



## RESEARCH ARTICLE

### MULTIFUNCTIONALITY AND RURAL DEVELOPMENT: A CASE STUDY IN GARFAGNANA REGION, ITALY

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#### ABSTRACT

Multifunctionality does not explain only static state but also a flexible transitional process of a society. It shows how a society going on by adapting something new with existing resources. With a view to understand role of different actors for rural development, a study was conducted at the Sillico village of Garfagnana region of Italy. Our findings reveals that, farmers in the Garfagnanaregion are involving in different kinds of activities. They not only involves in agricultural activities, beside these activities they are more concern about biodiversity conservation by protecting local breed and variety, agro-tourism which have contributed a lot in developing rural area. We have also found that some farmers are highly encouraged and they are trying to shift from weak to strong multifunctional activities or depth of diversification activities so that sustainable rural development exist. Farming community in that village need time to adapt the new agricultural policies. Our study also emphasizes that institutional arrangement can play a significant role to motivate young people to be involved in agricultural activities since these group of people are less interested to agricultural activities.

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## INTRODUCTION

Italy is located in the southern part of the Europe by the Mediterranean Sea. The country is a peninsula, with a boot shape and two main islands; Sicily in the south and Sardinia in the west. The capital city, Roma, is known not only for Colosseum, Trevi fountain, and Piazza della Repubblica, but also it is one of the biggest agriculture municipalities in the world. This case study was conducted at Sillico village to see the rural development activities of the region. The village is situated under the area of Garfagnana, a famous Tuscany region under the province of Lucca. It is located between the two mountains: Apuan Alps and Appennino. Garfagnana means "Big forest". About 73% of the area covered by forest. It has a very beautiful landscape and national parks. There is a good relationship between nature and communities, helping to maintain balanced relationships amongst the ecosystems and intense utilization of the mountain. Different kinds of rural development activities were performing by different farms like providing social services by social farm, producing milk, producing olive and grape, preserving local varieties, adding value to the product, agrotourism etc. The farms are involving not only one kind of activity. Beside agricultural activities, they are doing some other activities to preserve the local nature

in a sustainable way so that local communities will be benefited and future generation will get a secured life. Our case study is focusing the farm-level multifunctional agricultural activities relating to social farming, biodiversity preservation and agrotourism conducting by the Garfagnana region farmers and contributing a lot for the changing existing rural situation of the region. The case study report is developed and presented in a logical sequence. It is organized into five different chapters. The first chapter outlines the general descriptions of the area and purpose of the research, the second chapter contain the theoretical aspects about multifunctionality, chapter three contains materials and methods for collecting information's during case study, fourth chapter analyze the different farm level activities and role of local communities and finally there is a conclusion.

#### Theoretical framework

Rural development means the combination of a wide range of different and often reconfigured rural resources in new ways, as a result of which they flow into a set of new activities, interactions and networks (Marsden, 2010). Rural development has become one of the main approaches in EU policies between the periods of 2007 until 2013. The rural regions in Europe are facing divergent pathways of development. The influence of urbanization and the intensification and continued up-scaling of agriculture make it more difficult for many regions to remain distinctive and increase sustainability (Hotelling,

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Marsden, 2012). Agriculture has played a dominant role in the development of rural areas and in the shaping of rural landscape. Although for many rural areas, agriculture still remains an important economic activity and an important factor for the creation of wealth and employment, its dominate role in the rural economy is declining. At the same times, society expects more on the role of agriculture. Not only an economic contribution from food, fiber and biomass production, society increasingly expects agriculture to contribute to environment and landscape services, social care and so on. In fact, society expects agriculture to become more and more multifunctional. Multifunctional farming activities (MFAs) include activities such as agri-tourism, on-farm processing, nature and landscape management, organic farming, high quality production and regional products or selling through a short supply chain. Multifunctional agriculture in a wide variety of contexts including economic approaches that focus on commodity and non-commodity production of goods generated by modern agriculture with associated "externality problems" (Vatn, 2002; Durand and Van Huylbroeck, 2003). A more holistic approaches that also incorporate the strengthening of social capital and changing societal perceptions of farming as key components of multifunctionality (Marsden, 2003; Clark, 2005; Wilson, 2007). There are three different types of multifunctionality such as strong, moderate and weak which exist for individual farm level transitions. Strong multifunctionality is characterized by strong social, economic, cultural, moral and environmental capital (Bourdieu, 1983). Actors in the strongly multifunctional agricultural regime show strong tendencies for local and regional embeddedness, characterized by activities that will help to provide new income and employment opportunities for the agricultural sector (Pretty, 2002; Clark, 2003).

Strongly multifunctional systems will also be characterized by high food quality associated with more differentiated food demand by consumers, a demand for food products with high symbolic characteristics, the creation of additional value for rural regions and enlightened visions about food and health (Lang and Heasman, 2004). Strong multifunctionality will also imply that substantial mental changes have taken place among various stakeholder groups, in particular through open-minded farming and rural populations who see farming and agriculture as processes that go well beyond productivist food and fiber production (Clark, 2003). Weakly multifunctional agricultural systems would show the inverse of above dimensions (weak sustainability, weak local embeddedness etc). Among the different types of multifunctionality, strong multifunctionality is the best type of multifunctionality. Not only it is predicated on ensuring the protection of the environment, healthy farming and rural communities but it can also be seen as the most moral type of multifunctionality. Social farming include all activities that use agricultural resources, both from plant and animals in order to promote therapy, rehabilitation, social inclusion, education and social services in rural areas. It is related to farm activities where groups of people can stay and work together with family farmers as well as social practitioners. Protection of biodiversity passes through identification of genetic resources, its characterization and enrolment in the regional repertory, conservation and finally adding of value of products from local varieties in the market place and without overlooking management of farms and the territory in such a way as to reintroduce systems for sustainable production.

Protection of patrimony represented by local breeds and varieties has been a priority for the region of Tuscany. In fact, in 1997, it was the first region in Italy to write a law regarding the protection of genetic resources (Regional law 50/97) and later modified and amplified by regional law 64/2004 (ARSIA, 2010). Agrotourism is another important concept of multifunctionality. It is considered as a means of achieving economic and social development and regeneration. More specifically, it has been widely promoted as an effective source of income and employment. Agrotourism means with agricultural activities protect and conserve existing natural and built environment and to preserve and strengthen traditional lifestyle and culture (Sharpley, 2002). Agrotourism is an important aspect in this region. Tuscany reveals itself on the mountains and valleys of Lucca. People came here to enjoy the nature and to taste the typical products and to see historical places, museums, festivals etc.

## MATERIALS AND METHODS

The reliability of a research depends on the proper methodology. So methodology is very important for any research process and has to be chosen carefully to fulfill the purpose of the study. Methodology should be such that it would enable the researcher to collect valid and reliable information and to analyze those data to arrive correct decision. For our case study purposes, we have visited many farms under the Garfagnana region. The name of the farms are Social farm, Home garden, Educational farm, Cerasa farm, Filippi farm, Agrotourism, Fabio puppa farm and Cooperative. We have visited one market also. On every Thursday, people from the surrounding area gathered to that market for business purposes and also for sharing information. Different kinds of agricultural products, livestock products are available there. The duration of our case study was 01/07/2013 to 26/07/2013. Within this period, we have collected information's from farms, cooperatives and markets by using semi-structured questionnaire. The different aspects of collecting information's from farm were physical, educational, territorial, financial, market chain, social/cultural, environmental, institutional, multifunctional etc. The approach of the research was qualitative method with Rapid Rural Appraisal (RRA). Qualitative researchers aim to gather an in-depth understanding of human behaviour and the reasons that govern such behaviour. The qualitative method investigates the why and how of decision making, not just what, where and when. Sometimes we have collected information's from the owner of the farm, or from tourist who came here to visit the place or from institutions those who are providing support to the farms through the methods of direct observation, individual interviews, focus group discussion etc. Different photos help us as additional tool for collecting information's from farm levels and to show the real picture of the farm in general. After completing all field visits and collecting data, all data were analysed so that conclusion could be drawn.

## DISCUSSION

### A case study in Garfagnana region

**Social farming:** One day we have visited on social farming. When visiting social farming, we have seen that the community's are very concerns about support to the

disadvantaged people like people return from jail, drugs addicted people, disabled people (mental /physical people) and help them to reintegrate into the society by involving them into agricultural activities. They are involving in different kinds of agricultural activities like grape cultivation, olive cultivation and also involving in wine production. They are getting money from European Union.



### Protecting biodiversity

**Diversified activities and supporting organization;** On 10 July, 2013, we have visited one kindergarten farm. This farm is managed by Barbara Coli with her husband Marco. By talking with Barbara Coli, we came to know that at first they started as educational farm and then hosted the children for Kindergarten. They try to teach children about nature, animals so that they have close relationship with nature. They cultivate with organic methods potatoes, maize by using "Formentonotto file" (local variety of maize), various vegetables for home consumption and in a small part for direct sales. They raise chickens, rabbits, a donkey and a small group of goats. The farm activities are directed not only to schools but also for families, tourists, associations, groups or individuals concerned. Tours include sensory activities of observation and interaction with natural elements, the deepening of life cycle of products, cooking workshops as well as the preparation of bread, cakes, sugar (traditional cookies), necci (made with chestnut flour), laboratories of sowing. They have support from municipalities of Castelnuovo. They wanted to build big bungalow for parents who were coming from outside and staying with their children but funding is a constrain, and this is the dream for the future. While talking, they also mentioned another problem that the law in Italy which interpret in different ways.



**Preserving local seeds and adding value:** On the same date, we have visited another plant nursery (Germplasm Bank) which holds ex situ conservation of the local breeds and varieties in Tuscany region for protecting the biodiversity in the agricultural sector. Ex situ conservation provides for the maintenance of populations in Germplasm Banks and is a sort of static conservation. Ex situ conservation attempt to keep the gene frequencies which characterize the populations or the genotype identity of the single conserved clones constant. This seed bank has a positive impact on the community.



**Custodian farmers: in situ conservation:** The in situ conservation is entrusted to the farmers Guardian. They are people living in the area and ensure the cultivation and preservation of cultivars in custody; they make the renewal of the seeds of the herbaceous species to be reused in the next planting and in small quantities, to be deposited in Germplasm Bank. There are 37 custodian farmers in the Garfagnana region. The seed bank keeps a special variety of onion from Lucca. They also identify the local vines of the local varieties. Even, they have special role on the valorization of local varieties. They have planted old varieties and commercial one to be compared as well for wheat. They have older wheat variety. They also valorize the local corn breed. Barley and rice is also grown. They disappear in Toscana. Some farmers come there and see them and said that the firm is the only one which cultivates them. So, they started to multiply them. They breed and multiply varieties in purity. But it is difficult to get

commercial ones. The farm is economically independent and using modern technology. They integrated social farming as a need of community. They sell the products of the garden to the partners of social farming (SF) projects in Castelnuovo. They have network with the local health system as a social farming. The union of municipalities has important role in maintaining their farming activity. Although they are getting support from authority, they have some economic constraints.



#### Example: for adding value

They are experimenting to improve local berries cultivation. Also they are trying to added value with the local varieties so that cost of production will be covered. For example: barley is used for beer production and rye is used for special bread or cookie and for agro-tourism. They are using local potato as ingredient in bread making. This is one kind of retro-innovation. In future they have planned to produce food with corn, buckwheat or chestnut, that doesn't contain Gluten and reach a niche market. The farm has organic certification.

#### Ceresa Farm

**Preserving old chestnut tree and local breed:** On 16-07-2013, we have visited on Ceresa farm. The name of the person with whom we talked was Ombretta. By talking with her, we came to know that they were successful in sheep breeding and have role in biodiversity conservation and valorization of local genetic resources. They are using local breed and have 700-800 Garfagnana sheep. They have a biodiversity of variety of chestnut and trying to preserve old chestnut trees. As they have strong collaboration with pisa university and union of municipalities, they came to know that their wool is of high quality. As a result, many women from valley buy wool from her at a lower price and produce wool products by themselves and sell it to the market. But they have to put the labels to show the identity of the place, breed of wool and part of the project. This is not PGI label. Although they have collaboration with others, they are facing productivity problems because the production of milk is not same in all the month.

#### Retro-innovation and affection to nature

They have subsistence agriculture. As a source of income they are selling milk and by-products like carpets produced from wool. In past they were using wools for making jackets and shawls. They are also making cheese in a traditional way and

this cheese is really tasty. They used some natural things to dyeing the wool. After processing of wool by adding local knowledge and modern knowledge, women prepared different kinds of wool products and sell it to the markets. Profit is not high enough. Most part of the income reinvested for the feeding purpose of animals. If someone came to see the agricultural activity, she feels happy and try to help them. Also she wants to transfer knowledge to the new comers those who are interested. She has attitude towards agrotourism. From our group, one of our friends asked her why she is interested to work on the farm? According to her opinion:

*“My family started to work here at 40 years ago. As I was born in agricultural sector, I was used to this and I love animals. Even I had worked outside for 15 years but I felt that, it was not the one what I have expected, so I wanted to come back and moreover I liked the animals.”*

(Ombretta, Ceresa Farm, 2013).



**Adding value through collaboration;** Beside that farm, we have visited another chestnut garden managed by that family. In the past, this chestnut tree was called as tree of bread because there wheat production was impossible. They are providing good environment for chestnut production because it is reach at carbohydrate and protein and helps to protect biodiversity. The collaboration with municipality and Pisa University helps them to add extra value on the farm. In future, they have planned to extend their farming activities by using old building so that tourist can stay there.

#### Adding value through automatic dispenser

We have visited another milk producing farm. The name of this farm is “Filippi farm” and located in Pieve Fosciana village and has been managed by the same family for four generations. In the past, they used only local breed but now they are using new breed and getting more milk than past. Nowadays this farm is run by two young brothers, rearing 20 cows (Bruna Alpina breed). They have their own automatic dispenser. They produce milk and sold it through an automatic dispenser. For increasing their sales through automatic dispenser, they started to put picture of the cows and information about the farm on the automatic dispenser. Afterwards, they observed that their sale has dramatically increased because consumers are more interested to know about the product and process of the product.



### Importance of certification and future plan

From their opinion certification is very important for increasing sales. Consumers can able to know about the product and process of the product. It helps to differentiate the local products from other products. They have also future plan to extend their farming activities. In September they're hoping to start the milk processing to produce farmstead cheese. The farmers are cultivating a small plot of land with spelt and they are also producing the fodder necessary to feed the animals during the winter time. All these activities helps them to add value and also helps them to change their existing family situation as well as contributing to develop existing rural situation. Another chestnut flour producing farmer told that he started his farm only for his passion. Their main source of income is by selling chestnut flour and timber. They also involve in rearing ship. They have three cows. According to his opinion, in future he wants to extend his farming activity through processing milk and it will help as another source of income. At first, he started with chestnut flour because it has market and raw chestnut has low value in the market. He is also able to sell packet product. He is the member of association of chestnut producers in Garfagnana. They don't have PGI label. In his opinion:

*"Basically there is no difference with PGI label products and without PGI label products. They are also maintaining same quality. People in this region know about their farm and product quality. So they don't need to maintain PGI label."*

(Fabio Puppa, Pozzattelle Farm, 2013).

While cutting wood, they also respect the rule of authority for protecting biodiversity. Otherwise, they will be punished.

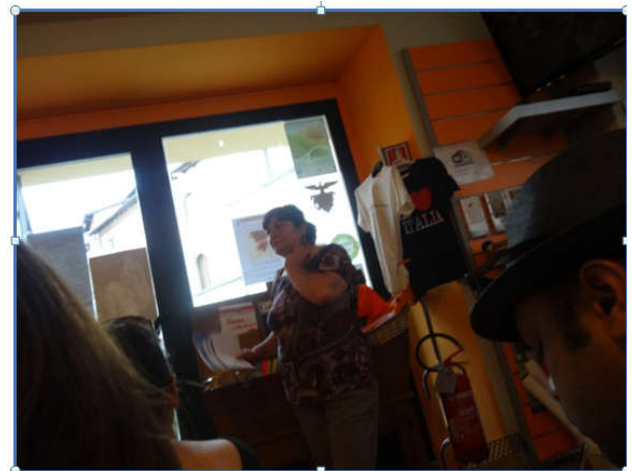
### Typical products and role of PGI/PDO label

The passion for this land, Garfagnana, and the respect for the traditions of its mountains are the main features of "Garfagnana Cooperative". The Cooperative adopted the organic method (AIAB certification, Italian association of organic agriculture) and produces spelt and processed foods, like jam made from local berries and fresh fruit crops coming from the members of the cooperative. They are also producing

mushroom, different qualities of flour, honey, biscuits etc. and then marketed to supermarket. They have high demand on supermarkets because the supermarket wants typical products. They have label of PGI (Protective Geographic Indication)/ PDO label. Protected Designation of Origin (PDO) is the name of the area, the name of the country and traits of the product included natural and human capital link to the specific territory used as a designation for agricultural products. Protected Geographical Indication (PGI) includes where the product comes from (area, place or country) and which specific quality has the product link to the geographical territory. For successfully completing different kinds of multifunctional activities by farms, this cooperative contributing a lot.

### Tourism and rural development

**The role of the Tourist Office in Castelnuovo di Garfagnana:** Agriturismo Braccicorti started its activities in 1996, welcoming its first guests after the renovation of the old 20th century traditional stone farm house and barn that surround the main family house. It's a typical Garfagnana Farm, cultivating various crops and fruits on its terraces. The ambience of the farm and its location makes you wanting to taste the warmth of a family welcome and the flavours of local specialities, in most of which are Organic products of the farm, respecting environment and our health. The Giovannetti family, consisting of Bruno, 'mamma' Anna and daughters Lucia and Angela, have created and passionately run Braccicorti. The family forms a varied group with their experiences and interests that will help to make the most of your experience in Garfagnana, along with other members of the family: Rupert who runs and operates "Garfagnana Adventures" for tours in Garfagnana, Pierluigi, an official hiking guide and designer of the website, and little Zaccary and Emily. The manager of the tourist office (situated in that market), told that number of international tourists has been increased in the past years.



They come to this region to enjoy local products and the hospitality of the locals. They can choose between activities, such as hiking, extreme sport, biking, golf or follow a tourist trekking path and environmental study tour. Moreover, the place is rich with cultural pageants like beautiful churches, castles, towers, and traditional buildings. The houses are kept for holiday visit or renting tourist. There are many festivals, events and parties held throughout the year.

**Importance of Agrotourism:** Agrotourism is the most important sector in this region and important aspect of multifunctionality, contributing a lot in improving the rural situation in this region. It also creates income and job opportunities, because tourists are interested in the typical dishes, and traditional or gastronomical festivals. Typical products like cheese, honey, olive, bread, wine are often processed and produced on the farm which increases the farmer's income due to the added value and the shortening supply chain. After visiting many farms, we found that some farms are directly involved in agrotourism activities and some farms have future plan to increase their activities as tourism due to present funding limitation.

One farmer (Chestnut flour producing), told that in future he want to open restaurant for food because within few miles, there is no food restaurant and want to provide little accommodation those who want to stay here. On the other hand, one family owned farm directly involved in agrotourism activities. They have golf ground together with some cultivation. This golf ground is well integrated with the rural assets of the area along with vineyards and some other fruit trees like apples, fig, cherry and pear. Most of the products are used for own consumption (that is for guest) as this is a farm house. They produce wine processing by their own for the guest consumption. They not only use single variety they have eight to ten varieties of vines. They are self sufficient in energy production because they have own solar panel. Their activities will create employment opportunities for young generation. According to their opinion

*“Agro tourism is a farm of continuity with the past agricultural traditions”.*

One day our group visited one local market in order to know the peoples opinion about the region. While approaching people we wanted to figure out what their opinion was about this region, what kind of changes they have realize in the past few years, what the positive were and what the negative issues they found to be interesting to mention.....

In general the tourist's opinion *“They came here because they love nature, lake sun....They told that this country is different than other country. Price of the products is comparatively cheaper. They love tomato, pasta. They will come back again.”*



## Conclusion

Farmers in the Garfagnana region are involving in different kinds of activities. They not only involves in agricultural activities, beside these activities they are more concern about biodiversity conservation by protecting local breed and variety, agrotourism etc. which have contribution a lot in developing rural area. Multifunctionality does not explain only static state but also a flexible transitional process of a society. It shows how a society going on by adapting something new with existing resources. In the area, we have seen that some farmers are highly encouraged and they are trying to shift from weak to strong multifunctional activities or depth of diversification activities so that sustainable rural development exist. Because some farmers in that region are facing lack of resources like physical or financial which prevent them of doing so. Even, sometimes the law of European Union is not favorable for the farmers. Farmers need time to adapt the new agricultural policies. On the other hand, young aged peoples are not interested to involve in agricultural activities. In this case, institution can play important role to motivate young aged peoples. In spite some problems facing by the farmers, the farmers of that region are very encouraged and have role in multifunctional activities. Moreover, while producing and selling products, farmers are maintaining quality and using symbolic characteristics. Local actors are also contributing a lot for improving farm conditions and providing supports to the local areas people. Although different multifunctional activities are performed by farmers but in reality it is very difficult to say in which multifunctional level they belong.

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