



Citation: Michele Nori (2021) Integrating immigrant workforce in European pastoralism: reality, policy and practices. *Italian Review of Agricultural Economics* 76(1): 49-58. DOI: 10.36253/rea-12825

Received: February 09, 2021

Revised: March 17, 2021

Accepted: March 23, 2021

Copyright: © 2021 Michele Nori. This is an open access, peer-reviewed article published by Firenze University Press (<http://www.fupress.com/rea>) and distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Data Availability Statement: All relevant data are within the paper and its Supporting Information files.

Competing Interests: The Author(s) declare(s) no conflict of interest.

Integrating immigrant workforce in European pastoralism: reality, policy and practices¹

MICHELE NORI

European University Institute

Abstract. This work addresses the relevance of immigrant communities in a specific agricultural sector, extensive livestock husbandry – pastoralism. This activity provides a primary source of employment and income specifically in inner and remote rural areas, where intensive farming systems are unfeasible. Trends in the last three decades indicate severe decrements of pastoral farms and herds throughout Europe, and specifically in its southern flanks. Shortage of skilled and motivated shepherding workforce ranks amongst the main triggers of these processes. In Mediterranean Europe, inflows of international immigrants have importantly contributed to fill these gaps, providing critical, though temporary, solutions to the labour market shortcomings. This work questions the opportunity to integrate immigrant shepherds in the process of generational renewal for Euro-Mediterranean pastoralism, and the effectiveness of existing experiences concerning institutional and technical support for these processes. This poses further policy and research questions about the potentials for immigrant communities to contribute to sustainable patterns of rural development.

Keywords: pastoralism, migration studies, inner areas, Mediterranean, animal husbandry.

JEL codes: D81, F22, J15, J43, J81, N5, N50, O35, Q56, Q12, R23.

1. INTRODUCTION

International migration studies traditionally address mostly urban settings; nonetheless the interest for migrants that inhabit and contribute to rural communities has grown in recent times, particularly in Europe, where estimates suggest that over 5 million international migrants currently live, though actual numbers are likely to be even higher (Bock *et al.*, 2016; Nori, Triandafyllidou, 2019; Ryeand O'Reilly, 2020).

When turning interest to rural settings, the focus of the academy has mostly been on the role of international migration in intensive agricultural systems, such as horticulture and food processing, where migrant labour force makes up an important share in manual, low-skilled positions (Martin,

¹ The chapter is part of the European Research Council (ERC) project *PASTRES (Pastoralism, uncertainty and resilience)*. Data and interviews have been sourced through the EC Marie Curie project *TRAMed - Transhumances in the Mediterranean* (2015-2018), and the related works undertaken with Farinella D., Ragkos A. and López-i-Gelats F. respectively in Italy, Greece and Spain.

2016; Rye, Scott, 2018). This phenomenon is particularly visible and investigated in Mediterranean Europe, on the one hand due to the relevance of agriculture in the national economies, and on the other to the direction of migratory flows, whereby in few decades the region has converted from one of emigration to a transit one, to a land of immigration (Ortiz-Miranda *et al.*, 2013; Gerteland Sippel, 2014; Corrado *et al.*, 2016; Nori *et al.*, 2019).

In order to fill these gaps this work proposes a different perspective, that looks into the dynamics reconfiguring the agrarian world in inner, mountainous and island settings, where capital-based production is less effective and thus considered marginal for mainstream and more frequently addressed intensive farming systems. These areas cover a large part of the Euro-Mediterranean region and present specific features and dynamics. In these settings, pastoralism – the extensive rearing of mostly sheep, goats and cattle that make use of natural and semi-natural grasslands – provides critical contributions in supporting employment and income of local communities.

This work illustrates how pastoralism in mountainous regions of Greece, Spain, southern France and Italy is similarly reliant on access to migrant labour. Pastoralism provides an intriguing perspective on the processes that have reconfigured the agrarian world, as it embodies the contradictions of an agricultural practice increasingly appreciated by society but decreasingly practiced by local people. In order to disentangle the mutual-dependency relationships between pastoral farmers and immigrant shepherds, semi-structured interviews to both groups have been undertaken between 2015 and 2018 in different pastoral regions in Italy (Triveneto, Piedmont, Abruzzi), Greece (Peloponnesus, Thessaly), Provence-Alpes-Côte d’Azur (PACA) region in France and Catalan Pyrenees in Spain (Nori, 2017). The outcomes have then been framed within a critical assessment of the processes related to the reconfiguration of the agrarian world in Mediterranean Europe. More information could be sought through the TRAMed project².

2. MODERNIZATION AND GLOBALISATION OF THE AGRARIAN WORLD

The modernization process that unfolded in the aftermath of the Second World War has pushed agriculture towards more market-oriented and capital-based patterns. The resulting incorporation of rural economies into a globalized system has contributed to the intensi-

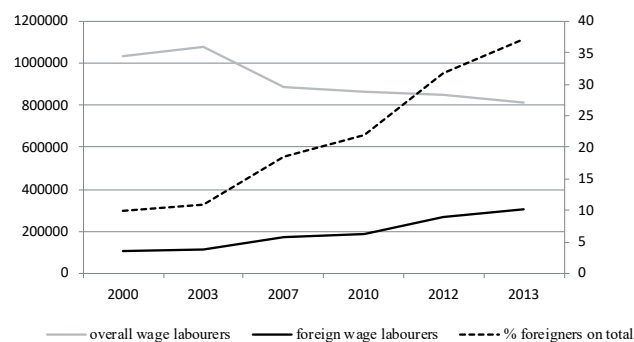
fication of social and territorial differentiations in the agrarian world (van der Ploeg, 2008; Ortiz-Miranda *et al.*, 2013).

The Common Agricultural Policy (CAP) and its comprehensive reforms through time have importantly contributed to steer this process. CAP is one of the founding policies of the European Union; it accounts for about 40% of the EU budget and represents an important component of farmer’s revenue. The role of this rural welfare is essential to maintain rural areas populated and farming communities productive. This policy is, however, increasingly criticised for its limited impacts in reversing critical dynamics affecting rural territories, including social exclusion, ageing and depopulation, which represent matters of increasing concerns for European citizens, scientists, and politicians alike (Eurostat, 2016; EU, 2017).

The constant decline in the number of agricultural farms and the ageing of its operators suggest in fact that CAP conspicuous financial investment and policy engagement are not adequate to guarantee the permanence and reproduction of critical farming systems (Farinella *et al.*, 2017). Eurostat Figures (2016) clearly indicate that current conditions do not seem attractive and/or enabling for new generations to take over the challenges of producing food and managing natural resources in Europe. About half of the farming population in Greece, Spain and Italy is older than 50 years.

A key driver that has helped to contain these processes in recent decades is the significant inflow of immigrants, who presently constitute an important proportion of the agricultural workforce in Europe. Immigration has importantly contributed to compensating the social and economic imbalance of the agricultural labour market, helping to buffer the constant decrease of the local population (Kasimis, 2010; Sampedro, 2013; Collantes *et al.*, 2014; Colucci, Gallo, 2015).

Fig. 1. Foreign workers in Italian agriculture (years 2000-2013).



Source: Nori and Farinella (2020), elaborated on INEA data (2014).

² EC Marie Curie project TRAMed: <https://cordis.europa.eu/project/id/326814/reporting/it>

3. A PASTORAL PERSPECTIVE FROM THE EURO-MEDITERRANEAN REGION

The reconfiguration of the agrarian world has followed specific patterns and carries specific implications in different geographical and ecological settings, with significant implications on local socio-economics. Agricultural modernization has led to the expansion of monoculture in lowland areas and the progressive abandonment of several rural settings less suitable for intensive agriculture due to agro-ecological features, the nature of the terrains or their geographical location. In the mountainous, islands and inner territories that cover large parts of Mediterranean Europe, pastoralism provides a most effective production system, and a main local source of labour and revenue.

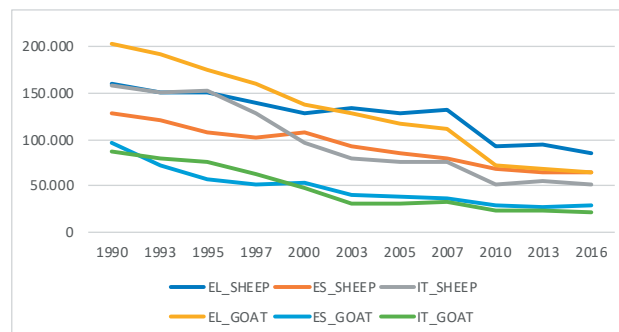
Greece, Spain, Italy altogether concentrate the largest portion of extensively bred small ruminants in Europe (39% of all sheep and 67% of all goats in 2016), and are the main producers of small ruminants' meat and dairies, which are often relevant components of local culture and economy, and the related value chains (i.e. Italy's Pecorino Romano, Greece's Feta and Spain's Manchego cheese). These products have however become commodities in international markets and within global agro-food chains, and therefore subject to international competition and price volatility (Farinella, 2019; Nori, 2019; EC, 2020).

Moreover the extensive grazing of ruminants contributes importantly to managing local landscape and ecological resources of rich and fragile territories through a range of socio-ecosystem services, including cultural identity and biodiversity conservation, and also contributes to support the tourism industry (D'Ottavio *et al.*, 2017; Varela *et al.*, 2018; Nori, Luisi, 2019). In these territories, in fact an active human presence does not hold a merely economic dimension, but the "multifunctional" role of people is critical for the maintenance of landscapes, ecosystems and societies, with important socio-political and environmental implications (Desjardins *et al.*, 2016; Nori, Farinella, 2020).

Yet, the growing societal appreciation of pastoral high quality food products and socio-ecological services does not seem to translate into any growth or improvement for the sector. On the opposite, current figures and ongoing trends attest to significant declines in the number of pastoral farms, flocks and operators throughout the region, with relevant implications on the local economy, demography and land use alike (Nori, López-Gelats, 2020).

The reasons and drivers of this phenomenon reside basically in the important economic squeeze pastoralists have faced in recent decades, which implies aspects

Fig. 2. Trends in sheep and goat farms in Greece, Spain and Italy (years 1990-2016). Map legend: EL = Greece; ES = Spain, IT = Italy.



Source: Nori and Farinella (2020), elaborated on Eurostat data.

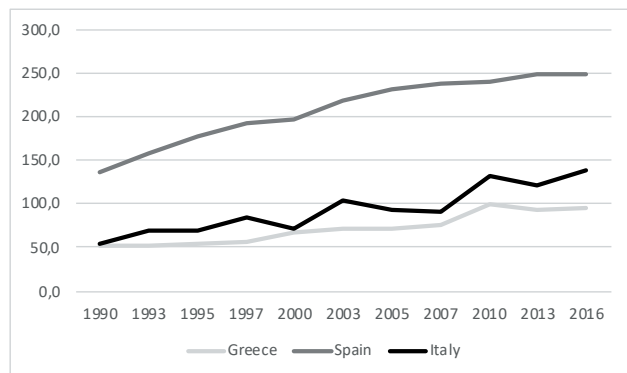
of farm viability as well as social prestige for this sector. The intense restructuring pastoral production systems have undergone results from their incorporation into global agro-food chains, as well as from the growing dependence on agricultural policy support schemes. The products of extensive livestock systems have to compete on international markets with those sourced from more intensive production systems or those imported from other regions (Kerven, Behnke, 2011; Nori, 2019).

To keep up with such stiff competition, pastoral farms have progressively restructured their farms, with relevant implications on farm management, production economics and labour regimes. The support schemes related to CAP subsidy systems have provided significant incentives to the enlargement of production scale and investments in modern technologies (either animal feed, or health, genetics, machinery, etc...).

Overall, the degrees of uncertainty and dependency on volatile options have grown, and several farmers have decided to shut down their enterprise or could not find anyone to whom to pass it on. Those that remained in place have been mostly forced to expand their herd and re-organize land and labour resources accordingly with a view to adjust cost-benefit ratios (Mattalia *et al.*, 2018; Nori, Farinella, 2020). Such restructuring has profoundly changed the size of the flock, the organization of the household and the relationship with the animals.

The management of most pastoral farms is today characterized by a marked separation between the administrative and the field work. On the one hand, it has to deal with increasingly complex technical and administrative requirements, in order to be compliant with policy demands and financial support measures; *today you need an office to run a farm*. On the other hand, the tending of the livestock has significantly increased, as flocks have grown and tasks and responsibilities increased. Work is intense and mostly reli-

Fig. 3. Trend for average sheep farm size (average of sheep number for farm) in Greece, Spain and Italy (years 1990-2016).



Source: Nori and Farinella (2020), elaborated on EuroStat data (2016).

ant on physical labour and manual activity, only limitedly mechanized. Moreover, most of the shepherd's time is spent in harsh settings, with limited access to public services, scarce connectivity and few opportunities for socializing, leisure and alternative activities. Continuous mobility, milking and processing add further burdens to the daily tasks, while climatic vagaries and the growing presence of predators entail additional uncertainties.

This has resulted in the important reconfiguration of the shepherding workforce that has recently characterised the Alps, Epirus, Apennines, Massif Central and Pyrenees, with a significant shift from family members to salaried ones, and eventually from local workers to foreign ones. On the one hand, local youth seems decreasingly interested in working as shepherd as an initial step of a potential pastoral farming career. On the other, migrants find in remote, inner territories the opportunity to eke a livelihood through shepherding work. International migration has therefore contributed to overcoming the current shortage of workforce in pastoralism. Without immigrant workers, many pastoral farms would present today great difficulties to continue their activities, and remote territories would face even higher rates of depopulation and desertification (Nori, 2017).

While situations are specific to the local, national context, similar dynamics and patterns unfold in the different regions.

The extensive rearing of sheep and goats represent an important component of the Greek agricultural sector and provides vital support for a significant number of rural areas. The massive rural exodus of the 1960's and the expansion of other, non-agricultural activities have caused labour shortages that have not been filled by the local population (Kasimis, 2010).

As a result of the geographical proximity, the collapse of the Albanian regime led in the late 1990s to the development of a circular migration and recruitment system of Albanian labourers. These events contributed significantly to repopulate and revitalize rural territories that were suffering socio-economic desertification, particularly in the Epirus mountains bordering the two countries (Kasimis, Papadopoulos, 2013). These early flows slowly opened the way to shepherds originating from Eastern Europe (Bulgaria and Romania) and more recently to migrants originating from neighboring war-torn regions. Today migrants represent about half of the pastoral salaried workforce in Epirus and Peloponnese, and about one-third in Crete. On one hand, the migrant workforce has supported the development of large, innovative and specialized dairy farms, while on the other it has contributed to the endurance of more traditional transhumance systems. As a substitute for family labour, the recruitment of migrants has allowed household members to pursue other activities or to look for employment outside the agricultural sector (Ragkos, Nori, 2016).

Since the UK left the EU, Spain remains the country with the largest sheep national flock in Europe; pastoral products are relevant in supporting local economies as well as national value chain, and in sustaining the tourism industry. In Spain immigration from several countries has also contributed to the labour reconfiguration of existing pastoral systems. Traditionally migrant shepherds originate from Morocco and Romania, but more recently also from Bulgaria, Ukraine, and further on from Sub-Saharan Africa and Latin-Americas. In the Catalan Pyrenees, international migrants constitute about half of the waged shepherding workforce (Nori, López-i-Gelats, 2020 – see below). The ratio of migrant to local shepherding labour drops to one in three in central Spain, Galicia, and Extremadura – where migrant labour is often from Portugal (Nori, 2017). Some of these workers have benefitted from some form of training in one of the country's pastoral regional schools (Tab. 2).

Tab. 1. Presence of immigrant shepherds in different regions of Spain.

Region	% immigrants on local salaried shepherds	Origin of most immigrant shepherds
Catalonia	55	Romania, Sub-Saharan Africa
Comunitat Valenciana	70	Morocco
Aragón	60	Morocco, Romania, Bulgaria
Castilla-León	35	Romania, Bulgaria, Portugal

Source: Nori, 2017.

Pastoral products and landscapes are part of the visiting card of Southern France regions, from the Pyrenees to the Maritime Alps. Sector dynamics have evolved through a specific pattern, as an important process of immigration took place in the 1970s, with the arrival of urban citizens who were looking for an alternative lifestyle in mountainous pastoralism. Politicians and local authorities saw in this phenomenon of counter-urbanization an opportunity to revitalize territories undergoing forms of abandonment. In 1972, a pastoral law was passed (Decree 72-12) to facilitate access to land, to provide incentives to organize shepherds and farms and to invest public funding accordingly. These conditions favourably evolved into an enabling environment for pastoral farming for the incoming population (Meuret, 2010; Charbonnier, 2012).

Today in France those interested in the job of shepherding can find training opportunities in one of the specialized schools in the country (Tab. 2), and earn a salary up to two or three times higher than that of their neighbouring colleagues. These conditions have allowed French citizens from all sides, levels, and social groups to engage as pastoralists over the years. The presence of foreign shepherds is specifically associated to the large meat flocks of the Provence region (Nori, 2017).

The presence of immigrants in livestock value chains is well reported in Italy as well, specifically in more intensive animal husbandry systems, including those of the Parmigiano Reggiano and the Fontina (Lum, 2011; Trione, 2015). But immigrant workers are increasingly present and relevant as well in more extensive systems, particularly in the Alpine and Apennine mountainous regions, where wildlife predation is encroaching, and the need to tend and secure grazing flocks is growing. In these regions immigrants constitute today about two-thirds of the pastoral salaried workforce (Nori, de Marchi, 2015), while in Abruzzo, a region with an important pastoral tradition, official data indicate that nine over ten salaried shepherds originate from North Macedonia and Romania (Coldiretti, 2010).

Nonetheless mountainous settings and predators dynamics are not the only drivers for the increasing presence of immigrant workforce in Italian pastoralism. In Sardinia, which holds over 40 per cent of the national sheep flock, one in three salaried shepherds is an international migrant; Albanians have been replaced over time by Romanians, reported in 2016 at about a thousand employees in about 15,000 agro-pastoral farms, and more recently by Moroccans and Indians (Farinella, Mannia, 2017).

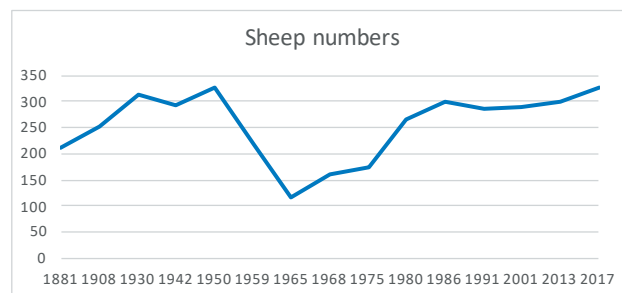
An interesting example in case for Sardinian pastoralism is also represented by the migratory phenomenon

that affected the island by mid-1900, when hundreds of pastoral households emigrated from the western, mountainous portions (basically *Barbagia* and *Ogliastra*) to the hilly regions of mainland Italy (Tuscany, Latium, Umbria). That migratory process took place at the interface of three intertwined and complementary processes: the collapse of the sharecropping system in central Italy; the imbalances of the agro-pastoral economy in Sardinia; and the evolving favourable conditions of Pecorino Romano value chain (Nori, 2021). The outcomes of such processes allowed the revival of pastoralism in central Italy, under new conditions, but through a process that was intensively supported by institutions, though credit systems, incentives, facilitations, organizational support and capacity building initiatives (Nori, Baragliu, 2021).

By the late 1970s, Sardinian sheep represented over half the total provincial flock in Siena and Viterbo. While it is difficult to quantify this fluid phenomenon, indications from research in the province of Siena (Solinas, 1989) report that by the 1980s, 1,256 people originating from Sardinia had immigrated and settled there: 340 pastoral families who, by that time, owned a total of 16,000 hectares and about 100,000 animals, with an average of about 300 animals per farm. The situation and figures are similar for the neighbouring province of Viterbo, with 350 families and over 80,000 sheep of Sardinian origin by the late 1980s (Menna, 1990); between 1970 and 1990 the provincial sheep flock almost doubled its consistency thanks to the Sardinian contributions (Fig. 4).

Indications from the different euro-Mediterranean countries thus show a) the relevance of pastoralism for local economies and landscape management; b) the growing relevance of the immigrant workforce for the permanence and reproduction of this strategic practice, c) the significance of an appropriate policy framework to enhance the integration of newcomers into existing pastoral dynamics.

Fig. 4. Changes in sheep numbers, Viterbo province, 1881-2017 (in 000s).



Source: Chamber of Commerce, Viterbo.

4. PROFILING IMMIGRANT SHEPHERDS

The typical profile of migrants who have come to work as a shepherd in EUMed region is that of a male, aged between 25 and 40, native of a country of the Mediterranean (predominantly Romania, Morocco, Albania or northern Macedonia). Nonetheless the number of salaried shepherds coming from further inlands is increasingly reported, particularly from Asia (Pakistan, India), sub-Saharan Africa (Ghana, Gambia, Senegal) or even Latin America (particularly in Spain). Refugees from conflict areas are also employed as shepherds at times, with cases of Syrians in Lebanon and Turkey, of Afghans in Turkey and Greece, and sub-Saharan migrants in Italy and Spain. Though not necessarily from pastoral areas, the large majority comes from a rural setting and has direct experience in livestock breeding (Nori, 2017).

History, language, and the networks of migrants have shaped the different migratory patterns. Romanians are mostly found in Italy and parts of Spain, Moroccans in parts of Spain and southern France, and Albanians in Greece. Immigrant shepherds often arrive alone, but they are part of networks of neighbours or relatives. These networks represent strategic assets, as these enable shepherds working in distant and isolated locations to remain in touch with their mates, and to share information and opportunities, accordingly, including on job-related matters. Romanians workers are particularly known for their close and effective networks, which can source workers and opportunities as needed. At times though, these networks present problems of intermediation with exploitative mechanisms (Nori, Farinella, 2020).

Average immigrant shepherds work individually and live in isolated sheepfolds, often in remote areas far from villages and with limited means to move. Cases exist in certain areas where shepherds are seasonal workers, who tend to return home or to work elsewhere when the peak season ends (i.e. once the transhumance or the intense milking periods are over). Although some of them had previous experience in extensive livestock rearing, the type of work they were looking for was not limited to this domain. Contractual arrangements are often quite informal and precarious. Conditions of illegality, limited rights, scarce salary and poor living and working standards represent typical features of workers operating in this grey context, on the margins of a rural world that is already marginal on its own (Pittau, Ricci, 2015; Nori Farinella, 2020). Salary rates normally range between 600 and 1.000 Euros per month, for a full-time engagement, with very limited free time and little holiday. In addition to the salary bed and board are often provided by the farm, though often associated to the sheepfolds.

This arrangement enables farmers to underpay workers and to maintain forms of control on them (Farinella, Mannia, 2019).

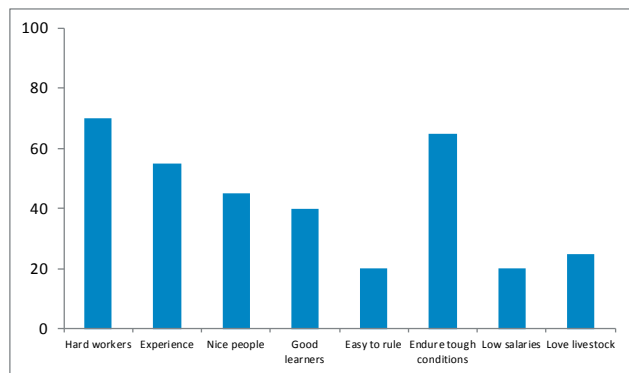
The permanence in the area of destination is also constrained by problems in accessing land, subsidies, credit: these are further exacerbated by constraints related to residence permits, entrepreneurial licenses and overall citizenship rights, including compliance with CAP procedures and rules, which would enable them accessing precious financial support. In this context, shepherd workers see little chance for improving their conditions, and for graduating socially and economically. Over the course of time, most prefer to look for opportunities elsewhere, in other economic sectors, rather than becoming livestock farmers on their own right (Nori, Farinella, 2020). Accordingly, the majority of interviewed immigrant shepherds send and reinvest their revenue in their home communities, at times on the purchase of family land and livestock, with the hope they will one day get back. They rarely see the option of remaining in the sector or in the country, as most express their intention to return to their origin areas.

It is interesting as well to look at immigrant shepherds from the perspective of the employers. Nori and López-i-Gelats (2020) provide an interesting case in this respect, through dedicated semi-structured interviews with 20 stockbreeders in El Pallars region, Eastern Pyrenean region of Catalonia, where Spain borders with France and Andorra. In that region Romanian is currently the most abundant community amongst immigrant shepherds, although the presence of shepherds originating from Bulgaria and Ukraine has been also observed, together with a growing presence of Latin-Americans, Asians and sub-Saharan Africans.

Apart from reported communication and socio-cultural challenges (e.g. Orthodox or Muslim in predominately Catholic societies), immigrant shepherds are generally appreciated for their technical skills, as well as for their endurance, flexibility and adaptability, in that they accept the working conditions and salary generally rejected by the local population. Another quality that stockbreeders stressed they look for is rusticity, that is, the capacity of the worker to adapt to a hard lifestyle. *They are like us 60 years ago* is a widely repeated sentence (ibid.).

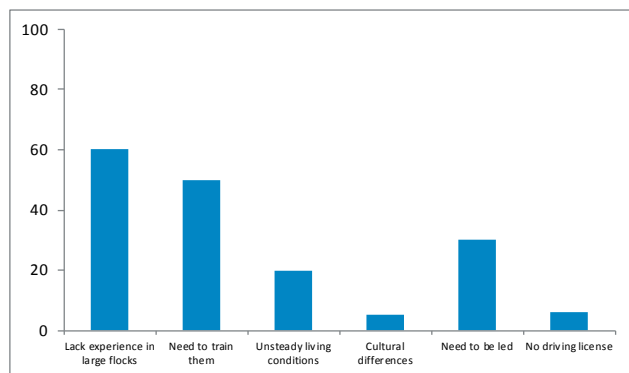
Local stockbreeders claim that working with shepherds of European origins simplifies cultural relations and communication, and their technical skills are often more pertinent/appropriate to the local context. They also argue that they prefer employing young immigrants, as they are more susceptible to learning Catalan and Spanish and more readily accept and follow rules,

Fig. 5. Most appreciated skills of immigrant shepherds for El Pallars stockbreeders (%; n=20).



Source: Nori and López-i-Gelats, 2020.

Fig. 6. Main challenges the immigrant shepherds pose for El Pallars stockbreeders (%; n=20).



Source: Nori and López-i-Gelats, 2020.

which seems somehow more appreciated than the specific knowledge and previous experience in pastoral activity.

5. POLICY AND PRACTICES

Recent CAP reforms have tried redressing some policy shortcomings, by shifting public support accordingly from remunerating productivity to a multifunctional vision of agriculture, which recognizes and support pastoral environmental practices in managing ecological resources in marginal territories (Kerven, Behnke, 2011; Nori, de Marchi, 2015). Increasing concern is also attributed to consumer as well as environmental health, including animal welfare, which also rank positively for extensive livestock breeding.

While CAP principles seem quite favourable to pastoral farming, the reality on the ground tells a different story, and Figure 2 seen above provides a quite neat and

disheartening image of the current perspective for pastoralism in southern Europe. CAP schemes are in fact criticised for providing financial support to enterprises and through mechanisms that oftentimes keep extensive livestock breeders out of reach (Nori, 2021). CAP concerns are even less consistent when addressing the conditions and rights of immigrant labourers in agricultural systems, and major steps are yet to be done in supporting the inclusion, upgrade and integration of immigrant communities in rural territories, in economic as well as in social and civil terms (Corrado *et al.*, 2018; Nori, Triandafyllidou, 2019). A more consistent policy environment should cast rural development within a wider, comprehensive frame that also includes labour markets, environmental issues, trade agreements as well as migration policies.

Important initiatives that invest in sustainable pastoralism, also through the integration of its immigrant workforce, exist though at the local level. Several experiences and practices have evolved in recent years in many Euro-Mediterranean regions under the label of “pastoral schools”. Through strategic investments in human resources and capacities, these schools pursue the overall aim of contributing to generational renewal in pastoral areas. Accordingly, technical skills and knowledge management are often associated with specific initiatives aimed at enhancing access to land, credit and subsidy schemes, so to provide a comprehensive package to support the transition to the entrepreneurial level, and become pastoral farmers on their own right.

These initiatives are typically funded through regional schemes, often with financial contributions from the EU, and mostly target specific local animal breeds, products and services. Pastoral schools provide a potential venue for a longer-term integration of the shepherding workforce, including immigrants. Most pastoral schools are located in France and Spain (Tab. 2), although these exist in Switzerland as well, and efforts are ongoing in Italy as well.

6. CONCLUSIONS

The agrarian world is undergoing important transformations, which deeply modify the agro-ecological, institutional, economic, and human landscapes of rural territories. Visible outcomes of modernization and globalisation processes are the geographical as well as social polarisation of agricultural dynamics and the growth of an immigrant agricultural workforce. The relevance of such phenomena is particularly high in inner and remote territories, where human presence is critical not only to sustain the local economy, but also to support the social

Tab. 2. Initiative of pastoral schools in France and Spain.

Centre	Training	Notes
<i>France</i>		
SupAGRO, Montpellier, Provence	Professional agricultural certificate qualified worker for sheep meat flocks	Since 1936 Duration 12 months
Reinach, La Motte Servolex - 3 centres in the Rhône-Alpes	Multifunctional shepherding	Since 2004 Duration 6 months
CFPPA, Ariège-Pyrénées	Sheep and cattle dairy production Transhumant shepherding	Since 2006 Duration 6 months
Le Centre d'exploitation et d'expérimentation ovine, Digne	Qualified worker for sheep meat flocks, fodder crops and dairy animals with farm cheese processing	Since 1999 Duration 6 months
<i>Spain</i>		
Escuela de pastoreo de Artzain en Gomiztegui, Baq sue country	Specialised in breeding the local Latxa sheep breed, and in the production of the Idizabal cheese	Since 1997 Duration 5 months
GRIPIA, Escola de pastores, Catalunya	Agro-ecological model	Since 2009 Duration 5 months
Campo Adentro, Picos de Europa, Asturias	Agro-ecological model Sperimental farm and cheese processing site	Since 2004 Recently expanded to Mallorca and Sierra Norte
Escuela de pastores, Andalucia	Focus on local breeds Shepherds and stockbreeders Training of trainers and tutors	Since 2010 Duration 4 months shifting location
Escuelas de pastores en Extremadura	Cooprado and Castuera centres Professional qualified worker for sheep production and processing	Since 2010 Duration 4 months

tissue and the ecological management. Pastoralism traditionally provides a relevant to local livelihoods in these settings and thus offers an adequate perspective to assess and analyse social changes in the rural world.

In the Euro-Mediterranean region, global competition has forced most pastoral farms to restructure their practices, pushing towards an expansion of flock size, the intensification of its management and a reorganization of labour regimes. Although increasingly appreciated by society for the quality products and services they provide, pastoral practices are decreasingly attractive to local populations, and the need for shepherding labour is met increasingly by international migrants who provide a skilled workforce at relatively low costs. International migrants have thus become a strategic asset for pastoral farms, and for keeping marginal territories vibrant and productive.

Nonetheless, intense demographic decline, land abandonment and generational renewal pose notable challenges to the sustainable future of pastoral territories. Under current conditions, immigrant shepherds demonstrate a limited interest in graduating as stockbreeders and in stabilizing permanently in the host area. The limited formalization of contractual relationships, the low level of recognised rights and the limited prospects for socio-economic upgrading are interwoven driv-

ers that characterize the constraints immigrants face in integrating locally and upgrading their status.

The recognition of immigrants' contributions to agrarian development is growing, though at a limited pace, and still poorly translates into adequate policies, investments and initiatives. Lessons from the past indicate that the policy framework is critical in establishing an enabling environment that favours the social and economic integration of newcomers into rural settings. In difficult territories and remote communities this seems to be an unmissable opportunity for reversing ongoing depopulation and desertification. An adequate policy frame is therefore required, with a view to improve the profitability of this sector, its attraction for new generations, as well as its ability to integrate workers from different backgrounds, countries, cultures.

While CAP reforms are awaited in this respect, the experiences of pastoral schools provide interesting cases that evolve from local society and institutions with a view to tackling generational renewal shortcomings and including and involving the immigrant workforce. The evident mismatch between policy narratives and field practices as well as the ways agricultural policies could effectively translate into more sustainable pastoral farming and enhanced integration of migrant workforce represent fertile domains for future research actions.

REFERENCES

- Bock B., Osti G., Ventura F. (2016). *Rural migration and new patterns of exclusion and integration in Europe*, pp. 71-84. In: Shucksmith M., Brown D. (eds.), *The Routledge international handbook of rural studies*. New York, Routledge.
- Coldiretti (2010). *Complemento al Dossier immigrazione Istat 2010*.
- Colucci M., Gallo S. (2015). *Tempo di cambiare*. Rapporto 2015 sulle migrazioni interne in Italia. Roma, Donzelli
- Collantes F., Pinilla V., Sàez L.A., Silvestre J. (2014). Reducing depopulation in rural Spain. *Population, Space and Place*, 20(7): 606-621. DOI: 10.1002/psp.1797
- Corrado A., Caruso F.S., Lo Cascio M., Nori M., Palumbo L., Triandafyllidou A. (2018). *Is Italian agriculture a "pull factor" for irregular migration – and, if so, why?* Technical report. EUI and Open Society Foundation.
- Corrado A., De Castro C., Perrotta M. (eds.) (2016). *Migration and Agriculture. Mobility and change in the Mediterranean area*. London, Routledge.
- Charbonnier Q. (2012). *1972 - La Loi pastorale française*. Avignon, Cardère .
- Desjardins M.R., Bessaoud O., Issa D., Berdaguer D., Zied A., Harbouze R., Debrun A. (2016). *Une lecture de la crise migratoire: l'agriculture et le développement rural comme source de résilience dans les pays du Sud et de l'Est de la Méditerranée*. Watch Letter n° 36. Montpellier, CIHEAM
- D'Ottavio P., Francioni M., Trozzo L., Sedić E., Budimir K., Avanzolini P., Trombetta M.F., Porqueddu C., Santilocchi R., Toderi M. (2017). Trends and approaches in the analysis of ecosystem services provided by grazing systems. A review. *Grass and Forage Science* 72(2): 1-11. DOI: 10.1111/gfs.12299
- EU (2020). *Market Situation for Sheep & Goat Meats*. Committee for the Common Organisation of the Agricultural Market. Bruxelles, European Commission.
- EU (2017). *The Future of Food and Farming*. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and The Committee of the Regions. Draft document introducing the CAP 2020 Reform. Bruxelles, European Commission
- Eurostat (2020). *Agriculture Database*. Available at: <https://ec.europa.eu/eurostat/web/agriculture/data/database> (accessed 20 January 2020).
- Eurostat (2016). *Agriculture, forestry and fishery statistics*. 2016 edition. Luxembourg, Eurostat
- Farinella D., Nori M. (2020). *Lessons from the mountains: mobility and migrations in Euro-Mediterranean agro-pastoralism*. In: Rye J.R., O'Reilly K. (eds.), *International Labour Migration to Rural Regions*. London, Routledge.
- Farinella D., Mannia S. (2017). Migranti e pastoralismo. Il caso dei servi pastori romeni nelle campagne sarde. *Meridiana*, 88(1): 175-196.
- Farinella D., Mannia S. (2019). «Mi chiamo Serban e non sono il romeno di nessuno, sono il romeno di me stesso». Pratiche di assoggettamento e soggettivazione tra pastori sardi e servi pastori romeni. *Etnografia e ricerca qualitativa*, (3): 405-426. DOI: 10.3240/92124
- Farinella D., Nori M., Ragkos A. (2017). *Change in Euro-Mediterranean pastoralism: which opportunities for rural development and generational renewal?* In: Porqueddu C., Franca A., Molle G., Peratoner G., Hokings A. (eds.), *Grassland resources for extensive farming systems in marginal lands*. Wageningen, Academic Publishers.
- Gertel J., Sippel R.S. (eds.) (2014). *Seasonal Workers in Mediterranean Agriculture: The Social Costs of Eating Fresh*. London, Routledge.
- ISMEA (2019). *Settore ovicaprino*. Scheda di settore. Roma: Istituto di Servizi per il Mercato Agricolo Alimentare
- Kasimis C. (2010). Demographic trends in rural Europe and migration to rural areas. *AgriRegioniEuropa* 6(21).
- Kasimis C., Papadopoulos A.G. (2013). *Rural Transformations and Family Farming in Contemporary Greece*. In: Ortiz-Miranda D., Moragues-Faus A., Arnalte-Alegre E. (eds.), *Agriculture in Mediterranean Europe: Between Old and New Paradigms*. London, Emerald.
- Kerven C., Behnke R. (2011). Policies and practices of pastoralism in Europe. *Pastoralism: Research, Policy and Practice* (1): 1-28. DOI: 10.1186/2041-7136-1-28
- Lum K.D. (2011). *The Quiet Indian Revolution in Italy's Dairy Industry*. Firenze, European University Institute.
- Martin P.L. (2016). *Migrant Workers in Commercial Agriculture*. Geneva, International Labour Organization.
- Mattalia G., Volpato G., Corvo P., Pieroni A. (2018). Interstitial but resilient: nomadic shepherds in Piedmont amidst spatial and social marginalization. *Human Ecology* (46): 747-757. DOI: 10.1007/s10745-018-0024-9
- Meloni B. (2006). *Le nuove frontiere della transumanza e le trasformazioni del pastoralismo*, relazione presentata al convegno. In: Mattone A., Simbula P. (eds.), *La pastorizia mediterranea Storia, diritto e prospettive (secoli XI-XX)*. Carocci, Roma.

- Menna P. (1990). *L'allevamento ovino in provincia di Viterbo. Aspetti gestionali e produttivi*. Tesi di laurea. Facoltà di Agraria. Università della Tuscia, Viterbo.
- Meuret M. (2010). *Un savoir-faire de bergers*. Versailles, Editions Qua Beaux livres.
- Nori M. (2021). *The evolving interface between pastoralism and uncertainty: reflecting on cases from three continents*. RSCAS Working Paper 2021/16, Robert Schuman Centre for Advanced Studies. Florence, European University Institute.
- Nori M., Baragliu A. (2021). *Pastorizia nella Tuscia e nelle Maremme; storia e pratiche di un territorio e delle sue genti*. Grotte di Castro, Annulli.
- Nori M., Farinella D. (2020). *Migration, Agriculture and Rural Development: the case study of agro-pastoralism in Mediterranean Europe*. International Migration, Integration and Social Cohesion (IMISCOE) Short Readers on Migration. Springer
- Nori M., López-i-Gelats F. (2020). Pastoral migrations in the Mediterranean: cultural and generational renewals. *Journal Economía Agraria y Recursos Naturales - Agricultural and Resource Economics* 20(2). DOI: 10.7201/earn.2020.02.05.
- Nori M. (2019). *Herding through Uncertainties – Regional Perspectives. Exploring the Interfaces of Pastoralists and Uncertainty*. RSCAS Working Paper RSCAS 2019/68, Robert Schuman Centre for Advanced Studies. Florence, European University Institute.
- Nori M., Luisi D. (2019). *Foreigners in Alpine to Apennine inner areas. The evidence of a territorial public policy*. In: Galera G., Machold I., Membretti A., Perlik M. (eds.), *Alpine Refugees. Foreign immigration in the mountains of Austria, Italy and Switzerland*. Cambridge Scholars.
- Nori M., Triandafyllidou A. (2019). *Mediterranean interfaces: agriculture, rural development and migration: Forward-looking policies and programs for an integrated approach*. EUI Global Governance Programme, Policy Brief 2019/03. Florence, European University Institute.
- Nori M., Triandafyllidou A., Le Hénaff M.H., Robert C., Castro G., Abdelali-Martini M., Provenzano G. (2019). *Forum on Agriculture, Rural Development and Migration in the Mediterranean - A better understanding of the drivers and impacts for forward looking policies and programs*. EUI Global Governance Programme, Full Report. Florence, European University Institute.
- Nori M. (2017). Migrant Shepherds: Opportunities and Challenges for Mediterranean. *Journal of Alpine Research*, 105(4): 0-14. DOI: 10.4000/rga.3544.
- Nori M., de Marchi V. (2015). Pastorizia, biodiversità e la sfida dell'immigrazione: il caso del Triveneto. *Culture della sostenibilità*, 8(15): 78-101. DOI: 10.7402/CdS.15.073
- Ortiz-Miranda D., Moragues-Faus A., Arnalte-Alegre E., (eds.) (2013). *Agriculture in Mediterranean Europe: Between Old and New Paradigms. Research in Rural Sociology and Development*, Volume 19. London, Emerald.
- Pittau F., Ricci A. (2015). Agricoltura e migrazione nel contesto dei nuovi mercati globali. *Dialoghi Mediterranei*, 12.
- Ragkos A., Nori M. (2016). The multifunctional pastoral systems in the Mediterranean EU and impact on the workforce. *Options Méditerranéennes, Série A Séminaires Méditerranéens* 114(15): 325-328. Saragoza, CIHEAM.
- Rye J.R., O'Reilly K. (eds.) (2020). *International Labour Migration to Rural Regions*. London, Routledge.
- Rye J.F., Scott S. (2018). International Labour Migration and Food Production in Rural Europe: A Review of the Evidence. *Sociologia Ruralis*, 58(4): 928-952. DOI: 10.1111/soru.12208
- Sampedro R. (2013). *Spatial distribution of foreign labor immigrants in rural areas: exploring the potential of towns and villages to retain them in the long run*. Proceedings of the XXV conference of the European Society for Rural Sociology, Florence.
- Solinas P.G. (1989). *Pastori Sardi in provincia di Siena*. 3 Volumi. Dipartimento di Filosofia e Scienze Sociali, Università di Siena.
- Trione S. (2015). *Intervista a Dislivelli*. Available at: <http://www.dislivelli.eu/blog/migranti-in-alpeggio.html>
- Van der Ploeg J.D. (2008). *The New Peasantries. Struggles for autonomy and sustainability in an era of empire and globalization*. London, Earthscan.
- Varela E., Gorris-Mifsud E., Ruiz-Mirazo J., López-i-Gelats F. (2018). Payment for targeted grazing: Integrating local shepherds into wildfire prevention. *Forêts*, 9(8): 464. DOI: 10.3390/f9080464