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Coexistence and Confrontation of Agricultural and Food Models

A New Paradigm of Territorial Development?

Foreword by Jan Douwe van der Ploeg
With the Editorial Support of Sylvie Zasser

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Chapter 20

Governing the Coexistence and Confrontation of Agricultural and Food Models in a Territory: Paradigm, Postures, Methods



**Pierre Gasselin, Sylvie Lardon, Claire Cerdan, Salma Loudiyi,
and Denis Sautier**

This book is based on the premise that an improved understanding of the coexistence and confrontation of agricultural and food models, and thus of their interactions at different spatial and organisational scales, facilitates recognition and support for combinations of these models that can potentially be useful for sustainable territorial development. Indeed, territories are both the substratum and the result of new forms of agriculture and food production, some of which are instituted as models, whether they are analytical archetypes, desired futures or standards for action. These agricultural and food alternatives are being invented and asserted as responses to the environmental, health-related, nutritional, economic and social criticisms of a long legacy of productivist growth and heavy urbanisation. But it is not enough to categorise, compare or even support these technical, organisational and institutional innovations as independent and juxtaposed elements. Given the goal of sustainable

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territorial development, it is important to analyse and govern the conditions of coexistence between these agricultural and food models, where coexistence is conceived as configurations not only of competition, confrontation and power relations, but also of co-presence, co-evolution, complementarities, synergies and sometimes even hybridisation.

Jan Douwe van der Ploeg, Ronan Le Velly and Patrick Caron graciously agreed to read the full book and have honoured us by writing the foreword and two chapters of critical analysis. In this final chapter of the book, we do not intend to conclude or even respond to these transversal analyses. Nor does this chapter aim to circumscribe a research area that has opened up new questions for the scientific community and outlines new strategies for territorial development. We only wish to put into perspective the fundamental elements around which this research effort has been organised. First, we return to the title question of the book. Indeed, are we not being presumptuous in speaking of a new paradigm of territorial development? We then show that the authors of this book assert three different epistemological postures. Then we offer a general overview of our approach, before concluding.

1 A New Paradigm?

As Jan Douwe van der Ploeg points out in the foreword, the coexistence and confrontation of territorial agricultural and food models are no longer the same as in the past. Compared to the simple duality and stability of the configurations observed in the last century, the situations today of coexistence and confrontation are multifaceted, unstable and crisscrossed by hybrid forms. The new diversity of forms of agriculture and food systems is shaping multi-hued mosaics that compel us to undertake a close analysis of local situations. As a result, the imperative transitions that we must think about and accompany are and will be made up of partial processes that combine themselves and move in directions that cannot be predetermined. With this as a point of departure, this book invites us to take a fresh look at two central aspects of thinking about and governance of territorial development—even though it may not rise to the level of a paradigmatic revolution.

First, the hybridisation and articulation of innovative forms of territorial organisation, actors and scales lead to the emergence of new dynamics of territorial development. Organising and combining agriculture systems to address the new food challenges means calling development models into question and thinking about the coexistence and confrontation of these models. For sustainable territorial development, it is not so much the differentiation and juxtaposition of forms of organisation that are important to observe and analyse, but rather their coexistence, confrontation and hybridisation. This makes it possible, on the one hand, to make initiatives visible that are not yet known to development or support organisations, and, on the other, to offer territorial actors new tools for analysing the dynamics at work and for building collective actions.

Second, an improved understanding of the coexistence and confrontation of agricultural and food models encourages the recognition of and support for potentially useful combinations of these models for territorial development. To this end, we have proposed a framework for analysing the coexistence of agricultural and food models structured around four dimensions: specialisation and diversification (as processes and effects), innovation (as a process, a system and an impact), adaptation (as a process, a property and a result) and transition (as a transformation and a project). We show that the sustainability and multifunctionality of agriculture and food systems cannot be examined solely on the basis of the differentiation and heterogeneity of sociotechnical and socio-ecological forms. Of course, this reading of social, technical and environmental heterogeneity is essential not only for thinking about the environmental, social and economic pillars of development, but also for criticising its values as well as its perverse effects (socio-economic inequalities, environmental and health damage, etc.) and for rethinking the governance of our territories. However, too little attention is paid to the interfaces and interactions between the diverse and dynamic forms of agricultural and food systems. It is in this setting of frictions, complementarities and co-evolutions of agricultural and food models, at the scale of rural, peri-urban and urban territories, and in articulation with higher levels of organisation, that a reshaping of tomorrow's challenges and of the 'theories of action' to address them is taking place.

2 Three Epistemological Postures

We have already identified (Gasselin & Hostiou, 2020; Gasselin et al., 2020) the three different epistemological postures that researchers take when considering the coexistence and confrontation of agricultural and food models. These postures reflect the authors' contrasting positions on knowledge, actors and action. We thus distinguish between functionalist coexistence, coexistence based on power relations, and coexistence based on transition.

The first family of studies examine the functional complementarities between systems and the properties that result from these interactions. These studies investigate, for example, how interactions between agricultural models optimise heterogeneous resources, in particular in territories in which the environmental, planning and social organisation conditions vary. Other studies explore how hybridisations between agricultural models contribute to an increase in the number of innovation hubs and how they are—or are not—favourable to sustainable development. Interactions between agricultural models can also build up agricultural systems' adaptation abilities and make territories more resilient, for example in their food supply capacities. In this family of studies, the researcher pursues a functional and systemic analysis of the situations of coexistence of agricultural and food models.

The second family of studies examine the power relationships between actors and the conditions propitious to good governance of a diversity of agricultural and food

models. These studies thus assess the effects of domination or the ways to rehabilitate silenced identities and fight against marginalisation. They aim to denounce and resolve situations of exclusion through criticisms of power relations (economic, political and social).

Finally, the third family of studies view coexistence as a situation of transition or transformation of agricultural or food models. The analysis pertains to trajectories of change that have to be planned and managed. The challenges are then to describe and support changes that are more or less radical (as opposed to adaptative), more or less selective (as opposed to inclusive) and more or less specialised (as opposed to diversified). This type of study investigates the management of transitions.

This categorisation of epistemological postures has the merit of providing indications of the level of the researcher's commitment to change and, in so doing, drawing a gradient of greater or lesser politicisation of issues that interest him or her and of the analytical frameworks mobilised. However, these three epistemological postures are not mutually exclusive. For example, Claire Cerdan (Chap. 1) analyses the evolution of power relations between, on the one hand, the actors of the agro-industrial model and, on the other hand, those of the on-farm and artisanal production model. But she also emphasises that the artisanal projects benefit from the know-how acquired during the years of specialisation on farms and in industries. In this way, she highlights the advantages of this functionalist coexistence. Kae Sekine (Chap. 16) follows the same line, showing how the multinational company Dole unilaterally decides to close and relocate its farms in the face of resistance from local people in Japan. She also examines the functional interactions when the multinational uses excessive amounts of mineral nitrogen or large quantities of pesticides that are detrimental to local family farming and pose a risk of water pollution. For their part, Philippe Baret and Clémentine Antier (Chap. 14) propose the use of an analysis grid to assess the intensity of agroecological transitions, according to how radical are the innovations concerned and how inclusive/exclusive is the group of actors promoting them. Thus, these authors, while dealing mainly with transition processes, also recommend an analysis of the power relations between actors in innovation niches and those in the dominant model. These illustrations show that the researchers often adopt hybrid epistemological postures in the studies in this book, even if each of the studies leans primarily towards one of the three postures. Moreover, the epistemological posture of the researchers varies not only according to their studies, but also over the course of their scientific trajectory (Petit et al., 2018).

3 A Renewed Approach

In this way, the analysis of situations of coexistence of agricultural and food models invites us to renew our fundamental thinking on territorial development, and indeed its governance. The principles set out in the previous two sections pose veritable analytical and methodological challenges. We start by reminding ourselves of the importance of use of the concept of agricultural and food model and the conditions

under which this is possible. We then show that the analysis of ‘situations of coexistence’ is organised within a systemic framework and makes it possible to investigate the controversies that run through them. Finally, we present a summary diagram of our approach.

3.1 *From the Model to the Analysis of the Concrete System*

The case studies presented in this book underscore the importance of identifying the diversity of conflicting agricultural and food models in territories, identifying the actors who promote or criticise them, and characterising the arguments deployed in favour or against these models. The agricultural and/or food model is a frame of reference (political, technical, economic, etc.) constructed by actors or researchers and guides their thinking and actions. Muller (1990) suggests that we consider it as a cognitive and normative framework shared by actors that provides keys for interpreting reality and, as a result, guides action in the field of public action (which refers to the concept of project as mobilised by Ronan Le Velly, Chap. 18). Thus, the concept of the frame of reference proposed by Muller (*ibid.*) is very close to that of the model as defined in the book’s introduction in its three acceptations (archetype of an observed reality, desired or criticised future, set of standards for action). Gisclard and Allaire (2012) show us that the frame of reference and the underlying model are embodied in a process of institutionalisation that relies as much on the substantiation of ideas and norms as on the transformation of public policies: ‘The institutionalisation of family farming, as a legitimate social form and productive model, is the product of a transformation of the representations associated with small producers, which owes as much to the dissemination of new ideas, frames of reference of rural development programmes, at the international level, or of national political contingencies, as well as to a progressive organisation of the professional interests of Argentinian family producers’ (*ibid.*, p. 214). This is also the general sense of Christophe Albaladejo’s proposition (Chap. 10), which hypothesises that the model results from the convergence of four changes: in the ‘social agenda’, in the markets, in the ‘public agenda’, and finally in science and technology.

This is why the cognitive and/or normative frameworks that constitute models at a given moment provide different types of actors, located at different territorial levels, with elements for interpreting and decoding the complexity of reality. These same frameworks also influence the objectives and measures of public action. Several recent collective studies have shed light on the impact of models¹ on agricultural and environmental policies: international agronomic models are shaping land use (Loconto & Rajão, 2019); modelling is becoming a field of competition between scientific actors seeking to influence policies (Aykut et al., 2019); and interest groups are resorting to modelling to influence public environmental policies (Demortain, 2019).

¹ Understood in these studies as instruments of quantification and prediction.

We therefore agree with Ronan Le Velly's warning (Chap. 18): 'It is therefore advisable not to put too much faith in models, not to trust them blindly as to their capacity to portray reality or to guide action. Do not believe in them too much ... but believe in them all the same!' We are firmly convinced of the importance of characterising and interpreting these models, but also of focusing on analysing concrete reality, especially 'systems of concrete action', by paying close attention to practices, strategies and powers (Crozier & Friedberg, 1977). A detailed understanding of these practices and strategies, in their diversity, can shed light on situations of coexistence and their potential for sustainable territorial development. Jérémie Forney puts it well (Chap. 15): 'When an ideal-type is accorded too much importance, it masks specificity and originality. [...] once put into practice, a model becomes anchored in space and time, and its limits dissolve in the richness of reality.'

3.2 *A Framework for the Systemic Analysis of Situations of Coexistence*

In this book, we have proposed a framework for analysing the coexistence of agricultural and food models that is structured according to four dimensions (see the General Introduction and Fig. 1): specialisation and diversification (Part I of the book), innovation (Part II), adaptation (Part III), and transition (Part IV). Each of these dimensions is shown to be relevant and problematised by a state of the art, and then illustrated by case studies, which are summarised and subjected to a transversal analysis in the introductory chapter of each part. Let us recall here the fundamental elements that justify each of these dimensions:

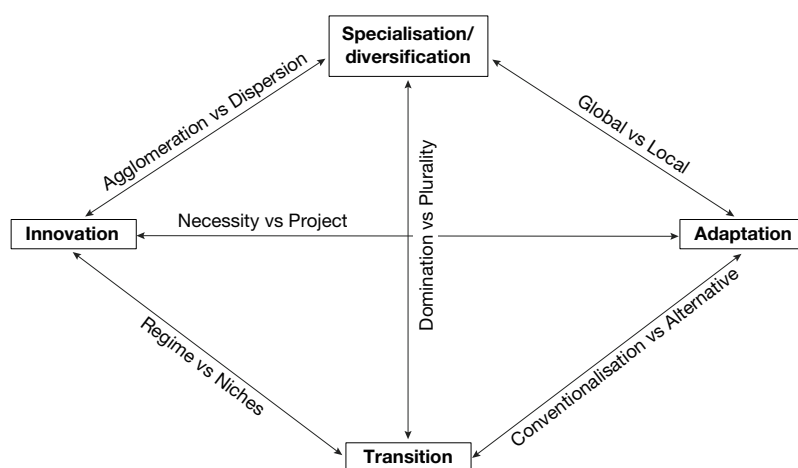


Fig. 1 Framework for analysing the coexistence of agricultural and food models in territories. Based on Gasselin et al. (2020)

- Analysing the specialisation/diversification processes requires us to articulate the scales (time, space and actor organisations) of agricultural and food models, as well as to study the relations between the territory concerned and wider scales (region, nation, world). It is also a matter of exploring the relationships of domination, even hegemony, and marginality of agricultural and food models;
- Paying attention to the innovation processes at work in the interactions between agricultural and food models offers an original view of territorial and social innovations, and reveals useful hybridisations or, on the contrary, the roadblocks to innovation;
- Examining the capacity of agricultural and food systems to adapt is to look for interactions, complementarities or competition between forms of organisation and the way in which they can be combined, or even hybridised, at a territorial scale;
- Finally, considering transitions in terms of the coexistence of agricultural and food models that are institutionalised in science, the political arena, the market and society makes it possible to envisage plural configurations in which various models coexist in a territory, without one eliminating the others.

Each of the four dimensions provides a unique perspective on the conditions under which agricultural and food models coexist, but each of these four dimensions also interacts with the other three. Thus, several authors in this book highlight the transversal aspects between the four dimensions, which we illustrate below on the basis of the findings of certain chapters (see the double-arrowed lines in Fig. 1):

- ‘Agglomeration versus Dispersion’: Frederic Wallet (Chap. 3) highlights the interfaces between processes of specialisation/diversification and those of innovation in European policies. He shows that specialisation with a coherent diversity of sectors (‘smart specialisation’) allows the leveraging of knowledge production and diffusion processes and thus the stimulation of innovation between various value chains;
- ‘Necessity versus Project’: in her study of the Faxinal Emboque community in Paraná state, Brazil, Vanessa Iceri (Chap. 9) shows that innovation processes can promote an increase in the adaptation capacities of actors, productive systems and territories, either through a voluntary project or through an approach that has been imposed to deal with unexpected hazards;
- ‘Regime versus Niches’: Philippe Baret and Clémentine Antier (Chap. 14) propose a cartography of the dynamics of the agroecological transition, making it possible to classify innovations according to how radical and/or inclusive they are. In so doing, they invite us to move away from a binary reading of ‘innovation versus dominant regime’ in order to plan collective trajectories capable of orienting the agroecological transition;
- ‘Global versus Local’: In her study of pig and poultry farming in Santa Catarina state in southern Brazil, Claire Cerdan (Chap. 1) shows that ‘diversification and specialisation [of activities and actors] are part of the same process of adaptation of productive spaces to the global system’;
- ‘Conventionalisation versus Alternative’: Claire Lamine (Chap. 11) reports on the recompositions of the territorial agrifood system in southern Ardèche (southern

France) and the ecologisation of practices. These recompositions manifest through a combination and hybridisation of conventional and alternative forms, both of individual farmers' trajectories and in collective action. Thus, 'producers who might have been considered opposites in their production and marketing approach [...] are now converging somewhat in their strategies, practices and visions';

- 'Domination versus Plurality': in their study of the Vietnamese dairy sector, Guillaume Duteurtre and his colleagues (Chap. 13) show that the coexistence of peasant farms and industrial firms in a territory results from pragmatic adjustments in land management and appropriate local partnerships. This balance between domination and plurality is a consequence of 'power relations, while at the same time being part of market dynamics driven by demand, techniques, investments and cognitive models'. This shows how 'transition leads to parallel trajectories, i.e. the superposition of several regimes'.

These transversal aspects underpin the systemic nature of the proposed analytical framework, essential for refining an integrated approach to territorial development. It should be emphasised that the hybridisations generated at the interface of agricultural and food models are sometimes the manifestation of a 'conventionalisation' of innovation niches due to the dilution of the actors' initial principles and the primary aims of the innovation. Hybridisations then take place to the benefit of powerful actors who capture the innovation rent generated by the pioneers, who are often in situations of social, economic, territorial and political marginality. It is therefore necessary to keep a critical eye on the ways in which these hybridisations emerge and function. The forms of political, socio-professional and citizen regulation are essential points of reference for investigating controversies, managing conflicts and pursuing the goals of sustainability, ethics and equity.

3.3 Considering Situations of Coexistence and Investigating Controversies

Any analysis of a 'situation of coexistence' of agricultural and/or food models is predicated on identifying the actors and/or systems, the nature of interactions, the objects and the 'setting' under consideration. This exercise is necessary not only to define the scales envisaged, but also to determine the disciplines that will be best equipped to answer the questions raised. The ambition to formulate a framework for analysing situations of coexistence of territorial agricultural and food models led us to formulate generic hypotheses (see the Introductions to Parts I to IV). Therefore, they have to be fine-tuned and adapted to the contexts and issues of the proposed fields of study. It is then imperative to examine dispassionately each of the agricultural and food models present, something that many researches find hard to do since they are focused on a single model. Finally, the coexistence of agricultural and food models inevitably brings with it controversies in which different actors ally or oppose each other to legitimise their own choices and often discredit those of others. The

characterisation and analysis of these controversies at the local level are therefore essential to recognise not only what makes a model coherent, but also its divergences and the conditions of interaction with others (Feuer et al., 2020).

3.4 A Comprehensive but Demanding Approach

Our central premise is that a better understanding of the situations of coexistence and confrontation of territorial agricultural and food models is necessary to govern the ecological, food, social and health transitions that are urgently required. The new diversity of these models requires us to be more lucid about what is happening in their interactions. Figure 2 shows a summary diagram of the methodological principles put to the test in this book.

We can summarise our methodological approach in three main parts: analysing situations of coexistence and confrontation of agricultural and food models according to a four-dimensional analytical framework; combining three postures of thought and action; and encouraging the recognition of and support for combinations of models that are potentially relevant for sustainable territorial development.

4 Conclusion

The successful coexistence of agricultural and food models in territories depends on the satisfaction of demanding conditions. First of all, it is necessary to increase the capacity of actors to control the processes and activities that concern them in their territory (Deffontaines et al., 2001). This applies in particular to those who are marginalised by inequalities in access to resources, the inequitable sharing of wealth and asymmetries in economic, political, media and symbolic power. The suitable resolution of controversies between the proponents of various agricultural and food models depends on this newfound capacity (Sen, 1987; Dubois & Mahieu, 2009).

In this book, we show that even though the coexistence of agricultural and food models in territories is addressed in the scientific literature, it has never been theorised as such. We propose and implement a framework for analysing situations of coexistence and confrontation based on four dimensions (specialisation/diversification, innovation, adaptation, transition) with the goal of taking a fresh look at agricultural and food development in rural and urban territories.

Analysing and supporting territorial development by taking the coexistence and confrontation of agricultural and food models into account reveals new levers for action: promoting complementarity between specialisation and diversification at various spatial and organisational scales; combining innovation and the tangible and intangible heritage specific to the various agricultural and food models; building up the capacity to adapt in the complementarity of agricultural and food models; and undertaking a transition to new territorial development configurations.

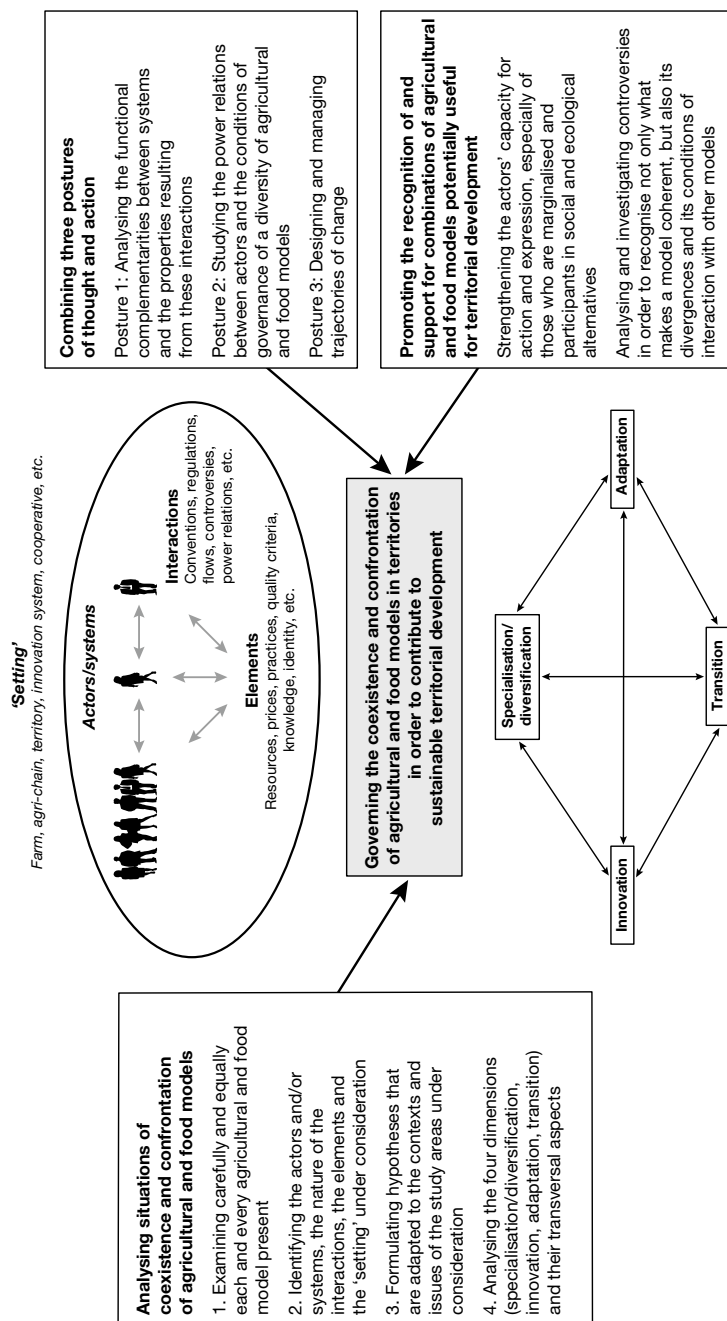


Fig. 2 Governing the coexistence and confrontation of territorial agricultural and food models: analytical and methodological principles

But the coexistence of agricultural and food models also poses the challenge of inventing new territorial development governance systems and building new skills. Indeed, taking the coexistence of agricultural and food models into account amounts to thinking of the place of every individual and of modalities of living together in the territory concerned. It is a matter therefore of thinking about development priorities defined by values (ethics, in particular with regard to future generations, and equity, in particular in terms of social, economic and spatial justice) and sustainable development objectives (peace, food sovereignty, climate change, employment, etc.). The governance of the coexistence of agricultural and food models requires mediation as well as innovations and learning to promote functional complementarities between systems, come up with innovations propitious to sustainable development, rein in the effects of domination and fight against marginalisation, and finally transcend the disparities of the actors' projects in order to facilitate living together.

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