Rethinking rural development approaches and their relations with agricultural and agro-food local systems

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Summary

*Provide here a summary of your paper no longer than **300 words**. (Times New Roman, 10, italic)*

This paper focuses on the notion of agricultural and agro-food system as unit of analysis. The analysis provides evidence of diffused dynamism of these systems, both in terms of demographic characteristics, labour productivity and exports in international markets. Relevant differences among these local systems can be explained by geographical location (especially between North and South Italy) and infrastructural endowments. But relevant differences, according to recent studies on governance of rural areas, are also as far as cooperation and integration variables are concerned.
To explore the nature of these variables, a parallel survey was implemented in 20 Italian areas to identify and reconstruct the institutional maps of the food chain supply (farming system, food industry, type of distribution and market channels), the main actors working in it and the main forms of vertical and horizontal integration/cooperation. This allowed to understand the structure of the food chain supply and which kind of governance is characterising agriculture and agro-food sector in these rural areas.
The survey highlights three possible patterns of rural integration/cooperation. The first pattern, based on vertical integration/cooperation, is usually in rural areas dominated by the prevalence of few innovators and/or agro-food industries with strong leadership. The second pattern, based on horizontal cooperation and integration, does not include few leader industries but a whole set of actors, within the agro-food chain, whose strategy is primarily to

promote strong coalitions and networks to increase the bargaining power of agriculture and to reduce conflicts within the agro-food chain between farmers and agro-industrial firms. Finally, the third pattern is based on horizontal integration/cooperation between agro-food chain and other sectors.
The analysis of these study cases brings about important implications in terms of rethinking rural development paradigm.

Keywords: Rural development, Agro-food systems, Governance

JEL Classification codes: Agricultural policies – Food Policies Q18, Regional development Planning and Policy R58

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1. INTRODUCTION: OBJECTIVES AND BACKGROUND

The notion of sustainable rural development in Europe has been developed in the last 20 years and has evolved in parallel with the Common Agricultural Policy (CAP). Theoretical approach has been strongly influenced by three types of visions: a) the redistributive vision of economic development (European Commission, 1998; Mantino, 2008); b) the vision of rural development as a special case of territorial development (Saraceno, 1994); and, finally, c) the growing integration of farmers' style into the commodities markets and diversified economy (Van der Ploeg et al, 2000). Rural development has been also seen as an example of inclusion of agricultural sector into a series of networks ranging from the local level to the transnational level (Marsden, 1998).

The theoretical approach underpinning the analysis and the practices of rural development has been recently reviewed and criticized by M. Shucksmith (2010), with particular reference to the need of reconsidering the concept of rural development in the context of the new rural governance. From another perspective A. De Janvry (2010) argues that a new paradigm has started to emerge as to conceive agriculture for development, pursuing a broadened development agenda.

We move from these criticisms to support the need of rethinking the concept of rural development in order to fill three fundamental gaps:

1) the first concerns the reduction of rural development to the redistributive vision. RD has always been identified with the need of reducing disparities between the poorest areas, essentially agricultural-oriented, and the most developed regions (being urban or industrial oriented). This vision, which has shown a considerable persistence over time, could be considered still valid in more traditional and poorest economies of less developed countries, where rural development has very much to do with the aim of reducing poverty. But this vision has become quite obsolete in Europe, where local development and urbanization pervaded a great variety of territories, even outside the big metropolitan areas;

2) the second gap concerns the role of institutions in explaining rural development processes. This implies that a series of relevant factors have been almost neglected in explaining success or failures of these processes, such as the importance of local institutions, the cooperation/conflict relations among stakeholders and the role of different tiers of governance. This gap also implies that the level of analysis should be reconsidered, moving from the farm/groups of farm level to the relations between stakeholders in a given territorial context;

3) finally, the third gap has to do with the strict identification between rural development and economic diversification in rural areas. This vision meant a substantial lack of focus on the role of agricultural and agro-industrial dynamics in influencing the patterns and the intensity of territorial development.

With regard to these gaps, this paper intend to stress how agriculture could be decisive in the development of rural areas and more generally for the whole economy in the last economic crisis. This aim is pursued in three ways:

- Identification of the local agro-food system as unit of analysis. To do this we have examined 20 agricultural and agro-food local systems in Italy, considered as territorial units encompassing several municipalities where a specialized production has taken place over time not only as result of economic, social and geographical factors, but also of local history, traditions and culture. In one word, local systems considered in this study are part of the regional identity and are recognized as such by people living in the area;
- Analysis of the characteristics of these systems and their export performance on international markets in the last years;
- Analysis of the role of local institutions and actors in explaining the different performances.

This analysis has been carried out by calculating the volume of agricultural and food exports for each local system in the last four years (2010-2013), on the basis of the recent breakdown by province (NUTS 3 level of the European nomenclature) and by type of product provided by the Central Statistics Institute (ISTAT) in Italy. This operation allowed to identify a good proxy of the export performance at local level. A parallel survey was implemented in these study areas to identify and reconstruct the institutional maps of the food chain supply (farming system, food industry, type of distribution and market channels), the main actors working in it and the main forms of vertical and horizontal integration/cooperation. This allowed to understand the structure of the food chain supply and which kind of governance is characterising agriculture and agro-food sector in these rural areas.

2. LOCALISED AGRICULTURE AND AGRO-FOOD SYSTEMS (LAFS)

Local systems have been relevantly studied in Italy, where there is a long and consolidated tradition in the definition and analysis of local development processes (Trigilia, 2005). Local agricultural and agri-food systems (LAFS) belong to this tradition, although they have been identified for a long period with the Industrial District (ID) model (Beccattini et al, 2003). It must be said actually that only few LAFS fulfil all those characteristics mentioned in the conceptualisation of classical IDs: first, the strong interdependence between different firms within the district (due to the labour division between firms) and, second, the "cooperative climate" among the different actors and institutions which facilitate the reproduction of the local system over the time. This climate is strengthened by a set of shared values at local level, the production of a specific good and mainly by the existence of external agglomeration economies. Relationships among firms and economic actors are underpinned by formal and especially informal rules and norms which has been consolidated over time. These features of the ID model can strongly differ in intensity from a local system to another, but they only characterise some of the most mature agro-food systems in Northern Italy.

The notion of LAFS encompasses four different components: geographic concentration and specialization, more or less complex relations between the different production phases, technologies and transfer of knowledge, cultural assets. The first concerns the identification of a space of limited size with a big number of firms/farms running specialised and interlinked activities (Courlet, 2002). In LAFS the single farm performance never depends exclusively on the behaviour of the individual farmer, but on some informal/formal organisation governing relationships among different actors: farming, processing firms, suppliers of goods and services, food distribution, catering, consumers and institutions governing the agri-food system. Informal/formal organisation can be represented by different types of cooperation between actors (Bosworth and Rosenfeld, 1993). The third component concerns the system of common technologies and knowledge transfer: the proximity of actors within the same space foster the transmission of information, the exchange of technological knowledge and sharing of local know-how (Courlet, 2002). Finally, cultural assets are linked to typical or specialty agricultural products for the specific nature of resources, the history and tradition of production and the above mentioned shared local know-how.

Focusing the research on LAFS means emphasizing that the territory is the main unit of analysis (Sforzi and Mancini, 2012). It also means including in the conceptual frame: a) the notion of specialty food, which involves the specifically local nature of resources, the history and traditions as part of local identity, the collective dimension of knowledge shared locally; b) the economic linkages between agri-food and resources and activities outside the agricultural sector; c) the governance of the agro-food system which influence the economic performance and the development pattern at the local level (under the form of cooperation among the various actors and/or some leadership taken over by specific actors or groups).

This study focuses on 20 agricultural and agro-food systems, which were chosen on the basis of strong linkages with territories, the presence of typical and high quality products (either agricultural or processed food products) and finally the identification with the most relevant Mediterranean products (olive oil, wine, fruit and vegetable, typical cheese). The common feature of these products is some form of Denomination of Origin (PDO, GDI, etc.). A balanced distribution across North, centre and South was also considered, as it appears from the table 1. They encompass 721 municipalities which are included in provincial boundaries, but often overcome these administrative limitations.

The 20 local systems are quite dynamic areas under the demographic profile: on the whole they represent about 10% of Italian population, with positive rate of population growth (+5,5%) during the period 2000-2011 (table 1). These changes are quite heterogeneous from area to area: the range is between a minimum of -18% in S. Daniele area producing ham in Udine province to a maximum of +60 % in Alto Adige province specialized in the apple production. These areas, in any case, share common positive rate of immigration (table 1), showing that the local economy is able to draw population from other areas of either the same region or other regions. Twelve of these areas present higher rates of immigration than the regional average, emphasizing their role as employment basins. Some of these areas loose population due to the negative birth rate, following a more general demographic trend. The process of population ageing also seems lower than the rest of the regional territory, so as the population profile is not jeopardised, as it happens in the most remote areas. In conclusion, these data give us some evidence on the fact that when agro-food local systems are a structural component of the local economy, then rural areas present quite peculiar demographic characteristics when compared to the usual declining tendencies.

Table 1 – Demographic variables of cases studies (local agri-food systems)

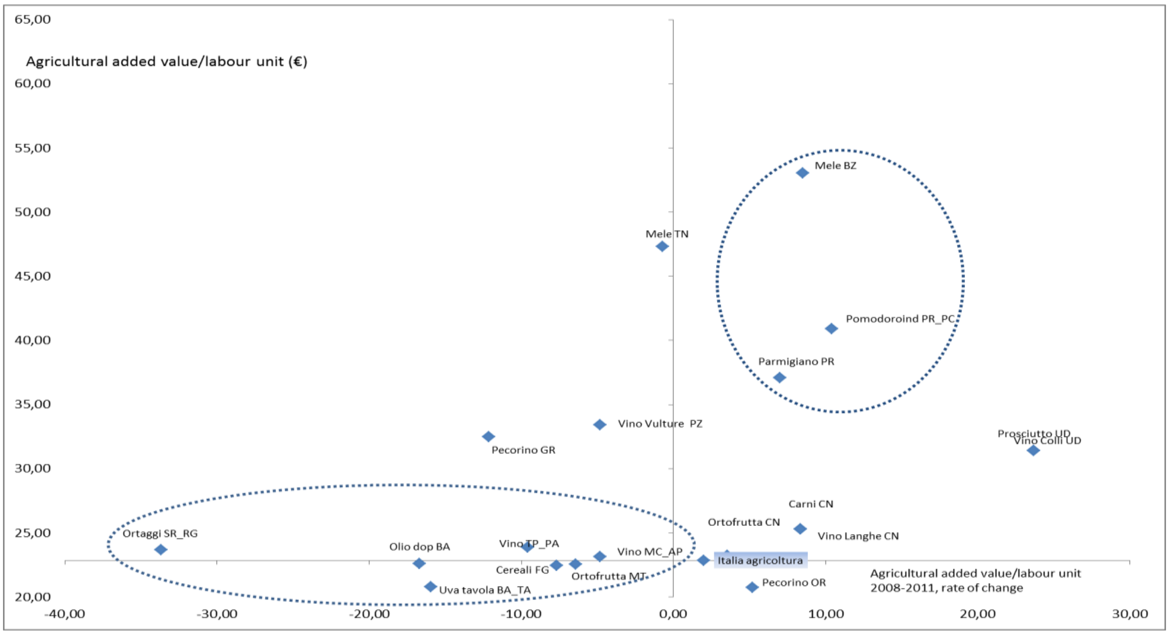
Local agri-food system	Administrative Region *	No. Of municipalities	Population 2011 (hinabitants)	Population Rate of change 2011-2000 (%)	Migration balance 2011 (% population)	Difference between migration balance of the area and regional	Ageing Index	Ageing index of the area/regional ageing index
Fruit-vegetables Matera	**Basilicata S**	12	89.301	-0,6	0,20	0,16	27,1	0,88
Wine Vulture	**Basilicata S**	15	85.994	-4,0	0,11	0,07	28,8	0,93
Parmisan Cheese	**Emilia-Romagna**	47	421.000	7,3	0,63	0,04	35,5	0,98
Tomato ind North	**Emilia-Romagna and Lombardy NW**	37	488.768	9,4	0,75	0,15	35,6	0,99
S. Daniele Ham	**Friuli NE**	7	20.876	-18,4	0,10	-0,16	38,1	1,01
Wine Friuli	**Friuli NE**	15	69.236	-0,1	0,11	-0,15	36,8	0,97
Wine Marche	**Marche C**	33	215.338	-8,0	0,08	-0,19	36,6	1,02
Fruits Cuneo	**Piedmont NW**	10	124.651	4,7	0,55	0,58	35,9	1,25
Beef meat Cuneo	**Piedmont NW**	40	281.138	-4,3	0,43	0,12	34,6	0,93
Wine Langhe	**Piedmont NW**	94	198.446	16,6	0,32	0,02	35,1	0,95
Grapes Bari-Taranto	**Apulia S**	10	178.726	-4,3	0,25	0,28	26,5	0,92
Cereals Foggia	**Apulia S**	61	654.141	0,5	-0,07	-0,04	29,4	1,02
Olive oil Bari	**Apulia S**	41	1.250.493	2,7	0,03	0,06	27,6	0,96
Pecorino cheese Oristano	**Sardinia S**	88	206.172	22,3	0,01	-0,09	34,9	1,18
Vegetables Ragusa	**Sicily S**	14	422.464	-6,0	0,22	0,19	27,1	0,95
Wine Trapani-Palermo	**Sicily S**	37	567.768	-6,0	0,11	0,08	30,7	1,08
Nursery gardening Pistoia	**Tuscany C**	5	130.533	-7,7	0,30	-0,20	37,5	1,00
Pecorino cheese Grosseto	**Tuscany C**	28	250.266	18,5	0,63	0,13	37,4	1,00
Apples Trentino	**Trentino NE**	55	61.576	13,8	0,29	-0,15	31,4	1,07
Apples Alto Adige	**Trentino NE**	72	554.932	60,2	0,40	-0,04	30,4	1,04
Total		**721**	6.271.819	5,5	0,25			

*** NE= North-East, NW= North-West, C=Centre, S=South**

Source: our elaboration of data from the Central Statistical Institute (ISTAT)

These study areas are quite heterogeneous under the technological level and the related farm efficiency (figure 1). The natural and socio-economic context where these productive systems can operate generally allow them getting good economic performances: the labour productivity (measured as agricultural added value per labour unit) is mostly higher than the national average. Focusing on the labour productivity and its dynamics (during the 2008-2011 period), we can observe that highly productive and dynamic local systems are only located in Northern Italy. At the opposite side of the graph, there is a group of local systems with lower productivity and slower dynamics than in Southern areas. This highlights that economic efficiency at farm level is more dependent from the territorial context than from the type of productive specialization (farming system): Southern local economies are negatively influenced by external diseconomies implying higher production costs for farm holdings.

Figure 1- Agricultural productivity (added value per labour unit) in the different local agro-food systems and its dynamics over 2008-2011 period.



Source: our elaboration from Central Statistical Institute (ISTAT) and Tagliacarne Institute

Among the so-called external economies, the presence and the quality of infrastructures might play a crucial role. When measured at the provincial level by an indicator of infrastructure endowments (for years 2001 and 2012), infrastructures show a significant deficit (less than 70% of the national average) just in Southern Italy and even in some small local system of central Italy (wine in Marche and pecorino cheese in Tuscany). At the opposite side, the local systems showing the highest productivity and productivity dynamics are in those provinces with better infrastructures. It must be said, however, that infrastructures cannot be considered the only explanatory factor of farming competitiveness, given that even some Southern system with low and declining productivity does not seem to benefit from good infrastructures (see for example the case of olive oil and grapes systems in Apulia).

Labour productivity is only a partial indicator of economic performance, especially when we look at the territorial system as a whole. In the most recent years there are evidences showing the positive and anti-cyclical performance of agriculture in times of crisis. Some author outlines the increasing role of Italian agricultural and food systems as the only economic districts contributing to the growth of national exports (both in absolute and relative terms) just in the recession years (Romano, 2012). This seems particularly true for most of food systems (wine, dairy and meat) and also for some agricultural system (apples in Alto Adige and nursery gardening in Liguria). Particularly relevant is the amount of export growth in emerging markets (from 13% in 2006 to 18,3% in 2011; Romano, 2012). The market share of Italian exports during the last decades was quite constant, due to the quality of products which represent the most relevant share of exports (De Filippis, 2012).

These works confirmed the anti-cyclical nature of the agro-food sector, either by creating new job opportunities or maintaining its labour force in a period when unemployment grows in most sectors, at rapid rates. The most recent data on exports confirm that Italian agribusiness sector assumed a positive role in the commercial trade just in the most critical period for Italian economy (table 2): more than 33 billion €, about 9% of total exports in 2013. Between 2010 and 2013 agricultural and agro-food exports grew at 20% rate, with a greater intensity in North-East and Central Italy and vice versa the usual slow path in Mezzogiorno taken as a whole. Here, as we have already pointed out, labour productivity on the farming side and infrastructure endowment on the context side have hampered the performances of local systems. This picture, however, is quite variable according to the region and the farming system. In North of Italy four regions (Emilia-Romagna, Lombardy, Veneto, Piedmont) give the lion share of agro-food exports (more than 60%). In the Mezzogiorno there are relevant differences between some declining region (Calabria) and static regions (Basilicata, Sicily, and Campania), on one side, and a small group of very dynamic regions as Sardinia and Apulia, on the other side.

Table 2 – Agricultural and food exports from Italy during the last four years, by region (€)

Region	2010	2011	2012	2013	Change % 2013-2010
Abruzzo	426.553.110	481.124.883	487.558.632	508.443.694	19,2
Basilicata	73.305.973	75.871.503	72.256.389	73.954.647	0,9
Calabria	181.778.615	170.753.919	179.452.906	176.181.654	-3,1
Campania	2.404.721.101	2.446.692.110	2.533.210.736	2.667.497.956	10,9
Emilia Romagna	4.437.705.715	4.898.380.553	5.193.213.448	5.471.415.495	23,3
Friuli V. G.	599.811.284	672.850.514	722.255.258	703.694.534	17,3
Lazio	709.963.016	753.309.160	799.356.995	803.266.855	13,1
Liguria	677.551.857	659.668.724	643.857.291	655.095.374	-3,3
Lombardia	4.578.784.204	4.855.781.150	5.120.650.012	5.353.813.412	16,9
Marche	245.737.947	276.539.128	324.320.108	329.628.627	34,1
Molise	47.443.037	52.094.686	62.297.466	63.222.658	33,3
Piemonte	3.635.064.282	4.084.191.113	4.305.880.322	4.531.479.708	24,7
Puglia	1.176.958.559	1.307.576.912	1.354.499.553	1.400.990.160	19,0
Sardegna	125.236.178	130.016.830	160.109.386	176.125.371	40,6
Sicilia	981.030.149	1.055.596.518	982.972.465	1.021.051.510	4,1
Toscana	1.672.329.917	1.803.671.874	1.917.974.121	2.053.486.152	22,8
Trentino	1.657.661.726	1.844.623.669	1.896.776.106	1.946.938.421	17,5
Umbria	374.051.168	436.871.688	489.023.158	584.369.200	56,2
V.d'Aosta	53.525.877	48.554.849	63.075.209	54.769.367	2,3
Veneto	3.973.549.541	4.427.477.542	4.778.384.775	5.073.651.524	27,7
Total	28.032.763.256	30.481.647.325	32.087.124.336	33.649.076.319	20,0
North-East	10.668.728.266	11.843.332.278	12.590.629.587	13.195.699.974	23,7
North-West	8.944.926.220	9.648.195.836	10.133.462.834	10.595.157.861	18,4
Center	3.002.082.048	3.270.391.850	3.530.674.382	3.770.750.834	25,6
Mezzogiorno	5.417.026.722	5.719.727.361	5.832.357.533	6.087.467.650	12,4

Source: our elaboration from Central Statistics Institute (ISTAT)

Total exports coming from 20 agricultural and agro-food systems is something more than 3 billion € (about 9% of Italian agro-food exports) (table 3). The role and dynamics of different local systems is quite variable. There is a first group of well-known and consolidated specialty products whose the absolute share of exports is really relevant (more than 400 million € per year) showing very high rate of growth or at least comparable with the national average (wine from Langhe area, apples from Alto Adige). Common success factors in these systems are as follow: a) presence of denomination of origin; b) good productivity of labour, due especially to the quality and the capability to differentiate the production; c) existence of consolidated demand and market relations with European and also extra-European markets; d) good level of local governance in terms of cooperative attitude among the local actors.

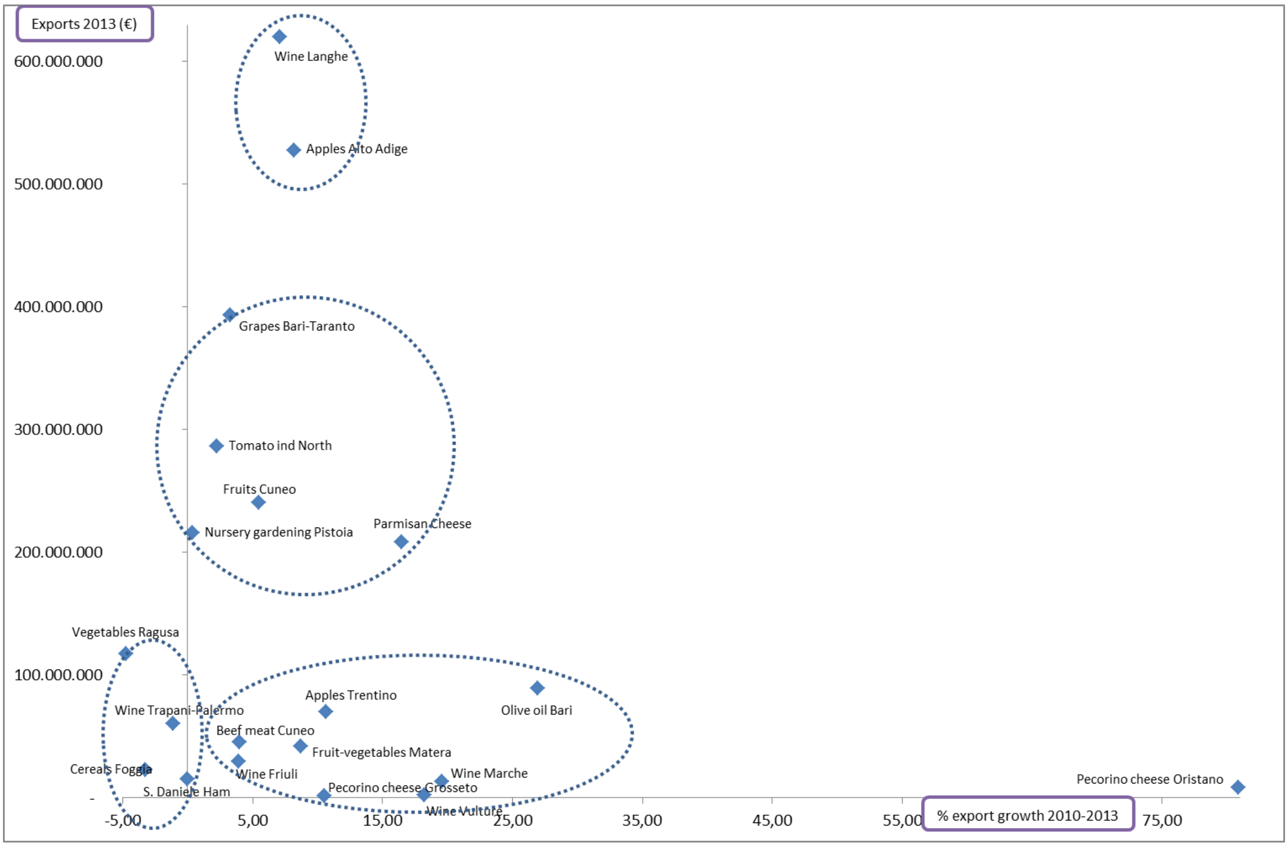
Table 3 – Agricultural and food exports from the 20 local agro-food systems during the last four years (€)

Agro-food local system	2013	% of total	Change % 2013-2010	Annual % change 2013-2010	% Share of sectoral export in Italy
Wine Langhe	620.350.573	20,6	21,2	7,1	12,1
Apples Alto Adige	527.992.093	17,5	24,6	8,2	20,8
Grapes Bari -Taranto	393.596.833	13,1	9,8	3,3	15,9
Tomato ind North	286.135.843	9,5	6,8	2,3	13,7
Fruits Cuneo	240.762.513	8,0	16,3	5,4	6,4
Nursery gardening Pistoia	215.860.239	7,2	1,1	0,4	32,8
Parmisan Cheese	208.062.110	6,9	49,4	16,5	6,9
Vegetables Ragusa	116.921.228	3,9	-14,2	-4,7	10,5
Olive oil Bari	88.958.340	3,0	80,8	26,9	3,7
Apples Trentino	70.158.467	2,3	31,8	10,6	2,6
Wine Trapani-Palermo	60.455.838	2,0	-3,3	-1,1	1,3
Beef meat Cuneo	45.439.193	1,5	11,9	4,0	4,1
Fruit-vegetables Matera	41.610.318	1,4	26,1	8,7	1,0
Wine Friuli	29.378.059	1,0	11,7	3,9	0,6
Cereals Foggia	22.400.106	0,7	-9,9	-3,3	0,5
S. Daniele Ham	15.206.019	0,5	-0,1	0,0	1,1
Wine Marche	13.258.002	0,4	58,7	19,6	0,2
Pecorino cheese Oristano	8.363.219	0,3	242,6	80,9	0,2
Wine Vulture	2.265.262	0,1	54,7	18,2	0,0
Pecorino cheese Grosseto	1.705.022	0,1	31,5	10,5	0,1
Total	**3.008.879.277**	100,0	16,8	5,6	

Source: our elaboration from Central Statistics Institute (ISTAT)

The second group shows an different capability of export (between 200 and 400 million € per year) and export dynamics is close to the national average for most of local systems: it includes agricultural (fruit and vegetables in Cuneo province, grapes in Bari-Taranto provinces, and nursery gardening in Pistoia) and two agro-food products in Emilia Romagna (processing tomato and Parmisan cheese). The share of these local systems is quite interesting in terms of their respective national sector (see for example the case of nursery gardening in Pistoia (Tuscany), representing almost 1/3 of the sector national exports). Parmisan area is the most dynamic of this group (+16,5% per year). The success factors in this group seem to be based on the specialty products and in vertical and horizontal integration along the food supply chain. The most typical cases are in agro-food products and in nursery gardening which represent a system strongly based on technological innovation. There is always a mix of horizontal and vertical integration which allows these local systems the access to and the development of new international markets. In the case of fruit in Cuneo specialised area, the critical factor is represented by the creation of an Association of Producers Organisations (APO) promoting exports to USA, Russia and Middle East. In other cases the success is mainly associated to private labels, as for the processed tomato in Northern Italy, where there are different food industries, still competing among themselves, but which use the institutional form of the Inter-branch Organisation (called Agro-Food Districts) to look for mediation among the categories (farmers and agro-industries) under the form of contractual arrangements, in order to avoid conflicts within the local area.

Figure 2 – Volume of exports and dynamics of export 2010-2013, by local agro-food system



Source: our elaboration from Central Statistics Institute (ISTAT)

A third group is represented by local systems with lower capability of export (not more than 100 million € per year), due to either the small volume of the production or the recent access to international markets. In this group exports have been promoted and developed by farmers cooperatives or even by single entrepreneurs. The small size of the local system, on one side, and the strong specialty and quality of the product have ensured those conditions to exploit international markets, without putting in place complex forms of governance as in the previous cases. In some case the result has been quite relevant, as it happened for the pecorino cheese (both areas, in Tuscany and Sardinia), three cases of wine denomination (Udine, Vulture and Marche) and finally the olive oil in Bari province. The presence of cooperatives and/or single innovators has open the road for other producers of the area, generating a so called imitation effect and then also learning effects. But there are still great potentials in these local systems, which could be exploited only under the condition of more relevant initiatives in the field of horizontal cooperation.

Finally, there is a fourth group with declining capability to export in recent years. These local systems are mainly localised in Southern Italy. In these cases the low performance can be explained by different factors, such as: a) the declining labour productivity, b) scarce level of governance in horizontal and vertical relations along the food supply chain and c) with the permanent difficulties in infrastructures' endowment. The local actors emphasizes the first two factors, focusing on the inadequate size of farm holdings and their permanent incapability of promoting new form of horizontal cooperation.

3. IMPLICATIONS FOR PATTERNS OF AGRICULTURALLY-BASED RURAL DEVELOPMENT

The debate on rural development has frequently undervalued the role of agriculture and agro-industry. This because agriculture has been widely considered as a declining sector in modern economies (De Janvry, 2010). This study is focused on rural areas characterised by specialised agricultural and agro-food production, strong linkages to local industrial sector, historical traditions and local identity. The analysis of exports in the last years can provide enough evidence of their strong resilience and capability to respond to economic crisis. This dynamics does not seem understandable by only using either classical variables (size of farm holdings, intensity of capital investment, human capital, rate of technological progress, etc.) or geographical factors (soil fertility, irrigation, plain versus mountain location, etc.). Our analysis gives more emphasis to institutional and governance factors as the following:

- forms of vertical integration/cooperation along the agro-food supply chain;
- forms of horizontal integration/cooperation, both in the production phase and in processing and commercial phase;
- forms of horizontal integration/cooperation between different economic sectors and/or between private and public sectors, e.g. between local food production and development of tourism in the same area.

The first two forms are fostered by the creation of institutional arrangements under the form of consortia, inter-branch contracts, etc. within the agro-food sector; the third one implies economic relations and private/public initiatives by partners belonging to different sectors. All these forms are in any case driven by either coalitions of actors or single local actors which are able to take the local leadership and act as innovators. These actors can be the crucial variable in catalysing the setting up of new governance within the agro-food system and the local economy as a whole.

Cases which have been examined in this study can be summarised by three possible patterns of rural integration/cooperation (Mantino, 2013: 29-30). Figure 3 illustrates these three different patterns which can be adopted by rural areas in their development strategies. They can strongly differ according to the structure of main actors, the emerging leadership and relations between the local agro-food business, other sectors and local institutions.

The first pattern, based on vertical integration/cooperation, is usually in rural areas dominated by the prevalence of few innovators and/or agro-food industries with strong leadership. In these areas the presence of few leader entrepreneurs and/or agro-food industries has been crucial for innovation and performances on international markets. The bargaining power and the distribution of rural resources are concentrated in few hands setting the strategy for the whole area. Consequently, there is low predisposition toward forms of horizontal cooperation both within the agro-food sector and outside of it, with other sectors and local communities and public bodies.

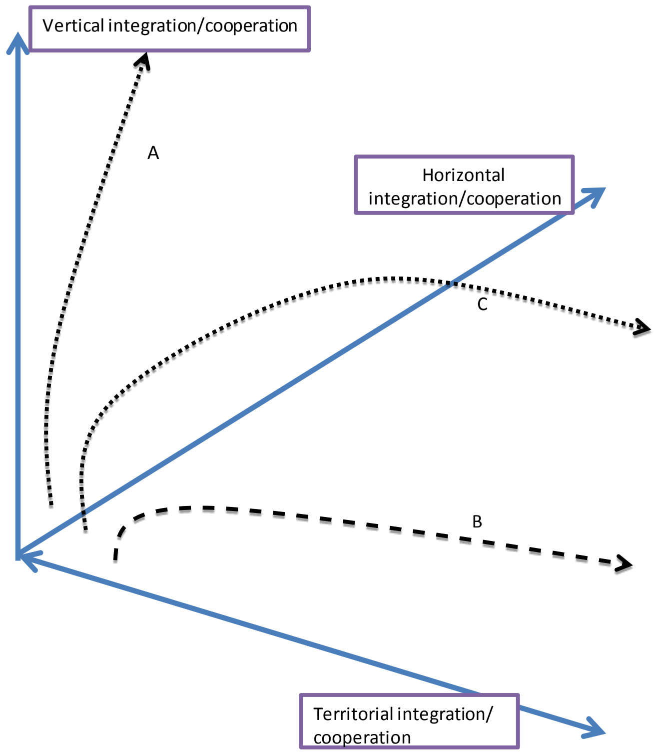
The second pattern, based on horizontal integration/cooperation, does not include few leader industries but a whole set of actors, within the agro-food chain, whose strategy is primarily to promote strong coalitions and networks to increase the bargaining power of agriculture and to reduce conflicts within the agro-food chain between farmers and agro-industrial firms. This is possible because some intermediate institution are capable to mediate between the different interests on the field. The role intermediate institutions is emphasized, under the theoretical point of view, by a school of thought in institutional economics. M. Porter (1990, 2004) call these "Institutions for collaboration" and identify them with trade associations, entrepreneurs networks, standard setting agencies, quality centers, technologic networks, etc. Their role is essential in promoting competitive regions, connecting development factors, and fostering efficient collective activities in both advanced and developing countries. Also Arrighetti and Serravalli (1999) develop a very similar concept and identify a broader range of institutions which encompasses sector organizations, local governments, consortia, associations, local development agencies, peripheral offices of national administrations, etc. The presence of intermediate institutions greatly contributes to reduce coordination costs related with agro-food contractual arrangements in rural areas, being such costs unsustainable for the single private or public local operator.

Examples of the role of such intermediate institutions can be found within the most dynamic local agro-food systems, both in terms of sector exports and their dynamics over time. This is the case of the apple local system in Alto Adige (Bolzano province in North-East), which has been able to combine horizontal cooperation with a strong vertical integration within a complex pyramidal setting: 27 cooperatives grouping many producers, four main Producers' Organisations grouping cooperatives and lastly one export consortium grouping Producers' Organisations operating in two provinces of Trentino-Alto Adige. This well-integrated setting allows producers to increase the bargaining power especially in international markets.

An example of efficient vertical integration led by intermediate institutions is the case of processed tomato system in Parma and Piacenza provinces (Emilia-Romagna, North-West). Here the role of food-processing industry is crucial in the local system, more than in the previous case. Conflicts within the agro-food system, especially between tomato producers associations and processing industry, can be very strong in times of market overproduction. But it is worth noting that a crucial role in governing inter-branch conflicts is played by the processed tomato District of Northern Italy, acting as a sort of independent agency whose aims are promoting a better governance of the local productive system, through fair inter-branch contracts, the enhancement of quality product, and better services for producers and processing industries (research, technological innovation transfer, technical advice). This District, in other words, is a local intermediate institution ensuring the provision of club goods for all economic actors belonging to the agro-food system. The economic competitiveness of tomato industry in this area is strongly relying on this form of well-balanced governance ensuring the appropriate climate and trust between main actors and stimulating innovation, quality improvement and productivity growth.

Finally, the third pattern is based on horizontal integration/cooperation between agro-food chain and other sectors. The case of the wine system in Langhe region (Piedmont, North-West) represents an example of this kind of horizontal integration. In this case the horizontal cooperation among wine producers is formalised by a wine consortium ensuring quality certification and some other minor collective service. But the success of the area, both in national and international markets, has been mainly fostered by the growing touristic attractiveness of Langhe region. Inter-linkages between tourism and wine production and appreciation in a world-wide market has been strongly emphasized by local actors interviewed in this study. These inter-linkages have been intensified by regional policies and also by a series of projects implemented at local level by various organisations and associations, including the wine consortium, the local municipalities and development agencies as the Local Action Group (LAG) operating in the Leader programme. In fact, social actors and institutions are quite active in this rural area, due to the high level of social dynamism. Interplay between wine production, tourism and natural assets has been intensified over time by complementary collective actions in projects such as the wine routes, the promotion of Langhe as producer of high-quality wine, landscape and culture.

Figure 3 – Patterns of cooperation/integration between actors in Italian rural areas



Source: Mantino (2014: 29)

4. CONCLUSIONS

Theoretical approach dealing with rural development has been strongly influenced by three types of visions: a) the redistributive vision of economic development between urban areas, where development is strongly concentrated by agglomeration forces, and rural areas (especially the most remote ones), where depopulation and increasing external diseconomies make it progressively harder to promote economic activities; b) the vision of rural development as a special case of territorial development, where agriculture is hardly the engine of economic and social development and what is mostly important for public policies is promoting the growth of non-agricultural and agro-food sectors, which can represent more relevant opportunities for job creation. This vision undervalues the role of agricultural and agro-industrial dynamics in influencing the patterns and the intensity of territorial development and it was the result of the shift, within Agenda 2000, from a sector to a regional/territorial perspective for rural areas; finally, c) there is a the vision of rural development as economic and social issues, involving the capability of individual farmers to connect to markets, neglecting the role of institutional issues, especially all those institutions acting as intermediate agents between the farmer and the market (Mantino, 2010), and also neglecting cultural issues.

This paper has focused on the notion of agricultural and agro-food system as unit of analysis. The analysis provides evidence of diffused dynamism of these systems, both in terms of demographic characteristics, labour productivity and exports in international markets. Relevant differences among these LAFS can be explained by geographical location (especially between North and South Italy) and infrastructural endowments. But relevant differences are also in inner LAFS organisation.

To explore the nature of these organisational variables, a parallel survey was implemented in 20 areas to identify and reconstruct the institutional maps of the food chain supply (farming system, food industry, type of distribution and market channels), the main actors working in it and the main forms of vertical and horizontal integration/cooperation. This allowed to understand the structure of the food chain supply and which kind of governance is characterising agriculture and agro-food sector in these rural areas.

Moving from the agri-business notion to the local system concept implies including in the conceptual frame: a) the notion of specialty food, which involves the specifically local nature of resources, the history and traditions as part of local identity, the collective dimension of knowledge shared locally; b) the economic linkages between agri-food and resources and activities outside the agricultural sector; c) the governance of the agro-food system which influence the economic performance and the development pattern at the local level (under the form of cooperation among the various actors and/or some leadership taken over by specific actors or groups).

The survey allows conceptualising three possible patterns of rural integration/cooperation. The first pattern, based on vertical integration/cooperation, is usually in rural areas dominated by the prevalence of few innovators and/or agro-food industries with strong leadership. The second pattern, based on horizontal cooperation and integration, does not include few leader industries but a whole set of actors, within the agro-food chain, whose strategy is primarily promoting strong coalitions and networks to increase the bargaining power of agriculture and to reduce conflicts within the agro-food chain between farmers and agro-industrial firms. Finally, the third pattern is based on horizontal integration/cooperation between agro-food chain and other sectors. The analysis of these patterns does not allow to say that they can be ordered according to some scale of efficiency and/or effectiveness. This simply confirms that, first, horizontal cooperation both within the agro-food chain and outside it (second and third patterns) are fundamental institutional arrangements explaining the success of local system; and second, the role of some intermediate institutions at local level can be crucial in reducing transaction costs related to cooperation, contracts and resolution of possible conflicts among the different parties.

The analysis of these study cases brings about important implications in terms of rethinking rural development paradigm. The first implication is refocusing the role of the regional identity and the local agricultural and agro-food systems: agriculture represents the largest user and manager of the land in rural areas and local productions have a significant relations and influence on the identity of a specific area (Mettepenningen et al, 2012). This means that agriculture is not only production but it is also part of traditions, local history and culture. The second implication derives from considering not agriculture alone but agro-food production within a given territory, with all possible input-output relationships within the food chain and between the food chain and other sectors/other areas (Sforzi e Mancini, 2012). The third relevant implication concerns the role of governance variables in explaining the success or failure of rural development initiatives and policies: far from being a simple result of the relation between the producer and the market, the process of rural development is strongly affected by the type of actors, their relations and strategies in each local system. The same local system can be defined as a combination of economic and social relations, including the cooperative or conflicting relations among main actors. Understanding what type of cooperation and integration it is set up in the local system is crucial for the competitiveness and the economic survival of the system over time. And it is also crucial for the design and the implementation of appropriate and targeted policies at territorial level.

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