

TRANSFARM

Vocational education and training for transhumance practitioners



(Source: M. Karatassiou, Samarina Grevena Greece)

NATIONAL REPORT – GREECE



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1. Introduction

The annual transfer of herds, particularly those of sheep and goats, between summer and winter rangelands is referred to as "transhumant livestock farming" (Figure 1), independent of the mode of transportation used or the distance covered (Manzano-Baena and Casas 2010; Bhasin 2017; Transfarm Glossary, 2022). Greece is one of many Mediterranean and Balkan regions where sheep and goat's transhumance (from now on referred to as "SGT" exists, as adapted to the special conditions of mountainous rangelands (Ligda *et al.* 2012; Vallerand 2014; Nori and Farinella 2020; Karatassiou *et al.* 2021). As it is based on the grazing of natural vegetation, transhumance could be considered as a particular type of "pastoralism" (Farinella *et al.* 2017). However, it differentiates from "nomadism" because flocks engage in cyclic, prearranged migrations (Vallerand 2014).

SGT is of multifaceted nature, creating a variety of products and services, alongside food (milk, meat and various other dairy products), protecting and enhancing rural landscapes and livelihoods, especially in marginal and less favorable rural areas, thus maintaining life and productivity and aiding their proper sustainable development, by adapting to local conditions and enhancing cultural identity (Varela and Robles-Cruz 2016; D'Ottavio *et al.* 2018). The contribution of SG in cultural identity creation little has been exploited so far in Greece.



Figure 1. Transhumant sheep and goats in Thessaly (Source: Greek Network of Transhumant Farmer , <http://www.metakinoumena.gr/el/>).

The historical evolution of SGT more or less fits the modern semi-intensive systems of the European Union, which are based primarily on grazing and less on feeding indoors. The current transhumant system differs significantly from that of the past decades without though changing the essence of the system goals, mainly due to the minimization of transferring the sheep and goat on foot and using tracks, etc. (Karatassiou *et al.* 2021).

Nowadays, except for small ruminants, there is a significant number of transhumance farms exclusively with cattle in Greece, yet main type of animals involved in transhumance are sheep and goats. According to data from the Payment and Control Agency for Guidance and Guarantee Community Aid (PCAGGCA 2020), there are more than 3,300 transhumant flocks of sheep and goats, in Greece (Figure 2), and a major part of them belongs to the ethnic groups of “Sarakatsans” (<https://www.e-sarakatsanos.gr/>) and “Vlachs” (<https://vlachs-popsv.gr/>). “Sarakatsans” are closest to the traditional historical movement, and are located spatially throughout mainland Greece, while they were organized into closed autonomous communities called “Tseligato”. “Tseligato” was a form of productive cooperation between a number of domestic groups, generally linked by ties of kinship or marriage, under the leadership of a strong breeder (Chatzimixali 2007; Sidiropoulou *et al.* 2015). These social structures had a distinct identity, social cohesion, and efficient use of resources, while seeing the exercise of all types of professions (grocery stores, cheese making, bakeries, and so on), which in combination offered them economic autonomy (Katsaros 2009; Ragkos *et al.* 2016).

The sustainable management of natural resources, practical knowledge of the landscape and livestock, the production of high nutritional quality products and the varied and complex skills required to manage the herds are just some of the features that make transhumance a historical, cultural experience worth preserving and highlighting. Recently, transhumance livestock farming was added to our country’s national index of intangible cultural heritage (July 2017), while in 2019, it was included on the UNESCO list of Intangible Cultural Heritage of Humanity with Italy and Austria (<https://ich.unesco.org/en/RL/transhumance-the-seasonal-droving-of-livestock-along-migratory-routes-in-the-mediterranean-and-in-the-alps-01470>, Intangible Cultural Heritage of Greece, <https://ayla.culture.gr/>).



Figure 2. Transhumant sheep and goats in Epirus 1952 (Source: Ch. Aravantinos)

2. Current situation of transhumance

2.1 Area used

According to data of the Payment and Control Agency for Guidance and Guarantee Community Aid (PCAGGCA 2020) the total area used by SGT was 1365×10^3 ha and by transhumant cattle was 7087×10^3 ha (PCAGGCA 2020). In 2011, the total area used by transhumant animals was 253.3×10^3 ha (Karatassiou *et al.* 2016). It is obvious that between 2011 -2020 there was a slight decrease in the area used by transhumant flocks.

The area grazed by transhumant sheep and goats was 40.20×10^3 ha for the lowlands, 16.98×10^3 ha for the semi-mountainous and 79.35×10^3 ha for the mountainous rangelands (Table 1, Figure 3). For transhumant cattle, the area was 10.55×10^3 ha for the lowlands, 3.16×10^3 ha for the semi-mountainous and 55.87×10^3 ha for the mountainous rangelands (Table 1). It is obvious that the largest area occupied by transhumant animals was the mountainous one. The mountainous rangelands were also the most occupied by transhumant animals (144.5×10^3 ha) in 2011 (Karatassiou *et al.* 2016), and then the lowlands and semi-mountainous rangelands followed (80.1×10^3 ha and 28.7×10^3 ha respectively).

Table 1. Rangelands ($\times 10^3$) ha grazed by transhumant flocks during the period 2020.

Regions	Total Area ($\times 10^3$) ha		Lowland 0-600m ($\times 10^3$) ha		Semi-mountainous 600-800m ($\times 10^3$) ha		Mountainous >800m ($\times 10^3$) ha	
	Sheep and Goats	Cattle	Sheep and Goats	Cattle	Sheep and Goats	Cattle	Sheep and Goats	Cattle
Central Greece	25.42	6.74	8.21	1.41	2.65	1.01	14.52	4.32
Central Macedonia	12.43	26.78	4.35	1.91	0.1	0	8.09	25.17
Crete	15.23	0	12.08	0	1.06	0	2.09	0
East Macedonia and Thrace	10.69	3.09	5.9	2.75	4.36	0.26	0.45	0
Epirus	10.92	10.27	1.55	2.45	0.32	0.34	8.86	7.49
Ionian Islands	0.03	0.01	0.02	0	0	0	0	0.01
North Aegean	0.04	0	0.04	0	0	0	0	0
Peloponnese	14.82	1.04	3.15	0.08	3.38	0	8.27	0.95
South Aegean	0.01	0	0.01	0	0	0	0	0
Thessaly	19.98	13.67	2.81	1.67	1.97	1.43	15.19	10.53
West Macedonia	21.13	8.76	0.79	0.07	2.06	0.12	18.45	7.1
Western Greece	5.8	0.51	1.29	0.21	1.08	0	3.43	0.3
Total	136.5	70.87	40.20	10.55	16.98	3.16	79.35	55.87

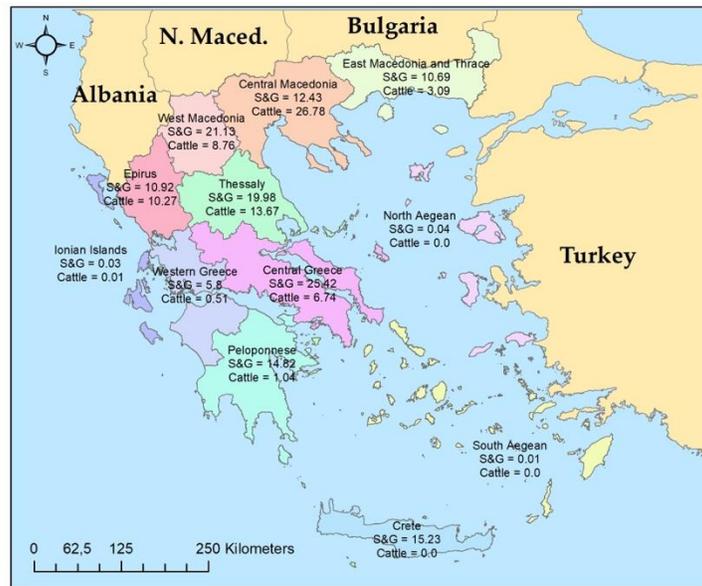


Figure 3. Rangelands per region that grazed from transhumance flocks in Greece.

2.2 Extend

The largest area occupied by transhumant sheep and goats is Central Greece, followed by West Macedonia, Thessaly, Crete, Peloponnese, Central Macedonia, East Macedonia and Thrace and Epirus. Central Macedonia was where transhumant cattle occupied the largest area, and then Thessaly, Epirus, West Macedonia, and Central followed Greece (Table 1, Figure 4).

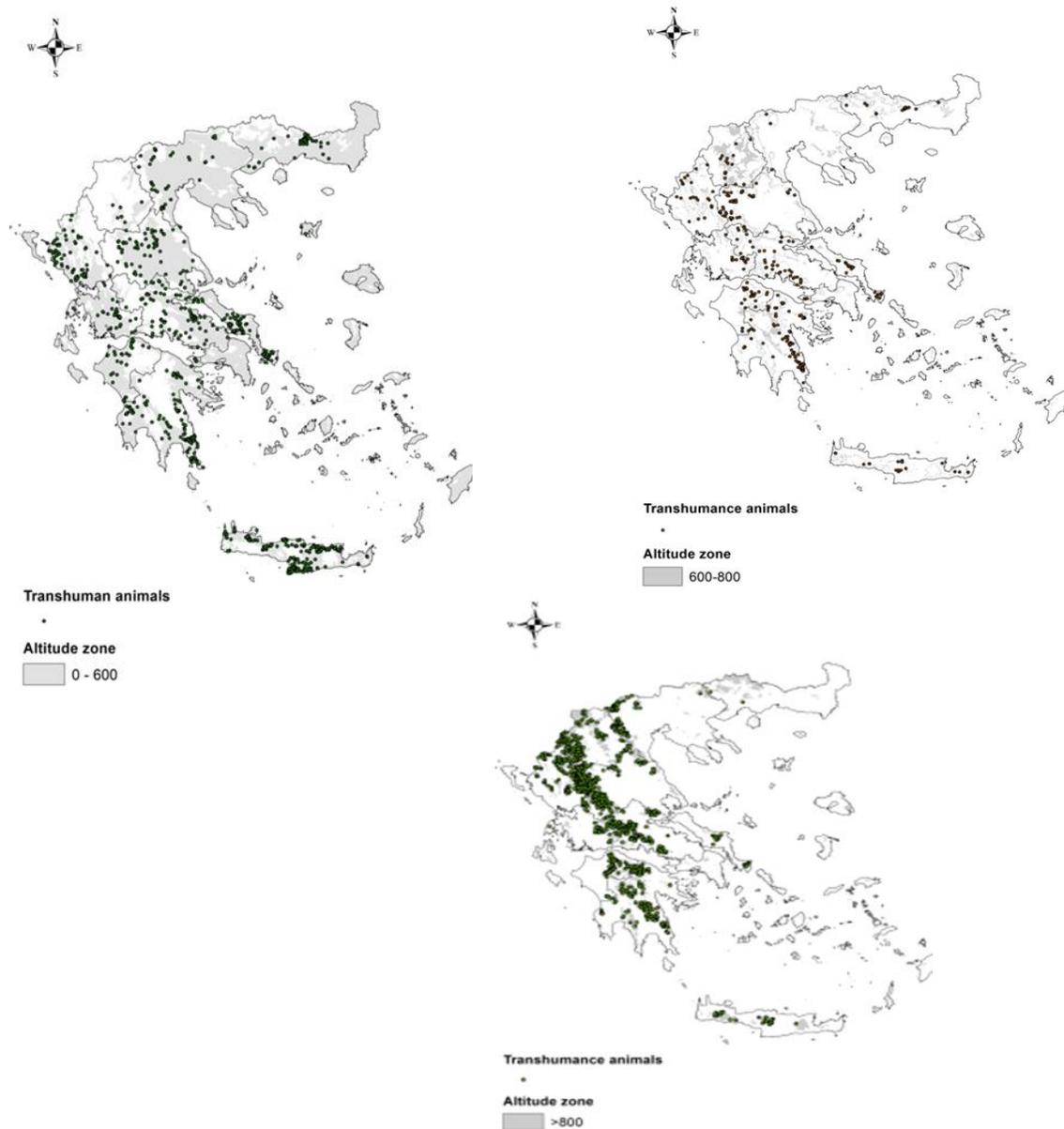


Figure 4. Use of lowlands (0-600 m), semi-mountainous (600-800 m), and mountainous (>800 m) rangelands by transhumant animals during 2020 (Data source: PCAGGCA 2020).

2.3 Number and kind of animals

In Greece, there are currently two different types of transhumances with notable differences. The first involves cattle, and the second sheep and goats. Cattle transhumance has become increasingly popular in recent years, as it is supported heavily through the implementation of CAP Pillar I measures (Koutsou *et al.* 2019) and has considerably lower requirements in human labor and financial capital.

The number of transhumant sheep and goats for 2020, according to PCAGGCA (2020), was 933,672, and the farms of transhumant sheep and goats were 3,294 (Table 2). The number of SGT in 2020 decreased compared to 2011 (1,023,542), in contrast to the number of farms which increased slightly (3,051) (Karatassiou *et al.* 2016). In 2011, most transhumant sheep and goats' farms were found in Central Greece (659), Peloponnese (618), Macedonia (Central and West, 563), Epirus (470), and Thessaly (452) (Karatassiou *et al.*, 2016). Therefore, it is evident that from 2011 until 2020, there are minor differences in the number of transhumant farms of sheep and goats except for Crete, where there has been a significant increase (2011-172, 2022-413) (PCAGGCA 2020; Karatassiou *et al.* 2016).

The fact that in Crete there was a considerable higher number of farms being registered in 2020, than in 2011 might be explained by the existence of a European subsidy for having a transhumant farm, thus people dividing and registering i.e., a large farm into a few smaller in size. The number of transhumant cattle for 2020 was 60,376, according to the PCAGGCA (2020) (Table 2).

Table 2. Winter domiciles of transhumant farms in 2020.

Regions	Farms		%		Animals		%		Mean size	
	Sheep and Goats	Cattle								
Central Greece	574	97	17.43	10.38	124,378	5,054	13.3213	8.37	216.68	52.10
Central										
Macedonia	139	82	4.22	8.77	41,989	6,194	4.4972	10.26	302.07	75.53
Crete	413	0	12.54	0	196,988	0	21.0982	0	476.96	0
East Macedonia										
and Thrace	80	38	2.43	4.06	24,374	1,351	2.6106	2.23	304.67	35.55
Epirus	419	259	12.72	27.7	107,273	20,250	11.4894	33.54	256.02	78.18
Ionian Islands	2	1	0.06	0.11	249	142	0.0267	0.24	124.50	142
North Aegean	2	0	0.06	0	1,107	0	0.1186	0	553.50	0
Peloponnese	542	4	16.45	0.43	115,463	718	12.3665	1.19	213.03	179.50
South Aegean	1	0	0.03	0	3	0	0.0003	0	3	0
Thessaly	473	291	14.36	31.12	118,669	14,859	12.7099	24.61	250.88	51.06
West Macedonia	348	153	10.56	16.36	140,697	11,040	15.0692	18.29	404.30	72.15
Western Greece	301	10	9.14	1.07	62,482	768	6.6921	1.27	207.58	76.80
Total	3,294	935	100.0	100.0	933,672	60,376	100.0	100.0	301.66	64.57

Data of 2020 exhibit that most farms of sheep and goats are allocated in Central Greece, Peloponnese, Thessaly, Epirus, Crete, West Macedonia, and Western Greece. Moreover, Central and

South Greece had more sheep and goat farms compared to the North (Table 2). As far as cattle farms are concerned, most are found in Thessaly, Epirus, West Macedonia, Central Greece, and Central Macedonia (Table 2).

2.4 Number of transhumance practitioners

Extensive livestock farming in the Mediterranean has traditionally a considerable relation to family bonds. In recent years, however, the problem of age renewal has been observed, which threatens the continuation of the sector and its viability. Thus, the employment of migrant workers on livestock farms is a widespread phenomenon that helps to address the above problem. Despite their vital role, there is no specific information and research on their skills and their adequacy, particular in grazing, which has peculiarities, especially in mountainous rangelands (Ragkos 2022).

In the Mediterranean and Greek context, three main peculiarities of working in livestock farming have to be highlighted. The first peculiarity concerns the increasing use of migrant workers on livestock farms. The second regards women's employment on the livestock farm, and the third is about the characteristics of employment, the knowledge, skills, and abilities required by employees in relation to the production system. Woman's participation has been thorough and extensive throughout the history of agricultural and animal breeding activities in Greece. SGT has been practiced via a social patriarchal model in Greece, where the man was and still is responsible for the economical and heavy labor duties, yet women have been involved extensively to farm husbandry especially milking, feeding and taking care of the animals.

Numbers of transhumance practitioners are not available in Greece (Figure 5). An estimation will be provided according to the number of transhumant flocks. According to a case study in Thessaly in Central Greece, the farmers employ from one to three immigrants on their farm depending on the herd size. The majority of them are of Albanian origin, and only three herders in the case study are Romanian. Also, most are employed on the farm all year round. However, in Greece, Pakistanis and Bulgarian also worked as herders. An estimation could be made indirectly by the number of SGT, which are about 3,294; thus, there are about 3,500 transhumant practitioners.



Figure 5. Transhumance practitioners during autumn (October) movement in West Macedonia (Photo: M. Karatassiou).

2.5 Kind of transhumance

In Greece, as mentioned before, there are two types of transhumance: a) the traditional small ruminants (sheep and goats) breeding and b) cattle breeding (Ragkos 2022). Cattle transhumance is becoming increasingly popular in the last years due to the deployment of CAP Pillar I regulations (Koutsou *et al.*, 2019) and because it significantly reduces the need for capital and labor requirements. Besides its recent rising interest, cattle transhumance is still representing a small per cent of the total cattle raised in Greece, less than 6.5 % according to Ragkos *et al.* (2013). Cattle movement is mainly done by trucks (Karatassiou *et al.* 2021), and the movement usually exceeds distances above 100 km (Ragkos *et al.* 2013).

The most common type of transhumance is the traditional small ruminant breeding (Ragkos 2022). SGT is practiced all over the country by over 3,000 farms representing almost 7.5 per cent of the national flocks. Animal movements are usually long distances up to 100 km, typical for the central-west and south part of Greece, and over 100 km (reaching even up to 350 km), which is common for the central-east and north part of the country. Today, truck movements are considered by many farmers a beneficial practice to save time and increase milk outputs. However, hiring trucks may be

expensive, especially when cash flow and income are low (Ragkos *et al.* 2016). As a result, in the last years, there has been a comeback to foot movements, reviving old transhumance routes (even for road distances greater than 100 km), particularly when returning in autumn to winter farms, in downhill routes, and when it is not necessary to milk the animals anymore (Kapsalis 2021; Ragkos 2022).

Transhumance livestock farming can be divided into five categories (Ragkos and Laga 2014) concerning the distance traveled by the herds:

1. Small local movements (within regional units)
2. Small movements up to 50 km in neighboring regional units
3. Medium-range travel (51-100 km)
4. Long distances (101-200 km) and
5. Very long distances, more than 200 km.

Movements of up to 100 km are usually observed in the central/west part of the country and Peloponnese. Long distance of over 100 km – which usually exceed the conventional boundaries of regional units or regions – are primarily encountered in the eastern part of Thessaly and frequently in Aitolokarnania, in the western part of Central Greece. Very long drives exceeding 200 km and up to 350 km are also located in the central part of the country, of which the most interesting are those of flocks whose winter domiciles are in the capital district of Attica, around the urban area of Athens. In the last decades, movements with trucks have been the established means, especially in cases of movement over 100 km, but even for shorter distances: only short local movements are still performed on foot throughout the country. According to a survey of a sample of 551 transhumant farms, 27 per cent of them moved on foot, 65 per cent used trucks, and 8 per cent used both means (Lagka *et al.* 2015).

Changing lifestyles and integrating into the market economy with intensification trends are some of the reasons behind this shift. With truck movements, farmers achieve considerable time savings. However, renting trucks can be expensive at times, particularly during periods of low revenue and reduced liquidity (Ragkos *et al.* 2016).

2.6 Type/Purpose of transhumance

Transhumance livestock husbandry in Greece is purely professional, and all farmers involved in it consider their business as their primary work and the main source of their annual income. Sheep and goat transhumance is the most typical traditional form, practiced for decades, usually by the same families. Very rarely a transhumant farmer belongs to a family with no transhumant tradition. Animal movement in transhumance practices occurs during the spring (usually May) and autumn or early

winter (usually November), between lowlands (winter rangelands) and highlands (summer rangelands) (Figure 6) (Karatassiou *et al.* 2021; Ragkos 2022).



Figure 6. Transhumant small ruminants flock movement from lowland to upland in Epirus (Source: Greek Network of Transhumant Farmers <http://www.metakinoumena.gr/el/>).

Apart from their family tradition, the transhumant breeders consider their practice as a necessary means to obtain cheap and easy accessed quality forage for their animals (Ragkos *et al.* 2016), especially during the summer period; and also to protect their animals from the high temperatures of the lowlands (Ragkos *et al.* 2013). Transhumance has established a “dualistic” production system that differentiates between winter and summer periods over the years. During wintertime, transhumance is considered a semi-intensive production system, where animals are mainly fed indoors or in farmlands cultivated for feedstuff (Figure 7). As far as we know during summer, the system is becoming semi-extensive, where animals are fed exclusively by free grazing on mountainous rangelands (Ragkos *et al.* 2020).



Figure 7. Cultivated farmland, Evros region (Source: T. Manousidis).

Transhumant farmers are more or less aware of the beneficent role of their practice in the quality of their meat and milk products (unpublished data from the project PACTORES (<http://www.pactores.eu>)).

7 Available knowledge about transhumance/Purpose of transhumance

Transhumance in Greece has been examined by several authors from a relatively broad range of disciplines, especially in the last years. Many authors have approached transhumance from an ethnological point of view and examined its historical evolution (Nitsiakos 1995; Gkoltsiou 2011; Ntassiou et al. 2015; Ragkos et al. 2016; Kapsalis 2021), while others examined transhumance in terms of its ecological and environmental implications (Karatassiou et al. 2014; Parissi et al. 2014; Sklavou et al. 2014; Karatassiou et al. 2015; Karatassiou et al. 2016; Sidiropoulou et al. 2015; Rapti et al. 2016; Sklavou et al. 2017; Ioannidou et al. 2017; Parissi et al. 2021; Karatassiou et al. 2021). Also its economic performance was evaluated (Galanopoulos et al. 2011; Siasiou et al. 2014; Ragkos et al. 2016) as well as management practices (Gidarakou and Apostolopoulos 1995; Siasiou et al. 2018). Since the sector is undergoing a modernization process and struggling to integrate into market conditions without compromising its traditional elements, the studies of ecological and environmental implications, economic performance, and management practices are gaining increasing attention.



Figure 8. Traditional festival (Source: <https://www.e-sarakatsanos.gr>).

Further sources of information are transhumance-related festivals, social gatherings, museums, traditional settlements, and workshops on traditional clothing (Figures 8, 9). However, it should be noted that in the case of the events, these last years, the witnesses gathered indicate that this phenomenon also appears to be decreasing and that some social manifestations were obviously linked to the COVID-19 pandemic. However, social happenings and gatherings are decreasing, as transhumance population is aging, although as due to COVID-19 pandemic, all social gatherings were prohibited in Greece, transhumance gatherings of 2021 and 2022 exhibited a high number of participants, seizing the opportunity to get together with friends and relatives. Furthermore, considerably active is the Network of Transhumant Farmers (www.metakioumena.gr), where a lot of information on transhumance practices, customs and ethics is provided to the public, as well as from the associations of the two main ethnic groups, Vlachoï and Sarakatsanaioi.



Figure 9. Traditional settlements of the ethnic group Sarakatsans (Source: M. Karatassiou).

2.8 Awareness about transhumance

In Greece, especially in urban centers, most people do not know much about the existence and importance of transhumance livestock farming. It was an important action towards acknowledgement and increase of visibility, the fact that transhumance was included as an important cultural practice in the national list of UNESCO intangible cultural heritage. Based on that knowledge, transhumance practitioners hope that local community markets appreciate the quality of their food products, and therefore a type of Word-of-Mouth Marketing (WOMM) can be established to promote their products.

The significant role of transhumance practices in maintaining landscape integrity and heterogeneity, especially in summer rangelands in mountainous areas, is not known to most transhumant farmers. This is an issue that the TRANSFARM project ought to address. Promoting the knowledge and public awareness about the critical role of transhumance practices in landscape and environmental conservation will provide additional tools for marketing promotion of their products and, to some extent, will make transhumant practitioners feel proud about their contribution to environmental protection, strengthening their willingness to continue their work (Figure 9).



Figure 9. A typical mountainous rangeland in Peloponnesus in Zireia Mt¹ (Source: M. Karatassiou)

2.9 Legal and funding situation

Most rangelands are public property, while private individuals own only a small part. Every year, public auctions take place where which farmer will use which area is decided. Consequently, since there is no permanent owner or tenant, there is no proper rangeland management. This problem is believed to be solved with the temporary grazing plans by the Hellenic Ministry of Agricultural Development and Food. In order to mitigate the negative effects of the current system of rangeland allocation, Integrated Rangeland Management Plans (IGMPs) are expected to be delivered in the following years.

Subsidies are based on the area declared by each farmer and not on the livestock they have. However, the breeder uses the rental area without having any obligations towards it. Even if everyone declares a specific area, breeders do not graze within the narrow limits of their rangeland, and it is observed many times that some areas are degraded due to high stocking rates since there is no additional control. The areas that are heavily used and thus degraded ecologically and nutritionally are those closer to settlements.

¹ This landscape is considered “typical” for the area. In fact, the half-open landscape aspect is the result of centuries of transhumance.

The lack of clear recognition of transhumance multiple roles combined with the lack of a specific policy framework adapted to its particularities brings about exogenous challenges. In contrast, the balance of the system between modernization and tradition brings endogenous issues that need to be tackled (Ragkos 2022). For example, modernization brought about equipment, precision and safety on i.e. the milking process and also trucks to move animals around. With the usage of trucks, a large part of the 'cultural route' farmers with families had to undertake, the attachment with the animals, spending time and building knowledge on and for the landscape, but also, endogenously, on themselves, strengthening societal and family bonds has banishes. Women and children don't need to come along anymore, just a group of men, heads of families take this journey with tracks. Furthermore, as mentioned previously, the urban populations are not aware of transhumance, and many people, including farmers have left their villages via a discourse of more than 50 years to seek a 'better', more advanced and 'socially accepted' life in urban centers, denying their pastoral and agricultural past. In Greece, the diminishing phrase 'If you do not do your homework, you will become a shepherd' is still strongly used, underling the 'shame-in-being-a-shepherd'. This also justifies the use of many foreign migrants' people working as shepherds in Greece.

2.10 VET offers for transhumance practitioners and training gaps

There is not a formal, organized VET program for transhumance practitioners in Greece. Traditionally, the transhumance work's characteristics and difficulties are passed from generation to generation from experienced shepherds to newcomers.

3. History

3.1 Historically – Today

In Greece, transhumance farmers belong mainly to three ethnic groups, "Sarakatsanaioi", "Vlachoi" and "Koupatsaraioi". Each ethnic group shares some characteristics but differs in others. Main differences include language/dialect, place of origin and religion. Movements in Greece have the form of a social organization in which independent family groups migrated (Katsaros 2009; Hadjigeorgiou 2011).

Vlachoi: The word indicates 'people of the Balkans that speak Latin (from 'Volcae')'. From the beginning of the 20 centuries onwards, all transhumance farmers in Northern Greece were called by this name. Vlachs used to be a semi-transhumance group of farmers, mainly sticking a permanent settlement and undertaking small transhumance distances. From the 17th century onwards, a split into two groups created one group that kept traditional practices, also including internal group marriages (only) and one that abandoned the old ways and transhumance practices and settled in permanent residencies in mountainous areas, exploring merchandise and other activities.

Koupatsaraioi: One of the most important tribes created when Vlachs settled in the mountainous area of Grevena, with main settlements of Doxaras, Mesolouri, Dotsiko, Philippaioi, Polyneri and Mavranaioi, upper stream of river Venetikos and east of mountainous area of Basilitsa is that of Koupatsaraioi. The term originates from the dialect of Vlachoï, 'koupatsiou' meaning oak. Their settlements were rather poor agricultural-livestock villages, with small numbers of people, at least compared to the neighboring villages of Vlachochoria.

Sarakatsanaioi: They were a pastoral - transhumance group, and the term first appeared in 1847, describing transhumance farmers of sheep and goats that set their sheepfolds outside villages, not having a permanent residency, walking large distances with their flocks and building ephemeral building structures. They were located in the mountainous spine of central and south Pindos, having Agrafa of Roumelis as the center. Their dispersal to other places happened during the 19th century under the Ottoman Empire. Their name probably came from the ottoman 'Karakatsan', 'kara' (black, because they were wearing black clothes as an indication of mourning for the loss of Konstantinopoulis to the Ottomans) and 'katsan' (runaway). According to their location, the Sarakatsanaioi are categorized into different groups: of Epirus, Thessaly, Makedonia and Thrace.

Transhumance in Greece goes back to 6500 BC in the Neolithic era and famous writers like Herodotus, Aristotle and the tragedian Aeschylus mention it as an active practice of the Greeks in antiquity. The animal production was depicted in Greek myths, iconography, artifacts, objects of everyday life. Written evidence showcases sheep farming in the Mycenae, Knossos and Pylos palaces. Also, Homer (9th century BC) describes in *Odyssey* many pastoral scenes. Animals in those days were valuable and core key elements of everyday activities and survival, taking part in cloth making, food production transport, war-making, hunting, rituals and having animal holdings as a sign of healthiness (Osborne 1992; Cardete 2019).

In more detail, during the classical times, well-developed agriculture had not given way at easily accessible large, unified rangelands. It seems that long-distance transhumance was not applicable without well-developed lowland agriculture. The semi-nomadic pastoral system and mixed arable livestock farming was predominant in almost all ancient Greece (Cardette- Cruz M, 2019). In the Roman and Byzantine periods, expensive rangelands were created, and the method of transhumance developed. Livestock farming represented one of the most important activities in rural landscapes yet living the life of a nomadic animal herder was considered non-eclectic and non-civilized. Furthermore, as most raiders, especially at the eastern border of the Empire, were practicing nomadism, transhumance was related to bad things. Moreover, the belief that 'dairy-fed' tribes like the Scythes, Cumans, Vlachs, Saracens, Alans, Vandals, and so on were much less civilized and humanly evolved than the 'wheat-eaters' survived well after the Middle Ages. Still, the Byzantines treated animal farming as equally to crop farming.

The Ottoman period (1400-1830 AD) lasted in Greece for over 500 years in some areas, shaping ethics and customs, with a complex land tenure system which influenced transhumance the most. 'Tsilikia', big parcels of land belonging to one owner, were created in the lowlands by influential members of

the ruling systems to control cereal production. Yet, the oppression of the people and heavy taxation left the fertile plains uncultivated, while Greek and Turkish peasants created small plots in the safe mountains, exploring high land rangelands. There, a system of nomadic stock farming called 'Tseligato' developed, that went on for three centuries and thrived, especially in the Pindos Mountain range. Tsiflikia went on until 1922, in the post-independence upon to the twentieth century, after the foundation of the modern Greek state in 1832 AD. Thessaloniki, the biggest city of northern Greece, followed almost 100 years later, in 1912. The war between the Greeks and the Turks went on for more than 200 years, resulting in the recruitment of the mountainous people to create the army, for both Greeks and Turks. This practice had an immediate impact by the loss of transhumant human capital and all quality aspects related to that. During the twentieth century, the modern Greek state claimed and finalized its borders as we know them nowadays. Yet the country was broken and poor. Furthermore, feeding and housing 1.5 million refugees was an immediate issue to deal with, resulting in increasing agricultural land and loss of grazed areas, especially winter rangelands. In several cases, just before expropriation, herdsmen bought parts or all the tsiflikia land, which they used to rent for grazing and shifted into arable farming. A more sedentary system was established, wherein animals were kept in enclosures and supplemented with harvested feed to increase their productivity.

World War II left the country even more disturbed, and mass migration to oversea countries in the 1950s and 1960s left many rural villages and fields almost deserted. Moreover, internal migration and the abandonment of the countryside to make a living in cities showcased a substantial decline in transhumance routes. The SGT, however, is at the center of the cultural and social character of the highland livestock communities in Greece, and it has strongly affected the environment of the historically developed regions (Sidiropoulou *et al.* 2015; Ragkos *et al.* 2020). In the 20th century 13,700 families, of which 5,956 were Sarakatsan families, moved with their flocks, according to Syrakis (1925). Most Sarakatsanaioi relocated to Thessaly and Sterea Greece, Central and East Macedonia, Epirus, Peloponnese, and Thrace between 1950 and 1960 (Chatzimichali 2007). Yet, although the number of farmers did decline, the number of animals did not. Smaller flocks were merged into bigger ones, reaching over 2 million sheep and goat individuals in the 1960s.

What will the 21st-century hold for transhumance? According to PCAGGCA , in 2011, there were 1 million transhumance animals and unofficial data for 2021 present only a slight decline. The CAP did not really support transhumance in the past, yet with the focus of the EU being on farming strategies developing high-quality products, i.e., transhumance is supported.

4.Values and meaning of transhumance

Transhumance, as any economic practice, is related to the evolution of human societies and is not a consequence of climatological or geological conditions but a political, cultural and socio-economic decision. A very brief historical account from antiquity to the present shows clearly that the roots of pastoralism as a socio-economic production system lie deep in Greek history (Cardete 2019). The

ancient Greek word 'provata', which means 'that which moves ahead', has survived intact in Modern Greek as 'sheep² (Cardete 2019). Although not a competitive production system nowadays, transhumance has a 'subtle' yet more diverse role to play: It is part of the national identity linked to the maintenance of landscapes, fertilization of agricultural fields, land and animal ethics, ecosystem services, vegetation dynamics (as grazing activity contributes to a particularly rich mosaic of vegetation), and species and landscape diversity (Hadjigeorgiou 2011).

Transhumance in Greece showcases a 'slow-life', 'slow-food' way of practicing agriculture, providing high-quality food, and keeping alive extensive rangelands, which have always been a part of societal and civilization development. Yet, there is a serious gap between the practice of transhumance and its multiple values on the one hand and communicating those values and educating the public on the other.

Furthermore, literature acknowledges as main protagonists of Greek history kings and queens, aristocrats, philosophers, educated people and war practitioners. There is a clear preference for 'urban' against 'rural', even nowadays in Greece. There is no acknowledgement of the value of men and women working in the fields, like peasants, shepherds, and laborers. City people are preferred to rural dwellers, being considered more eclectic, refined, and civilized. In terms of transhumance, the wealthy landowners and the big livestock herders took all the glory. The average peasants went unnoticed, and shepherds were seen as delinquent and uncivilized. There is still a Greek saying that a child ought to be educated and 'not ending up being a shepherd' or a 'farmer' (Osborne 1992; Cardete 2019). Farming needs to be considered both an economic and a social activity. Let us not forget that the city of Athens was originally founded (12 century BC) by a tribal society composed of herdsmen, who practiced communal livestock holding and pasturage (Osborne 1992; Cardete 2019).

5. Challenges to face, needs/opportunities

The peculiarities of SGT in Greece make it fragile to severe socio-economic problems. While some of these difficulties are common in extensive European livestock systems, others are more serious in Greece. Challenges related to land use are probably the most significant issue facing the Greek transhumance, as mentioned earlier (Ragkos 2022).

Additionally, problems are related to infrastructure and access to the mountain rangelands. Transhumance in Greece is sometimes challenging, as rangelands are not accessible with farmers' cars due to the bad quality of forest roads (Ragkos 2022).

Another severe challenge relating to the aging transhumant populations is a decrease in transhumance in Greece. Rural areas continue to lose population. Especially young people are leaving in order to

² Sheep = Provata in modern Greek

work in the city. Herders who retire are not replaced. Those who are replaced are in many cases part-time, seasonal foreigners, not having a real connection to the land and also they are not experienced. Therefore, they will not be able to pass knowledge to the next generation. Modern, comfortable agricultural systems and more intensive systems are preferred by younger generations over the complex and isolating lifestyle of the migratory pastoralist. It is essential to acknowledge the fact that transhumance practice was strongly linked to everyday life, culture and customs. As lifestyle changes, being detached from nature and professions linked to the land, practices like transhumance are affected. Furthermore, even without transhumance, farmers can only guarantee a good income thanks to national and European subsidies.

Promoting the knowledge and public awareness about the vital role of transhumance practices in landscape and environmental conservation will create new opportunities for the marketing of their products in order to achieve even higher product prices. Transhumant practitioners must join to form cooperatives and work together to promote the certification of their goods, achieve better pricing, and take the benefits of their milk, cheese, and meat.

Furthermore, transhumant practitioners will feel honored and proud about their environmental protection role and will build up their will to continue their work or even attract new young farmers to join their trade.

6. Conclusions

Transhumance in Greece is not just a profession, it is a practice of creating culture, as well landscape protection and a strong connection to nature for centuries. It has shaped ethics, customs and aesthetics for so many years. Nowadays its level of visibility, acknowledgement and its future remain uncertain. Although the last decades, the number of animals has not had considerable variation, people and the sociological schemes practicing transhumance are under change. As the practice is strongly related to customs and everyday life of 'once was', it is bound to change. The task is not preserving a 'once was', a 'practice of the past', but to carefully consider how this transition must take place and what form will transhumance have in the current century. Primarily, it is the people behind this practice, the shepherds that require attention and assistance. Shepherds require support for interpreting current regulations, defining deadlines for applications for funding or compensation, and other issues as well as clear instructions on their rights. Knowledge of national and European laws would be helpful for shepherds, in a friendly format, easily accessible to them.

Financial support is required to motivate existing transhumant shepherds to maintain their heritage and experience. Yet, just provision of finance is not the way to ensure a long and perspective future for transhumance. The built of self-appreciation and pride on what they are achieving for the landscape and environment (as true 'caregivers' of the land), culture, the public and of course themselves, their families and their communities is essential.

Finally, the public needs to be educated and support this practice, and visual – optical material is scarce. An effective communication strategy must target consumers, potential tourists, and other public stakeholders. Together, transhumance practitioners and consumers should push for the creation of beneficial policies at the national and international levels to restore transhumance as a central aspect of Greek socio-economic life, culture, and history.



Figure 9. Greek shepherd (Source: Ch Aravantinos)

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