Extensive pig production systems -
Quality pork from native breeds meeting consumer demand (Italy)

Summary
The focus of this case study is on the PDO Cinta Senese pig supply chain which is the most representative case of extensive alternative pig production systems in Italy. We discuss the history of this chain from its beginning by analysing the strengths and weaknesses of the main motivations and drivers which are behind their start, progress and success. Key actors are pig farmers, slaughterers and pork processors. Alternative extensive/outdoor pig farming, according to the Cinta Senese PDO scheme, improves rural prosperity in Tuscany, because of the high value of Cinta Senese products accrued to farmers, and perceived by citizens, consumers and tourists. Public governance has been playing an important role in preserving Cinta Senese pig breed from extinction and integrating its extensive farming in the rural, social and economic production system of Tuscany. Private governance also plays the role to self-regulate the production and guarantee consumers by implementing and complying with PDO standards. Effective local governance and democratic processes are perceived as major needs to get trust and open attitude among the actors to cooperate, work jointly and negotiate fairly.

→Find the complete case study report at www.rethink-net.eu.

Introduction

The case study topic
The study focuses on the role extensive/outdoor pig production systems can play in improving prosperity and resilience of rural areas and meeting the urban consumer demand for quality pork and traditional food.

The pig supply chain Cinta Senese Protected Designation of Origin (PDO) has been analysed as the most representative case of extensive and outdoor alternative pig production systems in Italy.

Its production is based exclusively on pure pigs of the Cinta Senese native breed, according to the PDO scheme. Strengths and weaknesses of the PDO pig supply chain Cinta Senese pig supply chain are discussed in relation to motivations and drivers which are behind its start, progress, (un)success and contribution to rural resilience and prosperity.

The case study region
The spatial scale of this case study is the Tuscany region, which is the territory in which Cinta Senese pork product must origin from, according to the PDO rules.
The Tuscan territory is mostly hilly (67%), includes some plains (8%) and major massifs (25%). In terms of land use the Utilised Agricultural Area (UAA) represents only 58% of the Total Agricultural Area (TAA); 33% are forests owned by farmers and 8% is not utilised. A share of 63% of the total UAA is under arable crops, 8% wine grape production, 15% is dedicated to produce fruits and olives and 13% is pasture land.

Livestock is kept by 13% of the Tuscan farms and 13% of the livestock farmers keep pigs. The large majority of farms (96%) are family farms without employees. Wine is the main agricultural production in Tuscany, followed by olive oil and by a number of other traditional products.

The Cinta Senese Consortium involves 83 pig farmers and 27 processors.

Two main farming systems are in use by farmers keeping Cinta Senese pigs:

- the extensive system, where most of the feed is supplied by the forest and pasture
- the ‘outdoor’ semi-intensive system with the use of different kind of shelters, especially for the reproduction phase

The pigs are sold alive and their carcasses are largely destined to processing into charcuterie.

**Main lessons learned**

**What are the main lessons learned from the case study?**

The development of the PDO Cinta Senese has been supported by the Regional Government of Tuscany and the Provincial Government of Siena whose measures for rural development are aimed mainly to develop high quality productions strictly linked to the special Tuscany “terroir” which is very rich of historical and environmental values and beauties. The historical evidence of the Cinta Senese breed dates back to the 14\textsuperscript{th} century with clear evidence on paintings of local artists. However, in the sixties concern started to emerge about the risk of extinction of the Cinta senese.

Several initiatives aimed to develop extensive/outdoor pig production chains may improve rural prosperity, but their success is likely to be affected by:

- the availability of production inputs such as natural resources (e.g. suitable land, climatic conditions, genetics, animal feed) and human resources (farmers, vets, consultants, technical advice)
- integration of alternative short supply chains in the local social and economic system
- limited costs and flexibility for actors of the chain to enter and/or exit the chain
- efficient integration between public and private governance strategies

**Key features of resilient agricultural systems**

Autonomy and resilience of farms of the Cinta Senese chain are achieved through integration between pig farming, processing and trade within the same farm or through agreements and contracts between different farms and companies. Self-sufficiency of feed for pigs is considered important to guarantee farm autonomy and resilience against price volatility of the international market of raw materials for pig feeding. The predominant production strategy, according to the Cinta Senese PDO scheme, is aimed to take advantage of cheap and available natural resources such as oak woods and pasture which are likely to reduce feeding costs and to improve meat quality.
In fact many Tuscan farms have a certain surface of land covered by forests which often are unexploited or underutilized so that it can be used to keep and feed Cinta Senese pigs. Integrated public/private governance also affects farm resilience and prosperity positively.

Development pattern enhancing prosperity
Multifunctional agriculture can be considered as the backbone of the agriculture of Tuscany. Direct marketing of agricultural products connected to organized groups of consumers, a very strong presence of agri-tourism farms and severe rules for the preservation of the typical landscape are only some of the aspects of Tuscan agriculture. Cinta Senese farming is linked to the concept of family farm prosperity and is in line with the objective of the Tuscan rural development programme to increase farm multi-functionality and product diversification. In most farms this kind of pig farming is a secondary activity, less important than wine or olive oil or cereal production and/or agri-tourism, but likely to provide an important contribution to the farm income. Profitability is not considered as the most important reason for rearing Cinta Senese pigs because most farmers consider it as uncertain. It should be however a priority and the necessary and sufficient condition for the survival and success of the Cinta Senese supply chain in the future.

Pig farmer motivation
“I think that every human being has a favoured relationship with one type of animal. In my case it is the pig. I’m unhappy if I don’t see my pigs at least twice a day.”

A Cinta Senese pig farmer

Processing pork into high quality charcuterie also contributes to empower and strengthen the enogastronomic tourism at regional level. Good processing, preservation and preparation practices also help to valorise fresh meat and sell it through a range of diversified cured products.

Strengths and weaknesses of regional governance structures
Public governance can play an important role by means of policies to support extensive pig farming and its integration in the social and economic system. Examples of these policies are coordinated subsidies, applied research, advice, training, information and promotion initiatives with the involvement of representatives of the production chain and of relevant stakeholders. Public governance can shape the legal, social and knowledge framework in which alternative farming systems can develop more or less easily and quickly. Integrated public/private governance is likely to affect farm resilience and prosperity positively. A precondition for good local governance is trust between key actors and stakeholders which is the basis to cooperate, work jointly and negotiate fairly and also overcome conflicts and crises. Contract agreements between key actors of the chain could be effective in order to improve the organization of the chain in the long term.
Role of different sources of knowledge and forms of learning, and the related networks and institutions

‘Knowledge & learning’ initiatives focused to the innovation needs of the key actors of the supply chain affect farm resilience positively; the outcomes of applied research projects need to spread and directed to end users through properly planned training programmes and information campaigns. Instead of attending traditional theoretical training courses, pig farmers could be more involved and interested in “innovation brokering” events together with “demo days” and “visits to innovative farms” targeted to the priorities advanced by the farmers themselves and to be run in collaboration with scientists and experts and with farm advisors. Wide knowledge basis allows different approaches and options to face and solve problems for alternative farming systems.

‘Rethinking’ modernization

The modernization paradigm based on specialization and economies of scale can be converted when farmers collaborate, share knowledge, create alliances and together define alternative development and marketing strategies based on diversification. The drive towards specialization correlates instead typically with an individualistic development approach. At policy level a shift in the dominant modernization paradigm is needed in order to preserve and stimulate alternative development pathways based on diversification, job creation and marketing techniques able to serve diverse market outlets. Integrated public/private governance is likely to affect farm resilience and prosperity positively. Based on the experience of the Cinta Senese pig chain, collaboration between partners, agreements on objectives and strategies and efficient share of information and communication between partners and stakeholders are key factors for a successful governance partnership. Support for collaborative networks of diversified small farms contributes to farms which are resistant against price fluctuations of both inputs and outputs.

Some key recommendations

- creation of networks aimed to integrate private farmer’s interests with those of public/private stakeholders
- collaboration between farmer’s unions and associations with local governments to shape the applications the rural development plan according to private needs of rural and agricultural communities and public interests for environment protection and integrated social and economic development;
- contract agreements between key actors for fair distribution of the added value between them, based on the analysis of production costs through the chain
- initiatives to inform consumers and promote consumption of agricultural products from sustainable chains
- integration between applied research, training, information and advice to transfer and share innovations effectively between actors of the agricultural supply chain
- agreements between farmers’ unions, local governments, competent authorities and inspection bodies to improve efficient and harmonized implementation of the legal framework without additional costs for farmers

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