Vertical integration : farming systems in food chain

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The Workshop objectives

This workshop will discuss research based experiences of the changed conditions that farming systems face within the whole food chain. Therefore it will focus on the environmental, social and economic impacts of different food chains and the challenges and opportunities offered by diverse quality schemes and standard setting organisation at the world level as well as the certification tools implemented. The ability of diverse farm systems to enter in those schemes by adapting their features has to be addressed, as well as the possibilities that exist for different farm types to be proactive and competitive by taking initiatives and exploring new alternatives.

The increased globalisation of food chains, reduced protectionism and the power of food procurement officers in large supermarket chains have a significant impact on the role of European agriculture as well as possibilities for export-oriented farms in countries outside Europe (North Africa, Latin America, Asia...). This calls for a better understanding of (i) farming systems in their market and supply chain context and network and (ii) new organisation modes and standard setting at the supply chain level. But we also have to consider local situations where trust is built upon inter-personal experiences such as direct selling situations. Producers and customers have, in some cases, very strong relationship through informal networks and without any trade sign. This lean integration leads us to improve our knowledge on (i) setting up common rules at local level by enhancing the codification of farmers' knowledge and (ii) better analyze the modalities of collective action among peers.

A set of themes

Our call for paper has been organized around several themes we want to remind in this introduction.

Strategies to face competition

European farmers are facing increased competition on their home markets (whether national or EU level) and on the traditional export markets overseas. What strategies are used to survive in this context (e.g. increased use of local brands and EU regional certifications, quality assurance and implementation of high levels of standards vs. increasing volumes and technical efficiency)? What are successful strategies and which implications do they have for our understanding of farming system development and sustainability? What is the impact of the implementation of trans-national standards for quality assurance and traceability such as EurepGAP on different farm types?

Diversity of standards and quality assurance schemes

The schemes' diversity shall also be reported, in order to assess (i) which are the most appropriate quality and organisation schemes, (ii) the adaptation of the standard and their organisation to specific local and global situations, (iii) the efficiency, advantages and costs of diverse certification systems (including the participative experiences). In this framework, Geographical Indications opportunities and constraints will be addressed in relationship with other quality schemes (as for instance organic production, fair trade and farmhouse products).

Effect of standards on farmers elsewhere

The implementation of standards such as EurepGAP and organic certification might work to improve traceability and thus increases export possibilities for farmers outside Europe. But it might also increase the costs and thus be a barrier for smallholder farmers to enter the European market. What is

the potential for different farming types to benefit from the trade relations with Europe and who will lose out? To what extent do the high value markets and premiums such as organic and fair trade benefit different farm types in foreign countries exporting to Europe?

Impact of schemes and standardisation

Due to this development, the farming systems, whether in Europe or abroad, need to be researched and analysed as part of the food chains, which may be short or long, domestic or export-oriented. What is the environmental, social and economic impact of different food chains and what are the methods for researching these questions?

Role for the farmer

The role of farmers in quality oriented schemes is crucial in order to better understand the supply chain and territorial governance of those systems. Which management tools are developed by different types of farm systems? What influence may farmers have on the strategic decisions? Success stories as well as failures have to be reported and analysed in order to explain what the key factors are, according to different economic and social situations.

Thus, our call for contributions on farming strategies put some emphasis on quality assurance schemes and standards, and an eye on the role of one of the prime actors: the farmer. What is his ability to adapt the production system towards more sustainability, but also his capacity to collaborate with other producers into some collective action? Actively developing alternative production systems can be considered as a means to harmonise both societal and market ambitions. But it may also be a key point for their empowerment (the central element of the whole IFSA symposium) within the supply chain. In this perspective, quality signs are very often used in diverse situations and diverse supply chains as presented in the communications and posters of our workshop. Let us share some definitions of these notions.

Quality Assurance: some definitions

Quality as Beauty : in the eye of the beholder?

The concept of quality has been given many definitions according to different forms of interpretation, but there are two basic notions underlying usage of the term "quality". The first refers to the identified characteristics that make a thing what it is in relation to its end purpose; these are the properties we expect to be present. Standard ISO 9000:2000 provides a fairly broad definition of quality: "*The totality of features and characteristics of a product, process or service that bear on its ability to satisfy stated or implied needs".* Emphasis is placed on the pre-eminence of needs and the nature of their satisfaction. The second concept enshrines manifested excellence, and thus distinction from similar objects that justifies demand (Edwards and Casabianca, 1997).

However, there is no specification in either case as to who defines the content of quality, between the supplier and the demander. There is no indication how quality is formulated or ensured. Can we rely on the close interplay of the players directly concerned or must we resort to institutions, indeed the State, to determine the measure of the needs that are to be satisfied?

These two major concepts often overlap in a broad array of situations referring to, for example, supposed needs, expressed expectations, absence of quality (deficient properties) or the process of rejection (disenchantment from lack of excellence). All these interpretations give rise to frequent confusion, so it is important that we share clear definitions.

The position which we are adopting consists in considering quality as **a social construct,** where the convergence between the various agents involved is not spontaneous or natural. It arises from a complex process through which partial and provisional compromises are worked out between purposes sometimes difficult to harmonise. Therefore, within the networks, the operators must carry out negotiations concerning the technological qualities of the goods exchanged. Likewise, in the markets, the heterogeneity of the preferences must be taken into account when organising the offer, and compromises are made (Halberg, 2004) between the signals sent (price levels, information

attached to the products, trademarks) and societal demands (environmental performances, rural or territorial development).

From Quality to Qualification

Concerning foodstuffs, the word «quality» is logically the object of the same queries. It has also known different usages during successive periods. This brings us to consider three approach steps.

Historically, quality is first understood as the absence of flaws, frauds and fakes. Public power intervention expressed itself very early concerning this aspect, by the establishment of specific regulations. A de facto harmonisation seems to be on the way in the different European States, while a consensus is evolving on the need for a generalised implementation of this approach.

More recently, quality rests upon expected properties such as organoleptic and nutritional characteristics and useful value. This creates the need to take into account the legitimate expectations of the users and require from professionals to guarantee this acknowledgement. The function of the State here is to look after the interests of its citizens, including substituting itself to their expression. In this manner, the needs of the consumers remain largely implicit and encompassed in the concept of public interest. This is the case of regulations concerning the sanitary safety of foods and other normative characteristics, specially contributing to nutritional equilibrium or to services.

Finally quality denotes sought after characteristics likely to allow an increase in value, for instance the production methods (organic agriculture, environmentally friendly production, and animal well-being), the production zones (territory of origin, mountains) and their inherent traditions. These characteristics must be explicitly stated in the offer of the products so as to pinpoint the necessary interventions, the responsibility of each operator and to bring about the expected increase in value.

These three approach steps do not substitute each other; they are permanently superposed and justify different intervention levels of public authorities, of the operators and of the consumers, of the regional and the global perspective (Halberg *and al*., 2006). In particular, the drawing up of national or even international norms, which bind everyone, is based on very different proceedings from those that sanction voluntary interventions where only certain operators involve themselves.

Quality criteria become then the **results of qualification operations** through which the construction of a socio-technical convention is effected, allowing the majority of the agents to reach their aims. To qualify a product is then not reducible to analyses regarding some characteristics chosen on the final products. It is in fact necessary to reach convergent representations of the aims and the means employed (including bio-technical resources and know-how) to develop a concerted project based on quality linked to some specifications (Barjolle and Sylvander, 2000). The notion of “specifications” is important for determining rules of production and promised characteristics. It lists all aspects that operators undertake to provide, as well as the ways and means of doing so (evaluation, rectification, elimination of irregularities).

Quality Assurance Schemes within the food chain

Quality assurance is a set of activities whose purpose is to demonstrate that an entity meets all quality requirements (ISO, 1998). As part of a system, these activities form quality assurance schemes (QAS), which, when applied to food industry, enable the application and verification of control measures intended to assure the quality and safety of food. QAS use Quality assurance schemes to provide these systems the desired product attributes. These attributes are described by standards. A standard defines the requirement a characteristic must comply with. In other words, QAS define a series of technical requirements for producing, processing, or transporting food, and may include standards of environmental and other management practices. The schemes also delineate an inspection system to verify that members comply with these requirements.

QAS have several goals. Key ones are to restore the safety perception of consumers, to introduce standardization, to encourage diversification, and finally to communicate about the special characteristics of products and production methods. But next to these goals, QAS also cause side effects. By the so called lock-in effect, QAS may lead to additional barriers for alternatives to enter the market.

Development and implementation of QAS can also contribute to the extension of (scientific) knowledge. I.e. the introduction of sustainability labels indirectly contributes to the development of

knowledge of sustainability. The criteria that are the result of this knowledge development can be an instrument for the support of sustainable production. Also, labels increase the consciousness of citizens on these points.

However, there is an apparent paradox in the various (possible) roles of QA systems. At the same time, they enhance standardisation and they allow diversification. Both mechanisms (fixing standards and identifying diverse offers) are required in a market and may be considered as complementary.

Communication and confusion on the market

Products may carry a specific label to communicate its certification to the outside world. Especially QAS for the niche market promote their own label to communicate their specific product information to consumers. I.e. labels are used to stress superiority (or production requirements) on animal welfare, safety, origin, or durability (de Greef *et al*., 2006).

In some studies on the effects of sustainability labels for general products, several authors claims that objective product information, for instance by a label, for most consumers plays a minor role in their buying behaviour. Social and emotional aspects have a major impact. In other words, certain products are bought to express the social identity of the buyer. If this is true, the connection of consumers to the technical achievements of the 'improved' system can be limited and can even become absent. In a jungle of labels, brands and other diversifying communication vehicles in the end market, the market value of labelling (and thus of the underlying system improvements) may even be lost (Giraud, 1999).

As noted, introduction of QAS can lead to diversification. This can be considered a good thing for the industry, but there also lie hazards in this trend. The proliferation of labels may lead to confusion for consumers and market actors (including farmers).This might lead to loss of the ability to harvest additional value from the market. With the associated risk of falling back into the easy commodity approach by producing and buying standardized products.

The workshop contributions

A set of 11 full papers and 6 posters have been selected by convenors. In order to reach some issues on farmer empowerment when facing to supply chain logic, we should adopt the following organization:

- the strength of standards in commodity chains, and the farmer facing the differentiation as an innovation process (2 full papers and 1 poster),
- the room for farmers organizations to elaborate compromise in between quality requirements and criteria of sustainability (2 full papers and 1 poster),
- the ability to build up new alliances for some opportunities to include farmers in regional governance (2 full papers and 2 posters)
- the vulnerability of farmers facing to market requirements (3 full papers),
- the anchorage of farmers into the local seen as a resource for the future of farming (2 full papers and 2 posters).

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