Joint production and multifunctionality in agriculture: Case studies of small farms on the island of Sicily

Filippo Sgroi (corresponding author)

Department of Agricultural, Food and Forestry Sciences, University of Palermo, Italy filippo.sgroi@unipa.it

Federico Modica

Department of Agricultural, Food and Forestry Sciences, University of Palermo, Italy

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Abstract

Starting in the 1970s, agriculture in Western countries began to progressively lose the critical success factors on which it based its competitive advantage, which was localization. The development of both the food industry and organized distribution, the intensification of trade, and the speed of information transfer led to new needs and new scenarios within which new agricultural systems emerged. This research analyzed the changes imposed on the agricultural system by the economic development process and determined the trajectories taken by some agricultural entrepreneurs. The study shows that those agricultural entrepreneurs who have been able to adapt their business strategy to the new production scenarios that have emerged remain competitive in the market, while those who have been passively affected by economic development have resulted in agriculture that in many ways only manages to survive thanks to the contribution of the Common Agricultural Policy and without which it would be ousted from the market.

Keywords

agriculture, joint production, Sicily

1. Introduction

The process of modernization that has affected agriculture in industrialized countries, which also affected Sicilian agriculture, together with the diversification of the configurations assumed by industrial development, has led to differentiated socio-economic development situations between farms and territories [1]. Over the last fifty years, the monotonicity of the rural-urban, or agricultural-industrial opposition has gradually broken down in industrialized countries in favour of a more articulated situation whereby areas of intermediate agricultural development, areas of urbanized countryside, areas of new agricultural settlement, and areas of diffuse industrialization and industrial districts have



emerged [2]. Economic development has resulted in the emergence of large-scale industry on the one hand, and the marginalization of agricultural activity on the other. The emergence of new modes of economic development in rural areas gradually undermined the industrial and urban development model, and with it, its dominance not only economically, but also culturally [3]. In Sicilia, there has been a similar evolution. On the one hand, the introduction of mechanization on farms has been similar to the rest of the industrialized countries, however, a phenomenon of polarization of Sicilian agriculture has begun, which could be summarized as having created a series of agricultural production structures suitable for the production of agricultural products for the local market. This type of agriculture was able to create conditions for development in many Sicilian territories where the "production-consumption" model was based on local resources. However, from the 1980s onwards, people began to speak critically about the quality of life in large industrial cities and instead re-evaluated the positive aspects of life in the countryside, often even idealised especially by residents in urban areas. This is mainly due to pollution and the lack of a relationship with country life, which is considered healthy by many [4]. In any case, this reappraisal and new attention to the tranquillity of rural life, to the landscape shaped by agriculture, the uncontaminated environment, the traditions and culture of places, to the possibility of reactivating social relations lost in frenetic city life, to typical agro-food products, and more generally to the quality of food, marks a strong change in the social perception of the role of agriculture in society, a change that will gradually be accepted, albeit with some resistance and friction, even within the objectives of national and, above all, community agricultural policy. Agriculture which was the dominant sector of rural areas in terms of both the economy and social relations, formed by professional enterprises within usually closed and autonomous social communities, was gradually replaced by agriculture, having lost its role as the exclusive engine of the local economy, was fragmented into a multiplicity of types of professional entrepreneurship (spread of part-time and multi-family activities, subcontracting, etc.) and non-professional figures (pensioners, workers, etc.) and non-professional figures (pensioners, hobbyists, etc.), with holdings of differing size, organisation and objectives, and leaves the field open to even 'non-agricultural' use of rural areas [5]. The increasing openness of markets, accompanied by the globalisation of markets, not only of factors, services and products, but also of labour forces, entrepreneurs and knowledge, contributes to injecting new dynamism into rural areas, but also to the formation of rural systems with less internal economic and social cohesion, sometimes giving rise to greater conflict over the use of local resources between traditional residents and newcomers. The formation of variable-geometry rural systems determined by new economic and social dynamics, and the concomitant crisis of mass agriculture based on commodity production (commodities not differentiated to subsequent processing within the agro-industry), extensive use of modern technologies, large farm size (economies of scale) and price competition leaves the field open to experimentation with alternative models that, based on changes in the demands made by the community on the agricultural sector and the rural world, lead to greater attention being paid to the quality of production, to the protection of the environment and the rural landscape, to the provision of new services (e.g. agritourism, social farms, ortitourism), and the preservation of the traditions and culture of rural areas [6]. While in the previous period the agricultural sector was essentially required to contribute in terms of labour and low-cost agricultural commodities to guarantee the security of supply, in more recent years the demands placed on the sector by the community have changed and diversified according to the new vision of agriculture in developed economies. In recent years, the agricultural sector continues to fulfil the old functions of providing labour to the other sectors of the economy and producing food for the population. However, these functions are presented in a new style thanks to the spread of multi-activity and part-time work, it is possible to maintain employment within the farming family and at the same time offer flexible labour supply especially for the needs of small and medium-sized enterprises that are increasingly settling in rural areas and for the public administration sector. This aspect has been very much present in Western agricultural systems where the lack of generational turnover has led to the spread of part-time work in agriculture. In this case, the



income from agricultural activity supplements the income from the secondary or tertiary sector where the farm owner or the children have found employment [7]. On the other hand, the agricultural sector increases its ties with the food processing industry and reacts to the crisis of mass consumption by diversifying its product range and offering new, quality, niche products and services, and by activating forms of communication of a different type from the past, recovering direct relations with the end market and the citizen, and establishing new types of relations at a local and more global level [8]. In the present study, after analysing the relevant economic literature, we analysed how farms can continue to be competitive despite the new scenarios that have determined the production-consumption model. The production-consumption model determines a situation where food is produced in one part of the world and consumed in another part, and this works in favour of farms with competitive advantages in terms of economies of scale.

2. Sicilian agriculture

The agriculture of the island of Sicily is characterized by the diversity of the territory and according to the plains, hills and mountains. Thus in the western area of the island, we can find vast extensions of vineyards, olive groves, citrus fruits, and vegetables (Palermo and Trapani) (Fig. 1). In the hinterland (Caltanissetta and Enna) we find arable land in rotation with fodder. In the hilly and mountainous areas there are also crops that can be located in the plains and yet are characterized by problems of lack of competitiveness as a function of higher production costs. In the eastern area (Catania and Syracuse) of the island we find citrus fruits (especially orange). In the Ragusa area, we find the cultivation of vegetables in greenhouses. In the Agrigento area, we find above all almonds, olive trees and oranges (blondes). In the Messina area, we find lemon groves. In recent years, tropical fruit crops have begun to spread in Sicily as a result of climate change. Therefore, the phenomenon of agricultural development has also been witnessed in Sicily, however, unlike other territorial poles (Northern Italy), Sicily has not been a pole of attraction for large capitals in the food processing industry in most of the production chains (wine, oil, meat, vegetables). So the agriculture of the island of Sicily has passed from a phase where it is produced for the local market and there was a certain degree of territorial development and economic growth to a phase where undifferentiated products are produced for the food industry concentrated above all in the Regions of Northern Italy or abroad (as for example in the eighties of the last century for the wine that was sent to France to then be bottled). This situation has recently begun to change on the island of Sicily thanks to the commitment of various entrepreneurs in the olive oil, wine, meat and horticultural products sector for the production of fourth-range products. If from this point of view the problem seems to have been solved, in many territorial contexts of the island of Sicily agriculture is in a precarious condition and at risk of abandonment of the activity due to the low prices of the products.





Fig 1. Sicily and its provinces. (Source: Wikimedia Commons)

In many contexts of the island, agriculture lives a situation of subsistence. In economic terms, we can say that these are marginal businesses. The lack of competitiveness originates from various reasons: lack of cooperation between farmers, lack of generational turnover, and lack of services made available by the public operator for entrepreneurs (just think that some campaigns are not covered by the internet). All these factors contribute to creating those conditions of abandonment of the agricultural reality. In particular, we see in the inland areas (perhaps depopulation) the presence of land capital and the lack of a workforce. As economic theory teaches us, the presence of a single factor of production does not represent the condition for the creation of enterprises and for the production of goods and services.

3. Review of the economic literature

Today, the rural areas of developed countries are not only the place where the production of agricultural commodities takes place but also the place of residential settlements and the 'consumption' of leisure time through the various forms of enjoyment of the countryside such as rural tourism and other forms of utilization that see the countryside as a multifunctional container at the service of the community [9, 10]. The emergence in the community of the issue of environmental and cultural awareness also leads to the demand for new functions and services that the agricultural sector is increasingly called upon to perform in addition to its traditional function of producing agricultural products for the market. These concepts are summarised in the multifunctionality of agriculture, an expression that was developed as part of the debate on the evolution of the European Union's agricultural and rural development policies and has been part of the terminological baggage for some years now in the definition of a new model of agriculture that, in addition to the



production of foodstuffs, deals with services connected to agricultural activity [11]. Multifunctionality expresses the potential of the farm countryside to perform multiple social functions at the same time, alongside the more traditional function of producing foodstuffs to sustain the population, a function that is typical, if not exclusive, of the period of agricultural modernisation [12]. Indeed, the agricultural sector is increasingly called upon to perform a diverse range of other functions. These functions are aimed at ensuring the development of the socio-economic system of rural areas as a community of individuals, quaranteeing sufficient vitality and quality of life, with particular reference to the most marginal and disadvantaged areas at risk of economic, social and cultural erosion; guaranteeing the achievement of food security, which in advanced countries does not so much concern the satisfaction of basic food needs, but the availability of healthy and safe food products from a hygienic-sanitary point of view, an aspect of considerable importance in function of the high per capita income and the elasticity of demand for food with respect to price meet the needs for quality, quantity and variety of the productions made, in the face of the growing standardisation of food resulting from the industrialisation and globalisation of production processes and consumption models (diversification of production supply and safety in product availability) preserving and reproducing the available natural resources, contributing to the reduction of the impact of activities on the environment and climate, and making a positive contribution to hydrogeological protection and the preservation of biodiversity and the landscape (the right relationship between land and agricultural production as a function of soil and climate conditions) preserving and reproducing the anthropic environment, rural and peasant cultures and local traditions, including food and wine (agriculture is almost like a container of knowledge); producing recreational services, to make rural areas usable by citizens (agritourism, social farms) [13]. Until the recent past, these functions were not explicitly requested by the community and were therefore not supported by the sectoral and territorial policies relating to agriculture. Today, however, they are fully recognised and sought after in advanced societies with a high per capita income and are increasingly supported by the new agricultural and rural development policies that very often, by these new needs of the community, justify the intervention of the public operator in the primary sector, as happens in Europe with the Common Agricultural Policy. It should be recalled that at the origin of the growing focus on the multiple functions that can be performed by agriculture there are competitiveness reasons linked to the search for a competitive advantage in the markets [14]. In fact, in the face of the increasing opening of borders and the promotion of international trade, not only of finished products but also of semi-finished products, production and the organisation of production increasingly take place in increasingly open geographical spaces [15]. Indeed, it occurs that a product made in one part of the world is made available for consumption in another part. This situation makes one think about the consequences of this unregulated opening up to the domination of large industrial and commercial enterprises, of a 'standardised' and standardised agriculture, of food and consumer communication problems, and ethical problems. To cope with this situation, new ways of operating have arisen and are rapidly spreading, at least in developed countries, which seek, at various levels, to escape and counter these large forces operating within an oligopolistic market. The search for competitiveness, and recovery of profit margins, in the face of growing competition on the production cost side from many countries with low labour and raw material costs, leads to the search for new products/new commercial and communication channels, and new services, that can allow the permanence and regeneration of agriculture within rural spaces that are less and less centred on agricultural activities [16]. Moreover, in economic terms, large enterprises, depending on their capital and financial capacity, can build large facilities and thus lower average unit costs. As a result of these limitations, companies are seeking a strategic repositioning of their activities and are trying to accommodate changes in consumer demand, which is increasingly sensitive to food quality and safety, to the way products are obtained and their environmental impact, and to the territorial and cultural origin of the products themselves [17]. The pressures exerted by the new consumer demands, therefore, lead to the expression of a demand for multifunctionality addressed to the agricultural sector, offering diversified spaces for restructuring and



upgrading of agricultural activities that not all farms and territories have been able to exploit so far [18]. Today, farms are called upon to provide quality products, and environmental, cultural and recreational services [19].

4. Materials and methods

The outcome of the changes that have taken place in the agricultural system of industrialised countries is today that of extremely diversified agriculture that sees a decisive orientation towards a new development model that revolves around the quality of the products offered but also, and increasingly so, of the services offered such as agritourism and educational farms, and that at the same time requires new ways of connecting direct sales, e-commerce, wine and oil routes, and nature trails both within the territorial area and in local-global relations. The characteristics assumed by these new directions, or this new way of doing agriculture, lead to the revaluation of endogenous development models. Each area is therefore called upon to make exogenous forces interact with endogenous forces [20]. The consequences of this model can be seen in the competitiveness of the enterprise, both within rural areas and in the relationship between the local economy and the global economic system. Within rural areas, development is reoriented in such a way as to make the most of local physical and socio-cultural resources to retain as much benefit as possible within the area and thus favour human permanence in the territory. It is in fact on the development of the activities present in the area that the territory's economic growth depends on. Development objectives are defined based on the needs, capacities and prospects of the local players, and the participation of the population is a key principle and mode of action [21]. The concept of development itself must be approached comprehensively, i.e. dealing at the same time with economic, sociocultural and physical well-being. In the relationship between rural areas and the external context, on the other hand, it must be emphasised that the development of the rural area depends on the process of osmosis that is created between business and social actors (public actors, service companies, voluntary organisations, banks, etc.) in terms of direct responsibility in designing and implementing development initiatives. It thus becomes important to both achieve greater interaction and cohesion between social groups and categories at a territorial level and to create strategic and extra-local alliances. To empirically verify what has been stated from a theoretical point of view, we examined ten case studies of farms that over the years have diversified their offerings: from only agricultural production to farms that also offer agritourism services [22, 23]. The choice of the survey units was made according to the objectives of the present study: that of diversifying man's stay in the area despite the new scenarios imposed by the global economy. Therefore, agricultural enterprises were chosen, which until twenty years ago only produced agricultural products for the market, while today they also offer agritourism services [24]. The units surveyed fall within the territories of the provinces of Palermo, Trapani and Agrigento, i.e. in the western part of Sicily. The interviews were done in 2022 (between August and October).

5. Results and discussions

The gradual diffusion of the new model of multifunctional agriculture and the principles of endogenous development, in the meanings outlined above, requires major adaptations on the part of agricultural enterprises, which must partly review their operating principles and strategies. The new definition of the agricultural entrepreneur makes possible the affirmation of the multifunctional agricultural enterprise model, i.e. an agricultural enterprise that alongside the traditional function of producing agricultural goods also performs an articulated set of other functions, some of which are vertically linked to the production of agricultural goods (processing of agricultural products from the farm marketing, production of specific quality goods), others relating to the production of non-agricultural goods (agro-energy),



agricultural services (e.g. agro-mechanical services for other agricultural enterprises) and non-agricultural services (e.g. agro-tourism, leisure, educational and cultural services). All but one of the companies surveyed have already undergone a generation changeover. This fact helps to understand that the company's strategic orientation is important for the company's resilience in the area. The age of the entrepreneurs is quite low (except for one who is 52) ranging from a minimum of 25 to a maximum of 52 years. In all cases, the wife assists the entrepreneur in the company, demonstrating the strategic variable of success that also rests in women's work and the opportunity cost that the same has in the context of the family-run structure. Joint production has been practiced for several years (from a minimum of 10 to a maximum of 25 years).

Table 1. Farms interviewed

N°	Farm establishment year	Age of the entrepreneur	Has at least one generation change passed?	The entrepreneur's wife works on the farm	How many years has joint production been practised?
1	1950	40	Yes	Yes	20
2	1914	47	Yes	Yes	10
3	1970	52	Yes	Yes	25
4	1980	40	Yes	Yes	20
5	1995	30	No	Yes	10
6	1996	25	Yes	Yes	10
7	1960	32	Yes	Yes	15
8	1955	33	Yes	Yes	22
9	1962	28	Yes	Yes	25
10	1960	40	Yes	Yes	20

Alongside these functions aimed at the market, and which can therefore find their prevailing valorisation on it, an increasing number of farms are engaged in the production of goods and above all services that in themselves find their valorisation not on the market but directly by the public operator: this is, for example, the case of environmental services (e.g. the cultivation of plant species or the breeding of animal breeds in danger of extinction, or the creation of natural habitats) and landscape services (e.g. the recovery and maintenance of architectural elements or traditional hydraulic arrangements, such as dry stone walls or terracing), but also of social and rehabilitative services that can be carried out in agreement with the health system. In this key, the joint production implemented within farms takes on largely new connotations, and for the farmer, new opportunities open up for better and more rational exploitation and better valorisation of the resources available on the farm. More generally, it is the very physiognomy of the farm that is changing and taking on much more diverse connotations than in the past, due to the emergence of innovative business development paths that are increasingly oriented towards the new demands of the market and society. The multifunctional farm is characterised by major changes compared to the farm model of the modernisation era. In the period of the rise of modern, industrialised agriculture (mass production), farms tended to simplify their production systems and not to go beyond the confines of agricultural activity; at the same time, they outsourced an increasing number of stages of the production process by increasingly resorting to the procurement of factors on the market. The guiding principle was the search for maximisation of yields and efficiency of scale, to be achieved through increases in size. The function traditionally assigned to the agricultural sector as a producer of low-priced foodstuffs, prevalent until the 1980s, gradually gave way to a plurality of demands expressed by consumers, residents in rural areas (old and new settlements), tourists from more or less distant areas, and society in general, an increased expression of the recognition



of the multifunctional character of agricultural activities. In the multifunctional farm model, the loss of contact with the consumer and of social visibility that had characterised the previous period is mitigated with the activation of direct relations: direct sales on the farm or in proximity circuits, agritourism activities, educational farms, are all examples of activities that reactivate the direct production-consumption/society link and give rise to new professional and skills needs. The enterprise also increases relations aimed at utilising the resources in the area in a synergic manner (artistic, cultural, environmental and natural resources, synergies with other local craft productions), building links with local operators (public and private, individual and collective) on an equal footing and no longer on a level of dominance. Some phases of the production process, previously delegated to external specialised operators, are again reincorporated within the core business (processing of agricultural products at artisanal level, production of inputs). In the context of the companies surveyed, these activities were carried out on the farm until the mid-1980s. They were activities in the processing of grapes into wine, the preparation of tomato sauce, and canned products (peppers, aubergines, jams, fruit juices). Some products such as wine were destined for the market, while others were for self-consumption. Today, in the companies surveyed, there is a return to producing wine on the farm, and the products that were destined for selfconsumption are now the basis of agro-tourism activities, so the limitation that was previously dictated by the lack of disposable income to purchase the product from the market, has now become an opportunity to produce income on the farm. It is no longer economies of the size that drive the strategic orientations of the enterprise, but economies of purpose. Production arrangements are becoming broader and more diversified, and activities are expanding outside the agricultural sector in the strict sense (agritourism, educational farms, etc.). Changes in consumer attitudes, supported by the new orientations of the European Union's agricultural and rural development policies, lead businesses to privilege aspects linked to the quality of products and processes, to increase attention to the environmental and landscape dimension of the production processes adopted, and to the protection of biodiversity. The valorisation of products with increasingly complex quality attributes is also realised in many cases through a recovery of more direct links with consumers (direct sales, e-commerce, etc.) and the use of quality assurance systems (organic farming, denominations of origin). The principle of multifunctionality is implemented by diversifying and enhancing the production of externalities of production processes (environment, landscape, biodiversity), and requires the activation of a denser network of relations also at the local level, with public institutions and other economic operators. These transformations offer new employment opportunities within the farm, not only in terms of the number of man-hours needed to cope with the new activities undertaken, but also in terms of the quality of work, given the different skills and professionalism required to carry out partly new and more complex activities (marketing and communication, production of quality products subject to certification, management of agritourism clients, provision of environmental services, etc.), and in terms of type and gender. In particular, some activities lend themselves to a better valorisation of the work of young people and women (think of quality agri-food productions, management of agri-tourism activities, tasting of typical products), not only in terms of greater employment of people with problems in entering the labour market but also in terms of gratification and quality of the work itself. The new development paths that agricultural enterprises can follow also offer opportunities for new employment and the creation of new supporting professional figures. Quality rural development and the orientation towards multifunctional agriculture need to recalibrate and adapt the professional figures that revolve around agriculture to make the entire system coherent. Therefore, not only are prospects open for employment on the labour market for professional figures that support the orientation of agricultural enterprises towards quality and diversification 'outside' strictly and traditional agricultural activities, but also for professional figures capable of activating and connecting operators by triggering virtuous processes of rural development, such as the construction of integrated packages that can link the various resources (agricultural, environmental, cultural, etc.) present in a given area or the development of the rural economy) present in a given area or the activation of cooperative links between agricultural enterprises aimed



at single projects or the construction of common paths for the valorisation of local resources. The transformation from a monofunctional agricultural enterprise (i.e. one focused only on the production of agricultural goods sold as an undifferentiated raw material on the market) to a diversified and multifunctional farm is therefore a complex process that involves the three fronts of the farm: that of relations with the market within the production chain, that of the extension of the type of activities carried out, and that of relations with the rural area in which the farm operates and with the system of resources and actors present in it. The first aspect concerns all the activities linked to traditional activities and positioned upstream and downstream of them. These are production or service activities oriented first and foremost towards the replacement of conventional factors with new ones, the reorganisation of production into integrated and more complex forms, product innovation and the care of its qualitative aspects, the processing and valorisation of production, the direct marketing of end products or in any case the shortening of supply chains and the establishment of more direct and closer relations with the end consumer. The second aspect includes all product or process innovations and integrated activities upstream and downstream of traditional agriculture. This includes differentiated productions, especially typical or quality productions often supported by explicit and formal forms of recognition of quality (as in the case of the various forms of certification and valorisation) or those that respect the environment (organic farming or integrated pest management), but also the development of new products (new varieties, small fruits, etc.). All the transformations of products carried out in the same farm (bread, wine, cheese, beer), the forms of collective organisation of supply (supply groups) and, in any case, all the initiatives aiming at the constitution of short supply chains between production and consumption (direct sales, farm shops, farmers' markets), the new forms of commercialisation (e.g. adoption of animals by the farmer, sales through the Internet) are also cases for in-depth study. At other times it is the consumer who is lured by the producer into his enterprise (consumer picking or pick-it-yourself). Finally, the third aspect is all forms of substitution of production factors with internal inputs, with reference in particular to energy production, reuse of animal manure for fertilisation purposes, and new forms of crop rotation and rotation. It is often a matter of bringing back under the control of agriculture activities that it already carried out in the past, but which it had lost as a result of the industrialisation of agriculture and the specialisation of production. This aspect concerns production and service activities that go hand in hand with agricultural activity proper. They are aimed both at responding to new market needs (tourist, residential, cultural, etc.) and at providing services generally of collective interest (environmental, landscape, etc.). Agritourism encompasses a very wide range of different services. In a restrictive sense, agritourism refers to hospitality and catering services, often in conjunction with the sale of farm produce. But the range of agritourism services is further differentiated by wine and food routes, wine trails, art routes, etc.; by types of services such as bed and breakfast, camping and camper vans, picnics, barbecues, etc.; by added products and services such as the sale of products, hippotourism, work experience on the farm. Other activities with significant links to agritourism are educational farms, museum farms, art workshops, art schools and other initiatives for the enhancement of rural culture; agricultural therapy, treatment of mental distress, job placement for the handicapped, rehabilitation of ex-drug addicts, ex-convicts, and other difficult subjects; residential services, student houses, old people's homes and foster homes; fitness, sports, health centres, entertainment and leisure activities. Finally, all environmental and landscape care initiatives should be included in the enlargement, both as services to private individuals and (more often) as the provision of public services such as the design, care and management of public and private, urban and rural green areas; nature and landscape management, hydrogeological defence; fire prevention and forest care; energy production (wind, biomass); management of wildlife reserves, hunting and fishing; public works (maintenance of public works, snow shovelling) with agricultural vehicles.



6. Conclusions

To be able to carry out the new activities on the farm is called, the farm must rethink its system of relations with the external context concerning the local context and the resource system. In the monofunctional farm model, the farm's relations tended to be simplified and reduced to those with the supplier and customer system, which were often detached from the local context. The multifunctional company, on the other hand, requires a new rooting in the territorial context through the development of collaborative relations, as well as the development of new models for the use of resources. From the first point of view, it is evident how the development of certain activities typical of the multifunctional model requires strong relations with other farms in the area: consider, for example, the development of certain tourist-recreational activities that strongly benefit from collective strategies defined on a territorial basis. This is the case of the Wine Routes, which group together several enterprises - not only agricultural - around a local development strategy and the valorisation of a typical product through the instrument of protected designation of origin (the case of territorial brands), which requires the presence of a representative organisation of the enterprises of the local production system and benefits from the presence of a protection and promotion consortium. The profile of new models for the use of resources concerns activities that are external to farming but integrated and complementary with it in the rural sphere to provide employment opportunities for farm production factors and supplementary income opportunities for the farmer and the farming family. This is the sphere of activities more properly related to rural integration and improving the quality of life. Integration functions in the rural economy are all the activities carried out independently of farming on the farm itself or more generally in the rural environment. They may be artisanal or smallscale industrial; of an artistic nature or cultural enhancement; or commercial: rural school p, rural fairs. In this same sphere are the forms of multi-activity typical of the agricultural family, or even, depending on the availability of resources of the farmer-entrepreneur himself. Finally, all residential and rural animation functions such as renovating, restoring and maintaining old civil or public buildings must be considered. In the context of the new development model, we are therefore witnessing the emergence of new forms of connection that are being established between agricultural enterprises and society, and that involves and modify on the one hand the performance of the 'traditional' activities of production and exchange of products on the market, and on the other hand, broaden the spectrum of farm 'productions' to include the provision of services of a more or less innovative type. The alternative paths taken by agricultural enterprises within this new business scenario are on three levels. The first aspect concerns the increase in the level of differentiation and quality of the productions carried out by farms (quality); the second level concerns a growing extension of agricultural activity towards new activities for the production of goods and services; a third aspect concerns the recovery of more direct channels of exchange with the end consumer (short supply chains). Finally, it must be remembered that the qualitative aspect is important and perhaps it is from this that the new multifunctional farm scenarios have originated in developed economies. What we have seen in this study does not represent alternative ways of strategically setting up the farm but in many respects represent the rediscovery and re-proposal of those activities that in the past were carried out on the farm that is now presented as new opportunities to create farm income such as agritourism, which offers opportunities to make the products of the farm and more generally of the territory known.



Bibliography

- [1] Sgroi, F. (2022) Agriculture and tourism: economic evaluation of sustainable land management. AIMS Environmental Science, 2022, 9(1), pp. 83–94.
- [2] Sgroi, F. (2021) Food products, gastronomy and religious tourism: The resilience of food landscapes. International Journal of Gastronomy and Food Science, 2021, 26, 100435.
- [3] Marchetti M. (2017) Aree interne. Editore: Rubbettino.
- [4] Vieri S. (2012) Agricoltura. Settore multifunzionale allo sviluppo. Edagricole.
- [5] Vieri S., (2020) Agricoltura e sostenibilità. Dall'equilibrio al conflitto. Libreriauniversitaria.
- [6] Sgroi, F. (2020) Forest resources and sustainable tourism, a combination for the resilience of the landscape and development of mountain areas. Science of the Total Environment, 736, 139539.
- [7] Sgroi, F. (2021) Landscape management and economic evaluation of the ecosystem services of the vineyards. AIMS Environmental Science, 2021, 8(4), pp. 393–402.
- [8] Franceschetti G., Argenta C. (2002) Le montagne laboratorio per uno sviluppo sostenibile, Padova, Cleup.
- [9] Heertje A. (1988) L'innovazione tecnologica e finanziaria, in Heertje A. (a cura di) (1988) Innovazione tecnologia e finanza, Oxford, Basil Blackwell.
- [10] Tuxill J. (1999) I benefici della biodiversità delle piante, State of the World '99 Stato del pianeta e sostenibilità. Rapporto annuale. Worldwatch Institute.
- [11] Boggia A., Cortina C., Martino G., Pennacchi F., Polidori P., Pompei F. (2002) Tutela della biodiversità tra affermazione politica e valutazione economica, Milano, Franco Angeli.
- [12] Barberis C. (1992): La montagne ou les montagnes intaliennes, identites et civilisation, Revue de Geographie Alpine, n. 4.
- [13] Bonazzi, G., Camanzi, P., Ferri, G., Manghi, E., lotti, M. (2021) Economic sustainability of pig slaughtering firms in the production chain of denomination of origin hams in Italy. Sustainability (Switzerland), 13(14), 7639.
- [14] Sgroi, F. (2022). The circular economy for the resilience of the agricultural landscape and promotion of the sustainable agriculture and food systems. Journal of Agriculture and Food Research, 2022, 8, 100307.
- [15] Di Giacobbe, B., Di Ludovico, D., D'Ovidio, G. (2021). Mountain cycle network as enhancer of sustainable economic post-earthquake development in the central Apennines area. Research in Transportation Business and Management 40,100579.
- [16] Xue, Y., Jaehoon, S. (2021). The distribution characteristics of mountain landslides are based on heterogeneous network and optimization of human resource management in agricultural enterprises. Arabian Journal of Geosciences 14(16).
- [17] Delay, E., Chevallier, M., Rouvellac, E., Zottele, F. (2015). Effects of the wine cooperative system on socio-economic factors and landscapes in mountain areas. Revue de Geographie Alpine 103(1), pp. 195–209.
- [18] Sgroi, F. (2022). Evaluating of the sustainability of complex rural ecosystems during the transition from agricultural villages to tourist destinations and modern agri-food systems. Journal of Agriculture and Food Research, 9, 100330.
- [19] Sgroi, F. (2022). Agriculture and tourism: economic evaluation of sustainable land management. AIMS Environmental Science, 9(1), pp.
- [20] Sgroi, F. (2021). Territorial development models: A new strategic vision to analyze the relationship between the environment, public goods and geographical indications. Science of the Total Environment, 787, 147585.



[21] Goio, I., Gios, G (2012). Landscape-Recreational Value: A Resource for Local Development-First Results from a Survey in a Small Mountain Valley (Sinello Valley, Vallarsa, Northern Italy). Landscape Research, 37(3), pp. 351–364.

[22] Gios, G., Rizio, D. (2013). Payment for forest environmental services: A meta-analysis of successful elements. IForest, 2013, 6(1), pp. 141–149.

[23] Rizio, D., Gios, G. (2014) A sustainable tourism paradigm: Opportunities and limits for forest landscape planning. Sustainability, 2014, 6(4), pp. 2379–2391.

[24] Avanzini, M., Bussolon, S., Caporusso, L., Gios, G., Goio, I. (2016). Landscape conservation: The perspectives of experts and other stakeholders, Journal of Landscape Ecology(Czech Republic), 2016, 9(2), pp. 5–28.

