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Territorial sustainability and multifunctional agriculture: a case study

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Abstract

The multifunctional agriculture can be defined as the mechanism of the integrated development and a tool for giving value to the territorial potential in the agricultural activities, which are determinant for the rural sustainability. Under the light of these considerations and given the next 2014-2020 programming periods, it becomes interesting thinking on the effect of the multifunctional agriculture in the realization of sustainable territorial development. Taking into account all of this, the present work, after having underlined short reflections on the relationships between the concept of sustainability and multifunctionality, proposes a case study on a territorial rural system finalized to evaluating the coherence between the policies' orientation of RDP and the evolution paths of the firms.

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1. Introduction

The territorial dimension has undertaken, in time, a role more and more relevant in the definition of strategies orientated towards sustainability. The territory, indeed, represents the space in which making interact in the most efficient way, in order to guarantee its sustainability: knowledge, values, traditions, entrepreneurship, collective and individual vocations and aspirations.

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This is even more true for the rural economy, as it shows clear and strong connections between the productive agricultural activity, the natural environment and the differentiated social component radically ingrained in the territory (Misso, 2012).

After all, even Europe, in order to answer the challenge of the rural economies' revitalization has chosen to increase the value of the territorial dimension. In a more specific way, with the introduction of a politics for the rural development in the Common Agricultural Policy, the European Union wanted to integrate the intervention which supported the market with empty action which scope was to promote a competitive and multifunctional agriculture in the contest of a global strategy in the rural development.

The reform officially recognized to agriculture a fundamental role in the safeguard of the landscape and of the natural spaces, and also an essential function in guaranteeing vitality to rural areas.

This vision of agriculture gains more and more value, in fact the European Union identifies in multifunctionality the expression of the “European model of agriculture”, which has a strategic function carried out through the sustained management of rural territories and which gives efficient answers to the citizens' new needs.

The term multifunctionality synthesizes the fundamental link among sustained agriculture, alimentary safety, territorial equilibrium, conservation of the landscape and environment, and also the alimentary supplying guaranty.

In this contest, the multifunctional agriculture acquires its more complete meaning and it shows its driving potential in the integrated development, meaning that multifunctionality can be defined as the mechanism of the integrated development and a tool for giving value to the territorial potential in the agricultural activities, which are determinant for the rural sustainability (Marsden & Sonnino, 2008).

Even in the recent reform of CAP it is underlined the interest in the revitalization of the rural areas believed essential for the fundamental role in the efficient management of the territory and in the preservation of the cultural estate.

Under the light of these considerations and given the next 2014-2020 programming periods, it becomes interesting thinking on the effect of the multifunctional agriculture in the realization of sustainable territorial development.

Taking into account all of this, the present work, after having underlined short reflections on the relationships between the concept of sustainability and multifunctionality, proposes a case study on a territorial rural system finalized to evaluating the coherence between the policies' orientation of RDP and the evolution paths of the firms.

2. Sustainability and Multifunctional Agriculture

In the socio-economic literature there are different definitions of the concept of multifunctionality (FAO, 2003; OCSE, 2011; Velasquez, 2001). The common matrix of the different interpretations is that the multifunctional activities contribute to improving the autonomy of the agricultural firms and of the available resources profitability.

The concept of multifunctionality fits in a systematic vision of the agricultural sector, in which the attention towards its non-alimentary or secondary function gets more focused. In particular, multifunctionality in agriculture offers not only food and fibres, but also services for the collectivity. Some examples are the contribution to the landscape and the offer for recreational and tourism spaces, the safeguard of nature and wild animals, the opportunity for employment and the profit in the rural areas, and also the conservation of water, air and soil. Naturally, all these links aren't standard ones but strongly depend on the specificities and peculiarities of the socio-cultural setting in which they take place.

In many works, it is said that a more multifunctional approach in agriculture is a preliminary condition for sustained agriculture (Cairol et al., 2009; Renting et al., 2008). However, from the literature analysis it does emerge a scarce scientific attention to the inter-relationships between multifunctionality and sustained development. The link between these two concepts is often considered implicit, leading to confusion in terms. It is necessary, then, underlining the principal differences.

First of all, the concept of sustainability mostly focuses on the ability of developing life styles and level of consume orientated to the preservation of the resources stocks. So, it characterizes for an approach oriented to the conservation of resources and the fulfilling of the present generations' needs without compromising the ones future generations. It emerges, then, the consideration of a temporal dimension.

Multifunctionality is, indeed, a concept orientated to results. It is based on different agricultural activities and on functions done for the territory, giving attention to their inter-relationships. Summing up, sustainability is interested in how to combine different available resources so that they can guarantee a better efficacy and efficiency and they will last in time; on the other hand, multifunctionality is interested in the different uses of the territorial resources through the realized activities and it does not have a direct temporal dimension.

Another difference, usually when we talk about sustainability we refer to its dimensions and their harmonic and balanced development while for multifunctionality this is not necessary. It is possible, in it, recognizing some functions which only have impact on different dimensions.

From all of this, it follows that multifunctional agriculture is able to contribute to the sustainable development and that the multifunctionality increasing in agriculture can give an important contribution to sustainability, even if it is not necessarily sustainable.

In the specific, some researchers believe that multifunctionality, basing on function and activities, can offer a framework of analysis which would be functional to make sustainability operative (Caron et al., 2008). In practice, defining clearly the difference between multifunctionality as a political objective and as a strategic framework, it emerges another hypothesis: multifunctionality in agriculture can be a tool for concretely realizing sustainability objectives.

3. Methodological reflections

From the literature it comes to light that the multifunctionality can help to make the principles of sustainability more operative. All of this takes form into synergies, meaning the impacts that the multifunctional activities may have on the available economic, environmental and social resources.

However, there are not many studies which focus on the exact valuation of such aspects. Trying to reason on which are the elements at the basis of these dynamics, we can consider the works of Knickel & Renting (2000) and of Wilson (2007) that, even though they are not very specific on the matter, let us delineate a methodological baseline.

In particular, the work of Knickel & Renting, with the “multifunctionality frameworks”, focuses on the analysis of the functional relationships between agriculture and rural development. It suggests an empirical check of the effects of agriculture on the development of a rural territory (occupation, nature, landscape, quality of the product), specifying complementary, synergies or “multiplying” effects of the agricultural production.

The proposed model mainly focuses on the economic dimension, underlining how agriculture, answering to the new needs of demand, leads firms to a remunerative multifunctionality.

Other relevant elements of this approach are the proposal of an analysis of relationships on more levels and the classification of the generated effects into direct and indirect. Knickel & Renting even introduce the consideration of the multiplying and substitution effects with respect to the creation of added value by the firm and the territory.

The work made by Wilson, instead, offers an analysis of the evolution path of the firm in multifunctionality. In particular, it points out a typological classification of the firms in 3 levels of multifunctionality: weak, medium and strong. The weak multifunctionality represents a sort of basic level common to every principal agricultural firm typologies. It corresponds, partially, to the more classic conception of multifunctionality linked to the co-joint, and in some aspects unaware, production of public goods and of externalities but it does not imply, if not a marginal way, a reorganization of production factors in the firm. The medium level implies an intentional path of reorganization of firm resources, which concerns both the familiar work and the structures (an example are the structures dedicated to agriculture or the renewal of old stables into selling places of agricultural product).

Least, the distinctive element of strong multifunctionality is the deep process of cultural transformation which, somehow, sustains the transformation of the firm. The strong multifunctionality firms have, in general, an elevated awareness of their territorial role in both terms of safeguard of natural resources and of the relational development with all the social actors.

Wilson affirms that the evolution paths of the firms are not linear and that, according to the available resources, the entrepreneur can choose among them. The forces that contribute in creating a continuum in the expression of the level of multifunctionality are two: the demand expressed by society towards agriculture, and the policies which are in favor of diversification and enhancement of agriculture's secondary function.

From these studies it emerges that the elements to take into consideration in the valuation of the multifunctional activity's contribution to territorial sustainability are different: the objectives through which valuing the territorial sustainability, the knowledge of the reference system, the characterization of its multifunctional activities, the study of possible multiplying and substitution effects which generate such activities. Given the complexity of these elements, it's easy to understand that the relative information isn't often available if not through delicate analysis.

Keeping this into consideration, we decided to make a study case on the territorial rural system mainly showing three areas:

1. Formulation of the objectives of territorial sustainability: starting from the individuation of the sustainable development's macro objectives and then proceeding towards conversion and adaptation of them in a territorial scale.

2. Characterization of the reference system: this activity will lead to building and understanding the environment in which the firms operate.

3. Valuation of the multifunctional activities and of the coherence of territorial development's orientation with the evolution paths of firms.

In order to complete the informative framework, it would be necessary to develop a fourth point: the analysis of multifunctional activities' impact on resources. Considering the peculiarity on inter-relationships, which depend on both territorial and firm factors, it is appropriate, in this work, to stop at the valuation of coherence between policies' orientation of RDP and the firms' evolution paths.

The first area, "Formulation of the objectives of territorial sustainability", is general and not strictly made on the specificity of the territorial system. We try to translate the general principles of sustained development: the intragenerational and intergenerational equity, the harmonic and balanced equilibrium among the dimensions and the respect of principles; the qualitative objectives of the territorial system, which can be synthesized in:

- Guaranteeing prospectives: economics, instruction, security and health.
- Improving the quality of life;
- Creating a co-joint and participating planning.
- Guaranteeing the personal development: defending the cultural identity, the physical well-being and the global integration.

With respect to them, we tried to draw the characterization of the reference system and the analysis of the multifunctional activities.

4. The case study

With the purpose of developing some reflections on the multifunctional agriculture matter and on sustained territorial development, considering the coherence between the policies' orientation of RDP and the firms' evolution path of firms, the present work focuses on the territorial rural system of Regione Campania: Antica Volcejs system.

The first step of the territorial analysis was concerned with the analysis of the socio-economical and territorial environment. With this purpose we have integrated a descriptive approach, based on the analysis of official file and institutional banks' data, with some data of the empirical analysis acquired through direct interviews at the firm local system for the qualification of multifunctionality. The results of the analysis has been organized as: Structural elements, in which have been gathered all the information on the demographic component; Environmental heritage in which is described the natural, cultural and landscape estate of the territory; and, last, the Economic Resources in which is delineated the economic structure of the system.

4.1. Structural elements

The territorial system Antica Volcejs includes 15 municipalities and is not densely populated as, even if representing over the 5% of the extension of Salerno province, it gathers slightly more than the 2% of the population.

It presents a demographic development typical of rural areas, being characterized by a decreasing of the resident population. Moreover, analysing the resident's distribution in the age classes, it is shown a reduction of the more young ranges and an important increasing of the senior ones. The senile phenomenon is, then, particularly evident. This dynamic is not mitigated with the affluence of non-EU citizens, which is still low.

4.2. Environmental heritage

The area shows naturalistic, environmental and cultural heritage: the old city of Volceje date back to the VI century a.C., the grotto of Angelo di Pertosa, a monumental speleological structure which is part of the natural reserve “Sele-Tanagro”, the towns of Auletta, Buccino, Caggiano, Palomonte and Romagnano which keep the ancient implants of their historical centres, the karstic caves, the natural paths for trekking. It's relevant the realization of the project “The Archaeological Urban Park of Ancient Volceje”, defined “urban” as it develops entirely under the old historical centre of Buccino. It is an unseen form of archaeological site, in which ancientness and everyday life are combined together.

Also important are the gastronomical attractions of the territory, which brought an increase of the number of rural tourism structures. The agro-system products of prestige of the territory are oil, cheese, tomatoes, truffles and strawberries.

Surely relevant are also the numerous folkloristic manifestations; among them, it stands out the annual “Feriae Volcejeane”, an artistic-musical event with classic, jazz and folk music shows that takes place in the historical centre.

The naturalistic setting that characterizes this geographic area must not be underestimated, as it offers views and natural landscapes of incomparable beauty.

4.3. Economic Resources

The productive structure appears excessively dependent on the primary sector, and the percentage of labour force that finds an occupation in the extra-agricultural sectors is under the regional average. Moreover, in this area there is a rate of activity substantially inferior with respect to the regional average (41,8%) and the value related to the rates of employment and unemployment must be read with respect to this data.

The economic activity in the secondary and tertiary sectors has a very relative importance in terms of employed and income produce.

In the tourism sector the establishments are not yet as numerous as the territorial potential would allow: 29 units of hotels and restaurants (with a prevalence of the last ones).

The agritourism sector presents more dynamism, and there are some entities already known at the regional level and some others which are gradually affirming themselves. The tourism sector has a big potential, and can be analysed under different point of view, according to the different segments of demand to which the offer of the operating firms is directed.

3.3.1 Agricultural sector

Almost the 86% of firms has an area inferior to 5 hectares and the 96% of them doesn't go beyond the 10 hectares; the average firm surface is of 4.10 hectares. Fields and grazing lands, which support the local zootechnics, occupy the 35.6% of SAU; the permanent cultivations are of the 36% (there is a prevalence of olive growing fields), while the 28.4% is intended for arable. The prevailing productive specialization is the olive growing, there is a good presence of grazing lands and woods, while the zootechnic specialization is mostly on sheep and goats.

The system is characterized by the presence of different quality labels; PDO Caciocavallo Silano, PDO Mozzarella di Bufala, PDO Colline Salernitane olive oil. Moreover, being a territory rich of woods, in particular of beeches, in the undergrowth can be found mushrooms, truffles, sparrow-grasses, wild strawberries.

The firms are characterized by a strong familiar tradition, and usually the operator is assisted in his activities by his spouse and sons.

From the survey it has emerged a good relational component and a certain solidity in the inter-personal relationships.

4.4. Orientation of the policies

The governance is promoting development's paths more integrated and oriented to a territorial diversification. Different policy initiatives have been activated on the territory, and among them the PI Antica Volceje deserves a notion. The most important point of P.I. “Itinerario Culturale Minore Antica Volceje” is based on the hypothesis of innovative use and of cultural and environmental estate's enhancement as a tool for the creation of an itinerary which

makes the ancient city of Volcei and its museum the core of a touristic-cultural services web able to trigger off growing processes on the territory.

4.5. La valuation of the multifunctional activities.

The detection of the different aspects that characterize the multifunctionality of the firms in the territorial system Antica Volcei has been made possible through a Field Survey with interviews intended for the firms' owners. The purpose of the empirical analysis was to discover whether the firms of the territory are orienting themselves towards multifunctionality and, if so, at which functions they are getting more easily closer and which are the motivations for this choice.

From the analysis of the collected data it has emerged a good propensity at diversification, indeed only the 32% of the firms interviewed had not added any activity to the traditional ones. The most spread activity is transformation, even though this result is partially conditioned by the specificity of the olive growing activity, followed by the direct selling and then by the tourism activities which include both the agritourism activity and didactic or social farmhouse. The 63% of the firms uses signals of detectability. In particular, the 40% of the firms uses labels recognized by the EU, the 44% uses a process certification and a 12% has adopted the biological cultivation. There are not cases of renewable energy production and cultural activities are uncommon. With respect to the last one, it seems that the sport-cultural dimension is missing, even though it could be functional to attract a young demand.

If, as Wilson affirms, the evolution path of the firms is strictly dependent on the entrepreneur's ability in coping with the territorial specificities, we deemed important focusing our attention on the human resources that are participating in the firm life. From the analysis it has emerged that the average age of the operator is of 51 years, and the percentage of high school graduates is of 42%, while the one for college graduated is of 22%. Many have taken part to specialization courses organized by the technical regional offices, participating in deepening classes on agriculture and quality improvement of products.

The level of involvement of the operator and its family in the firm work seems different between the spouse and the sons: the first one shows commitment in terms of days of work almost identical to the one of the operator itself; for the sons, indeed, the commitment can variate, in fact only half of the collaborates in a continuing way all along the year, while 26.9% does it only in particular periods of necessity and the 23.1% rarely participates to the activity. Thence, while the spouses participate in a coordinated way to the firm's work, the sons rarely guarantee the generational renewal. The 40% of the operators has another job outside of the firm, many of them are employees and some of them are factory workers in other agricultural firms. It must not be underestimated that most of the operators' sons, both in their educational career and in their activities outside the firm, choose something different from agriculture. It follows, then, that the new generations are gradually leaving the sector.

For what concerns the environmental component, the survey has shown a contribution offered at the landscape preservation and the use of harmonic practices with respect to the environment. The use of agronomic practices at low environmental impact is very spread, and in the area of PDO Colline Salernitane olive oil almost all of the oil producers have taken part to the rules of integrated control. Overall, there can be seen important signals in favour of a more eco compatible agriculture, an increasing of the biological productions and a limitation in the use of chemical inputs.

5. CONCLUSIONS

The territorial system of Antica Volcei present the classical phenomenon of the meridional agro-industrial rural economies with a demographic structure overbalanced towards the classes of senior age and with a regressive dynamics of the population. Progressively, agriculture and manufacturing activities are losing force, shattering a treasure of tradition and knowledge, while the service sector is growing. Moreover, it is not to underestimate that the operators' sons are choosing, both in their scholastic career and in their activities outside the firm, something different from agriculture. It follows, then, that the new generations are slowly leaving the agriculture and manufacturing sectors, mostly because of the absence of future perspective.

Among the productive sectors, the most prominent one is surely tourism, which is able to give value to the natural and architectonic beauty of the territory and it is able to lead the development of other productive sectors, supporting the firm's vocation towards a “clean” agriculture of quality, respecting the environment and the local traditions. In the last years there have been large investments (23.000.000 euros) for the museum park and the renewal of other historical building, however, at the moment, this investment has not had a multiplying effect, in fact, analysing the tourism streams, we can't find any great improvement.

Gathering the collected information for the proposed objectives of territorial sustainability, it is possible to affirm that the objectives which show more problems are the offering of economic perspectives and the creation on a co-joint planning.

From the analysis of the territorial system of Antica Volcej it has emerged a good propensity at diversification, indeed almost the 70% of the firms has at least one added activity to the classic production. To sum up, we can affirm that the system presents an orientation too multifunctionality, in particular, talking about the activities which have been done at the boundary shift proposed by van de Ploeg, the most diffused strategy is the one of “deepening”, and just few industries are oriented towards the “enlarging”. This tendency is not perfectly coherent with the intention of territorial development which are investing in the development of the system under the rural tourism point of view. This discrepancy can be considered as the first reason why the firm is not sustainable, as it is not adequately supported in its strategies, and even because of the waste of precious resources invested in the territory that does not lead to any multiplying effect. Summing up, the inter relationships, the role give to agriculture in society and the relation between multifunctionality and sustained development are the significant element for a more completed framework of planning and analysis.

It is possible to conclude that, at the moment, the development trajectories of Antica Volcej system and of the agricultural firms are not convergent. The system is orienting itself towards the rural tourism, giving value to the environmental and cultural resources of the territory, while the system of the agricultural firms doesn't seem to use this opportunity, preferring keeping on traditional activities or, in the case of multifunctional ones, choosing “deepening”. Moreover, the few firms which have chosen the rural tourism way did not have particular economic returns, maybe because of the absence of a real demand. This aspect cannot be ignored. Indeed, multifunctionality can be the answer to the new need of society, but this is true only at a macro level in which it suffices to satisfy the offer in order to accommodate it. At a micro level, let's say at a territorial system, it is necessary to make the potential demand into a real one. At a system level, there is the need to be promoters of an integrated and joint development, working together to intercept the demand.

In conclusion, the absence of a common orientation between the territorial and agricultural systems makes, according to me, even less efficient the contribution that multifunctionality can offer to the sustainability of the territory.

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