

Introduction to section 3 – The future of farming

Benoît Dedieu¹, Colin Newsham² and Rebecka Milestad³

¹INRA TSE, UMR Metafort, 63122 St Genès Champanelle, France; ²Forrest Hills, Rural Centre for Business Learning and Leisure Hazelrigg Lane Ellel, Lancaster LA2 0PL, United Kingdom;

³Department of Urban and Rural Development and Centre for Sustainable Agriculture, SLU, Sweden

This section is focused at the farm level. It will explore farming as being part of rural systems and food chains, and as provider of services in relation with the value systems and discourses in society (Kristensen and Halberg 1997). Discussing the future of farming leads to several questions that will be debated throughout the papers and posters in this section. We can summarize the principal axes of the debate into four points:

- *What makes farming change at the European or national level? What are the scenarios for evolution of the overall agricultural sector or of more specific sectors (livestock, crops...) at that scale.* The CAP is a well known factor of change. Theocharopoulos *et al.* analyse with an econometric model the effect of decoupled payments on the cropping area of Greece and the type of crops the farmers will develop. Environmental issues are also taken into account in the CAP, notably pollution and biodiversity. But over and above these ones, Macombe explores how European governments, firms and farmers are preparing new responses, political and practical, to the major climatic changes and the challenges with respect to energy use. Market pressures still deeply affect farming and its future (in terms of price squeeze and qualitative attributes of the goods that are requested). Bonny, with French data, shows that the power of the limited number of the downstream distributors (110) who connect the hundreds of thousands of farmers to the millions of consumers must be clearly taken into account and evaluated when discussing the future of farming. Yet, with a Finnish case study, Mikkola suggests that farmers still have ways to master their participation in the food chain by making horizontal partnerships with others producers and vertical networking with large chains. Such social connections provide resources and skills to satisfy the quality and quantity demands. Posters from developing countries (Cameroon – Djamen *et al.*, China – Fok *et al.*, Algeria – Foudil, Benziouche) pay more attention to the big changes in the popular demand for food (quantity, quality, nature: more meat and milk) and the consequences of off-farm jobs for the future of family farming. Farming here is clearly connected to the population's welfare, income and employment dynamics and to the transport facilities.
- *Farming is also connected with the local society*, notably when debating how off-farm job opportunities influence family farming (Lobley and Potter 2004) or *when defining what can be multifunctional ways of farming.* Björklund and Milestad in Sweden, Hermansen *et al.* in Denmark suggest clearly that the dialogue among farmers, local communities, or local stakeholders is a condition to specify what can be productive activities, and how farmers' productive activities and services can be combined. This dialogue could lead to a definition of concrete indicators of multifunctional farming that could guide its evolution in the local context (Halberg *et al.*, 2005).
- *Farmers and farming do not represent a homogeneous world.* Learning between farmers and society is important, but learning about the diversity of farmers, their reasons, and their future potential is also a major issue (Gibon *et al.*, 1999). The local soil and climatic conditions play a basic role to explain these differences, as shown by Thenard *et al.*: livestock farmers of the Massif Central hills do not adapt their forage systems in the same ways in a granite (and drought-sensitive) region as in a volcanic one, when they adapt to

new PDO¹ cheese regulations that forbid maize silage. Farming is still dealing with natural areas, the agronomic potential of soils, saline conditions (*cf.* Brandenburg's paper), *etc.* which are not equally distributed. But farmers also do not have homogeneous attitudes when considering what style of farming they refer to, the kind of workforce (family, with paid workers or sub-contractors) their farm should be based on, or the way they will implement multifunctional farming. Ahnström and Hallgren illustrate that Swedish farmers notably differ when thinking about wild life and nature conservation programs, these programs being more or less imposed from "outside" their world. They conclude that the diversity of farmers' attitudes must be taken into account when building those conservation programs, with opened discussions between them and with other stakeholders. Even with an activity like pig production, often considered as an achievement of the industrial standardisation in agriculture, Commandeur and Casabianca show that the farming styles (Van der Ploeg 2003) are not homogeneous, neither is the idea of the future for their children. In all situations, many different attitudes of farmers can be identified, and many conceptions exist of the nature of the transformations that are needed, given the more or less uncertain times ahead. That diversity will build the future of farming.

- *Working conditions in farms are changing*, as is the workforce composition. These changes must be taken into account when considering the number of farms, the contribution of the permanent or non-permanent agricultural workforce to the rural dynamics, and the ways farmers can make choices between "get big", "get special" (Bjørkhaug) or "get diversified". It concerns particularly the future place of women as skilled workers, as active members of the decision cell with their partner for a shared activity, or as independent entrepreneurs for a separate specific activity (Branth 2002). Analysing the European replacement program in West Macedonia, Gidarakou *et al.* point at that women do have very different attitudes when entering these programs and argue their subsidised establishments with various reasons form a contribution to the growth of the farm to the development of specific activities. Bjørkhaug and Heggen recall that intensification and mechanisation have played an important role in the deskilling of women and in reducing their decisional status within the couple; qualitative interviews of Norwegian female farmers suggests that multifunctional farms with green care, tourism and small scale food production give them opportunities to valorise new skills within farms. However combining multiple activities (in and/or off farm), responding to environmental programs and market chain specifications, as well as improving work conditions: all this amounts to a big challenge for work organisation. Contributions from France (Cournut and Dedieu) and Brazil (Hostiou *et al.*) suggest that this challenge must be seen in terms of its technical content (the work to be done can be adjusted); in its social content (who is doing what and when) and in its consequences (time spent, time remaining and flexibility). Petit *et al.*, engaged in a participatory research with groups of farmers, illustrate that learning is a major issue to allow farmers themselves to design the solutions that preserve their welfare and their passions. Melberg and Berg, studying the transitions between generations in Norway underlines that if farm families still have expectations toward the young generation to take over the farm, there is a gap between the youth expectations and the life style in the contemporary farms.

All those dynamics, knowledge and learning processes lead to linked questions about how the frameworks and methods for farming system analysis nowadays could evolve. Notably farmers have to think and act in an increasingly uncertain world. The way they give consistency to their farming system must preserve its capacity of resilience. The farmers mobilize different sources of resilience (Milestad and Darnhofer, 2003) that have to be integrated in the farming system

¹ PDO: Protected Denomination of Origin.

framework of analysis. Ingrand *et al.* focus their analysis on the “relational” flexibility of French beef cattle farms: it is based on either technical or social levers: the spread of sales and the relations with cooperative or independent buyers. In a more long-term survival perspective, Darnhofer suggests to consider the farmers as adaptive managers. It notably implies to consider their ability to address changing conditions and their possibilities to initiate new development trajectories. Carlsen *et al.*, discussing the improvement of organic farming in Norway, suggest that a farm case study which involves stakeholders both within and outside the farming system could be a framework for such dialogue.

Defining the indicators of multifunctionality at the farm level, understanding the levers for work organisation, as well as the skills at stake; combining knowledge on the farmers’ attitudes, as well as on the agronomical constraints and on the technical content of farming practices; connecting farm management purposes, resilience issues and horizontal and vertical networking needs as a whole: all that is important, stimulating and all that is a challenge for pluri-disciplinary research (Holling 2001), participatory learning and new design processes for multifunctional and sustainable systems. We hope the papers presented in this section will facilitate discussions on these issues and take the argument even further.

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