with general opposition from the participants, who regarded it as a potentially disruptive element to their primary activity. While some respondents lacked experience in the field, the prevailing opinion was that tourism offers more challenges than opportunities for diversification.

With regard to technological adoption, participants exhibited a paucity of knowledge concerning potential applications beyond rudimentary communication tools. While acknowledging the merits of certain existing technologies, such as vehicles, mobile phones, and feeders, they voiced reservations about more sophisticated solutions, citing concerns regarding cost and the challenges of practical implementation.

### *Self perception of traditional livestock farmers*

The perception of livestock farmers regarding their work, as well as their belief in society's perception of their trade, varies significantly between regions. In the context of CLM, both factors exhibited a positive trend, as this region is predominantly characterized by the aforementioned activity. Conversely, in CYL, they exhibited a negative attitude. One of the participants offered the following observation: "Young people think that pastors are stupid and don't know anything", while another pointed out categorically: "What they want (from the

Administration) is to put an end to the sector (...). We have been persecuted for years and years."

### *Dynamics of the sector and implications of current policies*

A review of the extant literature on the subject reveals that there are two factors that influence the dynamics of the traditional livestock sector. The internal factors intrinsic to the sector are related to the very nature of the activity. In contrast, external factors have a significant impact on the overall trend of traditional livestock farming.

Among the internal factors that influence abandonment are high initial investment, relatively low economic profitability, the inability to compete economically with intensive production farms, the implications of working with live cattle for vacations and rest periods, a shortage of skilled workers, and a limited capacity for technological adaptation. However, the survival of this sector may be facilitated by several factors, including the availability of low-cost resources, the scarcity of alternative employment opportunities in rural areas, and the preference for a certain lifestyle among livestock farmers. Social status, which can be classified as either positive or negative depending on the idiosyncrasies of the society in which it operates, can also play an important role. However, livestock farmers consider external factors to be more relevant to the sector's survival. Among these factors, the actions of the public administration emerge as a salient element, exhibiting a direct correlation with the profitability and business viability of these entities. Among the government actions that encourage abandonment, we find uncertainty regarding changes in bureaucratic requirements, such as food traceability, the granting of subsidies, or access to and management of public natural resources. Concurrently, it is evident that extensive livestock farming is contingent on substantial public sector support, with the allocation of various subsidies being a pivotal factor in its continued viability. These concessions include the participation of women in the livestock farming sector, the incorporation of young people into the sector, the recovery of abandoned land, and recognition of the environmental role of extensive livestock farming.

A variety of external factors must be considered, including the role of intermediaries, the presence of competing companies within the industry, the perspectives of end consumers, and the broader societal implications of the industry's actions. Among the factors that have a deleterious effect on extensive livestock farming are the existence of intensive farms that produce less expensively, the lack of product differentiation, the market power of intermediaries, and competition with tourism for land use. Among the factors that have the potential to exert a positive influence on this matter are the enhancement of public awareness regarding environmental and animal welfare issues, the increased demand for natural products, and advancements in technology. Despite the initial reluctance of livestock farmers to adopt new technologies due to their cost, mobile phones have become a common tool for navigating administrative procedures and facilitating transactions. Ultimately, we ascertain cooperative organization as a neutral factor. Despite



the theoretical usefulness of cooperatives, failed experiences have engendered a climate of distrust among livestock farmers.

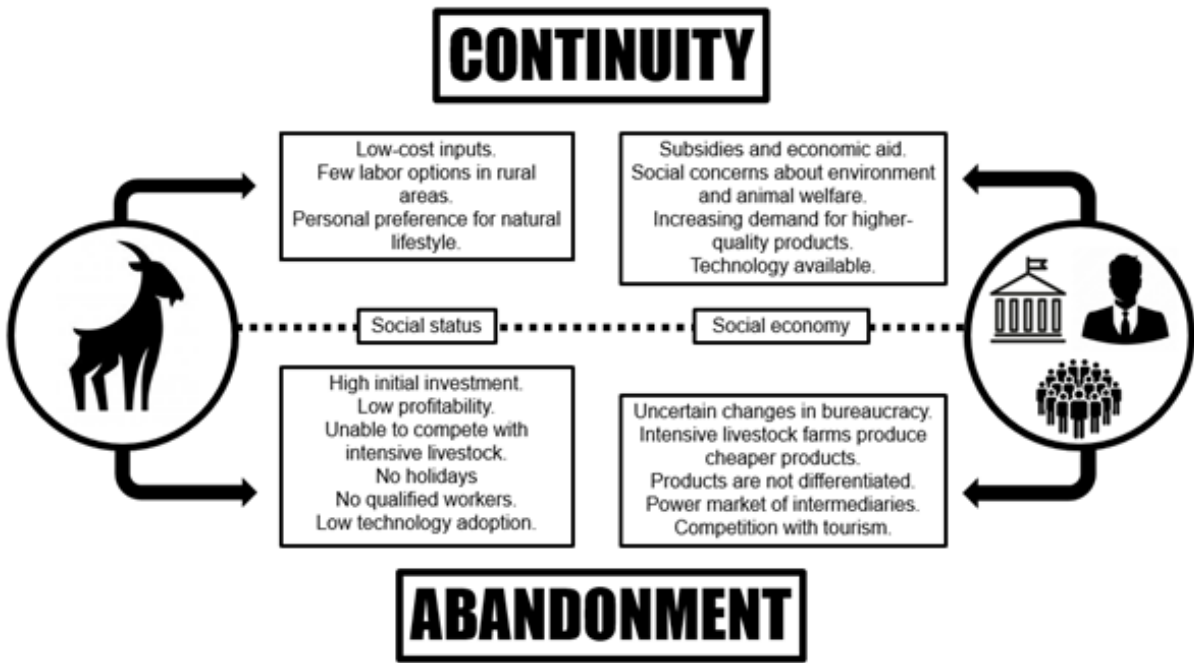
DISCUSSION

The results of this study indicate significant discrepancies between academic perspectives and the daily realities of extensive livestock farming in Spain. Despite the preponderance of academic literature that accentuates the potential of this sector to address various territorial challenges, such as depopulation and the prevention of natural disasters (see Álvarez, 2016; Lasanta, 2019, 2022; Díaz Gaona, 2019; Celaya,

2022), our findings indicate that ranchers encounter substantial impediments that jeopardize the fundamental viability of their activity. The potential of extensive livestock farming has not been effectively addressed by public policies. The present interventions are chiefly confined to the allocation of direct grants, while the underlying structural deficiencies persist in remaining unaddressed. The following problems have been identified:

•The market structure in question is one in which a single entity, referred to as a "monopsony," exerts control over a specific market sector. A fundamental discovery of our study is the economic paradox of the sector. Contrary to the prevailing

Figure 13. External and internal factors affecting viability of traditional livestock farming



Source: Own elaboration

view that suggests the inevitable dependence on public subsidies (Lienard, 2014), our results indicate that the low profitability of the sector is not inherent in its nature, but rather the result of specific market failures. This phenomenon is particularly evident in the concentration of demand within a select group of meat industries.

• Administrative restrictions of various kinds have been identified as a contributing factor to the phenomenon under investigation. These restrictions include, but are not limited to, bureaucracy and barriers to the use of public goods. It is paradoxical that, while the extant literature highlights the value of the ecosystem services provided by extensive livestock farming (Álvarez, 2016; Lasanta, 2019, 2022; Díaz Gaona, 2019; Celaya, 2022), current policies frequently hinder these same functions. Farmers have expressed frustration with restrictions on access to areas that could benefit from their activity, especially in terms of fire prevention and landscape maintenance.

• Disagreements with the tourism industry The present findings call into question certain widely held academic proposals for the revitalization of the sector (Tulla, 2019; Montra-

sio, 2020; Potthoff, 2020; Belliggiano, 2021). Rural tourism, frequently referenced as a strategy for diversification, is perceived by farmers as a source of conflict rather than opportunity.

• The process of technology adoption is a multifaceted phenomenon that can be examined from various perspectives. As was the case with the previous point, the recommendations put forth by academic institutions (Keates, 2019; Mishra, 2023) encounter substantial practical impediments, including cost and utility concerns. This underscores the necessity for solutions that are more tailored to the distinct circumstances of the sector.

• Inadequate collaboration among agricultural producers. The study indicates a conspicuous absence of cohesion within the sector. This atomization has the effect of limiting the sector's ability to defend its collective interests, and it may partially explain its vulnerability to pressures from both the market and the public administration.

In summary, the literature has demonstrated a paucity of joint vision regarding the challenges associated with con-

ventional livestock farming. Consequently, a paucity of exhaustive scrutiny has prevailed, resulting in an absence of a comprehensive analysis of the particular predicament. It is the objective of this project to facilitate the dissemination of the experience of livestock farmers on a global scale, with the aim of resolving the problems that have been occurring in the sector.

## CONCLUSION

This research provides a critical perspective on the current challenges of extensive livestock farming in Spain, as an example of the trends observed in Europe. To this end, we have extracted pertinent information from traditional farmers in two of the primary economic regions for livestock activity. Traditional farmers are considered key agents in understanding the trend in the sector. According to their testimony, it can be posited that factors are in play that exert pressure between the poles of continuity and abandonment. The aforementioned factors are associated with the activity itself or with the actions of other social agents, including the public administration, economic sectors in competition (e.g., tourism), intermediaries, consumers, and society as a whole. For farmers, the primary cause of this decline is economic viability, which is threatened by market distortions and administrative barriers (objective 1). In consideration of extant literature on the subject, it has been determined that the sector is not imperiled by inherent inefficiencies. Moreover, the solutions proposed by academia—namely, rural tourism and digitalization—have been repudiated. These findings reveal a significant discrepancy between literature and practical reality (objective 2). Finally, it is important to emphasize the role played by the policies implemented in the extensive livestock sector. The findings indicate a necessity for a reorientation of public policies towards more pragmatic measures that could exert a substantial impact on the viability of the sector. It is evident that public sector interventions appear to be, at a minimum, amenable to improvement in order to achieve the objectives established by the administration itself (objective 3).

The findings indicate that the trend of abandonment or intensification does not constitute a random phenomenon; rather, it is a response to the dynamic inherent within the traditional livestock sector itself. The underlying causes of this phenomenon remain to be fully elucidated. The actions of the public authorities, despite claims to the contrary, are often imprecise and counterproductive. The participants of the focus groups have expressed their discontent with the prevailing policies, articulating concerns regarding the proliferation of bureaucracy and the ambiguity of the legal framework. While acknowledging the positive public initiatives undertaken by certain local or regional governments, the farmers contend with the recent changes in administration processes, including those pertaining to subsidies and novel food traceability requirements. Concurrently, the conventional approach engenders a series of disadvantages, including less appealing laboral conditions (e.g., scarcity of time and physical exertion), which culminate in inadequate generational replacement. The measures that livestock farmers identify as having the greatest

potential are administrative simplification, the establishment of public fences, the facilitation of access to pastures, and the effective differentiation of their product. Conversely, they consider other measures, such as tourism and digitalization, to be ineffective. Furthermore, a paucity of sectoral cohesion has been observed among livestock farmers. These testimonies indicate that the factors enabling the departure from the sector are associated with a vulnerable market position and the challenges posed by prevailing policies. These issues are further compounded by the farmers' own limited capacity to establish a robust and unified network to address these challenges. The survival of extensive livestock farming hinges on an approach that prioritizes the removal of structural barriers.

Specifically, the recommendations that our results seem to suggest are the following:

1. Improvement of the communication channels of the public administration with livestock farmers and increase transparency, in order to reduce uncertainty.
2. Facilitating compliance with food, health and environmental requirements through more intuitive and user-friendly tools, either by electronic means or by working closely with municipalities and other local authorities.
3. Legal regulation that establishes differentiation standards for better consumer information, so that the type of livestock farming each product comes from can be differentiated.
4. Facilitation of traditional livestock farming networks to put farmers in contact with each other and with other sectors of society, in order to increase the cohesion of the sector and improve the flow of knowledge and experience.

The conclusions drawn in this study are pertinent for three primary reasons. A preliminary investigation revealed an absence of studies addressing the decline of extensive livestock farming, with a focus on the perspectives of its primary proponents. Secondly, the results yielded recommendations with practical applications for the Academy. These recommendations include the discussion of previous literature, theoretical implications that lay the foundations for future studies, and the opening of new research niches. They also include the application of business strategies, such as publicizing the functioning of the sector, and the implementation of public policies, such as addressing conflicts and mechanisms not valued by the administration. In summation, the significance of this study is predicated on its generalizability, which transcends national boundaries and can be extrapolated to the context of traditional livestock farming throughout Europe, particularly within the confines of the European Union.

Consequently, future research endeavors should prioritize the evaluation of the particular impact of the identified administrative and market barriers. This would facilitate the quantification of the damage caused to the sector or to the ecosystem services provided by livestock farmers. Consequently, it would allow for the comparison of the social and environmental impact and the proposal of solutions. In terms of market barriers, the impact of the meat industry's monopsony could be analyzed, along with its effect on producer surplus and the quality of the product received by the final consumer. These analyses could facilitate the adoption of public policies that

address these obstacles in an effective and economically efficient way.

It is imperative to reiterate the significance of the ecosystem services furnished by extensive and traditional livestock farming. This underscores the necessity to implement public policies that are oriented towards their preservation. It is imperative to redirect the production model towards a more economically and environmentally sustainable model, in accordance with the Sustainable Development Goals. Consequently, the effective design of policies that genuinely align with established objectives is of paramount importance in our society.

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