

Is a transition from intensive agriculture to sustainable agri-food practices in Apulia possible? Alternative food networks in Salento

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Abstract: Olive oil and olives' production have a tradition of centuries in many countries and have represented a distinct character of food production in Mediterranean history. The production of olive oil has increased in the last two decades, reaching unprecedented levels. The Apulia region in Southern Italy is one of the main agricultural regions of the country, and its position and climate conditions have offered a favorable environment for the cultivation of many plant species, contributing to 50% of the nation's olive oil production. In past decades, intensive systems characterized by monoculture techniques have increased, and Apulia is no exception. However, the use of land exclusively dedicated to a single type of production presents several risks. Apulian agriculture has suffered from the impacts of climate change, and over the years, the intensification of farming practices has led to soil degradation, facilitating, after 2013, the spread of *Xylella Fastidiosa*, a bacterium that strongly affects olive trees. The struggle against *Xylella*, responsible for the "Olive quick decline syndrome" (OQDS), led to the cutting of 21 million olive trees in just ten years. In the region, several associations have mobilized and pushed for a transition to more sustainable agricultural practices. This article will focus on analyzing how different associations in the region of Apulia can impact the transition to more sustainable agriculture. Two main questions are addressed: Which characteristics do the actors in the South of Apulia who are pushing for a transition to more sustainable agriculture have? What are their visions, potential obstacles, and how are they mobilizing in favor of this transition?

Keywords: Alternative food networks, Apulia, Italy, Monoculture, Olive Oil, *Xylella*.

1. Introduction

The current global environmental crisis is undermining the agricultural sector, whose harvests and crop yields are at increasing risk of damage due to climate change consequences such as warmer temperatures, altered precipitation patterns, shifts in seasonal timing, soil degradation, pesticide use, and insect pest diffusion, leading to low farm outputs and revenues for farmers (Caselli & Petacchi, 2021; Isett & Miller, 2016). Climate change developments are damaging European crop yields, reducing wheat and barley yields across the continent by 2.5% and 3.8%, respectively, and slightly increasing maize and sugar beet yields (IPCC, 2019). Although these combined effects may seem small, the impacts are not evenly distributed, and warmer regions such as Southern Europe have been most affected by global warming. Degradation of soils and pesticide use have increased within weak national plans (Helepciuc & Todor, 2021; Paleari, 2017). In Italy, this impact has been amplified by a drying trend, leading to yield declines of 5% or more (IPCC, 2019). And intensive agriculture is the mainstream method for agricultural production. Where intensive agriculture is: "*an industrialized form of farming characterized by mechanization, monocultures, and the use of synthetic inputs such as chemical fertilizers, pesticides, and genetically modified organisms (GMOs), with an emphasis on maximizing productivity and profitability and treating the farm produce as a commodity*" (FAO, 2021). Table olives and mostly virgin olive oil, processed products derived from olive fruits, are two of the main agricultural commodities consumed globally and produced particularly in

the Mediterranean region. The production has been ongoing for centuries, and both products play an important role in the local diets of the populations (Rallo et al., 2018). Globally, olive oil production has tripled between the 1960s and 2020s, reaching 2,760,000 tonnes in the 2022/23 olive oil season (IOC - International Olive Council, 2024).

In the twentieth century, with the industrialization of Italy, agriculture lost its prominent role in the economy. According to the latest census, only 3.8% of the national workforce is employed in the agricultural sector, versus 26.6% in industry and 69.6% in services (Appendix A). Nevertheless, food has a pivotal role in the discourses around Italian identity and values, particularly for local cultures and policies of heritage protection. Italy stands out as the second-largest olive-producing and exporting country in the world, with 300,000 tonnes produced in the 2022/2023 season, following Spain with 770,000 (Di Loreto et al., 2025). However, projections for the 2025 crop year indicate a significant decline in Italian production due to prolonged drought and the effects of *Xylella Fastidiosa*, driving Italy to be surpassed by Greece, Tunisia, and Turkey (Finck, 2025). Still, there is a significant difference in the olive oil market, as Italian olive oil prices are consistently higher than those of any other country (Finck, 2025). Apulia [*Puglia* in Italian] is the main agricultural region in Southern Italy, and agriculture employs 12.1% of the workforce (Appendix A). Its position and Mediterranean climate provide favorable conditions for cultivating various plant species. As olive tree farming developed rapidly, the region now contributes to 50% of olive oil production, with over 375,000 hectares (ha) (Di Loreto et al., 2025). Until the recent past, the production of oil was of low quality and mainly associated with lamp oil [*olio lampante*] and oil for lubricating machinery (Ipsen, 2020). In Apulia, the other relevant production is tomatoes, mainly run using illegalized migrants (Raeymaekers, 2025). The southern part of Apulia, called *Salento*, which since the end of the 1990s has become a global tourist attraction, has large parts of the territory covered by olive trees. The agricultural production and processing of olive oil often follow techniques and methods that tend to have a negative impact on the environment, for example, on water resources (Di Loreto et al., 2025; Mammadova & Negri, 2024). In particular, Apulian agriculture has suffered from the impacts of climate change, and over the years, the intensification of farming practices has led to problems in the soils, facilitating the spread of *Xylella*, a bacterium that affects olive trees, almond trees, and vineyards (Alqahtani, Elshahawi, & Khalaf, 2025). In just ten years, *Xylella* was responsible for the cutting down of 21 million olive trees through the so-called disease of the “Olive quick decline syndrome” (OQDS) (ANSA, 2023). The diffusion of *Xylella*, one of the most problematic and unprecedented cases of agricultural disasters in southern Italy, has highlighted the weakness and unsustainability of the Salento agricultural system, which was driving olive production and the olive market. It has also raised the activity of alternative food networks (AFNs) to prominence. Several associations are active in mobilizing and pushing for a transition to more sustainable agricultural practices. Among them, *SalentoKm0* has been advocating for sustainable food distribution for Apulian agriculture. This article focuses on analyzing this large AFN’s role in promoting sustainable agricultural transitions and responses to the olive tree crisis, also focusing on a local case, such as the *ManuManuRiforesta!* organization. It is interesting to address two main questions: Which characteristics do the actors pushing for a transition to more sustainable agriculture in Salento have? What are their visions, potential obstacles, and how are they mobilizing in favor of this transition?

2. Materials and Methods

An in-depth analysis was conducted to understand how AFNs and environmental activism in the context of intensive agriculture in the region of Apulia have been trying to shape the region’s agriculture. A desk-based research study was carried out on articles that analyze the characteristics of agricultural practices in Apulia, particularly in Salento. A list of organizations and businesses possibly belonging to AFN associations was identified through a search in the literature and on the internet (Appendix B). A network (*SalentoKm0*) and a local case (*ManuManuRiforesta!*) were selected for more detailed analysis. A survey was developed, employing a questionnaire to carry out semi-structured interviews for data collection with local qualified actors. Interviews were conducted with representative members of

SalentoKm0 and *ManuManuRiforesta!* (see Table 1). Representative members were privileged witnesses, able to provide a detailed vision of their activities and of the Apulia context.

Table 1.

Associations in Apulia were contacted to collect information.

	SalentoKm0	ManuManuRiforesta!
Year founded	2011	2020
Location	Galatina (Lecce)	Miggiano (Lecce)
Objectives	To organize and promote a network based on respect for the ecosystem, and to produce “healthy, fair, and good” food, with short supply chains.	To create a forest and defend the environment by planting new species.
Number of members	More than fifty groups, including farms, solidarity purchasing groups, and others.	Fourteen individual members.
Main activities	To provide an urban laboratory in which they promote, distribute, and protect natural local agricultural products. They publish books and guides to educate consumers.	To acquire abandoned land (purchase, loan, donation, or lease) through extensive awareness-raising efforts among both the local population and local authorities.
Vision	To reimagine food systems by building a solidarity economy network based on respect for the entire ecosystem, on food self-determination, on awareness of what people eat, and on the short supply chain.	To plant the species once present in the "Belvedere Forest", as well as smaller orchards, Mediterranean scrub, and small vegetable gardens.

Source: SalentoKm0 (2021) and ManuManuRiforesta! (2021b).

The *SalentoKm0* association, a network of 61 organizations and businesses covering 80 activities (Figure 1), promotes forms of “solidarity economy,” where the goal is to prioritize social and environmental objectives over profit motives.

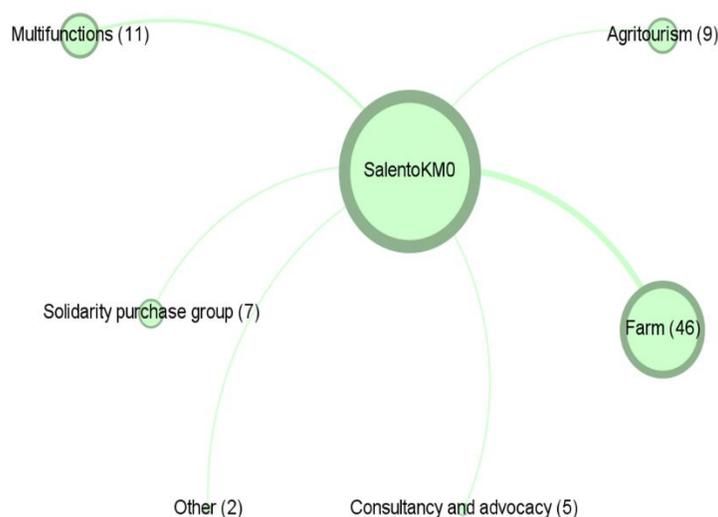


Figure 1.
Activities networked within SalentoKm0.

SalentoKm0 is not the only AFN in Salento, but there is also *Oltre Mercato Salento*, mainly a solidarity purchase group supporting small producers practicing natural and ethical agriculture “in harmony with the natural and social environment” [*in accordo e armonia con l’ambiente naturale e sociale*] (*OltreMercatoSalento*, 2024). Born in 2013 in Lecce, *Oltre Mercato Salento* works towards networking consumers and producers for collaboration and exchange, with the aim of promoting an alternative, ethical, and fair economy (*OltreMercatoSalento*, 2024). Fourteen farms and associations are in *Oltre Mercato Salento*. A methodology aimed at identifying the associations’ strategies based on the SWOT

(Strengths, Weaknesses, Opportunities, and Threats) model was also used. This research did not focus on providing statistically representative results but aimed at offering indications and suggestions to address current problems, analyze the perspectives of local actors, and explore innovation trends for AFNs and agroecology. *ManuManuRiforesta!* is a non-profit organization founded in 2020 by a group of friends who, for over ten years, fought against the project for highway construction (ManuManuRiforesta, 2021a).

3. Theoretical Interpretations

There are various lines of reflection that we have to explore in order to analyze the situation in Apulia. In particular, AFN analysis, which promotes alternative modes of agricultural production and food circulation, provides relevant points for the analysis of the case study (Goodman, DuPuis, & Goodman, 2012). AFNs embrace production, circulation, and consumption processes.

Alternative farming developed against the mainstream current of industrialized agricultural development. Several analyses have outlined the clear consequences of industrial agriculture and intensive farming practices, including their success associated with global food systems favoring fewer crop varieties and maximizing yields at a lower cost, as well as scalability and ease of management and harvesting techniques (Therond, Duru, Roger-Estrade, & Richard, 2017). However, the severe impacts of monoculture further exacerbate soil impoverishment, increase its susceptibility to diseases, reduce plant diversity, and damage animal biodiversity that usually serves to combat pests and parasites. Above all, monoculture contributes to climate change by raising concerns about land degradation and its consequences on food security, quality of life, and climate resilience (Apoorva & Kundlas, 2024). As an alternative to dominant intensive and harmful methods, several practices have been carried out. For example, agroforestry and crop diversification are two relevant proposals for avoiding soil degradation and biodiversity loss, and for contributing to a climate-resilient ecosystem (Nair, Kumar, & Nair, 2021). In this practice, trees and shrubs are combined with arable land or livestock to enhance food system diversity, resilience, and ecological sustainability. Some potential benefits of integrating trees into farming include soil regeneration, prolonged yields, carbon capture, water retention, storm resilience, fire prevention, and increased biodiversity. However, there are barriers to transitioning to agroecological systems (Heslinga, 2023) and sustainable transitions, food justice, and food democracy (Lamine, 2020).

The role of environmental activism and advocacy in Europe has rapidly evolved in recent years, with a new wave of activism on climate change also incorporating struggles on sustainability in agri-food transitions (Parks, Della Porta, & Portos, 2023). Practices and discourses on agroecology and diversified farming systems have been of interest among rural social movements (Rosset & Martínez-Torres, 2012). The rise of AFNs is the umbrella definition where most of the trends come together (Goodman et al., 2012; Sonnino & Marsden, 2006). But the use of 'alternative' as an analytical term in AFNs needs to be analyzed in detail, not in a mere dualism with 'conventional' systems (Misleh, 2022).

In particular, considering the developments of the embeddedness approach introduced by Polanyi (1944) and its application to AFNs, the limitation of privileged socio-spatial relations of proximity has become clear, as well as the failure to identify the governance roles of specific actors and organizations involved in AFNs and their social, institutional, and political embeddedness (Manganelli, Van den Broeck, & Moulaert, 2020; Misleh, 2022). It is therefore better to adopt a relational approach that emphasizes the process of developing AFNs, only partially constituted through an ongoing struggle with dominant systems, and the types of governance (organizational, resource, and institutional) tensions (Manganelli et al., 2020; Misleh, 2022). Tensions arise from multilevel and multiscale institutions that tend to express different views on actors and objectives of food systems (Manganelli et al., 2020). Furthermore, they raise questions about the robustness of a hybrid governance approach, which combines local and governmental institutions, in co-developing decisions and policy frameworks without allowing the latter to gain dominance and make decisions for their own benefit (Manganelli et al., 2020).

4. The Apulia and Salento Case Study

Located in South-eastern Italy, Apulia, approximately 19,000 km², consists mainly of flat and hilly areas and has a population of 3,877,395 inhabitants as of 2025 (CREA, 2024; European Commission, 2025; Istat, 2025a). In 2025, Apulia's regional GDP was €25,272 million, making it the third largest economy after Campania and Sicily in Southern Italy and the ninth largest in the whole country (Puglia Sviluppo, 2024; Regione Puglia, 2025). In Apulia, there has been an increase in intensive farming, particularly for the cultivation of olive trees, which provide an important source of revenue because of olive oil exported worldwide. Apulia is composed of four main sub-regions from north to south: the Gargano promontory, the Tavoliere plain, the Murge plateau, and the Salento peninsula. The region has areas characterized by intensive agriculture and municipalities specialized in extensive, non-irrigated crops. From 2012 to 2017, Apulia was the region with the greatest increase in soil sealing (CREA, 2024; Strollo et al., 2020). The agricultural area in Apulia converted to organic farming grew from around 4% of the entire regional agricultural area to 22% between 2000 and 2020 (Lorizio, 2000; Rete Rurale Nazionale, 2023). Salento is a geographic area at the southern end of Apulia, including municipalities in the province of Lecce (96 municipalities) and parts of the provinces of Taranto (20 municipalities) and Brindisi (18 municipalities) (Appendix B). Apulia and Salento's agricultural conditions have been recently investigated in many articles (Di Loreto et al., 2025), not only because of the *Xylella* case (Ciervo, 2020; Milazzo & Colella, 2022) but also about AFNs (Nocco, 2021). With a population that has steadily grown over the years, the province of Lecce is primarily employed in the sector of agriculture (see Appendix A). From 1951 to 1971, half of the active workforce was employed in this sector. For example, in 1951, a proportion of 56.7% of the active population in the province of Lecce was employed in either agriculture, forestry, fishing, or hunting. Over the years, particularly in the 1970s and 1980s, there was a decline in engagement in those activities, and a relevant increase in public administration positions, but Lecce still maintains a significant number of workers employed in agriculture. In Salento, the farming system consists of small-scale farms run by smallholders “who manage agricultural holdings ranging from less than one hectare to 10 hectares, primarily using family labor and producing part of their output for household consumption” (European Commission, 2025; FAO, 2013).

To understand the role of the *SalentoKm0* association in campaigning to promote a transition to more sustainable agriculture, one representative explained in detail that the association works quite intensely on planning and carrying out different projects (Interviewee #1). For example, since 2015, they have organized an urban laboratory project called “*ToKalò urban laboratory* [*ToKalò laboratorio urbano*], a social and cultural presidium in which they promote, distribute, and protect natural local agricultural products and educate people on good practices. The laboratory includes book presentations, children's activities, workshops, and many other types of events. Then, they publish books and guides to educate consumers. In 2025, the association published the fourth edition of the guide to “Sustainable Salento and Agrobiodiversity,” where, in 200 pages, they inform on how to shop sustainably and become part of a more conscious community around the food chain (SalentoKm0, 2026). To tackle the climate and biodiversity crisis through regenerative agriculture, which focuses on “regenerating the planet's soil and ecosystems,” in 2021, *SalentoKm0* published an “Ethical Conduct” [*Codice Etico*]. The “Ethical Conduct” aims at guiding farmers in sustainable agriculture, indicating which techniques fall into this category, regenerative agriculture being among them (SalentoKm0, 2021). According to Interviewee #1, “to move away from intensive agriculture, the first step should be to change the mindset about the capacity of rural ecosystems to store energy and resources. In other words, this means cultivating products according to the principles of regenerative agriculture, without the use of chemical fertilizers, pesticides, and other non-organic substances.” Other techniques advocated by the organization include, for example, synergistic agriculture, an approach that favors the natural interaction between plant roots and soil microorganisms, as well as permaculture, which aims to reduce and optimize the need for energy inputs, increasing diversity and resilience.

ManuManuRiforesta! started in the winter of 2020 from *Kurumuni*, the land loaned for use by the Merico farm in the municipality of Miggiano ((ManuManuRiforesta, 2021a); Appendix B). Their first

activity involved a pilot agroforestry project, in which various trees and crops were planted, including oaks, holm oaks, carob trees, laurels, mastic trees, viburnums, sea olives, rosemary, strawberry trees, brooks, dog roses, walnuts, quinces, sycamores, and pomegranates (ManuManuRiforesta, 2021a). The objective was to plant the species once present in the *Belvedere Forest* (in the municipality of Montesano Salentino in the Lecce province), as well as smaller orchards, Mediterranean scrub, and small vegetable gardens (ManuManuRiforesta, 2021a). The association intends to achieve this goal by acquiring (through purchase, loan, donation, or lease) abandoned land via a broad awareness campaign aimed at both the local population and local authorities (ManuManuRiforesta, 2021a). This is possible thanks to collaboration with local communities, so that everyone can contribute to the restoration of rich, fertile land that has been abandoned due to OQDS (ManuManuRiforesta, 2021a). They explained how “utopia is built with actions, actively, by doing” (Interviewee #2). The association is committed to restoring soil fertility and focusing on the planting of native Mediterranean plants, on the increase in biodiversity, on the environmental education of citizens and especially young people, on the fight against summer fires, on the return of wildlife species, and on the establishment of the Special Area of Conservation *Padula Mancina*, where the *Belvedere Forest* once stood.

Table 2.
SWOT Analysis of the SalentoKm0 network and ManuManuRiforesta!.

<p>Strengths</p> <p><i>SalentoKm0:</i></p> <ul style="list-style-type: none"> - The longevity of the association - Networking to find new members - The strong relationships between companies and small producers - The acquisition of new customers thanks to the association’s website or the published guides - The impact on public opinion. <p><i>ManuManuRiforesta!:</i></p> <ul style="list-style-type: none"> - The plantation of around three hundred trees and shrub species - The management of around three hectares, including the forest of Don Tommaso, of around one hectare. 	<p>Weaknesses</p> <p><i>SalentoKm0:</i></p> <ul style="list-style-type: none"> - The absence of perfection in everyday work - The failure to network enough in the territory to address environmental issues - The failure to achieve things that are not within their reach - The failure to create a critical mass and a common vision to ask politicians for concrete actions of regeneration. <p><i>ManuManuRiforesta!:</i></p> <ul style="list-style-type: none"> - Summer fires, mass eradication, and other harmful human activities.
<p>Opportunities</p> <p><i>SalentoKm0:</i></p> <ul style="list-style-type: none"> - The daily relationship with farmers - Co-working with farmers on planning and organizing various collaborative events - The strong support from their community, members, and farmers. <p><i>ManuManuRiforesta!:</i></p> <ul style="list-style-type: none"> - The support from the farmers and the members of the association. 	<p>Threats</p> <p><i>SalentoKm0:</i></p> <ul style="list-style-type: none"> - The inability to mediate between different groups and to build a critical mass - The lack of farmers’ vision or aspiration to act politically on the ground - The lack of government incentives and support to promote sustainable ways of farming. <p><i>ManuManuRiforesta!:</i></p> <ul style="list-style-type: none"> - The vision of a land to be exploited - The lack of evaluation of the effects of human actions in the medium and long term - The obstruction of the regional government.

If we initially consider strengths and opportunities, it is important to better understand the perception of contacts with farmers within the network. Interviewee #1 stated that “thanks to the network of the association, there is the possibility to hold close and daily contact with farmers who choose to practice sustainable agriculture.” They explained that “several farmers are supporting the association to drive this change and participate in various workshops and events where they can promote their products and the sustainable practices they use.” The association also runs a kitchen (*Osteria Biodiversa*) open to the public every Thursday, in which the products of these farms are processed, and in which a market is organized

in their space afterward. Thanks to the daily relationship they have with farmers, they work on co-planning and organizing various collaborative events. The Apulian farmers advocating for this transition have the possibility of joining these associations and selling their products to markets and consumers who want to make more responsible choices. As Interviewee #1 explains, “some of them are also taking more direct actions to oppose agricultural speculation and harmful practices that destroy their territory.” They give the example of a citizens’ committee, called *Custodians of the Arneo Forest*, who are fighting against the expansion of the Porsche racetrack in Nardò, a project involving the destruction of 200 hectares of forest.

Nevertheless, Interviewee #2 from *ManuManuRiforesta!* explains how “even though some farmers follow their association’s philosophy and work, trying to be more respectful of past agricultural practices, others continue with activities that destroy the territory in the long term.” Interviewee #1 explained that “despite the association having a large following among citizens and residents of the province, more could be done. Citizens are involved at every stage of the activities, in the events, workshops, book presentations, and markets. This is why responsible and environmentally aware citizens have a stronger power to influence their peers and family to make them understand the importance of buying products produced by organic, biodynamic, synergistic, regenerative, and sustainable farms.”

At the local level, for *ManuManuRiforesta!*, Interviewee #2 states that “the activities do not really represent a struggle or fight but more the opportunity to set an example”. Thus, as for farmers, while some citizens support their work, others do not. The regional government also has a strong influence, being able to positively influence the transition or, on the contrary, hinder it. Regarding the relationship with the regional government, Interviewee #1 explained how “the region of Apulia has good instincts, but strongly depends on the offices and on the directors of regional departments”. Regarding the solidarity economy, for example, Apulia is one of the first regions to have a law on *Gruppi di acquisto solidale* (“Solidarity-based purchasing groups”), also called “GAS”, to promote forms of distribution from “the bottom”. In addition, the Region has recently legislated on “agri-kindergartens”, which focus on the natural sphere as a very important structural element from early childhood. “However, about a macroscopic disaster like the OQDS, the Region has not taken the disaster as an opportunity to reconsider their model but has done almost nothing” (Interviewee #1). The same view is shared by Interviewee #2, who explains how “the regional government is on the other side of the barricade, literally with enormous caterpillars”. Interviewee #1 explained that “the association gets the greatest amount of satisfaction from themselves, from the community, and from the people that follow them, as well as the farmers who support them”. The same goes for Interviewee #2, who is happy to be able to always count on the members of the association.

Moving on, two components that can further explain the social dynamics behind the case of *SalentoKm0* are the successes the associations have faced. Interviewee #1 explained that “the positive outcomes and results of the association’s work are many, and the first might be its longevity and stability, the fact that the association continues to support and mobilize to promote sustainable agriculture practices.” According to them, success is also defined as “when a company tells the association that it has new customers thanks to its website or the published guides.” Furthermore, success happens when “companies and small producers create relationships through their work, emphasizing how important it is to create connections between people who care about the same cause.” Finally, another significant success is the impact the associations have on public opinion and how much they can raise awareness on certain causes with different initiatives. For instance, *SalentoKm0* supports initiatives curated by *ManuManuRiforesta!* in the reconstruction of the tree heritage of the Salento area and promotes its replication in other areas of Apulia. Interviewee #2 explains how “in four years of activity, around three hundred tree and shrub species were planted,” enabling them to manage approximately three hectares, including the forest called *Don Tommaso* (in the Padula Mancina area), which is about one hectare.

Nonetheless, it is also important to refer to the defeats that happened over the years. Interviewee #1 explained how, when keeping in mind such a big phenomenon to advocate for, “perfection does not exist, and that is already a defeat.” Defeats occur when they try to do things that are not within their reach or,

perhaps, when they fail to network enough in the territory to address environmental issues as well. They explained how “the issue of OQDS in Apulia was a defeat for the whole territory and for civil society, the associations, and the farmers, who were not able to create a critical mass and a common vision to ask politicians for concrete actions of regeneration.” Interviewee #2 added that “summer fires, mass eradication, are all harmful activities and opposed to theirs and constitute big defeats.”

The weaknesses consist of threats in terms of barriers and obstacles to this transition, and it is useful to investigate which might be the most prohibitive for the association. According to Interviewee #1, “the main obstacle the association faces every day in spreading awareness and educating people is the difficulty to network. This difficulty represents the inability to find each other, to mediate between different groups, and to build a critical mass.” They explained how, even if the farmers have done their work and collaborated with them, in most cases, they have no vision or aspiration to act politically on the ground, and with this assumption, it is difficult to appeal for bigger participation from their side, if not through the activities of the association. If this aspiration is not perceived, it is difficult for the association to devote its energies to long and tiring work without a clear commitment. Interviewee #2 explained how “the main obstacles are the vision of land to be exploited, relegating it to mere profit, without evaluating the effects of actions in the medium and long term.” According to them, “there is a big need to completely review the human approach to the countryside and agriculture.”

5. Discussion

The Apulian agri-food industry has played a fundamental role in shaping the region's economy, and in 2017 its turnover was approximately €7 billion, equal to an average of about 25% of the total turnover of the entire manufacturing sector in the region (ARTI, 2021). Interpreting the economic performance of the Apulia region is difficult because we have to switch between neoliberal considerations and the AFNs approach, which are not separated and are embedded in a multiscale dimension that includes local, rural/urban, regional, national, and international factors. From the mainstream perspective, intensive production represents a strength, as well as the marketing of local production. It is the intensive and significantly technologically modern agriculture that allows Apulia to be at the top in Italy in the ranking of many products (Union Camere Puglia, 2021). With respect to weaknesses, while there is a general identity of perception between neoliberal and AFNs perspectives, a complete divergence on solutions is present. With the current food system focusing on mass production, farmers may be reluctant to switch to other farming practices, fearing loss of money, time, and effort. There are debates and discussions on moving away from the current unsustainable patterns with proposals on organic production, crop diversification, and permaculture (De Boni, D'Amico, Acciani, & Roma, 2022; Rinella, 2019). Previous results of SWOT analyses, run before and after the *Xylella* crisis regarding agricultural activities, have identified strengths in terms of data availability, the high weight of BIO certification in the region with a large organic surface, and the fact that the olive oil industry can count on the growing presence of Controlled Designation of Origin (DOC - *Denominazione di Origine Controllata*), Typical Geographical Indication (IGT - *Indicazione Geografica Tipica*), and Protected Designation of Origin (DOP - *Denominazione di Origine Protetta*) products, which guarantee consumers “high-quality, safe, and traceable products” (Cardone, Bottalico, & Prebibaj, 2021; Regione Puglia, 2007). As for weaknesses, low consumer awareness and high certification costs weaken the foundations of the olive oil sector, as well as the impact of climate change, including worsening water resources and pollution problems, which have led to a decrease in cultivated land (Regione Puglia, 2007). Added to this is the fact that the agricultural system is heavily dependent on EU Subsidies (Regione Puglia, 2007). However, there are significant opportunities for the olive oil industry to expand the sales market, promote exports, increase high-quality production, and take advantage of growing consumer demand for organic and environmentally friendly products, as well as for certified traditional and typical products (Cardone et al., 2021; Regione Puglia, 2007). Threats include *Xylella* and pollution of the agricultural environment due to climate change, price pressure, and competition from emerging countries, as well as a lack of policy coordination (Cardone et al., 2021; Regione Puglia, 2007).

The limitations of the neoliberal economic approach are evident when we consider some aspects of the practices for an agroecological transition and the concept of food democracy (Lamine, 2020). The concept of food democracy focuses strongly on participation and interdependencies between consumers and producers, and this is what *SalentoKm0*, as well as *Oltre Mercato Salento*, promote in all of their activities. The fundamental objective of their work can be compared to many different experiences in Europe (Lamine, 2020). In many places, groups of individuals have taken abandoned activities, such as the last grocery shop in the village, and established associations, social cooperatives, and small independent businesses with the objective of creating autonomous local provision and circulation of food (Centemeri, 2019). The larger objective behind all of this was to build an “alternative domestic economy to the ‘capitalist system’” that prioritizes solidarity, autonomy, and social justice and builds new, more environmentally friendly relationships, as declared in the “Who we are” section of the *Oltre Mercato Salento* website (OltreMercatoSalento, 2024). The idea on which the association is founded is that the economic model based on mercantile economy, on profit at all costs, is outdated because it is clearly unsustainable in a world of limited resources. We are in an area of activism that goes beyond mere environmental advocacy aimed only at actions characterized by an “insider” strategy for legislative shifts and changes in policies through formal and structured channels. These associations and their members perform their actions for the protection of the environment, questioning the suitability of existing systems of governance to effectively address environmental problems related to intensive agriculture.

Is there a crisis in the agri-industrial sector? From the analysis of the Salento case, it looks like the agri-industrial sector, even affected by an environmental disaster, is still mainstream and able to decide land use destinations against the interests of populations. Power relations are responsible for the AFN's capacity to expand or retreat. Rural spaces are an asymmetrical battleground where the fights happen at the very local scale, where the actors who push for AFN are small compared to the forces they have to oppose. This is the case of *ManuManuRiforesta!*, which has to use all kinds of mechanisms to promote environmental protection and has to spend a considerable amount of time raising awareness in the community. This is something that the mainstream agri-industrial sector does not need to do, as its messages are dominant in all media, and the capacity to sponsor big events by the agri-industrial sector and “trash food” companies is immense. The capacity to be successful is related to a diversified set of outcomes: revitalize and relocalize economic activities in exploited and/or abandoned areas, significantly improve the local agricultural economy, and shift consumers from the agri-industrial sector to more sustainable practices.

In a way, the rural, agricultural aspect is almost secondary compared to the economic model of development (profit-centered at the expense of natural and human resources) and land use context (for example, large infrastructure that increases soil consumption) that is the real target of activism. While activists often work outside established systems, seeking to disrupt the status quo and draw public attention to a cause, advocacy actions work on behalf of an individual, group, or organization to create change in political systems, and this is the case with the investigated associations (Parks et al., 2023). But the activist sphere is not absent, as mentioned for the *Oltre Mercato Salento*, and it is present when they perform direct actions to address policy changes in their region, in the form of organized events, social markets, and published guides, rather than protests or demonstrations. Moreover, the longevity and support these associations receive from their members, citizens, and farmers are good indicators of their capacity to fight against climate change and toward sustainable agriculture.

If we want to investigate in detail the social dynamics of the transition, we need to look not only at the perspective of associations but also at that of citizens, farmers, and the government. Overall, there are three barriers reducing farmers' willingness and/or ability to shift to more sustainable farming methods and to agroecological transitions: 1) actor capacity; 2) value chain; and 3) policy (Gava et al., 2022; Schwarz et al., 2021). In Salento, the actor's capacity to promote more sustainable methods and practices exists, but it is clear that there is an interplay between all the different barriers that keep alternative practices underdeveloped and non-mainstream. The economic, governance, and social factors can be considered the main barriers in the case of Salento. This is because intensive farming systems are preferred

by farmers seeking short-term profits rather than the high costs of starting and maintaining more sustainable practices. Social factors may hinder the transition, as farmers may not be sufficiently aware of the potential benefits of sustainable practices, such as increasing yields, improving soil health and water retention, and reducing biodiversity loss (De Boni et al., 2022). Bridging the gap between environmental awareness and benefits is complicated by all the obstacles experienced in the value chain. Obstacles in the value chain include the possible lack of physical assets, insufficient added value to agricultural products, and insufficient demand for food produced using agroecological methods (Gava et al., 2022). In other words, if farmers do not have the infrastructure and labor needed for the transition, this can be a significant obstacle. Furthermore, economic, social, and cultural reasons may restrict farmers from generating added value on agricultural products, preventing them from designing value chains specifically dedicated to agroecologically produced food (Gava et al., 2022). The third barrier is related to policy and governance since, as Interviewee #1 explained, “the lack of government incentives and support to promote sustainable ways of farming is one of the main obstructions to sharing knowledge, obtaining funds, and supporting the adoption of more environmentally friendly practices.” For the record, since 2005, Apulia has had center-left governments, whereas between 1970 and 2005, center-right governments. But the municipalities have been led by different coalitions and parties, making policies be implemented in a patchy manner. Without much interest from the national authority, farmers have no real incentive to move forward.

Rural development in Italy is implemented through 22 rural development programmes, one at the national level and 21 at the regional level, and Apulia was classified among the “less developed regions,” not in the “transition regions” or “more developed regions” (European Commission, 2023, 2025). The Apulian Rural Development Programme focuses on enhancing agricultural competitiveness and maintaining, restoring, and upgrading forestry and agricultural ecosystems. It supports over 3,700 farmers to restructure or modernize their farms and grants business start-up aid to 2,000 young farmers (Alhaji Ali et al., 2024a). At the national scale, there is a different interest in Southern Italy, where the fate of the rural environment destined for agriculture is still under discussion, for example, less dependent on food production and more dependent on energy production and tourism. With just over 10.8 billion kWh, Apulia is Italy's second-largest region in terms of gross electricity production from renewable sources and ranks first in wind energy production with approximately 5.4 billion kWh (26.2% of national production) and photovoltaic energy (approximately 4.2 billion kWh, 14.9% of national production), which are the main renewable sources of electricity at the regional level (CREA, 2024). On the one hand, the national government aspires to enhance the competitiveness and sustainability of the country's rural areas through the formally approved strategy to implement the EU's CAP nationally (European Commission, 2023). On the other hand, the idea is to support fossil fuels and transform Italy into the “natural energy supply hub for the whole of Europe” (Ministero degli Affari Esteri e della Cooperazione Internazionale, 2024). In the national plans, Apulia is confirmed as the fulcrum of the new developments, increasing gas pipelines and energy corridors (Intesa San Paolo, 2024). For example, the government confirmed the *South2 Corridor project*, a 3,300 km hydrogen pipeline linking North Africa, Italy, Austria, and Germany, at the heart of the strategy (Intesa San Paolo, 2024). Land use decisions are crucial to orient the long-term future of significant parts of the territory. Agri-tourism destinations, for which there is still relevant capacity (Appendix A), could represent a sustainable alternative to overtourism, which has caused detrimental use of rural and coastal spaces of Apulia, but they need policies and strategies (Agnusdei, Miglietta, Pacifico, & Malorgio, 2024; Bergantino, Buongiorno, & Intini, 2025; Testa, Galati, Schifani, Di Trapani, & Migliore, 2019).

The transition to sustainable agricultural practices affects several groups in different but intertwined ways. Intensive olive fields have been promoted by EU subsidies following the Common Agricultural Policy (CAP) (European Commission, 2021). But the CAP has been criticized for many reasons (Giuliani & Baron, 2025). The component of rural development that is based on a merely ‘productivist’ and competitive approach is still strong, and regional and local governance are unable to support innovative solutions (European Commission, 2025; Labianca, De Rubertis, Belliggiano, & Salento, 2016). In addition,

almost the entire budget of the CAP olive regime (around 2,250 million) was spent on production subsidies that encouraged farmers to intensify production and to use more irrigation, while marginalizing low-input systems (Giuliani & Baron, 2025). If the compensation policies mainly focus on agroindustrial sites, this represents a significant barrier to the economic viability of agroecological development and solutions.

In Southern Europe, the agricultural sector has been subject to environmental disasters that have revealed the vulnerability of the sector to intensive farming, but policies are still limited (FAO, 2025). *Xylella* has spread to other European countries such as Spain, Portugal, and France, but the consequences have not been as dramatic as in Apulia (Trkulja, Tomić, Iličić, Nožinić, & Milovanović, 2022). The Apulian agricultural sector is not well prepared to deal with major crises or disasters, especially when it is difficult to distinguish between internal and external causes. The management following the *Xylella* diffusion destroyed almost 40% of olive orchards in the last ten years and led to a significant loss in net income per hectare across the infected areas (Cardone et al., 2021; De Boni et al., 2022). Everyone has called for action on this problem, but the direction to take has been questioned in a complicated debate involving politicians, scientists (e.g., the National Research Council in Italy, the University of Bari, national and international experts), farmers, judicial system, activists, and various stakeholders, leaving little room for consensus on the decisions to be taken and long-term strategies (Brandmayr, 2025).

Although the *SalentoKm0* network has been stable over the years, the definition of what is local is a very fluid concept and is embedded in a multiscale visibility offered by the network. Strategies are not local, and they are embedded in a large set of relations where it is not apparent which activity prevails over the other (Feenstra, 2002; Sonnino & Marsden, 2006). This lack of clarity regarding governance structures implies that a system of a hybrid governance approach could come into play, defining multiscale approaches to governance based on the interaction of actors who share the same interests. However, while these interactions are crucial to the development of AFNs, they often contradict the interests of the corporate market and hierarchical state institutions” (De Schutter, 2013; Iles & Montenegro de Wit, 2015; Sage, 2014).

The Italian AFNs scene is dominated by the solidarity-based purchase groups GAS (Grasseni, 2013). If we metaphorically consider AFN as a machine, the farms are the structure and the GAS are the engine, and this is confirmed by the analysis of the main AFNs in Apulia. In fact, seven GAS are within *SalentoKm0* and two within *Oltre Mercato Salento*, which is also associated with the Rete Italiana Economia Solidale (RIES, 2025); Appendix B. The activities of GAS are fundamental in providing survival strategies for small local producers and sustainable agriculture (Grasseni, 2013). Alternative social networks to mainstream policies do not operate in isolation, and the relationship with the institution is fundamental, considering the blurred boundaries between AFNs and the conventional agri-industrial sector (Misleh, 2022; Sonnino & Marsden, 2006). *SalentoKm0* brings together producers, brokers, retailers, and consumers through the use of traditional in-person relations rather than using new media (Jarosz, 2000). They do not want to be incorporated into the conventional mainstream sector, but they are unable to become mainstream. This inability is related, as highlighted in the analysis, to weaknesses and structural barriers that will suffocate any attempt at scaling up the experience and orienting land use toward sustainable patterns.

The analysis of the *SalentoKm0* and its longevity confirms that innovative agroecology and multifunctionality approaches to farming allow “farmers to deal with social, environmental, and economic production challenges, spreading benefits to the rural areas where they operate” (Sivini & Vitale, 2023). But agroecology and multifunctionality are a win-win strategy for the populations and the territory if supported by policies (Sivini & Vitale, 2023; Smith, Pearce, & Wolfe, 2012). The *SalentoKm0* network allows them to build a knowledge hub for the exchange of information and discussion on the cost-benefit and trade-off of transitioning out of monoculture. In this context, they take into account the existence of results about environmental, financial, and socio-economic consequences of choosing different cultivations. Many analyses have highlighted the environmental damage of intensive agriculture across Europe (Tsiafouli et al., 2015) and the potential benefits of agroecological solutions (Sollen-Norrin, Ghaley, & Rintoul, 2020). A study conducted in the Salento region found that a combination of olive

orchards, an existing monocultural cropping system, with almond and pomegranate, low-water-demanding crops that can resist deficit irrigation, resulted in the environmental and economic sustainability of crop diversification (De Boni et al., 2022). Changes in agricultural cultivation patterns and practices in Apulia are crucial to understanding how the region can adapt to increasing water scarcity due to climate change (Ellena, Padulano, & Mercogliano, 2025). However, the discussion cannot be restricted to the olive farming land and exclude land use in general, as unused and unproductive land in rural areas is abundant and can offer new opportunities (Ali et al., 2024b). Overall, in the practices of *SalentoKmo*, “we see the current environmental crisis as resulting not from accidental externalities but from a process of ordinary socio-ecological ruination brought about by the dominant logics of productivism and capitalist accumulation” (Centemeri, 2019). We are now left with a relevant question: *What further measures should the associations undertake to mediate between different groups and create a critical mass in a way that effectively succeeds in changing the behaviour of those who are reluctant to adopt sustainable agroecosystem practices in Apulia?*

6. Conclusions

Intensive agriculture is a method of farming that focuses on efficiency and scale at the expense of biodiversity loss, soil exhaustion, groundwater acidification, contamination by synthetic fertilizers and pesticides, and vulnerability to disease spread. There is a clear need to develop strategies to strengthen agroecosystem resilience and review food production and circulation.

The purpose of this article was to analyze some of the actors in Salento that, in the southern part of Apulia, are pushing for an agricultural transition, how they are mobilizing, what their vision is, and what is preventing them from achieving their objectives. Organized networks that aim to promote sustainable agriculture and raise awareness of alternative ways of participating in a solidarity economy are active in Salento. However, they struggle between the desire to have results on issues that cannot be changed in the short term and the need to ensure long-term perspectives that are highly affected by different factors at multiple scales. Adaptation to climate change, the spread of new pathogens, the loss of resilience, and water restrictions require Apulian farmers to transition to alternative modes of cultivation to save their lands from the disasters of climate change and intensive agriculture (De Boni et al., 2022). This transition is also pushed by the recent OQDS crisis in the region, which has devastated the territory and the economy by burning a potential equal to 30% of the national oil production (Coldiretti Puglia, 2023).

Alternative ways of achieving a productive and, at the same time, sustainable agriculture in Apulia exist (Ciervo, 2020; De Boni et al., 2022). However, several barriers and limitations are in place. One obstacle to this transition in Apulia stems from the fact that decisions and processes regarding agriculture are spread across multiple scales, inconsistent with one another, and in contradiction with the full implementation of alternatives.

Reviewing olive cultivation methods in response to the impact of *Xylella* could allow for a new sustainable approach to land use, not only for Apulia but also for other Mediterranean areas. In particular, this article aimed to investigate and reveal trends and ideas linked to a transition to sustainable agricultural production that could prevent the supremacy of destructive land use practices. The visions and aspirations of those involved in agroecology practices were shown, and they clearly indicate the potential development of their territory toward sustainable practices. This relational approach that accompanies the AFN development process incorporates a temporal dimension that has allowed the associations to be consistent and present in the territory for years. However, their longevity is difficult to disentangle as expanding with the aim of reaching more people and broadening networks to achieve national and structural policy change could undermine the embedded locality and connectedness of these AFN initiatives, ultimately alienating the projects from their local roots (Johnston & Baker, 2005).

This analysis indicates how the future of sustainable agriculture in Italy appears rather uncertain regarding the future landscape of Apulian agriculture. The above-mentioned policy plans raise other issues, such as land use change and decisions on how the land will be managed in the coming years. For these reasons, it should be clear what the possible negative effects on the territory might be after

implementing potential planned policies. Nevertheless, all the associations networked by *SalentoKm0* and *ManuManuRiforesta!* will continue to mobilize, advocate, and push for a transition towards a type of agriculture that is able to “meet the needs of the present without compromising the ability of future generations to meet their own needs” (UN, 1987).

Transparency:

The author confirms that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

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Appendix A

Table 1.

2001-2015: Employment in Italy by economic sector (in thousands and percentages)

	Italy				Apulia			
	Agriculture	Industry	Services	Total	Agriculture	Industry	Services	Total
2001	1.154 (5.5%)	7.029 (33.5%)	12.811 (61.0%)	20.994 (100%)	0.14 (11.5%)	0.33 (24.6%)	0.79 (63.9%)	1.23 (100%)
2011	1.277 (5.5%)	6.230 (27.1%)	15.511 (67.4%)	23.018 (100%)	0.16 (12.1%)	0.29 (22.4%)	0.85 (65.5%)	1.3 (100%)

Source: Istat census.

Table 2.

Italy, Apulia and the province of Lecce, utilised agricultural areas (Superficie Agricola Utilizzata - SAU) (in thousands).

	2000			2010			2020		
	Italy	Apulia	Lecce	Italy	Apulia	Lecce	Italy	Apulia	Lecce
SAU (ha)	13,182	1,247	152,3	12,856	1,285	161.1	12,535	1,288	153,0
Number of firms	3,123,551	336,694	78,672	1,620,884	271,754	71,060	1,133,023	191,430	75,411

Source: Istat census.

Table 3.

Active population and occupations in the province of Lecce (in thousands and percentages).

	1951	1961	1971	1981	1991
Resident Population	623.905	678.338	696.503	762.017	803.977
Active Population	302.105	304.835	250.791	251.187	260.849
Economic Sector					
Agriculture, forestry, fishing, hunting	171.3 (56.7%)	154.9 (50.8%)	102.838 (41.0%)	79.943 (31.8%)	52.141 (20.0%)
Extractive industries and manufacturing	78.892 (26.1%)	79.971 (26.2%)	57.75 (23.0%)	54.696 (21.8%)	51.648 (19.8%) ***
Constructions	11.652 (3.9%)	22.635 (7.4%)	26.742 (10.7%)	28.125 (11.2%)	26.629 (10.2%)
Energy, water, and gas	422 (0.1%)	453 (0.2%)	1.087 (0.4%)	1.363 (0.5%)	1.736 (0.7%)

	1951	1961	1971	1981	1991
Commerce	19.468 (6.4%)	14.668 (4.8%)	19.917 (7.9%)	32.709 (13.0%)	32.255 (12.4%)
Transports and communication	5.103 (1.7%)	7.156 (2.4%)	6.066 (2.4%)	8.543 (3.4%)	8.419 (3.2%)
Credit and insurance	1.076 (0.4%)	1.18 (0.4%)	1.678 (0.7%)	6.726 (2.7%)	4.42 (1.7%)
Public administration	14.192 (4.7%)	13.283 (4.4%)	11.647 (4.6%)	53.273 (21.2%)	25.179 (9.7%)
Services	*	10.999 (3.6%)	23.066 (9.2%)	**	20.127 (7.7%) ****

Note: * In the 1951 census, the Services sector was combined with the Commerce sector, with an active population of 19.468 in that sector.

** In the 1981 census, the active population in Public administration is combined with the active population in Services, thus indicating 53.273 people employed in the two sectors.

*** In the 1991 census, the Manufacturing industry and Extractive sectors were separated. Here, I combined the two, obtaining an active population of 51.648 in the two sectors.

**** In the 1991 census, the Service sector is divided into: 1) health and social services; 2) other public, social, and personal services; 3) domestic services inside households. Thus, I combined the three, with a result of 20.127.

Source: Istat (2025b).

Table 4.
2008-2023: Agritourism activities in Italy, South and Apulia.

	Agritourism businesses - male owners	Agritourism businesses - female owners	Agritourism businesses	Agritourism businesses - male owners	Agritourism businesses - female owners	Agritourism businesses	Agritourism businesses - male owners	Agritourism businesses - female owners	Agritourism businesses	Agritourism businesses - male owners	Agritourism businesses - female owners	Agritourism businesses - male owners	Agritourism businesses - female owners	Agritourism businesses - male owners	Agritourism businesses - female owners
	Apulia			Italy			South			Apulia		Italy		South	
2008	174	96	270	12039	6441	18480	1387	1079	2466	64.4%	35.6%	65.1%	34.9%	56.2%	43.8%
2009	182	100	282	12313	6706	19019	1452	1137	2589	64.5%	35.5%	64.7%	35.3%	56.1%	43.9%
2011	234	132	366	13142	7271	20413	1570	1190	2760	63.9%	36.1%	64.4%	35.6%	56.9%	43.1%
2013	227	126	353	13461	7436	20897	1273	984	2257	64.3%	35.7%	64.4%	35.6%	56.4%	43.6%
2015	401	286	687	14211	8027	22238	1445	1206	2651	58.4%	41.6%	63.9%	36.1%	54.5%	45.5%
2017	424	328	752	14923	8483	23406	1541	1376	2917	56.4%	43.6%	63.8%	36.2%	52.8%	47.2%
2019	524	409	933	16010	8566	24576	1673	1469	3142	56.2%	43.8%	65.1%	34.9%	53.2%	46.8%
2021	532	426	958	16627	8762	25390	1764	1534	3298	55.5%	44.5%	65.5%	34.5%	53.5%	46.5%
2023	527	414	941	8834	17295	26129	1783	1537	3320	56.0%	44.0%	66.2%	33.8%	53.7%	46.3%

Source: elaboration based on Istat data (<https://www.istat.it/tag/agriturismo/>)

Salento has a significant presence of agritourism businesses. Otranto is the municipality in Apulia with the highest number of agritourism facilities. In 2023, in Apulia, out of 941 agritourism farms, 527 (56%) were run by men versus 414 (44%) run by women (Istat, 2025a).

Appendix B

Table 1.

Alternative food associations in Salento.

Municipality*	Name of the Association	Main activities	Website	Salento km 0 [1], Oltre Mercato Salento [2], Other [3]
Acquarica del Capo	EcoBottega e GAS di Acquarica	Solidarity purchase shop and solidarity purchase group	https://www.facebook.com/Ecobottega/	[1]
Alessano	Agriturismo Masseria Galatea	Agritourism	https://www.facebook.com/masseriagalatea/	[1]
Alezio	I Fichi Mori	Farm	https://www.facebook.com/p/I-Fichi-Mori-100066841090322/	[1]
Borgagne	Azienda agricola Cumento	Farm	https://cumento.it/	[1]
Botrugno	GAS Botrugno	Solidarity purchase group	NA	[3]
Botrugno	Sciglio – Le Api Del Parco Paduli	Farm	https://www.aziendaagricolasciglio.it/	[1]
Carosino (Taranto)	Piccoli Piccoli agricoltura	Farm	https://www.piccolipiccoliagricoltura.it/	[1]
Casarano	SeminAzioni	Farm	https://www.facebook.com/seminazioni/about	[1]
Casarano	Tempera - antico forno a legna	Bakery	https://www.facebook.com/Temperaforo/?locale=it_IT	[1]
Castiglione d'Otranto (hamlet of Andrano)	Casa delle Agricolture Soc. Agricola Coop.	Consultancy and advocacy	https://www.casadelleagricolturetulliaegino.com/	[1]
Castiglione d'Otranto (hamlet of Andrano)	Gruppo di Acquisto Popolare del Salento	Solidarity purchase group	NA	[1]
Castrignano del Capo	Agriturismo Serine	Agritourism	https://agriturismoserine.it	[1]
Ceglie Messapica (Brindisi)	Ex Terra	Consultancy and advocacy	NA	[3]
Ceglie Messapica (Brindisi)	Terramare Agroecologia Resistente	Farm	https://agriterramare.wordpress.com/	[1]
Copertino	Apicoltura Saverio Alemanno	Farm	https://www.facebook.com/people/Apicoltura-Saverio-Alemanno/100057106076016/	[1]
Cutrofiano	Azienda Agricola Le Lame	Farm	https://www.lelame.it/	[1]

Cutrofiano	Azienda agricola Spadafora	Farm	NA	[1]
Cutrofiano	Caseificio Artigianale Sciacuddri	Farm	https://www.facebook.com/pecorinosalentino/?locale=it_IT	[1]
Cutrofiano	Drogheria dell'Ignoto	Solidarity purchase shop	https://drogheriadellignoto.it/	[3]
Cutrofiano	Frutterò – Save the fruits	Farm	https://www.facebook.com/people/Frutter%C3%B3/100048940666948/	[1]
Erchie (Brindisi)	Olio Febo	Farm	https://www.aziendaoliofebo.com/	[1]
Felline (hamlet of Alliste)	Dei Agre	Farm	http://www.deiagre.it/	[1]
Felline (hamlet of Alliste)	StaiTerraTerra	Farm	https://www.staisinergico.it	[1]
Francavilla Fontana (Brindisi)	Urupia	Farm	https://urupia.wordpress.com	[1]
Galatina	GAS Galatina	Solidarity purchase group	https://www.facebook.com/p/GAS-Salento-Km0-Gruppo-di-Acquisto-Solidale-100069967421290/	[3]
Galatina	Settecroste - laboratorio del pane	Bakery	https://www.facebook.com/settecroste/?locale=it_IT	[1]
Galatina	Terre e Valori Alimentari	Solidarity purchase group	https://www.sfusitalia.it/negozio/terre-valori-alimentari/	[3]
Galatone	Azienda Agricola Dinamica Salentina di Dario Specchia	Farm	NA	[1]
Galatone	Comune Agricola Lunella	Farm	https://www.campagnamica.it/la-nostra-rete/fattorie/comune-agricola-lunella/	[3]
Gallipoli	Agriturismo Calmate	Agritourism	https://agriturismocalamate.it/	[1]
Grottaglie (Taranto)	Azienda Agricola Blasi	Farm	https://www.facebook.com/Azienda.agricola.Blasi/	[1]
Lecce	Agricola Pozzelle Terre Recuperate	Farm	NA	[2]
Lecce	Antico Saponificio Salentino	Other (soap factory)	https://www.facebook.com/anticosaponificiosalentino/?locale=it_IT	[2]
Lecce	Azienda Agricola “Li Scucchi”	Farm	https://www.facebook.com/p/Azienda-agricola-Li-Scucchi-100057031886755/?locale=it_IT	[2]
Lecce	GAS Lecce – Oltre	Solidarity purchase	https://www.oltremerc	[3]

	Mercato Salento	group	atosalento.org/gas/	
Lecce	GAS.P – Il mercato equo solidale a San Pio	Solidarity purchase group, Restaurant, and farm	https://www.facebook.com/groups/1570121506462934/	[3]
Lecce	Giro Di Vino	Solidarity purchase shop	https://www.facebook.com/girodivino/	[2]
Lecce	La Rusciulara	Farm	https://www.facebook.com/LaRusciulara	[1]
Lecce	Pangea e Panthálassa Home restaurant, catering e B&B	Bed & Breakfast	https://www.facebook.com/pangeaepanthalassa/	[1]
Lecce	Parco Naturale e Giardino Botanico in Acquaponica EZEN	Other (park and botanical garden)	https://www.facebook.com/ezensocial/?locale=it_IT	[2]
Lecce	Sud Sud – Made in dignity	Solidarity purchase shops and solidarity purchase groups.	https://www.instagram.com/bottegadelmondolecce/	[2]
Lequile	Il Giardino sotto il naso	Farm	https://ilgiardinosottoilnaso.com/	[1]
Leverano	GAS Leverano	Solidarity purchase shops and solidarity purchase groups.	https://www.agricoladellarneo.it/	[1]
Maglie	GAS Maglie	Solidarity purchase shops and solidarity purchase groups.	https://www.facebook.com/GruppoAcquistoSolidaleMaglie/	[1]
Miggiano	Azienda Agricola Merico	Farm	https://www.oliomericosalento.com/	[1]
Monteroni	Azienda Agricola Ruralia	Farm	www.agricolaruralia.it	[1] [2]
Morciano di Leuca	Masseria Didattica Li Tumeddi	Consultancy and Advocacy	https://www.masserialitumeddi.it/chi-siamo/	[1]
Nardò	Agricampeggio Le Fattizze	Agritourism	http://lefattizze.it/	[1]
Nardò	Azienda Agricola Cosimo Chiriasi	Farm	https://chiriasi.it/	[1]
Nardò	Terre Paduli	Farm	https://www.facebook.com/terrepaduli/?locale=it_IT	[2]
Neviano	Azienda agricola Raffaello Mattia Pasca	Farm	https://www.facebook.com/people/Azienda-Agricola-Pasca-Raffaello-Mattia/100070367374700/	[1]
Novoli	Tenuta Quattru Pizzure	Consultancy and Advocacy	https://www.facebook.com/tenutaquattropizzure/?locale=it_IT	[2]
Oria (Brindisi)	L'Onda Fertile	Farm	https://www.ondafertile.com/	[1]
Ostuni (Brindisi)	Azienda agricola Columella	Farm	https://www.aziendaagricolacolumella.it/	[1]
Ostuni (Brindisi)	Giardini Della Grata (Cooperativa Bio	Farm	https://biosolequocoop.com/solequo-chi-	[1]

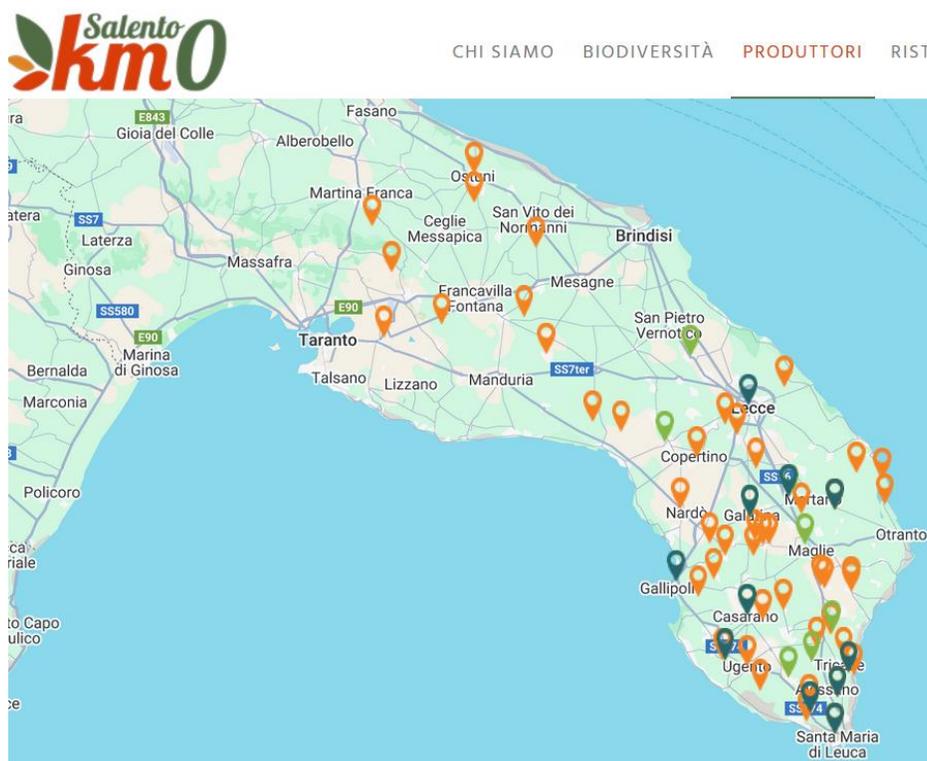
	Solequo)		siamo/giardini-della-grata/	
Otranto	Agriturismo Le Fontanelle	Agritourism	http://www.fontanelleotranto.it	[1]
Otranto	Azienda Agrituristica Salos	Farm and Agrotourism	www.agriturismosalos.it	[1]
Parabita	Azienda Agricola Stefania Stamerra – Biocoltura	Farm	NA	[3]
Poggiardo	Mulino Maggio	Farm	https://www.mulinomaggio.it/	[3]
Porto Cesareo	La Sallentina	Farm	www.lasallentina.it	[1]
Ruffano	Capiverdi Bio	Farm	https://www.capiverdi.bio/	[2]
Salve	Agriturismo Sante Le Muse	Agritourism	http://santemuse.blogspot.it/	[1]
Salve	Azienda agricola Claudia Borrello	Farm	https://www.agricolaborrello.it/	[1]
Salve	Azienda Agricola La Pezza	Farm	http://www.collilapezza.it/home.php?lang=ita	[3]
San Cassiano	Parco Paduli – Laboratorio Urbano Aperto Lua	Multifunctional agricultural park	https://www.facebook.com/ParcoPaduli/	[1]
San Donaci (Brindisi)	Azienda Agricola Melusina	Farm	https://www.facebook.com/AziendaAgricolaMelusina/?locale=it_IT	[3]
San Donato	Azienda Agricola Lagorosso	Farm	https://www.facebook.com/LaSorgenteDelSapore?fref=ts	[1]
San Vito dei Normanni (Brindisi)	XFarm Agricoltura Prossima	Farm	https://www.xfarm.me/	[1]
Sannicola	I Colori Della Terra – Spazi Popolari	Solidarity purchase groups	https://www.google.com/url?sa=t&source=web&rct=j&opi=89978449&url=https://www.facebook.com/groups/spazipopolari/	[3]
Serrano (hamlet of Carpignano Salentino)	Agriturismo Lu Schiau	Agritourism	http://www.luschiau.com	[1]
Serrano (hamlet of Carpignano Salentino)	Contrada Serulla	Farm	https://www.facebook.com/CommunityAgricolturaNatural/	[1]
Specchia	Gas Matine	Solidarity purchase shops and solidarity purchase groups	https://www.facebook.com/gasmatine.specchia/	[1]
Spongano	Azienda Agricola Piedi Grandi	Farm	https://www.zafferanosalento.it/	[2]
Squinzano	GAS MalaChianta - Squinzano	Solidarity purchase shops and solidarity	https://www.facebook.com/malachiantaassoci	[1]

		purchase groups	azione/	
Supersano	Cantina Supersanum	Farm	https://cantinasupersanum.com	[1]
Tricase	Cooperativa Sociale Terrarossa	Farm/Consultancy and Advocacy	https://www.terrarossatricase.org/home/	[3]
Tricase	Gli Orti di Peppe	Farm	https://www.facebook.com/giuseppe.battocchi.o.9?fref=ts	[1] [2]
Marina Serra (hamlet of Tricase)	Agriturismo Gli Ulivi	Agritourism	http://www.gliulivi.it	[1]
Marina Serra (hamlet of Tricase)	Associazione Marina Serra	Consultancy and Advocacy	https://www.facebook.com/marina.serra.144/	[1]
Tuglie	Azienda Agricola Corrado Losavio	Farm	https://www.facebook.com/people/Azienda-Agricola-Losavio-Corrado/100057393312613/	[1]
Ugento	Agriturismo Masseria Gianferrante	Agritourism	https://www.masseriagianferrante.it/	[1]
Ugento	Tenuta Bianco	Farm	https://www.facebook.com/oliotenutabianco?fref=ts	[1]
Vaste (hamlet of Poggiardo)	Apicoltura Impresa Agricola Dott. Luca Circhetta	Farm	https://www.facebook.com/dottlucacirchetta/?locale=it_IT	[1]
Vaste (hamlet of Poggiardo)	Vivere la Canapa	Farm	https://www.viverelacanapa.com/	[1]
Veglie	Le Regine delle Api	Farm	NA	[2]
Vitigliano (hamlet of Santa Cesarea Terme)	Giuseppe Bene Azienda Siliqua – Pisello Secco Di Vitigliano	Farm	NA	[3]
Zollino	Cooperativa di Comunità Jemma	Solidarity purchase shops and solidarity purchase groups	https://antcast1984.wixsite.com/jemma	[3]
Zollino	GAS Zollino	Solidarity purchase group	https://www.facebook.com/gaszollino/?locale=it_IT	[1]
Zollino	Terra Nera	Farm	https://www.facebook.com/Terranerasalento/?locale=it_IT	[2]
Zollino	To Kalò Fai	Consultancy and Advocacy	https://www.facebook.com/p/Laboratorio-Urbano-To-Kal%C3%B2-Fai-100064627902167/	[1]

Note: * All in the province of Lecce (except where indicated).

Source: SalentoKm0 (2026); OltreMercatoSalento (2021); Nocco (2021).

Map of the network promoted by *SalentoKm0* from their website.

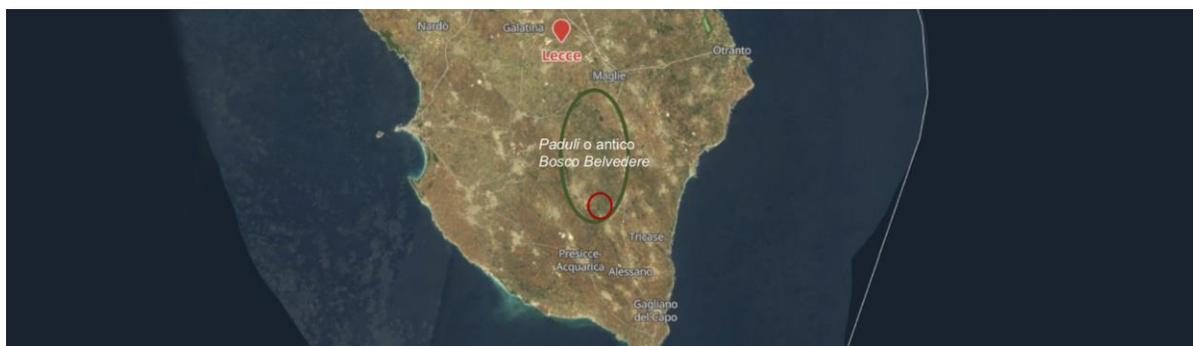


Orange = farms

Green = solidarity purchasing groups

Blue = other activities (e.g., agritourism, bakeries, etc.)

Map of the location where *ManuManuRiforesta!* operates

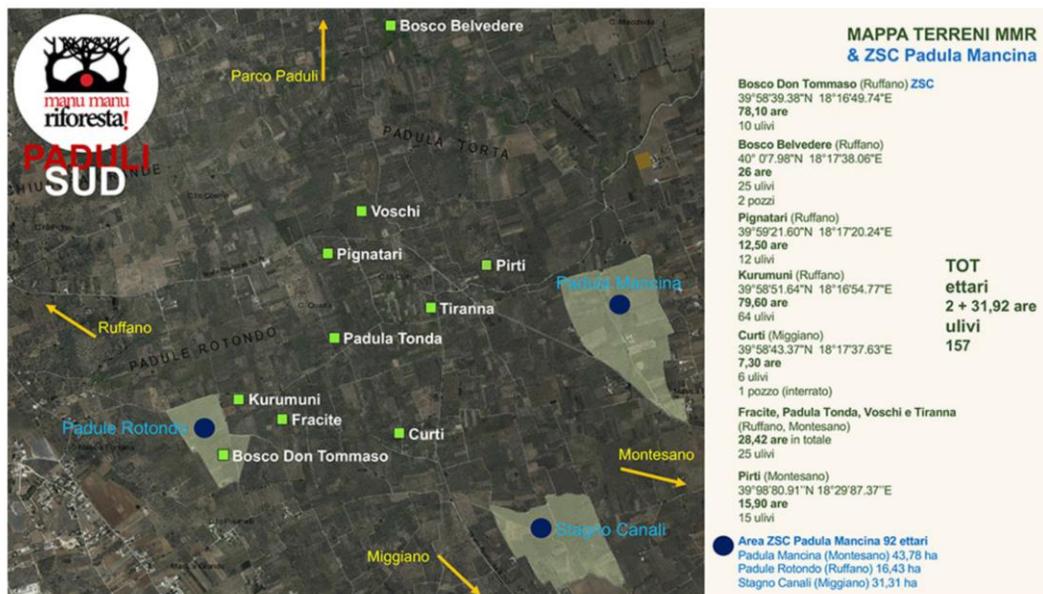


Source: ManuManuRiforesta (2021a).

The red circle indicates:

- 3 municipalities: Ruffano, Miggianno, and Montesano
- 300 hectares of diseased olive trees
- one Special Conservation Area (ZSC - *Zona di Speciale Conservazione*) of Padula Mancina, which includes: three temporary Mediterranean ponds, Padula Mancina (Montesano), Stagni Canali [Ponds] (Miggianno), Padule Rotondo Fosso [Ditch] (Ruffano).

Map of the lands managed by *ManuManuRiforesta!*



Source: ManuManuRiforesta (2021a).

The *ManuManuRiforesta!* The map represents the lands (purchased, loaned, and donated) on which their agroforestry activities are carried out. The lands acquired to date, marked with their toponyms, are all within walking distance of the Padula Mancina SAC.