

Organizational innovation in agriculture: new tools for an integrated territorial planning

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1. Introduction: new perspectives for an integrated territorial planning

A key characteristic of industrialization of agriculture is the development of contractual arrangements between producers and other actors in the marketing chain (Glover *et al.*, 1990). These arrangements have given rise to vertical integration among producers and marketers. Vertical integration linking input suppliers, producers, processors and supermarkets is already the common production structure in northwest Europe and parts of the USA (World Bank, 2001; Rehber, 1998). Similarly, also a horizontal integration is becoming more and more widespread. It describes a multi-sector policy that includes integrated activities in different areas of intervention such as agriculture, rural development, environment, agro-food production, allowing a connection between production activities belonging to different sectors (Fanfani, 1994; Lowe *et al.*, 1995).

A number of issues of concern to policy makers are associated with this type of development. While there are some governments (i.e. in the Asia-Pacific region) which have adopted a *laissez faire* approach to vertical and horizontal integration by large companies in the livestock industries, there have been instances where intervention has occurred. Italy is one such example of intervention that was intended to provide incentives to favor a greater vertical integration than would otherwise have been the case. One of the worldwide ways of vertical integration in agriculture is contract farming: its implementation shows different terms of contracts from country to country (Eaton *et al.*, 2001).

In this study, a description is presented along with an explanation of the Italian policies which aim at promoting both contract farming, which is examined rather comprehensively as a means of vertical integration, and rural districts, interpreted as a form of horizontal integration. Through an analysis of both these tools, this paper intends to test not only the implementation capacity of this Italian policy in terms of “integrated

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territorial planning”, but also the real opportunities that these new tools offer in terms of creation of a kind of rural development based on networks and functional integration (Cooke *et al.*, 1993). In light of the findings of the empirical analysis, the ultimate goal of our research is to provide some guidelines for a synergistic (horizontal and vertical) integration of these tools in order to reduce the excessive fragmentation of these policy interventions which characterizes the governance of rural development today.

2. *Vertical integration policies in Italy: ‘Production chain agreements’*

The priority of the agricultural sector appears more and more to be the increase in the share of added value in production. One way to achieve this purpose is undoubtedly represented by a greater integration within the production chains in order to improve efficiency in trade exchanges, transparency among the different actors involved, the balance among the various steps of agricultural production (Lazzarini, 2001; European Commission, 2008). By ensuring the concentration of the supply of agricultural products, in particular high-quality products, farmers’ bargaining power and the balance in relationships existing in the production chain should consequently grow: «Vertical integration within agro-food complex is one of decisive factors influencing market structure and competitiveness of agriculture. [...] Essentially, there are two groups of motives for vertical integration. First motive comes from the effort to increase efficiency, second one from the effort to create market power» (Grega, 2003, p. 520); hence the centrality of the vertical relationships connecting the different actors along the production chain for the agro-food sector.

It is a given fact that the agricultural enterprises that have been better facing the crisis are the ones that were able to differentiate their organizational model of production and trade by aggregating with other companies, partners, suppliers and customers. In advanced agriculture there are then strong indications that the tendency is towards integration due to the changes in the market structure and to the upsurge of high technology (Rehber, 1998). As it has been shown in literature, for successful implementation of contract farming «having coordination and collaboration consciousness and acting in an organized manner are advisable for both sides. On the other hand, government attitudes and incentives are also important aspects» (Rehber, 1998, p. 26).

The ‘production chain agreements’ (‘contratti di filiera’) are the main tool promoted by Italian policies to foster synergies and complementarities within the sector towards its integration (envisaged by art. 66, Law no. 289/2002 and established through the Decree MiPAAF of 1st August 2003). The Ministry of Agriculture, Food and Forestry policies (MiPAAF) grants state subsidies for the implementation of an integrated investment program, which is interprofessional and relevant at a national level. Following the definition therein, the program must start from the agricultural production and develop along the different steps of the production chain: in addition to

primary production industries, it must then involve all enterprises dealing with the transformation, trade and distribution of agricultural and food products. The financing programs fulfilled by the subject of a specific sector should be aimed at the introduction of organizational innovations, integrating the various steps of the production chain; product and process innovations, with the aim of enhancing product competitiveness; market innovations, with the aim of expanding productive outlets and improve product positioning on traditional markets.

At the end of the first programming cycle of the production chain agreements (2005), 11 contracts were approved at a national level. Sectors involved are: fruit and vegetable (2), floriculture (1), dairy (1), wine (3), cereals (1) and potatoes (1), beef (1), pig (1). Since that all the resources made available were not employed, in August 2007 the block established in 2005 was suspended with the re-opening of the grant application. This led to the approval of three new production chain agreements in the oil, wheat and agro-energy sectors, an element of absolute novelty with respect to the first tranche of funding. As Tab. I shows, the sector benefiting more from such a tool is the most traditional one in Italy, wine, with a total grant amounting to € 20,495,467.64 (ISA, 2013). Below, as for the amount of financing obtained, we find the field of bio-energy, this reflecting the versatility of application of this policy instrument.

Tab. I – State of implementation of production chain agreements until March 2013.

Production chain agreement	Sector	No of beneficiaries	Total Grant
1stRound			
Territori Divini	Wine	63	14.448.070,31
SIGRAD	Durum wheat	13	4.456.000,13
COZAC	Pig	4	783.480,45
CCBI	Beef	8	1.509.782,03
CAVIRO	Wine	4	2.096.970,00
Florconsorzi	Floricultural	4	2.226.429,89
CISA	Fruit and Vegetable	4	906.302,31
A.T.S.F.P.	Potato	4	1.505.871,60
VigneCantine	Wine	34	3.950.427,33
Alta Qualità	Dairy	4	6.286.904,14
Campoverde	Fruit and Vegetable	1	3.854.094,68
Sub-total		143	42.024.332,87
2ndRound			
UNAPROL	Olive oil	7	5.388.298,33
Granaio Italiano	Durum wheat	12	2.048.444,19
CO AGREENERGY	Bio-energy	6	9.740.465,48
Sub-total		25	17.177.208,00
Total		168	59.201.540,87

Source: ISA (2013).

As the map below shows (Fig. 1), the system of production chains resulting from the application of this policy instrument denotes a strong territorial concentration of the investments in three regions (Tuscany, Apulia and Veneto) which attract 48.2% of total investments. The region that has been able to intercept the largest share of resources for the implementation of these contracts is Tuscany, encompassing nearly a quarter of the total investment (23.8%): financing is catalysed by the almost half by the wine sector (41.7%), and then we find same proportions for the oil (13.7%), the durum wheat (12.3%) and the bio-energy (12.2%) sectors. The second region in terms of grants is Apulia (14.2%), with more than half of financing (60.7%) concentrated in the wine industry and 16.1% in the oil one. The third region is Veneto (10.2%) with main financing being allocated to the wine sector (59.8%), followed by a strong investment (29.0%) in the bio-energy.

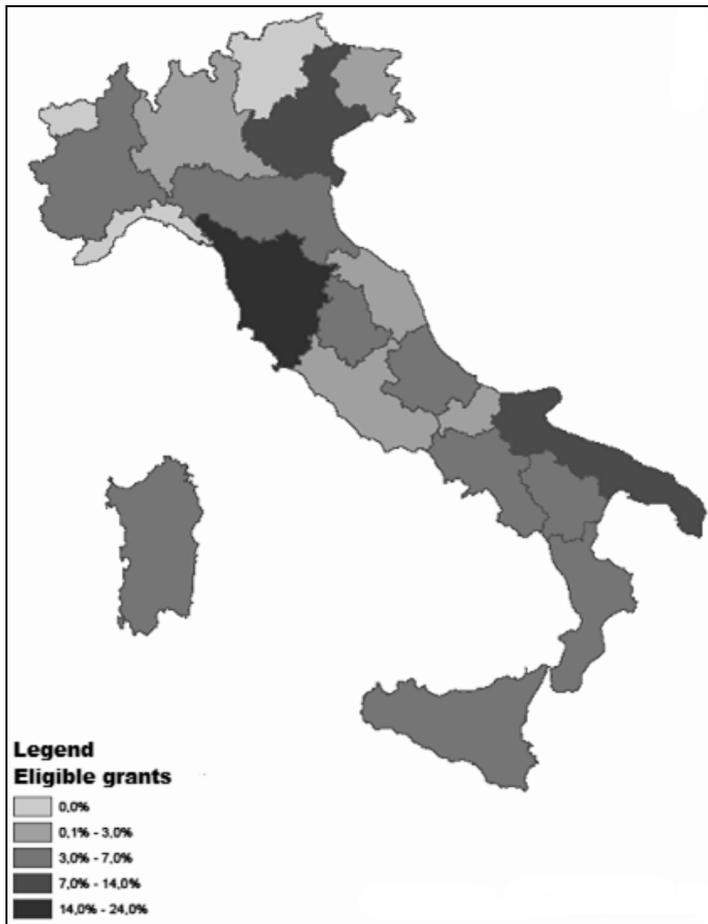


Fig. 1 – MiPAAF grants for the drafting of production chains agreements by region.

Source: Author's own elaboration on data from ISA (2013).

The experience of production chain agreements, numerically poorly significant, is not yet sufficiently established to fully understand its effectiveness. However, from a preliminary analysis, some interesting remarks emerge: the spread of such a device policy seems to be favored by the pre-existence of well-established business realities, even small or medium-sized, operating in the sectors of specific local agricultural products and typical productions. The experiments so far undertaken follow the directions already drawn by the territory itself: through this policy instrument they come to full maturity – adopting the strategic option of vertical integration based on structured network, efficiency multipliers and scale and innovation economies – as a result of the stimulus to the enhancement of existing synergies and relationships, which is supposed to help overcoming the strong sputtering characterizing the Italian agricultural system, which effectively limits, or even prevents, the use of scale economies and a widespread adoption of new technologies and production techniques.

3. *Horizontal integration policies in Italy: 'Rural Districts'*

About a decade after the enactment of Law 317/1991 (updated with L.140/1999) on industrial districts, policies for the creation of districts have been extended to agriculture by inserting, in the rule on the modernization of the primary sector (D. Lgs 228/2001, also called 'Legge Orientamento'), a specific article (13) which defines two particular forms of agricultural district: *Agri-Food Quality District* and *Rural District*.

According to the law, the *Agri-Food Quality Districts* are local production systems, even interregional, characterised by a significant economic value and by interrelationship and interdependence between agricultural and agri-food production. They are characterised, also, by the presence of one or more certified and safeguarded products, in accordance with current community or national legislation, or traditional or typical products. The category of *Rural Districts* includes, instead, areas characterized by an historical and territorial homogeneous identity and by the production of specific goods and services, consistent with the traditions and natural and territorial vocations. This definition of *Rural District*, contrary to what occurs for the Agri-Food Districts, focuses on place and not on product and, in this sense, matches with the concept of multifunctionality of agriculture and with the relational nature of districts (Durand, 2002). In these economic and territorial configurations, agricultural and non-agricultural enterprises interact in a systemic model obtaining competitive advantages from synergies resulting from this horizontal relationality, but also from strong interactions with other components of place (Nemes, 2005).

As can be seen from the map, are only eight Italian regions that have implemented their own legislative instrument for the definition and recognition of Rural Districts. Piedmont, Veneto, Lazio and Calabria were the only regions that have adopted regional rules for the recognition of the *Rural Districts* and *Agro-Food Quality Districts*. Other regions, such as Abruzzo,

Tuscany and Sicily, have provided for the recognition only of Rural Districts (in the first two cases), or Agro-Food Quality Districts (Sicily). In some cases, regional authorities have considered, however, unnecessary to adopt an appropriate legal instrument, deeming it sufficient to apply the existing rules for the establishment and recognition of industrial and manufacturing districts, to other types of district configurations including rural and agro-food quality ones (Apulia, Basilicata, Lombardia) (Unioncamere, 2004).

The regional mapping of the legislation on *Rural District* shows that, in fact, the identification of the rural districts is not homogeneous, but rather it is based on different elements linked, in some cases, to the production dynamics of the place, in other to the historical and cultural identity.

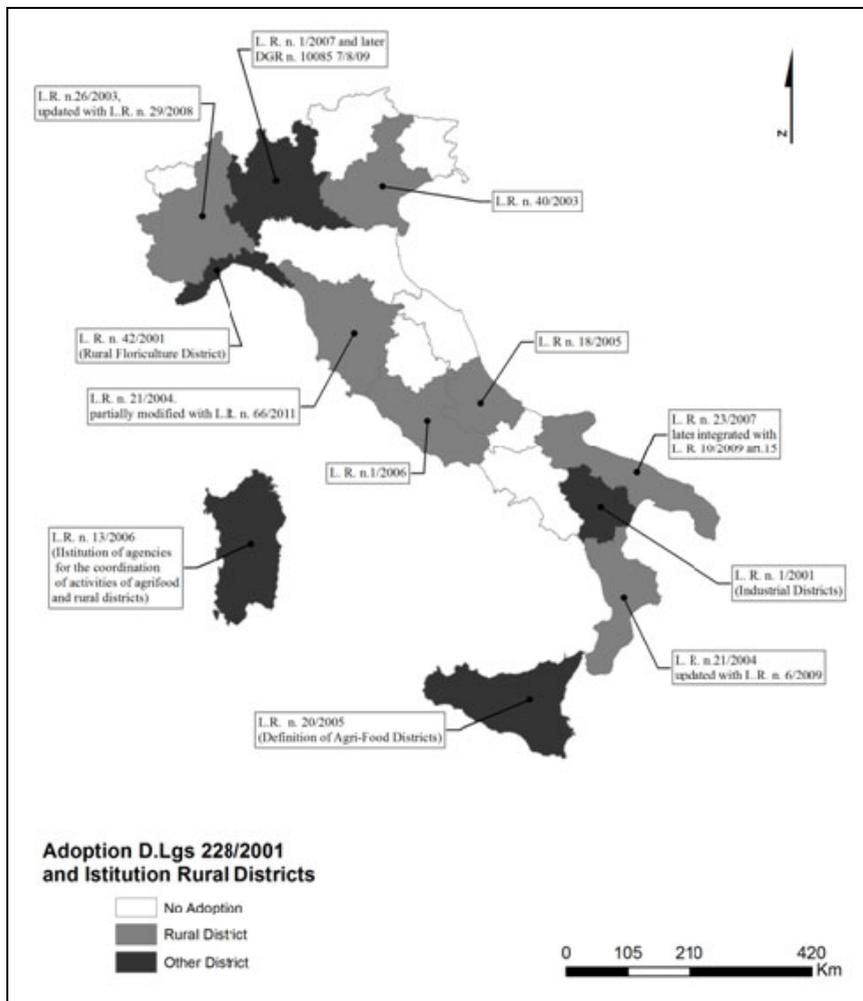


Fig. 2 – Regional Mapping of the legislation on *Rural District*.

Source: Author's own elaboration on data from Rete Rurale (2013).

The regulatory vacuum of Law 228/2001, which is limited to defining and identifying the general characteristics of the agricultural districts, has been filled in part by the Finance Law of 2006 (Law no. 266/2005, paragraphs 366-372) that specify the application of the rules, in favor of productive districts, also to the rural and agro-food quality districts. It is established, in this way, that the provisions applicable to the manufacturing districts are also valid for the agricultural districts, as defined by Article 13 of 'Legge Orientamento 2001'. The assimilation of the rural district to the most general form of productive district has, thus, enriched the framework of the benefits provided by article 10 of Law no. 80/2005 which introduces, besides the 'production chain agreements', also 'district contracts', e other 'tools to strengthen, through specific grants, the competitiveness of enterprises located in rural, and agro-food quality districts'(MIPAAF).

Despite the incentives established by the State, there is not a significant spread of this type of economic and territorial configurations (Pacciani, 2010). Clearly, the lack of a univocal methodology for the definition and identification of the characteristics of rural districts, in addition to the absence in the national legislation of any indication of governance able to drive the local authorities, has created a scenario in which there is a substantial uncertainty. Moreover, even where the provision has been transposed, are not followed by implementing regulations aimed at making a linear path for the establishment and functioning of these facilities of strategic coordination.

If we consider that the Italian rural area is characterized by conditions of relative marginality, we realize how this tool could be a means to contrast the problems that usually affect these areas, such as depopulation and impoverishment. The establishment of Rural District could generate, in fact, a real opportunity for development based on the endogenous innovation, through the involvement of agricultural and nonagricultural human capital and place relatedness. The regulatory deficiencies, unfortunately, does not help in this regard because on the one hand the D.Lgs. 228/2001 institutionalize rural districts, recognizing their existence and territorial and economic value, on the other hand establishes an unjustified differentiation between the these two forms of district and defines the criteria for identifying these territorial entities that appear devoid not only of scientific value, but also of an effective geographical correspondence. Ultimately, the spatial category of the rural districts, is likely to be emptied of meaning by political action and became merely instrumental to the distribution of public resources (Pollice, 2004).

If on one hand, therefore, the *Rural Districts* represent a tool for land management that is able to initiate new development processes based on horizontal forms of aggregation (Becattini, 1989), at the same time it is useful to point out how this tool can express its full potential especially when integrated with other operational supply chain tools provided by MIPAAF. It is also necessary, as pointed out by the National Strategic Plan for Rural

Development 2007-2013 (PSN), that the policies on networks in the agricultural sector are placed in a framework of structured interventions that are complementary with the objectives of Axis I 'Consolidation and development of the quality of agricultural production' and 'Promotion of innovation and integration along chains' of the PSN. Only in this way, through a unified regulatory framework, the set of operational tools for supply chain, and in particular the institutional design of the agricultural district, will become real and not merely theoretical statements.

4. *Conclusions: new perspectives from a blended integration policy*

The creation of networks has become a fundamental strategic axis in the formulation of rural development strategies (Cooke *et al.*, 1993; Murdoch, 2000). In this paper, we investigated two specific forms of networks that have been promoted for the modernization of the Italian agricultural sector in recent years: vertical and horizontal integration tools. In the first case, a particular tool to develop specific political economic interdependencies within rural business – i.e. 'production chain agreements' – was examined. Rural districts, i.e. some areas which are spatially determined and characterized by the coordination of activities among key actors of local rural development, were considered as a main example of horizontal networks. Both these tools were aimed at «a strengthening of local productive capabilities in ways that benefit the rural economy as a whole» (Murdoch, 2000, p. 412). Moreover, by leveraging the creation of networks, they intend to create the basis for an internationalization of the local agricultural sector. Currently, both network-based tools we considered have not still reached the goal of creating a virtuous link between agricultural activities and other local context-specific activities which are consistent with the traditions and natural vocations of the place.

If in some areas of the country (such as Tuscany and Veneto) both instruments were implemented, in many other regions the goal of modernization of agriculture is still far: there is a very localist form of rural business which is poorly integrated into the global market and thus less competitive. The main cause is certainly to be found in the lack of a systemic approach of the promoted interventions, which instead appears to be vital for the success of these operational tools. The future perspective of these policy tools, so as to become key factors for the modernization and development of the agricultural sector, is necessarily linked to the reduction of the excessive fragmentation of interventions and to a promotion of a synergistic integration of all of them. In conclusion, with regard to the actual implementation of these new tools for an integrated rural planning, it can be said that the virtuous effect potentially connected to the implementation of vertical networks, such as 'production chain agreements', cannot be achieved unless they are combined with those immaterial logistics assets which are represented by 'rural districts' (Zumpano, 2007). The ultimate goal should be in fact the development of a systematic and integrated intervention looking at this kind of network as a third way for rural development, being

therefore able to link these two tools together into an integrated system. We found indeed that the future perspectives of these policy tools cannot rely but on the relevant key actions that the National Strategic Plan for Rural Development foresees for the whole agricultural and rural planning measures in order to reduce the excessive fragmentation of interventions and to promote a synergistic integration of all of them. This implies a double action toward an “integration of integration” (a vertical one – on the side of production chains – and a horizontal one – on the side of districts). On the one hand, in order to improve the competitiveness of production chains, the final goal of a greater integration within it and among the different steps and the various actors composing them should be pursued. Nevertheless, on the other hand, such an effort will not act virtuously on the whole agricultural system – and therefore, will not have widespread effects on the territory – if it is not accompanied by overall policies aimed at supporting the development of an effective logistics and networking system of the tangible and intangible resources of rural and/or agribusiness districts.

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Innovazione organizzativa in agricoltura: nuovi strumenti per una pianificazione territoriale integrata

Lo sviluppo dell'agricoltura dipende, sempre più, dalla capacità dei soggetti decisionali di adottare forme di progettazione integrata che mirino alla creazione di network verticali e orizzontali capaci di promuovere lo sviluppo rurale. La traduzione in pratica di tale approccio integrato ha comportato la creazione di specifici strumenti network-based tesi a promuovere uno sviluppo rurale basato sulla transversalità degli attori e dei settori. Partendo da tale premessa, nel presente contributo sono stati analizzati due particolari strumenti di programmazione integrata attuati in Italia: i contratti di filiera e i distretti rurali. Obiettivo è stato quello di esaminare non solo il reale stato di attuazione di tali strumenti, ma anche la loro efficacia, verificando se l'insieme degli strumenti operativi di filiera siano diventati dei reali strumenti operativi piuttosto che semplici enunciati teorici.

L'innovation organisationnelle dans l'agriculture: de nouveaux outils pour une planification territoriale intégrée

Le développement de l'agriculture dépend de plus en plus de la capacité des décideurs à adopter des formes de planification intégrée qui visent à créer un réseau vertical et horizontal capable de promouvoir le développement rural. La mise en œuvre de cette approche intégrée a conduit à la création d'outils network-based qui visent à promouvoir un développement rural basé sur la transversalité des acteurs et des secteurs. À partir de là, dans cet article les auteurs ont analysé deux outils de programmation intégrée mis en œuvre en Italie: les contrats de filière et les districts ruraux. L'objectif de cet article est celui d'examiner non seulement l'état actuel de la mise en œuvre de ces instruments, mais aussi leur efficacité, c'est-à-dire de vérifier si l'ensemble des outils de soutien aux filières et aux districts ruraux sont devenus des véritables outils opérationnels plutôt que de simples énoncés théoriques.