



Greenwich Academic Literature Archive (GALA)
– the University of Greenwich open access repository
<http://gala.gre.ac.uk>

Citation for published version:

Naziri, Diego (2009) Direct sale as a means for promoting the sustainable use of plant genetic resources: The case of the Tuscany Region. *Journal of Agriculture and Environment for International Development*, 103 (1/2). pp. 65-80. ISSN 2240-2802

Publisher's version available at:

<http://www.iao.florence.it/JAEID/index.php/JAEID/article/download/25/28>

Please note that where the full text version provided on GALA is not the final published version, the version made available will be the most up-to-date full-text (post-print) version as provided by the author(s). Where possible, or if citing, it is recommended that the publisher's (definitive) version be consulted to ensure any subsequent changes to the text are noted.

Citation for this version held on GALA:

Naziri, Diego (2009) Direct sale as a means for promoting the sustainable use of plant genetic resources: The case of the Tuscany Region. London: Greenwich Academic Literature Archive. Available at: <http://gala.gre.ac.uk/9769/>

Contact: gala@gre.ac.uk

Direct sale as a means for promoting the sustainable use of plant genetic resources: the case of the Tuscany Region

D. Naziri

Agricultural Economist, Istituto Agronomico per l'Oltremare, via A. Cocchi 4, 50131 Florence, Italy, e-mail: dnaziri@gmail.com

Abstract: Similarly to other Northern countries, Italy has witnessed a growth in recent years of forms of direct sale of agri-food products. These so-called short supply chains often open new opportunities for the development and conservation of rural areas which are not merely economic in nature. The case study described here presents the results of a survey conducted in the Tuscany Region the purpose of which was to understand if and how direct sale has a part to play in promoting more diversified agricultural systems and in increasing or maintaining agrobiodiversity. The support that the institutions provide for direct sale in this context can be considered as a form of implementation of the FAO International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) that Italy has ratified and which obliges its contracting parties to promote a sustainable use of plant genetic resources.

Keywords: Direct sale, plant genetic resources, in-situ conservation, ITPGRFA

Introduction

The itinerary that the agri-food distribution system has taken in last decades has led to the development of long supply chains in which the distance between producer and consumer has increasingly widened, a process aggravated by the multiplication of intermediaries. The establishment of this type of chain is often dominated by large-scale transnational enterprises in which standardisation and flexibility in supply are paramount, and which has led to a flattening of tastes and consumption (Brunori *et al.*, 2007).

The consequences of this have been significant. On the one hand small-scale producers have tended to become excluded from the market because of their lack

of competitiveness and incapacity to guarantee the production standards demanded of them and, on the other, consumer awareness has been obscured as to the pathway followed by their purchases, thus preventing any kind of real monitoring on quality and means of production.

By contrast, recent years have witnessed a sharp growth in initiatives countering these processes which aim to establish the worth of produce at its place of origin and heighten the profile of farmers. These are almost always organised along 'short' lines, rooted in the territory and therefore linked to its natural, cultivation-related and social resources, and are based on a different set of values, principles, meanings and objectives such as the environment, culture and ethics, different from purely economic objectives (Brunori *et al.*, 2006a).

Direct sale is a form of trading in farm produce that puts producers in direct contact with consumers, short-circuiting all the middle links of the chain, hence its definition of 'short supply chain'. Considering the socio-economic conditions of the present day, direct sale is a highly significant option for a number of reasons. It is a viable alternative to the conventional food production system essentially based on intensive methods and highly specialised farming systems tailored to meet the demands of the wholesale market which specifically penalises the first ring of the chain, namely the farms who find themselves squeezed between rising costs of production factors and the low price paid for their produce, the so-called *squeeze on agriculture* (Cicatiello and Franco, 2008). This mechanism imperils the very existence of a multitude of small and mid-sized farms that are vital for the maintenance and development of the social, economic and cultural fabric of rural areas (Van der Ploeg, 2006).

There is quite an extensive bibliography describing subjects who make use of the short supply chain, both producers and consumers, the function and modus operandi for establishing these social networks, the relationship between local foodstuffs and rural development, and lastly on the valorization of local production as a tool for territorial marketing. There is instead a lack of studies that confirm the rather widely held belief that short supply chains, and direct sale in particular, can be effective in limiting the erosion of biological diversity by encouraging more diversified farming systems and contributing to recovering traditional varieties. Indeed these latter have been gradually abandoned by farmers since on the one hand traditional varieties do not possess the characteristics necessary to be included in the conventional distribution chains (especially in terms of uniformity, look, suitability for industrial processing and resistance to handling and transportation) and, on the other, they have so far found it hard to find adequate alternative trading outlets.

This study does not set out to provide an exhaustive answer to this issue but rather to report cases of positive correlation between direct sale and biodiversity in Tuscan agriculture. It also seeks to establish whether by promoting the sustainable use of genetic resources through supporting short supply chains makes any real contribution to implementing the FAO International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) to which the Italian government is committed by having ratified it and what shape this support has taken so far.

The collective forms of direct sale in Italy

The direct sale of food products to consumers is a practice which has never completely died out in Italy. Despite the widespread consensus about the strong and growing interest in direct sale, it is very difficult to arrive at a accurate idea of the size of the phenomenon and in any case such an idea would be out with the scope of this study. Direct sale has been boosted in recent years by the so-called 'law of orientation' (Legislative Decree 228/2001) that for the first time gave farmers the right to deal not only in their own produce (which, in any case, must still be prevalent by percentage) but also in produce bought from third parties. This is a departure from the ordinary legislation on trading (Legislative Decree 114/1998). The previous law (59 of 1963) limited sale to marketing only one's own produce.

The launch of certain direct sale initiatives was backed by producers in an attempt to meet the consumer demand for fresh local produce. The service offered by the producers was simple, such as setting up sales points for direct selling within the farm or in outside premises, whether individually or together with other farmers such as in the so-called farmers' markets and in collective outlets.

Legislation has also contemplated this approach. Article 1 (subparagraph 1,065) of the 2007 Budget Law (Law 296/06) explicitly promotes the development of farmers' markets and this was further enshrined in the MiPAAF¹ decree of 20 November 2007 which delegated the establishment of such initiatives to local government, in particular to municipalities².

¹ Ministry of Agriculture, Food and Forestry.

² This decree is 'of a non-regulatory nature' since Article 117 of the Italian Constitution confers the exclusive responsibility for legislating on trading and agriculture to the Regions. This means that Regional legislation has the status of legally binding law and so this decree is for guidance only and is not binding.

The 2007 Budget Law also provided further incentives to launching direct, collective-type direct sale initiatives and these, in the meantime, have emerged in many different guises, from more spontaneous and sometimes occasional cooperation among producers to more organised ventures of collectively managing direct sales (Rossi *et al.*, 2008). Indeed Article 1 (subparagraph 1,094) strongly encourages farmers to set up companies with objectives that may include collective direct sale.

Other direct sale initiatives came about, not through the efforts of producers but of consumers. Over the years there has been a heightening of consumer awareness of the need to reclaim the power to choose also at the moment of purchase. In choosing from a variety of products the consumer is deciding which company to support and thus, indirectly, the corresponding farming model. This has spawned a number of consumer movements committed to supporting local produce, small-size farms and marginalised rural areas, and enhancing the culture of critical consumption. These movements are emerging all over the world, each with their own *modus operandi*, level of awareness and objectives stemming from the territorial context and historical period in which they developed. In Italy, the so-called GAS, acronym of *Gruppi d'Acquisto Solidale* [Solidarity Purchasing Groups] represent a significant experience. This is presently the most widespread form of self-organised groups of consumers in Italy (Innocenti, 2007a). The GAS were granted recognition in the 2008 Budget Law (Law 244/07) and defined as *non-profit-making associations established with the objective of purchasing and distributing merchandise to those belonging to it without mark-up, pursuing aims of ethicalness, social solidarity and environmental sustainability*. This measure enables groups who have come together as associations to conduct their business in full conformity of tax laws on an equal footing with non-commercial bodies.

This study will focus exclusively on collective forms of direct sale, namely farmers' markets, collective outlets and GAS as bodies for which support by institutions could be more easily provided.

The situation in the Tuscany Region

Tuscany is an excellent viewpoint for analysing the development of the short supply chain. By its nature, it has proved fertile for the foundation and rapid spread of a number of initiatives that often involve many local actors. In fact, Tuscany still has a model of agriculture with strong links to local contexts, with a low incidence of 'modernity' and with a structure mainly composed of small to medium-sized farms of which over 80% has less than 5 hectares of UAA³ (Rossi

et al., 2008).

The 2007 report of the Observatory for Direct Sales sponsored by the Coldiretti farmers' federation and Agri2000 noted that Tuscany is the primary region in Italy for direct sale with no fewer than 9,670 farms that sell their produce directly (some 7% of the number of farms in the region) representing around 17% of the national total⁴.

The collective approach to direct sale in Tuscany began in the 1970s with a few sporadic initiatives launched directly by small-scale producers. The year 1984 saw the first *Fierucola* in Florence, the first real farmers' market organised and run by farmers themselves. In the years that followed, and especially over the last five or six years, there has been a significant increase of initiatives of this kind and these, in turn, have been supplemented by other projects involving producers together with local government organisations and other bodies both institutional and from the sphere of associationism (such as the Tuscan Committee for Organic Producers-CTPB and the Association of Solidarity for the Italian Countryside-ASCI). In this highly dynamic setting, the characteristics of the market vary a lot both in how it relates to the territory and in the objectives the organisers set themselves (Brunori *et al.*, 2008).

As of now, Tuscany boasts some fifteen farmers' markets that are set up regularly (generally once a month) and there are others which, despite their longevity, only appear sporadically.

The growing interest in these initiatives on the part of the institutions led the Tuscany Region to introduce measure 5.3.3.2.1 into the Rural Development Programme 2007-2013 providing funding for stimulating producers' markets in rural areas in order to encourage vitality and the provision of services in the more backward areas too. So far, however, this measure has not been implemented.

By contrast, the approval of the *Filiera corta – Rete regionale per la valorizzazione dei prodotti agricoli toscani* [Short supply chain – Regional network for the valorization of Tuscan agricultural produce] (DGRT⁵ 335/2007) Tuscany Regional project has had an enormous impact on the development of direct sale. It set a tender earmarking substantial funding to support specific direct sale initiatives in the

³ Utilized Arable Area.

⁴ Note, however, that for many farms in Tuscany today, direct selling is just a complementary activity to providing board and lodging as agritourisms (of which there are some 3,500 in the Region) selling their produce to customers with no involvement in other more structured collective initiatives.

⁵ Ruling of the Tuscany Regional Government.

three-year period between 2007-09⁶ including farmers' markets. As of today, this project has earmarked contributions, which are 80% non-refundable, to enable the initiatives sponsored by local government to take off⁷. At present, sixteen farmers' markets have received funding (a number of which were already up and running).

The *Filiera corta* project also provided for the funding of a specific initiative for the set-up of outlets for local produce, namely places where farms can sell their produce directly within a collectively managed structure. Outlets are also perceived as a further means of achieving the valorization of the territory along the lines of the *Strade* [Routes]⁸ (of wine, oil, flavours established by Regional Law 45/2003). The regional funding will enable 14 collective outlets to be added to the pioneering initiatives launched autonomously by the farmers themselves (of these 14, two – the *Tuttigiorni* [Every day] covered market with some 50 local producers in Monteverchi in the province of Arezzo and the *Dal podere al palato* [From the Farm to the Palate] with 10 producers in the province of Siena are already up and running).

With regard to GAS groups, they began to spread in Tuscany in the mid 90s but there was a substantial increase in their numbers since 2000-2001. At present there seem to be some 80 groups although, as at national level, this number could substantially underestimate the actual entity of the phenomenon⁹. They are most numerous in the provinces of Florence and Pisa.

The exploratory survey of a number of interesting cases

In order to better understand the relationship between direct sale and the sustainable use of agrobiodiversity, interviews were conducted with the proprietors of three Tuscan farms that are very much involved in collective direct selling. The main purpose was to ascertain if direct selling had led to a progressive adaptation of agricultural production system and hence had contributed to an

⁶ This project came a few months before the publication of the MiPAAF decree of 20 November 2007. However, the few differences between the two legislative acts do not make them incompatible.

⁷ Initiatives funded under the project must in any case be financially self-sufficient within the following three years.

⁸ The *Strade* project is aimed essentially at tourists but in synergy with the outlets it could have a significant impact on the inhabitants of the territory.

⁹ In this area too, Tuscany is of great interest with almost 20% of the over 400 GAS groups nationwide registered by websites.

increase in the on-farm agricultural biodiversity or, at least, to its valorization and thus maintenance.

The farms selected had to satisfy the following criteria: i) a substantial if not preponderant part of production had to be traded through one of the forms of direct collective selling under examination (farmers' market, collective outlets or GAS); ii) the farm was not only livestock-based since the focus of the study was the sustainable use of plant genetic resources; iii) the farm had been involved in direct selling for at least 5 years so that it would have had time to adjust its production system; perennial plants (e.g. grapes and olives) were excluded from the study because adaptation of production system for them can only take place over the mid- to long term.

The table 1 shows the main data of the three farms selected.

For some years Bio Colombini has sold exclusively through direct sale, mainly to GAS groups.

Radici has set up a very broad and diversified sales network. Most of its fresh produce is sold through the collective outlet in Montevarchi (estimated yearly turnover between 40 and 50,000 Euros) or through other forms of direct sale. The processed produce, by contrast, is mainly sold non-directly through specialty shops.

Lastly, although Poggio di Camporbiano is much bigger than the other two it still manages to sell over 80% of its produce directly to consumers, principally through the 80 GAS groups it deals with.

In order to verify the impact of direct sale on the agrobiodiversity of each single farm, three different levels of analysis were considered: i) diversity in the farming system; ii) diversity in the number of crops and iii) diversity in number of varieties.

It emerged that the effect direct sale has had on the *diversification in the farming system* of the three farms has not been uniform. The first farm under consideration, Bio Colombini, sold its produce almost exclusively to large-scale distribution through wholesalers or more frequently directly to the supermarkets until the early '90s. The system used was substantially a highly specialised model of intensive industrialised vegetable production adequate to the needs and logistics of large-scale distribution. Today, the system is still mainly vegetable-oriented but different in that now the produce is high-quality, typical, local and organic for direct sale. Furthermore, direct sale induced the farm to add fruit and olive production to their range but these are still of secondary importance.

The impact of direct sale has been felt more by the Radici farm. Originally, it farmed chestnuts, essentially harvesting the nuts from the trees on its property.

Tab. 1 - Main characteristics of the three farms taking part in the study

FARM NAME	Bio Colombini	Radici	Poggio di Camporbiano
LOCATION	Crespina (PI)	Loro Ciuffenna (AR)	San Gimignano (SI)
SIZE	18 ha (UAA 18 ha)	40 ha (UAA 5 ha)	265 ha (UAA 115 ha)
MAIN CROPS ¹	<i>Vegetables, legumes</i> olives, fruit trees	<i>Vegetables</i> , fruit trees, cereals	<i>Fodder, cereals, vegetables,</i> <i>legumes</i> , fruit trees
ON-FARM PROCESSED PRODUCE	Tomato juice and sauce, vegetables in oil	Vegetables in oil, sauces, creams, chestnut flour, soups, juices, preserves	Husked cereals, soups, flours, pasta, tomato sauce, creams, juices, preserves. cheeses
CERTIFICATION	ICEA (organic)	ICEA (organic)	CODEX s.r.l. (organic) Demeter (biodynamic)
FIRST YEAR OF DIRECT SELLING	2001	1985	1995
FORMS OF DIRECT SELLING ²	<i>GAS</i> (19 groups serving between 600 and 1300 families), farm outlet, local school	<i>Collective outlet (Tuttigiorni</i> in Montevarchi), farmers' market (<i>La Fieruola</i> in Florence), <i>GAS</i> (2), farm outlet, catering	<i>GAS</i> (80 groups serving between 1500 and 2500 families), farm outlet, local school, on-line (for dry foodstuffs only)
FORMS OF NON-DIRECT SELLING ²	no	<i>Specialty shops</i> (local and non- local including overseas)	Specialty shops, wholesalers (for packed cereals only)

¹ Main crops underlined; ² Main forms of selling underlined

Transformation has always been important for the farm for selling the products obtained from chestnuts – dried chestnuts, and chestnut flour and puree – to specialty shops. When he began pioneering forms of direct sale through farmers' markets in the mid '80s, the owner understood that a wider assortment of products was necessary if he wanted to satisfy the demand of the market. This induced him to introduce fruit trees and vegetables to be transformed by the farm into his system. This is now the lion's share of his production.

Lastly, the history of the Poggio di Camporbiano farm is more recent. Since its foundation in 1988 it has always pursued an organic and bio-dynamic model of agriculture¹⁰. The farm now boasts a highly diversified production that includes animal husbandry in line with the organic principle that animals are necessary for what they contribute in terms of organic material and for maintaining the farming cycle closed. In its early years, the farm sold its produce through wholesalers specialised in organic products but in so doing it encountered two main problems. The first was the excessively low prices the farm was paid by the middle-man and the second was that the farm owners did not wish to rely on any production factor external to the farm but be autonomous, even as regards the seeds that had to be (and still are) mostly self-produced¹¹. This means they have never wanted to grow hybrids which, in turn, created problems in satisfying the demand of wholesalers in particular for uniformity. Thus came the first approach to direct sale which initially took the form of participating in farmers' markets (a policy later abandoned) and which, as appears, was to become their most important distribution channel.

There is an interesting difference between this case and the previous two in that its diversification in farming system was not a result of the new economic opportunities that emerged from direct sale but rather of a systemic approach to the sphere of agriculture that was pursued from the very beginning. The progressive diversification that took place over the years was in fact directly attributable to the availability of more money which enabled the farm to shoulder the heavy costs of investment required to purchase the necessary equipment and structures. Since, therefore, direct sale was the means of distribution most suited

¹⁰ Bio-dynamic agriculture is an approach to sustainable systems of agricultural production that respects the earth's ecosystem. It is based on the philosophical teachings of the Austrian exponent of esotericism Rudolf Steiner; it includes the idea of organic agriculture in single harmony with the earth and the life that develops on it.

¹¹ Except for the seeds of certain vegetables in which they are not yet self-sufficient and which are still purchased externally.

to their wide assortment of quality produce, it undoubtedly contributed to the implementation and successive maintenance of the eco-sustainable, diversified model of agriculture that the farm had pursued from its inception.

With regard to *diversity of cultivated species*, all three farms registered an increase in number after resorting to direct selling. The reasons for this choice were substantially in order to: i) broaden the assortment of products offered to better satisfy the diversity of consumer demand, and save clients the extra costs and time involved in shopping at a multitude of suppliers; ii) lengthen the time span of having some kind of product to sell since the personal relationship between producer and consumer, a prerogative of direct sale, needs a certain degree of continuity during the course of the year; iii) pursue a more staggered production during the year because direct sale, especially for the GAS groups, requires a modest but regular supply flow, generally weekly or fortnightly. Furthermore the groups are unable to absorb production concentrated in a short period; iv) introduce or rediscover crops that could not be fully appreciated by being distributed through traditional marketing channels but which sell well when distributed through direct sale.

The Bio Colombini farm is an excellent case in point. Since it disengaged from the philosophy of large-scale distribution, the number of its crops have grown from 3-4 to today's 30. Not only it has introduced varieties to satisfy clients' needs and requests but as a way of rendering its selling strategy as rational as possible, it has decided to include certain crops in its basket, which the owner has called 'emergency produce'. These are products with low perishability (e.g. carrots, potatoes, and squash) which could be used to make up for the temporary lack of other produce during the year. In this way there is always something for the mixed vegetable boxes that the GAS groups generally purchase¹².

While softening the impact of production peaks, staggering production by diversifying the species grown (and the varieties as described under) only partly solves the issue of the time gap between supply and demand. There is a marked

¹² A producer who supplies the GAS groups does not generally have the resources to address the demand of individual group members firstly because it might not have the availability of sufficient merchandise to satisfy the individual needs of many tens or even hundreds of families and secondly because the job of handling orders of this kind would be costly to the point of being a serious hardship for a small to mid-size farm. The answer which is often adopted to sell fruit and vegetables, therefore, is to make up a standard mixed box containing a variety of produce according to the season, the weather, or because of producer's requirements.

tendency within farms involved in direct sale for this strategy often to be accompanied by processing of the produce within the farm itself. In addition to enabling the farm to market products with a higher added value, this strategy reduces the seasonal limitation of produce, its perishability and periods of excessively concentrated workloads during the year. In some cases, not only does processing complement production diversification as a means of tackling organisational issues but is also, in itself, an ulterior factor towards biodiversity.

The progressive broadening of processed produce by the Radici farm, for example, prepared according to old recipes or even in the form of authentic ‘domestic experimentation’ has resulted in the need for new crops to be introduced into the farming system (e.g. lettuce, arugula, and red lettuce used in certain soup recipes). The owner has estimated that the number of vegetables produced has risen from about 15 to today’s 30.

As stated above, the impact of direct sales on the Poggio di Camporbiano farm has been decidedly less pronounced. From the very outset, the owners sought to introduce a broad range of crops, growing various cereals (bread and durum wheat, spelt, barley, rye and millet) legumes (chickpeas, lentils and beans) fruit and especially a wide variety of vegetables. By contrast, however, when in those days they were mainly selling through wholesalers, the products that actually found their way to the market were only a few varieties (e.g. squash and garlic) and the rest was relatively marginal and used mainly for domestic consumption. Having now to supply many GAS groups required a radical reorganisation in their system. In terms of land earmarked for cultivation the predomination of few crops over the others has been substantially reduced and the areas dedicated to individual crops is now much more homogeneous¹³.

Finally with regard to the *diversity in terms of varieties grown*, in this case too, direct selling has had the effect of increasing *their number*, substantially for the same reasons as for the number of crops grown. Bio Colombini has seen an increase in the number of varieties, especially for cabbage and kale (ten or so varieties) tomato and eggplant (8 to 10 varieties each). For ‘emergency products’, the problem of reducing the concentration of production is obviously less acute and it was therefore unnecessary to increase the number of varieties of these crops.

Despite the effect that transformation has had of lessening also the Radici farm’s need to graduate production, there is again a considerable number of

¹³ There has therefore been an increase in biodiversity as measured by the Shannon index which takes into account the numerousness of species and also the uniformity of their distribution.

varieties grown (some 100 of which 25 of potatoes alone). In addition to research into varieties characteristics which give a special organoleptic quality to its processed produce, according to the proprietor, this is also a way to reduce the costs of warehousing and of immobilised capital.

The head of Camporbiano, too, points out how direct selling has led to the cultivation of more varieties, stressing on the one hand the need to stagger production (e.g. by growing early, mid-season and late varieties of cabbage and kale, or, for apples, summer varieties for immediate consumption, varieties for early consumption and lastly varieties which benefit from months of ripening in the fruit-house) and, on the other, being able to meet specific and diverse demands of consumers from different part of Tuscany, even relatively close to one another. The farm also makes use of mixtures of varieties of cereals that have undergone selection over the years for their special aptitude for transformation and adaptability to the local agro-environmental conditions.

It comes as no surprise, therefore that all three farms examined in this study cultivate local and/or old varieties and in certain cases are also directly involved in attempts to recover varieties which otherwise would no longer be grown as not distributed through the conventional distribution channels (e.g. the owner of the Radici farm, who has been a member of the *Associazione Agricoltori Custodi* [Association of Guardian Farmers] since 1991).

Direct selling as a means of promoting the sustainable use of plant genetic resources pursuant to Article 6 of the Treaty

The study so far shows a clear, pronounced correlation between agrobiodiversity and the various forms of direct sale. Support for direct sale from the institutions whether national or local can therefore be seen as a valid means for contributing towards the sustainable use of agricultural biodiversity and, indirectly, to implementing Article 6 of the FAO Treaty on plant genetic resources which, being a party to, Italy is bound to be committed to.

The main relevance of direct sale to Article 6 is related to subparagraph (a), (e) and (f) of the paragraph (2).

The subparagraph (a) requires that countries party to the agreement shall ‘pursue fair agricultural policies that promote, as appropriate, the development and maintenance of diverse farming systems ...’ As we have seen, this diversification is occurred in all three farms studied.

The subparagraph (e) invites countries to ‘promote, as appropriate, the expanded use of local and locally adapted crops, varieties and underutilized

species'. In this instance, too, the short distribution chain has proved more suitable than other marketing means for distributing and valorizing this type of production and therefore for promoting its cultivation.

Lastly, subparagraph (f), supports as appropriate 'the wider use of diversity of varieties and species in on-farm management, conservation and sustainable use of crops ... in order to reduce crop vulnerability and genetic erosion, and promote increased world food production compatible with sustainable development.' The case study results reported here clearly show that direct sale has always promoted diversification of farm production both in species and varieties. However, it is noteworthy that in the case of Bio Colombini and Radici, direct sale was a driving force towards diversification and led to an increase in agrobiodiversity. In the case of Poggio di Camporbiano, a highly diversified production model was pursued from the very outset independently of direct sale. Direct sale only appeared later as the best marketing approach for valorizing the farm's production. In this case, therefore, it can be said that direct sale contributed more to maintaining biological diversity than to increasing it.

Institutional criticality and support to direct sale

From the interviews conducted it emerged that adopting the policy of direct sale is often fraught with extra costs and difficulties, especially of an organisational nature. This is, in part, also witnessed by the low number of producers who have decided to adopt this type of marketing.

During the interviews, the main points of criticality encountered were: i) technical and organisational difficulties in producing and offering a wide assortment of produce that satisfies consumer demand (especially those in the GAS groups); ii) the lack of manpower in the countryside; iii) a marked increase in staff costs; iv) a lack of continuity in the demand, in particular of the GAS groups, because often the groups themselves have a very short life from birth to demise and also because their demand reaches its lowest ebb in Summer which is the period of maximum production; v) the time needed to take part in farmers' markets or to divide produce into the boxes for the GAS groups and v) the need for investments specifically addressed to direct sale.

The farmers interviewed appreciate the efforts being made by the public institutions in favour of the various forms of collective selling but they feel that further support initiatives are needed. In addition to providing a legislative framework that makes direct selling legal, so far, essentially, these efforts have taken the shape of contributions by local government to setting up farmers'

markets and collective outlets (in this case, in Monteverchi). As of now, the GAS groups do not appear to have received any form of support from the institutions. It has emerged that the main request is for support in the availability of meeting places that can be used to stock produce, the lack of which sets severe constraints on the operability of the groups.

Furthermore, despite the Rural Development Programme of the Tuscany Region never having funded collective forms of direct selling it has, in past years especially, spent considerable sums of money to provide partial coverage of the expenses of modernisation and diversification of individual farms. These contributions were functional especially for those who intended embarking on processing their products within the farm in order to then market the produce by direct sale.

Bibliography

- Brunori G., Guidi F., Innocenti S., and Rossi A., 2008. *Monitoraggio e supporto delle esperienze di filiera corta in Toscana*. Agenzia Regionale per lo Sviluppo e l'Innovazione nel settore Agricolo-forestale, Regione Toscana, Firenze, 61 p.
- Brunori G., Cerruti R., Guidi F., and Rossi A., 2007 (eds.). *Indagine conoscitiva sui circuiti brevi/locali di produzione-consumo dei prodotti agricoli in Toscana. Aspetti emersi dall'indagine*. Dipartimento di Agronomia e Gestione dell'Agroecosistema (DAGA), Università di Pisa, Pisa, 41 p.
- Brunori G., Rossi A., and Guidi F., 2006a. *Le esperienze di filiera corta*. Agrisole - Il Sole 24ore, Rapporto Economia e politiche rurali in Toscana, n. 8: 44-50.
- Brunori G., Cerruti R., Medeot S., and Rossi A., 2006b. *Policy Recommendations and Practical Protocols*. Italian National Report of the project entitled 'Marketing Sustainable Agriculture: An analysis of the potential role of new supply chains in sustainable rural development' (SUS-CHAIN). Dipartimento di Agronomia e Gestione dell'Agroecosistema (DAGA), Università di Pisa, Pisa, 11 p.
- Cicatiello C., and Franco S., 2008. *La vendita diretta: produttori consumatori e produttività*. Associazione Alessandro Bartola, Agriregionieuropa, anno 4, n. 14: 44-46.
- FAO, 2001. *International Treaty on Plant Genetic Resources for Food and Agriculture*. (ITPGRFA). Rome.
- Gardini C., and Lazzarin C., 2007. *La vendita diretta in Italia*. Associazione Alessandro Bartola, Agriregionieuropa, year 3, n. 8: 17-19.
- Innocenti S., 2007a. *Dal cibo alla cittadinanza. L'azione dei consumatori nella costruzione*

- di reti sociali*. Laboratorio di studi rurali Sismondi, Working Paper n. 1, Pisa, 14 p.
- Innocenti S., 2007b. *Opportunità commerciale e condivisione di valori: i Gruppi d'Acquisto Solidale in Toscana*. Specialist degree thesis in Biological and Multifunctional Agriculture, Faculty of Agriculture, University of Pisa, Pisa, 115 p.
- Lazzarin C. and, Gardini C., 2007. *La vendita diretta: un business in crescita*. L'Informatore Agrario, n. 1: 26-29.
- Marescotti A., 2006. *La commercializzazione dei prodotti tipici in Guida per la valorizzazione dei prodotti agroalimentari tipici. Concetti, metodi, strumenti*. Agenzia Regionale per lo Sviluppo e l'Innovazione nel settore Agricolo-forestale, Regione Toscana, Manuale ARSIA, Firenze, 67-77.
- Moore G., and Tymoski W., 2005. *Explanatory Guide to the International Treaty on Plant Genetic Resources for Food and Agriculture*. IUCN Environmental Policy and Law Paper n. 57, Gland, Switzerland and Cambridge, 212 p.
- Ploeg J.D. van der, 2006. *Agricultural production in crisis*. In P. Cloke, T. Marsden, and P. Mooney (eds.), London SAGE Publications, Handbook of Rural Studies, 258-278.
- Rossi A., Guidi F., and Innocenti S., 2008 (eds.). *Guida per l'attivazione di forme collettive di vendita diretta. Esperienze, approcci e strumenti*. Agenzia Regionale per lo Sviluppo e l'Innovazione nel settore Agricolo-forestale, Tuscany Region, ARSIA Handbook, Florence, 123 p.
- Severino M.E., 2005. *Verso nuove tendenze di consumo: i Gruppi d'Acquisto Solidale*. Three-year degree thesis in Economics and Service Industry Management, Faculty of Economics, University of Verona, Verona, 136 p.

National and regional normative framework of reference

- MiPAAF decree of 20 November 2007: *Implementation of Art (1) (1065) of Law Nr 296 of 27 December on markets set aside for direct sale by farmers*, Official Gazette Nr 301 of 29-12-2007
- Law Nr 296 of 27 December 2006, n. 296: *Measures for the preparation of year and multi-year accounts of the State (budget 2007)*, Official Gazette Nr 299 of 27-12-2006
- Law Nr 244 of 24 December 2007: *Measures for the preparation of year and multi-year accounts of the State (budget 2008)*, Official Gazette Nr 10 of 12-1-2008
- Law Nr 59 of 9 February 1963: *Norms for the stable sale of farm produce to the public by direct farm producers*, Official Gazette Nr 44 of 16-02-1963
- Legislative Decree Nr 114 of 31 March 1998: *Reform of the law concerning trade*

- pursuant to Article (4) (4) of Law Nr 59 of 15 March 1997, Official Gazette Nr 95 of 24-4-1998 - Suppl. Ordinario Nr 80*
- Legislative Decree Nr 228 of 18 May 2001: *Orientation and modernisation of agriculture pursuant to Article 7 of Law Nr 57 of 5 March 2001, Official Gazette Nr 137 of 15-6-2001 - Suppl. Ordinario Nr 149*
- Ruling of the Tuscany Regional Government Nr 335 of 14 May 2007: *Regional Project Filiera Corta - Rete regionale per la valorizzazione dei prodotti agricoli toscani, Official Regional Bulletin Nr 22 of 30-5-2007*
- Ruling of the Tuscany Regional Government Nr 843 of 13 November 2006: *Reg. CE 1698/05 - Rural Development Programme of the Tuscany Region for the period 2007-13, Official Regional Bulletin Nr 48 of 28-11-2007*
- Tuscany Regional Law Nr 45 of 5 August 2003: *Discipline of the 'strade del vino, dell'olio extravergine di oliva' and quality agricultural and food produce, Official Regional Bulletin Nr 36 del 14-8-2003*