
Editorial

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Biographical notes: Dominique Cairol was Deputy Head of the Department of Land Management at Cemagref from 1994 to 2006. This Department (with 95 researchers), has coordinated several European and national research projects. During this period he organised research teams in economy and agronomy that focused on sustainable development in rural areas and contributed to the conservation and adequate management of agricultural and forest areas. From 2001 to 2004, he co-Chaired an INRA, CEMAGREF and CIRAD research program on multifunctionality of agriculture and rural areas. Between 2004 and 2005, he was Coordinator of the Multagri project "Capitalisation of results on the multifunctionality of agriculture and rural areas".

Emilie Coudel, Master in Agricultural Economics, worked in Multagri (CEMAGREF) for one year to help coordinate the project. She is currently finalising a PhD in Economy (AGRO MONTPELLIER) dealing with competences for territorial development with a supervision from CIRAD 'Systèmes d'Information et Territoires' Research Unit.

Ramon Laplana is a Senior Scientist with PhD in Geography. Between 1994 and 2005, he was the Head of a Research Unit and managed a *Cemagref* research theme. Over the past 10 years, he has been in charge of studies on the linkage between agriculture and ecosystems and of the assessment of agri-environmental policies. He coordinated the FP5 funded project AgriBMPWater (Systems approach to environmentally acceptable farming).

Currently, he is involved in 4 EU projects and acts as a scientific expert for research-development programmes. He is Coordinator of the FP7 PRIMA project (Prototypical Policy Impacts on Multifunctional Activities in rural municipalities).

This Special Issue is based on some results of *MULTAGRI*, a European research project: *Capitalisation of research on multifunctionality of agriculture and rural areas*, financed by DG research under the 6th European Framework.

The concept of 'Multifunctionality of Agriculture' (MFA) emerged within the 1990s as a recognition that agriculture, beyond the production of food and fibres, provides important social, environmental and economic functions to wider society. Although it is not a new idea, it focused much attention because of its use to justify agricultural policies, contested within international trade negotiations. However, following its adoption as a guiding principle for European policies, debates shifted to its contribution to sustainability or the roles of agriculture within society. The use of the word quickly spread – in terms of meaning, use, audiences – and a whole variety of disciplines started applying the word to their studies, developing at the same time different conceptions related to multifunctionality.

For example, economists mainly speak of non-commodities, a notion that is related to issues like market failure, externalities, public good provisioning, etc. and can also be specified in the field of international trade and policy efficiency (e.g. in discussions on decoupling, cross-compliance, etc.). The multifunctional character of agriculture may also be conceived in sociological terms as the institutional arrangements and new modes of governance or as part of adjustment strategies of farm households. An agronomic conceptualisation is also possible in terms of the multiple functions that are expected from the use of resources and/or the way that taking into account these multiple functions calls for a review of interfaces of agriculture with various eco-systems and natural processes. According to each scientific discipline, topic, or country, different conceptualisations of MFA are debated and mobilised in different ways by researchers, policy makers and stakeholders.

This multiplicity of conceptions and works on multifunctionality was the starting point of the *MULTAGRI* project. Different research projects were already under way to try to clarify the concepts of multifunctionality, but none at the European level. The idea was to extend research to this level so as to have a larger base to compare conceptions from one country to another, from one discipline to another. In summary, *MULTAGRI* evaluated the state-of-the-art of existing and ongoing research and formulated, on the basis of these, a future research agenda.

Research within FP6 of the European Commission is increasingly focusing on the concept of sustainable development. For the agricultural sector, the EU society has ratified a *European Model of Agriculture* that evolves towards this new 'paradigm of sustainability', replacing the 'paradigm of productivity'. The introduction of sustainability in European agriculture policies suggests a wider set of issues. Considerable debate remains as to the specific and relevant implications of sustainable development for practical decision making.

It is clear that both terms, multifunctionality and sustainability, are interrelated, but it is important to keep in mind that they are different concepts and that the concept of

sustainability brings with it, its own theoretical complexity. There are tensions and overlaps between both concepts, because of political interests and cultural differences.

The MULTAGRI European research project: *Capitalisation of research on multifunctionality of agriculture and rural areas* took part in this debate by forwarding the conceptual assumption that multifunctionality of agriculture is a pathway towards sustainable agriculture and rural development, and therefore provides a multidimensional and transdisciplinary approach to analyse the state of the art on this field. However, the central theme of the MULTAGRI project remains multifunctionality, and therefore, sustainability is only covered through its relation to multifunctionality.

The different articles presented in this Special Issue cover all relevant aspects of the overarching theme of multifunctionality of agriculture and rural areas. They range from concepts and discourses at more general level, to the supply side of multiple functions provided by agriculture and how these can be measured, and to policies and institutions that mediate between these and how they can be evaluated. All the papers have tackled this question in a pluri-disciplinary perspective.

In the first two papers, Patrick Caron et al. explore definitions, references and interpretations of the concept of multifunctionality and its contributions to a sustainable development. They interpret the diversity of approaches and meanings of multifunctionality coming from different disciplines, epistemic communities and national concerns. However, enlarging the debate did not aim at finding a consensus on an ultimate, 'best' definition that would fit all countries and streams of thought or to decide what was right or wrong. Quite on the contrary, as Popper points out: 'What is interesting is not to discuss the definitions, but to identify the questions they raise'. In this perspective, the diversity of understandings of the multifunctional character of agriculture actually has been a richness and one of the main resources of the MULTAGRI project. By analysing disciplinary contributions and national experiences, the authors investigated and looked at different 'epistemic communities', that is, social communities that create knowledge in the field of multifunctionality. This approach should enlighten the role of different contexts and disciplinary backgrounds in particular uses of concepts, tools, policies linked to multifunctionality, to help construct a better understanding of them so as to build guiding lines for future research and policies.

In 'Farm models and economic valuation in the context of multifunctionality: a review of approaches from France, Germany, The Netherlands and Portugal', Peter Zander et al. reviewed knowledge, models, techniques and tools, that help to explain and forecast the multifunctionality of agriculture. This paper also addressed the question of what are appropriate sets of indicators for the evaluation of potential agricultural land use options. A comprehensive set of guidelines concerning requirements, feasibility and impact of different methodologies was developed.

Henk Renting et al. in 'Multifunctionality of agricultural activities, changing rural identities and new institutional arrangements' develop an overview of the multifunctional character of farm development strategies, with special attention to the range of activities involved, their relative importance and impact and their geographical distribution throughout the EU territory, notably in Eastern European countries. While the main focus was on farm-based activities, the role of SME's in delivering multifunctionality was also addressed in an explorative way. Information and data gaps in existing research and statistical systems were identified, and recommendations were made for promising future lines of research and data collection.

In the 'Review of studies on establishment and management of policies for multifunctionality', John Sumelius et al. analyse the different ways, mechanisms and goals of the setting up and management of public policies with multifunctional purposes within different national and local contexts. The authors identified the characteristics of various public policies in terms of the support they provide to the multiple roles and functions of agriculture, and examined the development of new types of markets and services based on the multifunctional characteristics of agriculture in different regions of Europe.

Karlheinz Knickel et al. identify suitable observation tools and methods for assessing different policies and regulatory frameworks. Within their paper 'Evaluation of policies in terms of the multifunctionality of agriculture and rural spaces: more integrative conceptual and analytical framework needed' the related research needs and relevant research groups working on the assessment of the relationships between policies and their impacts were identified. The main yardstick for public policies is to improve the delivery of the functions of agriculture and rural space for which there is a particular societal demand. In the assessment, the particular goals and possibilities of ex ante, ongoing and ex post evaluations and the different levels of policy evaluation (regional, national, international/EU) were taken into account.

Finally, in the last paper, Cairol et al. emphasise multifunctionality as a useful conceptual and analytical framework with research focused on three issues: the interrelations between functions, the links between agriculture and society and the relation between multifunctionality and sustainability. Research gaps are identified focusing on four points: the analytical framework constructed by MULTAGRI, governance and its evaluation, methodological development and finally on empirical issues. Insight from other disciplines, as sociology and architecture, illustrate future bridging perspectives.