

# Exploring the Socio-cultural Sustainability of Traditional and Typical Agro-food Products: Case study of Apulia Region, South-eastern Italy

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**Abstract** Traditional and typical foods represent the opposite of mass production and are important elements of the Mediterranean cultural heritage. The paper aims to present a preliminary methodological approach and a first set of indicators for assessing the socio-cultural sustainability of Apulian typical agro-food products. An expert focus group approach was used, within *Agriculture & Quality* programme (2013-2015) of Apulia region, to identify sustainability principles and criteria and to select for each criterion appropriate indicators referring either to business activities or products. A 0-10 rating system was developed for each indicator: 0 (unsustainable), 10 (very sustainable) and 5 (sustainability benchmark value). Social sustainability is defined as the capacity to ensure equity in life quality and human well-being conditions, independently of class and gender. From a cultural viewpoint, it is important to take into account the community's own distinctive and traditional elements that form its original identity. Socio-cultural criteria concern, among others, the worker protection and relations while maintaining culture and local traditions over time. Indicators identified deal with the following sustainability criteria: chain actors' life quality and wellbeing; corporate social and ethical responsibility; women's participation; social inclusion; good relations with the local community; promotion of local identity and transmission of traditional knowledge; workers' training; foreign labourers' inclusion; and animal welfare. Traditional and typical foods represent the cornerstone of the Mediterranean diet cultural heritage. The promotion of the Mediterranean diet, and the cultural heritage that represents, should go together with the valorisation of traditional and typical products on which it is based, and with the sustainable rural and territorial development. Assessing the sustainability of these products can be an effective operational approach for achieving this goal and at the epicentre of the effort to preserve and enhance the Mediterranean Diet.

**Keywords:** *typical agro-food products, sustainability, cultural heritage, society, ethics, indicators*

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## 1. Introduction

Traditional and typical foods represent a key factor in the Mediterranean diet (MD) that is posed at the opposite of mass food production. They date back to before the large-scale alteration of traditional food production processes and can be at the epicentre of the effort to preserve diversity and collective identity [1,2]. The MD has been underlined as a driver of sustainable food systems within regional sustainable development strategies based on the enhancement of traditional local products [3]. Communities and cultures that maintain their own traditional food systems are better able to conserve local

food specialties with a corresponding crop and animal diversity [1]. The MD offers a clear example of that. Indeed, it encompasses a plethora of traditional and typical foods [4], that are an integral part of the MD and one cannot exist without the other [5]. For these reasons and for its peculiar and recognized characteristics, the MD is currently studied by CIHEAM and FAO as a case study for the assessment of the sustainability of dietary patterns in the Mediterranean area [6]. The MD represents much more than a healthy dietary pattern as it is linked to Mediterranean food cultures and traditional cuisines in which typical products as well as traditional recipes play a crucial role [7]. But not only cultural and tradition-linked aspects come into play when it comes to the MD, but also other considerations affecting the individual and collective

behaviour are to be taken into account. Diets are based on foods that integrate both nutritional aspects, i.e. meeting dietary needs, and socio-cultural ones that reflect food preferences, conviviality, human relationship and experiences exchange.

A diet drives the demand for and production of specific foods, with environmental, economic, cultural and social impacts. These impacts can be assessed using generic indicators unless the products origin can be traced back and there are means to better assess specific impacts in the area of origin and along the food value chain [8]. Products with well-known origin such as typical and traditional products give the opportunity to carry out an accurate assessment of sustainability. Studies at regional level, starting from MD characteristic food products, could be useful to this purpose and the Apulia lends itself well. The Apulia Region indeed is one of the most representative historical territories of the MD.

Typical and traditional high quality agri-food products of Apulia region [9], South-Eastern Italy, play an important socio-economic role, because this region has a strong agricultural potential based on culture, tradition and biodiversity. The regional area peculiarities are essential elements for the typicality of its products. These peculiarities are related to different regional endogenous factors including climate, biodiversity, ecosystems, production and marketing techniques, knowledge, traditions, uses and customs.

Sustainability provides a way to meet new consumer demands. One of the new emerging challenges for Apulian agro-food products is to combine tradition and innovation, ensuring not only their quality production, but also their sustainability from economic, environmental, socio-cultural and nutritional-health points of view.

In this context, to enhance regional typical food products, *Regione Puglia* (Regional Government of Apulia) with the Agriculture & Quality programme (2013-2015), technically and scientifically supported by the CIHEAM-Bari, started to valorise regional typical food products with the quality scheme “*Prodotti di Qualità Puglia*” (Quality products of Apulia, PdQP). This voluntary quality scheme was aimed to ensure origin and quality of agro-food products from Apulia region by complying with the product technical specification of reference approved by *Regione Puglia*.

The present paper aims at presenting the methodological approach adopted, the socio-cultural sustainability themes/criteria identified and indicators selected to assess Apulian agro-food products sustainability.

## 2. Material and Methods

In the framework of the Agriculture & Quality programme of the Regional Government of Apulia, CIHEAM-Bari carried out a pilot project to assess and promote the sustainability of the traditional and typical food products belonging to the quality scheme. The main objective of this pilot project was to ensure that the products that adhere to the regional quality scheme comply not only with the quality requirements, defined by technical specifications, but also with sustainability requirements. Specifically, the aim of this activity was to develop guidelines and a methodological approach (with appropriate indicators) to assess the environmental,

economic, nutritional-health and socio-cultural sustainability of the Apulian quality typical products that are the cornerstone of the MD and associated regional food system. The pilot project was carried out in collaboration with the Italian National Research Council (CNR), the Italian Council for Agricultural Research and Economics (CREA), the Italian National Agency for New Technologies, Energy and Sustainable Economic Development (ENEA), the Forum on Mediterranean Food Cultures, the University of Bologna and the University of Naples Federico II. The starting building blocks for the elaboration of the methodological approach were the results of the international workshop on diets sustainability held at CIHEAM-Bari in November 2011 and the conclusions of the international seminar held in Malta in September 2012 [3], in which four sustainability pillars were identified: environment, economy, society-culture and nutrition-health [6,10]. The same four pillars were considered in the framework of Agriculture & Quality project for the assessment of the sustainability of typical agro-food products in Apulia region. The socio-cultural pillar (including social and cultural aspects) took into account also ethical aspects.

Around each sustainability pillar a working group was established including experts from different Italian institutions. The activities were coordinated by the staff of CIHEAM-Bari. The working groups performed different brainstorming sessions as well as conference calls to identify and refine the selection of indicators. Moreover, three meetings of all experts were organized:

- December 5, 2013 - CIHEAM-Bari: Kick-off meeting with official start of activities.

- September 15–16, 2014 - Rome: Expert meeting on the occasion of international workshop “Assessing sustainable diets within the sustainability of food systems - Mediterranean diet, organic food: new challenges” [8].

- April 23, 2015 - CIHEAM-Bari: Conclusive international workshop “Mediterranean Sustainable Food Systems – Towards Expo Milan 2015: Linking Territory, Food Quality Production, Food Consumption and Dietary Patterns for Improving the sustainability of the Mediterranean Diet. Apulia Case Study”.

In order to define the indicators a hierarchical approach was used; from sustainability principles to criteria and from criteria to indicators. Moreover, for each sustainability criterion one or more indicators were identified. These indicators refer either to products or to businesses/companies producing them. Most of the developed socio-cultural indicators refer to farms/companies (cf. corporate-based approach), as they are not specific to single products and depend on the whole management of the agro-food company, but some of them refer to each single product (cf. product-based approach).

The working group identified indicators that are relevant, specific, easily measurable at farm level, appropriate and easy to understand and communicate to all stakeholders, including farmers, policy makers and consumers. In line with the Sustainability Assessment of Food and Agriculture Systems approach – SAFA, different types of indicators were considered: performance-based, practice-based and target-based [11].

The selection of indicators is considered just a phase of the methodological approach development that includes the following tasks: justification of the choice of sustainability

criteria/themes and indicators based on the concept of sustainability; description of indicators (cf. indicator sheets); and development of a method for the aggregation of indicators. The selection of socio-cultural sustainability criteria was based on the understanding of socio-cultural sustainability in the food sector and the characteristics that an agro-food product and/or a process should have in order to be considered sustainable from the socio-cultural point of view.

For each indicator a sheet was prepared including the following information: definition of indicator; method of calculation (in this area the necessary data to calculate the indicator and the method of data collection are also specified); sustainability benchmark; and other useful information (limits on the use of the indicator – for example validity only for fresh/non-processed products or only for plant origin products; link with other indicators; references; etc.).

A rating and scoring system was developed for each indicator, from 0 (unsustainable) to 10 (very sustainable) with 5 corresponding to sustainability benchmark value. The sustainability benchmark value, which was defined for each indicator and for each supply chain, expresses in a simple, objective and numerical way the threshold of sustainability from which a product, and/or the company that produces it, can be considered sustainable. This value was defined taking into account the average performance of the Apulian agro-food companies or national and European Union standards and regulations. In accordance with the principle of continual improvement, the sustainability benchmark values will be regularly updated.

Sustainability was evaluated separately for the four pillars and each pillar has the same importance/weight as the others. A product is considered sustainable if it has a minimum average score of 5/10 for each sustainability pillar. Scores of corporate-based indicators were aggregated with those of product-based indicators to get the product-based average sustainability score.

## 3. Results and Discussion

### 3.1. Socio-cultural Sustainability in Relation to Food

As known, food is more than a basic source of nutrients: it is also a key component of our culture, central to our sense of identity [12]. Various individual, cultural, historical, social and economic influences shape our food choices [13]. They, like various other cultural expression and practices, shape our identities, define our membership and express our distance from others. Changes in food preferences may also reflect changes in broader cultural perceptions and practice [14].

The concept of sustainability applied to food production and processing refers to the preservation of social and culture aspects in time. In this sense, the French term “*durabilité*” better describes this concept. Sustainable development - from which derived the concept of sustainability – was defined in the 1987 Brundtland Report as «*development that meets the needs of the present without compromising the ability of future generations to meet their own needs*». For this reason, in

the framework of sustainability, the concepts of “space” and “time” are crucial [15] for better defining the social and cultural dimensions of sustainability [16].

Some principles and criteria have been identified to explore socio-cultural sustainability and for each selected criterion, appropriate indicators referring either to businesses or to products have been identified. To better define the extent of the social-cultural pillar of sustainability, has been considered the social dimension separately from the cultural one. Hence, the social dimension has been identified in terms of improving the quality of life and, more in general, of a greater well-being [17] and, with regard to the cultural dimension, it has been instead highlighted through aspects related to tradition, history, identify of a community and the historical and geographical peculiarities of a territory [18].

Given the novelty of such sustainability dimension, it is important to emphasize that the permanence of social and cultural values of a community becomes relevant not only if associated with the finished product, but even if they represent typical activities that a farm may perform [19]. In this case, the farm is characterized as an active player in the preservation of social values and the promotion and transmission of traditional knowledge of the local community [20].

The process necessary to determine the socio-cultural sustainability of food production and processing foresees three basic steps for its evaluation: a) the presence of social aspects; b) the presence of cultural aspects; c) the possibility to combine these aspects and both dimensions (social and cultural) within the concept of sustainability [16].

Applying this process to a food product and / or farm that produces it, the following conditions must be guaranteed: 1) compliance with internal farm social conditions and possibly also other actors with them it is in contact (suppliers, distributors, customers, etc.) and guaranteeing the welfare of animals in the case of livestock production; 2) possession of a cultural value recognized by the community (use of local resources - natural and human - unique in the history and tradition of production; the presence of shared knowledge at the local level; close ties with the territory; specific inputs and localized historical memory; etc.); 3) capacity/potential of the product and / or farm, to maintain its socio-cultural characteristics (as identified above) over time, to disseminate knowledge and traditions to current generations and to transmit them to future ones in the light of “*durability*” of such values.

### 3.2. Socio-cultural Sustainability Themes, Criteria and Indicators

Before defining specific indicators for the social and cultural dimensions some social-cultural themes have been selected and from them some sustainability indicators have been extrapolated (Table 1).

#### 3.2.1. Social Dimension

A) *Corporate social responsibility for ethical sustainable management along the food chain*

With regard to Corporate social responsibility (CSR), it is worth to point out that it goes beyond compliance with

legal requirements and identifies practices and behaviours that a farm adopts voluntarily, in the belief to get results that can bring benefits and advantages to the farm as well as the context in which it operates. Particular attention has to be paid to relations with stakeholders such as employees, suppliers, customers, partners, local communities and institutions, while performing concrete actions for them. Currently, there are standards and guidelines set by international standard-setting systems, that allow detecting the effective application of the conditions mentioned above (ISO 26000 and SA 8000) (Table 2).

#### B) Women employment in farming sector at production and management level

The gradual entrance of women in agriculture has certainly given a boost to innovation characterizing the other activities related to the processing of products, such as the growing attention to welfare and health, transmission of traditional knowledge (methods of food preparation, recipes, etc.), the recovery of old varieties, etc. The participation of women in production environments is a representative element of progress and social development (Table 3).

**Table 1. Social and cultural sustainability criteria/themes and indicators considered**

Dimension	Criterion / Theme	Indicators
Social	Corporate social responsibility for ethical sustainable management along the food chain	Voluntary integration by farms of social concerns (e.g. workers' rights, protection of consumer rights, occupational safety and health) in the production process, business operations and relationships with stakeholders
	Women employment in farming sector at production and management level	Presence of women in the farm
	Social inclusion	Presence of vulnerable people in the farm
	Training of farm workers along the food chain	Training activities to favour integration of workers
	Integration and training of foreign workers	Training activities for integration of foreign workers
	Respect of animal welfare	Adoption of measures for animal welfare
Cultural	Promotion of local identity	Farm activities (different from agricultural production) as a means to promote cultural identity
		Preservation of traditions and local culture
	Transmission of traditional knowledge to the new generations	Activities to promote the intergenerational transmission of traditional knowledge
	Good relations with the local community	Collaboration with the local community, local authorities and civil society
Associations among farmers		

**Table 2. Social indicator 1 - Voluntary integration by farms of social concerns in the production process, business operations and relationships with stakeholders**

Description	Score
No social policy	0
At least a measure of social concern (e.g. workers' rights, protection of consumer rights, occupational safety and health)	1-4
At least a scheduled informative and training path on CSR dedicated to the farm workers	5-7
Adoption of an Ethical Code	8-9
Certification ISO 26000, SA 8000	10
Method of calculation: Number and type of measures adopted by the farm in order to implement of the principles of social responsibility. Sustainability benchmark: At least one scheduled information activity on social responsibility addressed to workers. Other information: If the farm is certified ISO 26000 and/or SA 8000, the verification of the requirements of social sustainability can be considered fully satisfied. The different scoring depends on the type and frequency of the information activities. It should be also evaluated whether the "employer" has been trained on the mentioned subject.	

**Table 3. Social indicator 2 - Presence of women in the farm**

Description	Score
0%	0
10%	1-4
11-25%	5-7
>25%	8-9
Certification ISO 26000, SA 8000	10
Method of calculation: Percentage of women in the farm. Sustainability benchmark: 11-25% of total employees. Other information: If the farm is certified ISO 26000 and/or SA 8000, the verification of the requirements of social sustainability can be considered fully satisfied.	

### C) Social inclusion

The inclusion in the employment context is a tangible sign of inclusion of all those people who live in conditions of social vulnerability. Within Italian legal framework, vulnerable people are persons with disabilities identified as “protected categories” under article 1 of Law 68/99 (invalids, disabled workers, blind, deaf, with specific percentage of disability) (Table 4).

### D) Training of farm workers along the food chain

In recent years, the production and marketing of food products have undergone structural changes due to globalization of markets, new forms of distribution and consumption. Agri-food sector should take into account the fundamental principles of sustainability declined in its most significant meanings in terms of environmental, economic and social-cultural aspects. Especially in reference to the latter aspect, the provision of training programs in the farms is necessary in order to combine the production and marketing of food products with the principles of sustainability (Table 5).

### E) Integration and training of foreign workers

The migration phenomenon in Apulia showed heterogeneous characteristics, with visible changes over the years. Apulia region is no longer an exclusive part of landings as happened in the 90s, but it is an important hub and immigration in the country with interesting vanguard experiences of entrepreneurship and legislative attempts, and, unfortunately, also sad phenomena such as the illegal hiring and exploitation. In order to promote the employment and social inclusion of foreigners the Apulia Regional Law 32/09 provides, respectively under articles 13 and 14, professional training to favour the employment of immigrants. With regard to professional training, Apulia Region government promotes all forms of information, guidance, training, continuing education in favour of foreign citizens, intended to enable the acquisition of skills and professionalism consistent with demand of the labour market. Vocational training is implemented by the training institutions accredited by the region and schools, in coordination with local authorities, trade unions and organizations of employers, associations and protection bodies (Table 6).

**Table 4. Social indicator 3 - Presence of vulnerable people in the farm**

Description	Score
0%	0
1-6 %	1-4
7-15 %	5-7
>15%	8-9
Certification ISO 26000, SA 8000	10
<i>Method of calculation:</i> Percentage of vulnerable individuals in the farm.	
<i>Sustainability benchmark:</i> 7% of the total employees.	
<i>Other information:</i> If the farm is certified ISO 26000 and / or SA 8000, the verification of the requirements of social sustainability can be considered fully satisfied.	

**Table 5. Social indicator 4 - Training activities to favour integration of workers**

Description	Score
None	0
At least 1 training programme for professional integration	1-4
At least 2 training programmes, on different subjects (environment, legality, sustainability, safety, etc.)	5-7
Training programmes, language courses and professional coaching	8-9
Certification ISO 26000, SA 8000	10
<i>Method of calculation:</i> Number of training programmes for workers along the food chain	
<i>Sustainability benchmark:</i> At least two educational and training courses encompassed in the farm business plan and mission.	
<i>Other information:</i> If the farm is certified ISO 26000 and / or SA 8000, the verification of the requirements of social sustainability can be considered fully satisfied.	

**Table 6. Social indicator 5 - Training for integration of foreign workers**

Description	Score
None	0
At least 1 training programme for professional integration	1-4
At least 2 training programmes, one dedicated to professional integration and the other focused on learning Italian language	5-7
Training programme, language courses and professional coaching	8-9
Certification ISO 26000, SA 8000	10
<i>Method of calculation:</i> Number of training courses provided by the company for the integration of foreigners.	
<i>Sustainability benchmark:</i> Planning of at least two programs, one for vocational training and the other regarding Italian language, for the inclusion of foreign.	
<i>Other information:</i> If the farm is certified ISO 26000 and / or SA 8000, the verification of the requirements of social sustainability can be considered fully satisfied.	

### F) Respect of animal welfare

According to Art. 1 of Regional Law n. 109 of 24 July 2012, Apulia Region government supports the protection, increase and improvement of the regional livestock, in line with the European Union legislation regarding the technical, economic, social, environmental aspects related to animal breeding. In order to facilitate a process of qualification of the farms of Apulia, the Region promotes the adhesion of the farms to the quality scheme “*Prodotti di Qualità Puglia*” (PQP). Farms adhering to the quality scheme PQP must respect the specifications that describe the production processes and the elements that characterize the quality of the product or process to be adopted for each species or breed and type of product. For these reasons, the respect of animal welfare is not only an essential element in the assessment of the “quality” but also of the social sustainability of farms of Apulia (Table 7).

### 3.2.2. Cultural Dimension

As far as the cultural dimension is concerned, three main themes have been explored: Promotion of local identity, transmission of traditional knowledge to new generations and good relations with local community.

#### A) Promotion of local identity

Among the innovations introduced by art. 1 of Legislative Decree n. 228 of 18 May 2001 (Guidance for the agricultural

sector), which amended the definition of “farmer” dictated by art. 2135 of the Italian Civil Code, is to report the meaning given to “related activities” to agricultural production. Among them, there are activities to promote the area and the rural heritage and forestry, namely reception and hospitality as defined by law. Therefore, the farmer has the opportunity to offer a range of diversified activities in addition to the purely productive ones: touristic accommodation, environmental and landscape protection activities, educational and knowledge deployment activities, production and direct sale of local products, etc. These contribute to the enhancement and promotion of local knowledge and culture (Table 8).

In agri-food sector, traditional and typical products are the expression of local culture and heritage. In particular, the production of traditional food is transmitted from generation to another. It is often defined by specifications, homogeneous across the Region, for a period of not less than 25 years. These products assume a value of excellence. The main features of these products are their specific history, in reference to the origins of the community, and their close relationship with the environment and the territory; familiarity, which concerns the memory of their roots; the rediscovery, in the pursuit of quality, taste and detail; and excellence, for the high flavour profile (Table 9).

**Table 7. Social indicator 6 - Adoption of measures for animal welfare**

Description	Score
None	0
Partial observance of provisions on animal welfare	1-4
Compliance with the provisions on animal welfare and the specifications PQP	5-7
Total observance of provisions on animal welfare	8-10
<i>Method of calculation:</i> Compliance with the provisions concerning the respect of farm animals through the adoption of measures to protect animal welfare	
<i>Sustainability benchmark:</i> Compliance with animal welfare standards and specifications as established by quality scheme PQP.	
<i>Other information:</i> According to this indicator, for animal farms, the social sustainability is satisfied if they adhere to the quality scheme PQP, which encompasses rules concerning animal welfare.	

**Table 8. Cultural indicator 1 - Farm activities (different from agricultural production) as a means to promote cultural identity**

Description	Score
None	0
At least 1 activity of promotion of typical products	1-4
At least 2 distinguished activities on promotion of typical products	5-7
Activities of promotion and training related to the production of typical products	8-10
<i>Method of calculation:</i> Number of promotional activities (agritourism, direct sale of typical products, etc.).	
<i>Sustainability benchmark:</i> At least two different activities to promote local products and traditions.	
<i>Other information:</i> For each scoring range, the effective score (number) depends on the type and the structure of the activities which have been proposed and developed by the farm in the two years prior to the time of evaluation e.g. number and type of promotional activities of local / traditional products (brochures, days of promotion, information booklets, participation in organized initiatives, and promotional paths such as “Olive Oil City”, etc.).	

**Table 9. Cultural indicator 2 - Preservation of traditions and local culture**

Description	Score
None	0
Production of 1 or 2 typical/traditional products	1-4
Production of 3 or more typical/traditional products	5-7
Production of more than 3 typical/traditional products and intergenerational transmission of traditional knowledge (“historic family farm” )	8-10
<i>Method of calculation:</i> Number of typical / traditional products for which the company adheres to a production protocol.	
<i>Sustainability benchmark:</i> 3 typical/ traditional products.	
<i>Other information:</i> For each scoring range, the effective score (number) depends on production activity which have been proposed and developed by the farm in the two years prior to the time of evaluation.	
If the farm has exclusively produced typical/traditional products, the highest score can be assigned. If the farm is considered a “historical farm” for a special type of products and its management has been transmitted “from father to son”, then that farm will gain the highest score.	

### B) Transmission of traditional knowledge to new generations

Courses and workshops to convey the knowledge and skills in the preparation and production of traditional products are an important element of the socio-cultural sustainability of a farm. An example is the educational farms. This definition is used to describe farms or agritourism operations which perform reception educational activities for tourists or school groups to learn about the farm activities. The qualification of educational farm is assigned by the regional administration on the basis of acceptance by the holding of the standards established by a “quality charter”. The farm remains primarily a production farm which also proposes an active educational activity and the visitors are often involved in the creation of a typical product (e.g. cheese production, participation in harvesting fruit and vegetables, activities related to beekeeping, etc.) (Table 10).

### C) Good relations with the local community

The opening of the farm to the community and local authorities is particularly important. The farm has a significant social and cultural role in that, through its activities and its services, it promotes the quality of life in rural areas (environment, the development of forms of direct sales of quality products to consumers, providing employment for disadvantaged people, etc.). In this way, the farm can enter into relationships with new subjects, becoming even more attractive for new channels of socio-economic sustainability, coming not only from the supply of goods, but also from services, reversing the classical paradigm according to which the countryside remained confined to a marginal position. The sustainability, in this case, is expressed through good relations with the local community (community involvement, channels for communication and dialogue with the local community) (Table 11).

**Table 10. Cultural indicator 3 - Activities to promote the intergenerational transmission of traditional knowledge (e.g. educational farms, farm kindergarten)**

Description	Score
None	0
At least one activity of promotion the typical/traditional products	1-4
At least two distinguished activities to promote typical/traditional products (e.g. guided tour, scheduled special events)	5-7
Activities of training and promotion on typical/traditional products	8-10
<p><i>Method of calculation:</i> Number of training-educational activities.</p> <p><i>Sustainability benchmark:</i> At least two different activities planned and developed in partnership with local authorities.</p> <p><i>Other Information:</i> For each scoring range, the effective score (number) depends on the type and the articulation of the activities which have been proposed and developed by the farm in the two years prior to the time of evaluation. The activities should be addressed to children and teenagers e.g. Development of an agri-kindergarten (green kindergarten) in collaboration with local entities and the participation of local associations and periodical meetings and events with local community.</p>	

**Table 11. Cultural indicator 4 - Collaboration with the local community, local authorities and civil society**

Description	Score
None	0
At least 1 activity involving local entities and community	1-4
At least two different scheduled activities developed in collaboration with local entities and civil society	5-7
Existing agreements, conventions - institutional framework to provide services to local institutions and communities	8-10
<p><i>Method of calculation:</i> Number of activities different from production / supply undertaken in collaboration with the local community, local authorities and civil society.</p> <p><i>Sustainability benchmark:</i> At least two different activities planned and developed in collaboration with the above mentioned actors.</p> <p><i>Other Information:</i> The highest score (8-10) is given when the company has an activity of institutionalized cooperation, in the form of agreement or Memorandum of Understanding, with local authorities or associations of local communities for the implementation of joint activities aimed at promoting the traditional local food heritage. The score of “10” is given when the collaboration agreement has very wide articulation of those activities. The evaluation period refers to the two years prior to the time of evaluation. The scoring for each relevant evaluation range varies according to the articulation of the covered activities.</p>	

**Table 12. Cultural indicator 5 - Associations among farmers**

Description	Score
No involvement of the farm and / or its managers in professional organizations / associations	0
Participation of the farm and / or its managers in 1 professional organization / association	1-2
Participation of the farm and / or its managers in 2 professional organizations / associations	3-4
Participation of the farm and / or its managers in 3 professional organizations / associations	5-7
Participation of the farm and / or its managers in 4 or more professional organizations / associations	8-10
<p><i>Method of evaluation:</i> Checking the social capital of food company and its links with the local community using as a parameter the membership of cooperatives, collective organizations and associations and / or civil society.</p> <p><i>Sustainability benchmark:</i> Membership of the farm or its manager in three business or civil society associations.</p> <p><i>Other information:</i> The score to be assigned depends on several factors such as how long the farm has been belonging to the organization and the role played in the same (simple membership or decision-making role).</p>	

Farmers are among the main actors in the regional agri-food sector. But they often appear as a set of subjects poorly integrated with each other at the local level except when they are part of cooperatives, agricultural organizations, orders and professional associations, trade unions, environment associations, organizations of producers and breeders, environmental and consumer groups, etc. These forms of association of farmers also play an important role in socio-economic life of the community (Table 12). In Apulia, there are more than 400 cooperatives, which make about 850 million Euro as turnover, employ more than 4,500 persons and aggregate beyond 140,000 members. Agricultural cooperation in Apulia is of considerable importance especially in the olive and wine sectors [21].

### 3.3. Discussion

The approach used and reported in this paper can effectively contribute to apply sustainability assessment methods of the traditional and typical food products, which are the cornerstone of the MD [22]. This study conducted at regional level, provides very useful information on the best way for traditional and typical food products to meet economic, environmental, nutritional-health, social and cultural needs. They aim to combine tradition and innovation ensuring food production and products of quality and, at the same time, their sustainability [23]. Another issue concerns the target subjects of investigation. In the case of socio-cultural sustainability indicators, the focus is on farms/companies (corporate-based approach), instead of food products, as these indicators cannot be specific to single products because they depend on the whole management of the agro-food company. In order to pass from the product/company evaluation to the assessment of diet and from territorial scale to country scale, a number of issues that affect the behavioral aspect (it is to note that diet refers to a lifestyle and not only to a number of food products), and the complexity of the geographical extension (no more a limited specific territory but a whole country) have to be considered. This involves the need to readapt, as appropriate, criteria and indicators developed in this project.

## 4. Conclusions

The value of the food is not exclusively linked to its nutritional role, but also to a number of aspects that affect the social and cultural sphere. Thus, it is important to explore food in its whole dimension with reference to socio-cultural practices, festivities, celebrations, memberships, relationships between nations and peoples and between people and the environment, knowledge and traditions, sharing, conviviality and well-being in its broadest sense. Food is connected to the ability in maintaining and transferring traditional heritage and strictly linked to the socio-cultural environment of a territory and its population.

It is therefore worth to remind that the concept of sustainability refers to the notion of time. For this reason, it is fundamental to evaluate the presence of, and then try to preserve, such values, traditions, capacities and

knowledge over the time. This will contribute to achieve the final goal of sustainable development.

The present paper proposes a methodological approach for the assessment of socio-cultural sustainability of both typical products and their respective production systems. The work focuses on Apulia Region as a model. Therefore, other context-specific social and cultural issues have to be considered when using the proposed methodological approach in other Mediterranean regions / territories. Nevertheless, in this framework, further research activities and an implementation phase of this methodological approach are needed in the interested territory.

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