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Regional Development in Rural Areas Analytical Tools and Public Policies



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André Torre · Frédéric Wallet

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Analytical Tools and Public Policies



André Torre Paris France Frédéric Wallet Paris France

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Contents

1	Introduction				
	1.1	The Profound Transformation of Rural Areas Leads			
		to Fuzzy Representations and Boundaries	2		
	1.2	Diversified, Fragmented and Highly Contrasting Areas	5		
	1.3	Public Policies Dedicated to Rural Development			
		are Undergoing Important Changes	7		
	1.4	Objectives of This Book	8		
	Refe	erences	10		
2	Disr	outed Notions and Definitions in Rural and Regional Studies	13		
	2.1	The Notions of "Rural" and Rurality: What Is at Stake?	14		
	2.2	A Review of the Notion of Development	20		
	2.3	On Regions and Territories	22		
	Refe	vrences	23		
3	From the Early Literature to Contemporary Approaches				
C		egional and Territorial Development	25		
	3.1	Balanced Development Approaches: Homothetic			
		Growth and Economic Base Theory.	26		
	3.2	Unbalanced Approaches	27		
	3.3	The Systemic Approach: Pioneers of Territorial Development	28		
	3.4	Development as a Dynamic Process Linked to Innovative			
		Behaviours	32		
	Refe	erences	33		
4	Policies of Regional Development and Planning.				
	4.1	Approaches in Terms of Regional Balance and Growth	35 36		
	4.2	Approaches in Terms of Inter and Intraregional Inequalities	38		
	4.3	Giving Innovation Pride of Place: The Era of Technology	- •		
		Parks and Competitiveness Clusters	39		
	4.4	A Trend Towards Decentralizing Public Policies	41		
		e			

	4.5	Territorial Governance as an Emerging Form of Territorial Dynamics Regulation	44		
	Refe	prences	47		
5		earch of Rural Development	51		
	5.1	The Paradigm of Agricultural Modernization: A Technicist			
	5.0	Approach Focused on Agricultural Production.	53		
	5.2	Challenges to the Technicist Paradigm and Recognition	5 4		
	5.3	of the Human and Social Dimensions of Development Consideration of Local Diversities, Collective Competencies	54		
		and Rising Demands	55		
	5.4	The "New Paradigm"	57		
	5.5	Approaches to the Question of Development			
		in Rural Analyses	62		
	Refe	erences	63		
6	Rur	al Development Policies. The European Example: A Long			
	Jour	rney Towards Integration and Sustainability	67		
	6.1	The CAP Before 2000: The Gradual Construction			
		of a European Rural Development Policy	70		
	6.2	Policies of the 2000s: Affirmation of the Importance			
		of the Territorial Dimension and Growing Environmental			
		Concerns	72		
	6.3	Greater Visibility for Regions and Territories			
	<i>с</i> н	in European Rural Development Policy	74		
	6.4	Europe 2020 Policy: What Will Be the Role of Rural			
		Areas in the Context of Smart Specialization?	77 77		
		6.4.1 Smart Specialization: The Concept6.4.2 Smart Rural?	78		
	6.5	New Approaches to Rural Development.	82		
		prences	85		
			05		
7	What Future for Rural Areas? Scenarios for Possible				
		elopment Paths	87		
	7.1	Towards a Preservation of Agricultural Activities?	89		
	7.2	The Unavoidable Progress of Peri-urbanization	93		
	7.3	Intensification of Industry and Business	96		
	7.4	The Countryside: A New El Dorado for the Service Sector?	99		
	7.5	Mixed or Competing Land Uses: An Arena of Conflict and Segregation?	101		
	Refe	and Segregation	101		
0					
8		clusion. Rural Development in the 21st Century	105 110		
	Rele	rences	110		

Chapter 1 Introduction

Abstract Three main reasons require to look closely at rural areas and to analyse rural development and policies: they represent the major part of world's surface area; they are the object of strong competition between and within regions and countries; they contain almost all the resources necessary for human existence. They are therefore central to the public policies and strategies of interest groups and nations and their future is an inescapable issue on the agendas of policymakers. decision-makers and researchers. Nowadays rural areas are facing two fundamental types of change, suggesting that there is no longer a dominant model: they are subject to increasingly strong influence from cities and urban populations; competition for natural resources located in rural areas plays a key role in current development policies. The rural world appears as a mosaic of highly diverse socio-economic configurations and spatial distribution patterns, marked by a diversity of development paths, whereas public policies dedicated to rural development are undergoing important changes. The goal of the book is to provide tools for addressing the question of rural and peri-urban development, whether through analytical thinking or public policy development, on the basis of two distinct but overlapping approaches:--regional development approaches---especially regional science-on the one hand; and studies on rural dimensions and policies, on the other.

Keywords Local populations • Natural resources • Regional development • Regional science • Rural areas • Rural development policies

The move into the 21st century coincided with a rising awareness that over 50 % of the global population now lives in cities and that these may be the future of humanity; it might therefore seem surprising, and even irrelevant, to focus on issues pertaining to the development and future of rural areas. Yet three main reasons have prompted us to look closely at these areas and devote a book to an analysis of rural development and the policies associated with it:

- The first reason is that rural areas are constantly changing, represent the major part of world's surface area—including 37.7 % of all agricultural land—and are home to approximately 3.4 billion inhabitants, i.e. 46 % of the global population (according to 2014 World Bank statistics¹), making them an essential player in the present and future of humanity and Earth;
- The second is related to the fact that they are characterized by high diversity between and within regions and countries; they are highly coveted and are the object of strong competition between nations and regions;
- The third is that they contain almost all the resources necessary for human existence, such as daily food, sources of energy, the metals and polymers necessary for manufacturing, and the oxygen they absorb. They are therefore central to the public policies and strategies of interest groups and nations.

Beyond the historic and central role they still play in terms of production volumes or population, rural areas have always been central to the future evolution of the planet, and are undoubtedly critical in terms of sustainable development for the future. This is evidenced by conflicts over questions of land ownership, and in particular by the massive land grabbing conducted in Africa by various countries (such as China) in the hope of being able to cultivate the acquired land and thus meet the food needs of their population, or in anticipation of future food crises. Another, less obvious, example is that of the tremendous demand for recreational and natural spaces by urban populations, or that of concerns for the future caused by rapid land consumption and artificialization. A further example still is that of the debates on the future of the Amazon region, which is not only the green lung of the planet and a biodiversity reserve, but is also an extraordinary reservoir of mineral and agricultural resources for the populations of the Americas and beyond.

The future and development of rural areas are thus inescapable issues on the agendas of policymakers, decision-makers and researchers—issues which require thorough analysis and prospective studies followed by appropriate development policies. This is precisely the subject of this book, which aims to review the approaches to territorial and regional development in rural and peri-urban areas, together with related policies and their respective scopes.

1.1 The Profound Transformation of Rural Areas Leads to Fuzzy Representations and Boundaries

Discussing issues related to rural areas often leads the reader—and the general public even more so—into the realm of dreams and fantasy. It is difficult to have an objective and serene perception of these places and their human or non-human populations because of the imaginary dimension surrounding them. Very different

¹http://data.worldbank.org/topic/agriculture-and-rural-development.

and sometimes strongly opposing views confront one another, relayed by the media or public authorities, who are looking for simple and powerful images to convey essential values or particular messages.

A number of successful popular movies, such as *Babe* and *Into the Wild* reflect this opposition and present extreme views of the rural world, depicted in some cases as a gigantic farm, in others as a natural space of freedom, both magical and wild, and in others as a remote, backward—and even barbaric—other world, as in the movie *Deliverance*, for example.² These representations have proved to be influential. In an interesting overview, Halfacree (1993) listed a number of terms synonymous with "rural", or rather what he calls "spatial imaginaries", and which all correspond to various fantasized representations of those spaces. Indeed, the words and phrases *countryside, wilderness, outback, periphery, farm belt, village, hamlet, bush, peasant society, pastoral, garden, unincorporated territory, open space*, among others, refer to different and sometimes conflicting conceptions of rural land, and contribute to the view that these areas are fragmented and somehow difficult to capture and define.

Thus, if "the rural" presents an image that is simultaneously seductive and blurred, it is undoubtedly because it refers to a collective imaginary, and reminds each of us of our roots, or those of our ancestors: we all come from this world. But, especially today, it is also because "the rural" is an evolving world, subject to constant and sometimes contradictory changes. More specifically, *rural areas are facing two fundamental types of change that have slowly but surely disrupted the order of forests and meadows, which for so long seemed eternal and immutable.*

1. Rural areas are subject to increasingly strong influence from cities and urban populations

Modern cities contribute 80 % of the global GDP, occupy 3 % of the world's land area, consume 75 % of its natural resources, and account for 60–80 % of global greenhouse-gas emissions. Cities are essentially concentrations of people who do not produce their own means of subsistence, therefore representing a concentrated demand for food, and appear to be strongly connected to rural and peri-urban areas and their inhabitants. Agriculture is crucial for these cities with regard to food input and recycling processes, especially in developing countries: the question of food sovereignty is high on the agenda for public policies and policymakers, and raises the question of the sustainability of current food supply chains

 $^{^{2}}Babe$, a film by Chris Noonan, released in 1995, depicts an idyllic farm where a pig promised to slaughter manages to build an individual destiny by taking responsibility for the herd of sheep belonging to its owner. It responds to a vision of an agricultural rural world. By contrast, *Into the Wild*, a Sean Penn film released in 2007, shows a young man who goes into nature in order to achieve happiness in isolation and return to the wilderness. It responds to a naturalist and essentialist view of the countryside. *Deliverance*, a John Boorman film released in 1972, recounts the escapades of city dwellers whose trip on a river turns into a nightmare and reveals their unsuitability to both natural places and their inhabitants. All three are based on very successful books (Dickey 1970; King-Smith 1984; Krakauer 1996).

for urban populations. Urban residents appreciate the potential of rural areas in terms of opportunities for tourism or nature activities, and wish to preserve parts of these areas or turn them into recreation zones.

At the same time, and somewhat paradoxically, urban sprawl leads to massive consumption of agricultural land, whose quality makes it attractive for development. Ultimately, urban growth has given rise to peri-urbanization phenomena: city peripheries are increasingly made up of spaces that can be described as partially urbanized, and mostly result from an interpenetration of residential areas, transport infrastructure, natural areas, gardens and farmland. The term "rural" must now considered alongside the term "peri-urban" in order to define areas where there are various degrees of interpenetration of city and country, but without a clear distinction between the two.

As a consequence, the countryside has gradually lost its traditionally dominant role, becoming a mere equal to cities, and is now dependent on the development, preferences and potential demand of urban areas. Where rural growth occurs, it is due to the expansion of nearby cities or more long-distance urban demand for rural products, such as rural tourism and experiences. This has important implications for rural development policies. Traditional rural resources, arable land and growing forests are used for the production of agricultural and wood products in industries that employ fewer and fewer people. In the global, urban knowledge economy, other resources are necessary for the development of the countryside. Most importantly, in developed countries, the resources that now matter are no longer those necessary for primary production but those that can provide an attractive living and leisure environment, and that have development potential for the residential, tourism and experiential industries. New urban-rural relations are not primarily based on the biological need to get food, wood for building houses, or fuel to cook or to heat houses. Instead, they are mainly based on social needs and demands.

2. Competition for natural resources located in rural areas, including land, plays a key role in current development policies and will determine the future strategic development of these areas

This intense competition has its origins in both populations' behaviours and the characteristics of the areas in question. With regard to the former, urban residents' desire for nature and for new spaces for tourism and recreation leads them to covet rural land, for holiday or conservation purposes or to transform them into tourist areas. Meanwhile, the extraordinary amounts of resources present in these areas suggest that they are highly demanded consumer goods. Two main categories of resources are in demand: first of all, the land itself, over which different types of land users compete; this applies to agricultural areas and forests, as well as zones intended for housing, transport infrastructure or industrial facilities. Second, areas beneath the land surface are also very much sought after, for the water and extractive resources they contain.

This wide variety of land uses and increasing demand from urban populations can lead to local tensions and sometimes multiple forms of land-use conflict. The first question raised is that of the urban sprawl problem and therefore also of peri-urbanization, which affects the costs of commercial leases and housing, as well as that of their maintenance and construction. But access to land is also especially crucial for the maintenance of agricultural and forestry activities. And from a social perspective, it has an influence on factors such as social capital, segregation processes, the structuring of communities and rural depopulation. Finally, in environmental terms, it raises questions such as the relations between the locations of economic activities, the regulation of ecosystems, and the consequences of land artificialization. This increasing complexity raises further questions surrounding the governance or management of rural and peri-urban areas and their role in development processes (Drabenstott et al. 2004), which should benefit local populations while contributing to regionally equitable growth.

1.2 Diversified, Fragmented and Highly Contrasting Areas

These two processes, marked in particular by change in urban–rural relations, clearly suggest that there is no longer a dominant model of rural and peri-urban zones. Instead, the rural world could be likened to a mosaic of highly diverse socio-economic configurations and spatial distribution patterns, marked by a diversity of development paths and relations with cities. There are many possible land uses for rural and peri-urban areas—for example, agriculture, natural spaces, forestry, transport infrastructure, waste-management facilities, business and industry infrastructure, tourism infrastructure—and the expansion of housing and urban agglomerations into surrounding areas plays an increasingly important role in determining these land uses.

Consequently, the question of the future and development of rural areas is akin to a complex and sometimes intriguing puzzle. Indeed, aside from the key role rural areas will continue to play in a highly uncertain, globalized future, they can hardly be considered to be a harmonious and homogeneous whole. The differences and disparities between them are significant and can be grouped into three main categories of inequality:

- Living standards in rural regions clearly vary depending on whether they are part of developed, emerging countries or countries developing at a slower pace. The inequalities in question correspond to those observed in cities, and also in other types of areas, worldwide. The affluence of some Amsterdam suburbs or English counties contrasts with the utter poverty of people living in the outskirts of Manila or remote provinces of Vietnam, for instance.
- The high diversity of surface and underground resources and climates implies that different areas are used for different functions, thus turning them into

different types of areas, ranging from veritable El Dorado to territories marked by relegation or desertification. The fertile soils of the Midwest Plains and the extensive oil resources of Abu Dhabi are the polar opposites of the extreme poverty of Somalia or of certain remote areas of China.

- The varying distances between rural areas and cities or urban agglomerations lead to significant inequalities and differentiated access to wealth. While some rural areas remain isolated and remote from population agglomeration and tourist activities—to such an extent that they remain subject to poverty concentration and massive depopulation—others, on the contrary (such as coastal regions of France), become holiday or retirement destinations, and gain in wealth by capturing revenue generated by work and production undertaken in other regions.

This has a dual fragmentation effect, not only between different rural areas but within them. These forms of fragmentation cause many disparities, and even inequalities, at national and local levels:

- Diversity among rural areas is growing. The era when rural land consisted mostly of natural areas is mostly over. Instead, we can observe a specialization of rural land around dominant uses. Of course, there are still land areas specialized in farming or consisting of natural spaces—particularly in traditionally rural or remote regions—that are still mostly populated by people who have historically lived there. But, as mentioned above, there are also "peri-urban" areas, areas devoted to tourism and recreational activities, and areas experiencing major population changes through the arrival of new types of residents, notably "rurbans" and retired people. This is the case, for example, for rural French and Spanish villages into which communities of wealthy English immigrants move and develop. Situated at various distances from cities, these places have different comparative advantages, which make them attractive to different types of population with different needs and expectations.
- New diversity within individual rural zones. Diversity within rural areas is increasing: the homogeneity that used to define these areas is decreasing, particularly in developed countries, and is being replaced by the coexistence of different functions, which is often problematic. Even areas with one dominant function now tend to become less homogeneous, in line with the different wishes of their increasingly diverse populations. Peri-urban pockets are forming around country villages. Small towns located close to natural areas are engaging in tourism activities. Mineral extraction and farming coexist in the same areas. Peri-urban agriculture is growing alongside the transport and energy infrastructure serving cities. All these different land uses are sources of tension and conflict between groups that promote or benefit from them.

1.3 Public Policies Dedicated to Rural Development are Undergoing Important Changes

Given that rural areas contain almost all the resources necessary for human existence, they are the subject of intense policy discussions, in addition to the reflections and interests of different groups of stakeholders. Specific public policies, initially based on a functional approach equating rural areas with agricultural areas intended for food production, were aimed at promoting intensive/high-yield agriculture, through the modernization of farms and production tools. The objective, which was often met, was to reinforce the productivity of rural areas in order to increase the amount of resources produced. Gradually, those policies were extended to include other activities such as manufacturing (including the food industry) and craft trades, as well as new motors of rural development such as tourism. Meanwhile, increasing attention was being focused on the living conditions, needs and demands of rural populations.

From the 1980s onwards, and under the dual influence of the approaches advocated by the neoliberal school of thought and calls to give local authorities and communities more autonomy, the notion that decentralization and regionalization processes constituted effective solutions in terms of development became increasingly widespread. Yet rural policies have remained, for all intents and purposes, based on approaches that are specific to individual sectors (agriculture, industry, tourism, etc.) or fields of activity (e.g. education, childcare, postal or medical services), and have only more recently incorporated environmental issues. The solutions advocated have typically been based on traditional intervention principles and tools, and have proved disconnected or even contradictory. This calls into question the effectiveness of sector-specific policies designed without taking into account issues specifically related to rural areas, and has brought the need for place-based policy to the fore.

Reforms to the Common Agricultural Policy (CAP) of the European Union strikingly illustrate those transformations and findings. Initiated in an attempt to modernize farms and support both the market and producers' incomes, these reforms were later complemented by measures aimed at strengthening the skills of farmers. Further measures were implemented in the early 1990s and 2000s, laying emphasis on product quality and rural development, and, later, environmental issues. These measures are still disconnected from the regional policy of the European Union, and focus essentially on agricultural and sector-specific concerns, even though a second pillar concerning rural development was added to the CAP, as well as three key structuring elements pertaining to the competitiveness of farms and territories, environment and quality of life rather than to sector-specific issues.

More recently, the recognition that humankind depends on services rendered by ecosystems has caused decision-makers to take account of environmental issues in rural development policies. Accordingly, the Millennium Ecosystem Assessment (2005) identifies four types of services provided by ecosystems: provisioning services (food, water, timber, fibres, etc.), regulating services (climate regulation,

water regulation, disease regulation, managing floods and droughts, etc.), support services (nutrient cycling, soil formation, primary production, etc.), and cultural and leisure services (aesthetic, spiritual, recreational, etc.): their economic value and the definition of policies and regulatory measures for their conservation and development are still the subject of debate. The question at stake is that of the contribution made by the different types of resources and public goods to the sustainable development of territories (Atkinson et al. 2007; Batabyal and Nijkamp 2008). Also at stake is the need to gain deeper insight and formulate courses of action that take into consideration the interdependencies between the developmental pathways of different territories. This has been outlined, for example, in studies on ecological debt (Martinez-Alier 2002), import/export (Pearce et al. 1996) or internal/external sustainability (Nijkamp et al. 1992), the definition of efficient property regimes for environmental resources (Vatn 2001), and on territorial metabolism (Barles 2009).

1.4 Objectives of This Book

Understanding the processes of rural development—particularly populations' expectations and territorial development projects—and the combination of the public policies intended to support them is necessary to lay the groundwork for their future. This requires gaining a deeper understanding of the scales on which the phenomena of rural development play out, understanding the ways local, regional and supraregional spaces are interconnected, and considering the connections between rural, peri-urban and urban territories. This work must call into question the relevance of the traditional dichotomy between town and country, and focus greater attention on phenomena of systemic and functional interdependency.

Those considerations coincide with more general issues concerning development processes. In fact, the question of regional—and, later, territorial—development lies at the intersection of two traditions that have grown in importance since the second half of the 20th century. On the one hand, development—a constant object of study for researchers, and particularly economists—has been scrutinized, studied and modelled in its many dimensions, especially geographic, ranging successively from the nation, to the regions and finally to local territories (Capello 2007). On the other hand, and following the decentralization processes which all nations have undergone, local development techniques and engineering practices are progressively being implemented, leading to the construction of trial-and-error based development heuristics. Promoted by decentralized public policies or by policies decided at territorial levels, but also by the actions and practices of many development experts who work with economic actors and inhabitants, those engineering techniques contribute to the diffusion of the developmentalist ideology and its successive blueprints.

As a result of these movements, a considerable amount of knowledge and methods, all concerning regional or territorial development, is being produced. But associated approaches seem so disconnected that it is difficult to summarize the methods concerned (Rowe 2009). They range from good practices, benchmarking processes and territorial diagnoses to economic models and theories on human capital and territorial governance. This complexity increases further if we focus more specifically on rural development processes, for at least two reasons: first, the term "rural" has itself now become ambiguous and controversial; but even more ambiguous are the relations between regional, rural and territorial development— are they all various forms of the same movement, mechanisms that slot together, or are they independent processes?

The goal of this book is to provide tools for addressing the question of rural and peri-urban development, whether through analytical thinking or public policy development. The rationale underlying the project is that, in order to address the question of development in rural areas adequately, two distinct but overlapping approaches must be used simultaneously:

- regional development approaches-especially regional science-on the one hand; and
- studies on rural dimensions and policies, on the other.

The aim is to shed some light on these questions and, in particular, to gain a better understanding of the links between issues of regional or territorial development and issues of rural development.

Indeed, regional development studies have, since the 1950s, sought to formulate models of development and growth, and to identify pathways and methods for helping regions in difficulty, or lagging behind in terms of development, to rise from stagnation and promote dynamics of economic growth. As for rural studies, they have contributed to defining the often complex characteristics of these areas while facilitating reflection on policies that take into account both their specificities and the profound changes that have affected them. Both types of approach thus prove essential and complementary in that the former provide detailed insight into the economic and social dynamics of development and the obstacles to development processes, while the latter are the only ones able to reflect the complexity of rural and peri-urban areas and the societal changes they face.

However disconnected these dimensions might have seemed in the past, the evidence today highlights a tendency for them to be brought ever closer together. On the one hand, policies targeting rural areas tend to explicitly include the territorial dimension, while the distinction between "the rural" and "the urban" is becoming blurred. Decentralization, subsidiarity, questions related to the regionalization of agriculture (Donald et al. 2010), and urban dwellers demands in terms of short circuits and local food (Renting et al. 2003) are taking place in parallel with the generalization of an urban model. In the meantime, we find that regional sciences are paying increasing attention to rural and agricultural perspectives (de Noronha Vaz et al. 2006, 2009), while studies concerning rural questions are starting to consider territorial issues (Cloke et al. 2006).

In the following pages, we shall present an overview of rural and regional development approaches, while underscoring the distinction between different schools of thought; we shall examine the development policies targeting these areas, taking into account the diversity of the regions concerned, although we shall focus more specifically on the situation in Europe, with which we are more familiar and which present some interesting features, such as the powerful influence of the Common Agricultural Policy and ever more pervasive processes of peri-urbanization.

The structure of the book is intended to guide the reader through the meanderings of theoretical and political analyses on the subject of rural areas, beginning with the most general and fundamental notions and concluding with the identification of paths to be explored for the future of these spaces. It begins with a presentation and detailed discussion of the three key concepts that form the basis of this work: the notion of the rural (or rurality), the notion of development, and the notion of regions (Chap. 2). The third chapter provides an overview of the major schools of thought for analysing regional and territorial development, which must enable the foundations to be laid for a renewed and truly territorialized approach to rural and peri-urban areas: balanced development on the one hand, and unbalanced, systemic and innovationbased approaches on the other. We then go on to address the question of planning and regional development policies, by showing how there has been a gradual shift away from policies based on a balanced approach, first towards policies that take account of intraregional inequalities and innovation-related dimensions through cluster-based approaches, and more recently in favour of decentralization policies and approaches that take local populations' opinions into consideration in territorial governance processes (Chap. 4). The fifth chapter focuses more specifically on analyses of rural development, presented through the prism of different periods of thought: first, the technocratic paradigm of modernization, then the recognition of the social and human dimensions of development, followed by the consideration of local diversities and collective competencies, with the rise of civil society, and finally the arrival of the "new paradigm", bringing with it notions of multifunctionality or agroecology. Chapter 6 is devoted to changes in rural development policies, seen in terms of the European example, from the implementation of the Common Agricultural Policy to the definition of the Europe 2020 smart specialization policy, including the affirmation of territorial aspects and the need for new policies in favour of rural areas. Lastly, the seventh and final chapter looks towards what the future might hold for rural areas. Here, we envisage four different development scenarios (the possible preservation of agricultural activities, the rise of urbanization and peri-urbanization, the role of industry and business in rural areas, and the development of services to individuals and the residential economy), before examining the possibility of opening them up to competition and the conflicts provoked by the potential coexistence of development models.

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Chapter 2 Disputed Notions and Definitions in Rural and Regional Studies

Abstract Based on the literature Chap. 1 addresses the question of the disputed notions or rural, regional, territorial and development terms. The first issue is about the definition-or the very existence, even-of "the rural". We isolate two main definitions highlighted the fact that in certain cases "rural" is used to refer to the landscape, while in others it is the population that is of primary interest. We also identify that rural areas have lost their past uniformity and have now become home to a mix of different service activities and agricultural or industrial production; and consist of both remote territories and areas close to cities, of historic and new populations. Then we consider the notion of development, and show that Regional science places considerations of economic and social change in territories at the heart of the debate, together with issues associated with the development process and the distribution of gains and losses resulting from new configurations, as well as the recent integration of well-being in social and economic indexes. Finally we move to the terms "region" and "territories", and agreed to the idea that regional development refers to the processes that occur within the institutional borders of the region, whereas that of territorial development pertains to a construction of territorialities by local populations.

Keywords Changes • Development • Region • Regional development • Rural • Territory • Territorial development

Addressing the question of regional, territorial and rural development necessarily leads—given the amount of literature that exists on these issues—to pondering the meaning of the terms used. Three main questions are raised with respect to terminology and definitions of the fields of study.

They concern, respectively:

- The notions of "rural" and rurality and their shifting definition;
- The very notion of development and its scope;
- The regional/territorial trade-off and the definition of the notion of "territory".

2.1 The Notions of "Rural" and Rurality: What Is at Stake?

The first question to consider is the definition—or the very existence, even—of "the rural". This concept is often discussed and has been the subject of debate and controversy in contemporary literature and in the context of the criteria used by national and international agencies or governments in the main OECD countries, for example.

At first glance, the question seems simple enough and is often answered by distinguishing between people who live in cities and those who live in the countryside; and indeed, although it has its limitations, this effective distinction allows for a clear insight into the place and evolution of rural areas and their populations in today's world. In this respect, it is an interesting and informative exercise to examine the figures provided by the Department of Economic and Social Affairs of the United Nations concerning the distribution of the world population between rural and urban areas (see Figs. 2.1 and 2.2; Table 2.1), those provided by the UN's Food and Agriculture Organization (FAO), or by the Data Center in NASA's Earth Observing System Data and Information System (EOSDIS) (Figs. 2.3 and 2.4).

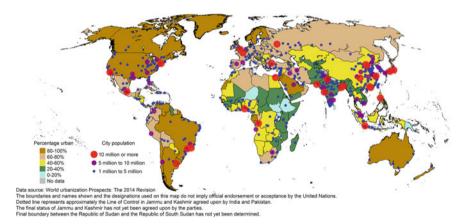


Fig. 2.1 Percentage urban and urban agglomerations by size class in 2014. *Source* United Nations, Department of Economic and Social Affairs, Population Division (2014), *WUP: The 2014 Revision, Highlights*

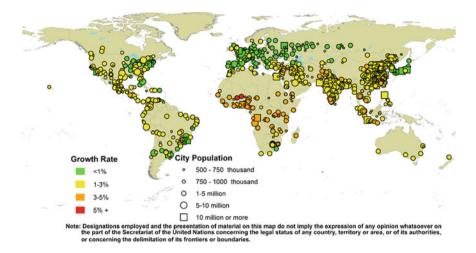
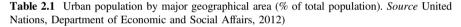
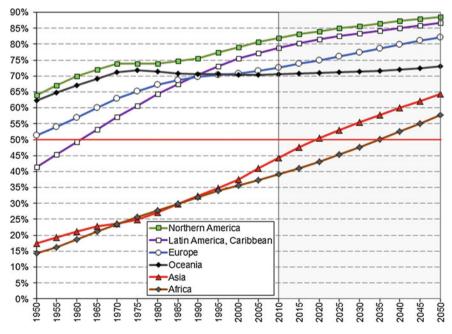


Fig. 2.2 Growth rates of urban agglomerations by size class 2014–2030. *Source* United Nations, Department of Economic and Social Affairs, Population Division (2014), *WUP: The 2014 Revision, Highlights*





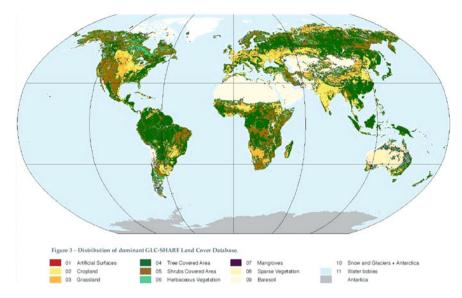


Fig. 2.3 Global land cover-Share for 2014. Source FAO, Global Land Cover Network

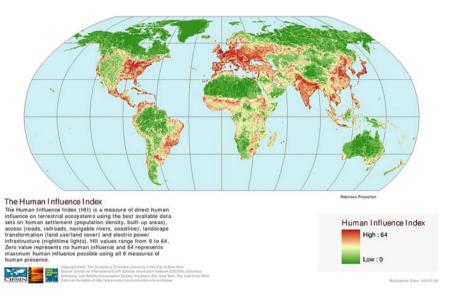


Fig. 2.4 The human influence index. *Source* NASA's Earth Observing System Data and Information System (EOSDIS)

World Urbanization Prospects, the 2014 Revision—UN|Key facts http:// esa.un.org/unpd/wup/index.htm

Globally, more people live in urban areas than in rural areas, with 54 % of the world's population residing in urban areas in 2014. In 1950, 30 % of the world's population was urban, and by 2050, 66 % of the world's population is projected to be urban.

Today, the most urbanized regions include Northern America (82 % living in urban areas in 2014), Latin America and the Caribbean (80 %), and Europe (73 %). In contrast, Africa and Asia remain mostly rural, with 40 and 48 % of their respective populations living in urban areas. All regions are expected to urbanize further over the coming decades. Africa and Asia are urbanizing faster than the other regions and are projected to become 56 and 64 % urban, respectively, by 2050.

The rural population of the world has grown slowly since 1950 and is expected to reach its peak in a few years. The global rural population is now close to 3.4 billion and is expected to decline to 3.2 billion by 2050. Africa and Asia are home to nearly 90 % of the world's rural population. India has the largest rural population (857 million), followed by China (635 million).

The urban population of the world has grown rapidly since 1950, from 746 million to 3.9 billion in 2014. Asia, despite its lower level of urbanization, is home to 53 % of the world's urban population, followed by Europe (14 %) and Latin America and the Caribbean (13 %).

Continuing population growth and urbanization are projected to add 2.5 billion people to the world's urban population by 2050, with nearly 90 % of the increase concentrated in Asia and Africa.

Some cities have experienced population decline in recent years. Most of these are located in the low-fertility countries of Asia and Europe where the overall population is stagnant or declining. Economic contraction and natural disasters have contributed to population losses in some cities as well.

As the world continues to urbanize, sustainable development challenges will be increasingly concentrated in cities, particularly in the lower-middle-income countries where the pace of urbanization is fastest. Integrated policies to improve the lives of both urban and rural dwellers are needed.

These figures provide a striking estimation of the balance between rural and urban areas, as well as a vivid and ostensibly realistic picture of the world's gradual transition from rural to urban, to the point where the majority of the global population lives in urban areas. However, examination of the data and methods used reveals that there are almost as many definitions of the term urban (and therefore implicitly, of the term rural, as these are the only categories considered) as there are countries in the world. For example, in some countries, a town is considered rural if it has a population of less than 10,000, while in others a town is rural if has fewer than 1500 inhabitants. In other countries still, all areas situated outside the capital

city and large administrative centres are considered rural. Geographical scale is, quite clearly, a key consideration: if the framework of reference comprises relatively small local-government districts, a given area may be classified as rural, whereas the same area could be deemed to belong to an urban zone if the reference framework is made up of larger units such as metropolitan areas or travel-to-work areas.

It is therefore necessary to clarify the distinction between rural and urban areas, as the vagueness of their respective definitions casts some ambiguity on the results presented (Halfacree 2003). Specifying the distinction between "rural" and "urban" or giving a clear-cut definition of the term "rural" is admittedly no easy task (Mormont 1990), but the uncertainty that characterizes current transformations may give rise to a productive debate.

Though rural areas are sometimes defined in the negative—as a remainder category of non-urban areas—the characterization of a rural area is traditionally based on morphological criteria: low population density, irregularly and sparsely distributed buildings, the presence of farming activities, etc. Yet this definition includes a diverse range of areas, such as countryside close to cities, natural or recreational spaces, or more distant, depopulated or disadvantaged areas. It is for this reason that the concept of "rural" remains vague and is often treated residually (as is the case in United Nations statistics); i.e. the rural is that which is not urban.

But even if we accept this basic definition, we still have to clarify what is meant by non-urban, as well as what exactly the urban counterpart of "the rural" is, especially given that traditional rural areas, which for the most part are farming areas, have undergone substantial changes, particularly since the second half of the 20th century. In most countries around the world, this period was marked by the massive migration of tens of millions of people from farming areas to urban areas, which subsequently expanded to previously unthinkable proportions. Meanwhile, rural areas, which had been predominantly or even exclusively used for farming, experienced major changes in terms of their economic activity. For example, in rural areas in France—a major agricultural country—farming now only ranks third in terms of the number of people it employs, behind the service and manufacturing sectors.

The frontier between rural and urban domains, often mentioned in reference to the city–country relationship, has weakened or even disappeared as a result of a twofold process. On the one hand, areas traditionally devoted to agriculture have been urbanized, with a dramatic increase in the number of buildings and individual houses encroaching upon open spaces. This has been accompanied by an increase in the size of small towns in which populations and services tend to concentrate at the expense of smaller villages. On the other hand, rurality and agriculture are making their way into cities, as demonstrated by the ever-growing success of locally based farming, local food systems and transition towns (Reid et al. 2012), and even urban agriculture (Despommier 2010). There is increasing demand from city dwellers for products with traceable origins as concerns rise regarding the ecological footprint of the commodities consumed by city dwellers, in terms of food miles, for example (Pretty et al. 2005).

Finally, the notion of the distinctiveness of rural populations—an idea once so firmly established that rural areas are often referred to as "rural worlds"—is now increasingly being eroded. Now, in the era of the Internet and Google, of television, mobile communications and smartphones, information spreads quickly and is accessible to growing numbers of people. This has led to a certain standardization of people's attitudes, desires, and representations of reality, which suggests that the perception of rural folk as a distinct social category is no longer entirely valid. Indeed, the needs and expectations of rural populations increasingly resemble those of people living in cities, as a result of the "global village" phenomenon and the migration, in some European countries, of older populations to areas away from cities. But, like urban communities, rural areas are becoming more complex and more fragmented than in the past, with the development of pockets of poverty and of spaces devoted to tourism.

Today, "the rural" can be mostly considered a conceptual category, and, if we go by what Cloke says in "Conceptualizing Rurality", we can accept that the construction of rurality rests on three interconnected frames of understanding that shed light on the concept and help us to gain a better grasp of its complexity (Cloke 2006).

The first is functional by nature and serves to identify markers of rurality such as the extensive use of land (often for farming), the small size of often scattered settlements, or respect for the environmental and behavioural qualities associated with living in the countryside. The second involves a more political economic perspective, based on the suggestion that certain structural problems affecting populations often take different forms in rural areas due to the latter's distinguishing characteristics, including: a pleasant environment that attracts tourists, pensioners and those who are not economically active; the acknowledgement that these areas are not easily accessible due to a lack of appropriate infrastructure; and the great value attached to volunteering and self-help attitudes. The third and final frame of understanding pertains to rurality as a social construction and places emphasis on the cultural dimension, that is to say the social, cultural and moral values associated with rural areas, and rural living in general.

On a simpler level, this book subscribes to the idea that some of the conflicting or confusing definitions highlighted above arise because in certain cases "rural" is used to refer to the landscape, while in others it is the population that is of primary interest. This separation allows us to understand the differences and ambiguities of certain analytical definitions, and to categorize the different types of policies implemented in rural areas:

- When the primary focus is the area/land/resources, definitions of what is rural tend to refer above all to issues pertaining to nature, landscape, types of afforestation, environmental zoning, protected species or land use. When this is the case, it makes sense for sector-specific polices such as agricultural development or recreation/tourism to potentially be the main focus for both analysis and policy. The same is also true for environmental concerns and policies, as well as the historic association between agriculture and rurality. - However, when population size, sources of income, and employment are considered, the definition of what is rural tends to be much more focused on functional ties between rural and urban areas, such as where people live and where they work and earn their living, and where they spend their money, consume goods and services or use amenities. Policies in favour of rural spaces are therefore above all targeted at local populations, be it in terms of action to promote employment and access to services or education, measures to reduce inequalities and increase income levels, or efforts to empower the population, develop local democratic processes and involve local stakeholders in territorial governance practices.

There is, of course, some overlap between landscape-based definitions of rurality and people-based definitions; for example, access to rural landscapes and recreation areas affects the living conditions and consumption possibilities of the population. But, in the end, the different visions of rural space—a productive resource historically related to farming, recreational or touristic activities related to the amenities that characterize it, or, more recently, natural areas—are conditioned by people's perceptions and by the different types of public policies implemented (Perrier-Cornet 2002). They combine with or oppose one another, offering a variety of trajectories for rural spaces—spaces which, in recent decades, have undergone profound transformations, and in particular have regained attractiveness following a long period of depopulation.

Indeed, the fact is that, in these regions, rural areas have become hybrid, so to speak. They have lost their past uniformity and have now become home to a mix of different service activities and agricultural or industrial production; they consist of both remote territories and areas close to cities, of historic and new populations. They are consequently facing forms of development far more complex than in the past, and therefore require particular attention.

2.2 A Review of the Notion of Development

Let us begin with the notion of development, which underlies all the approaches discussed here. A brief review of the literature shows that, in many respects, it is an intriguing concept that is sometimes lacking in clear theoretical foundations. As Stimson et al. (2006) pointed out, "[i]t is surprising to find how authors have diversely and often imprecisely defined the term". Often used as a synonym for "process" or "state" ("this country has reached an important level of development"), it is still used as a sort of adverb associated with such terms as "economic", "regional" or "agricultural", or evokes the idea of increase or improvement.

Like all institutions, the Organization for Economic Co-operation and Development (OECD), to cite one example, is now placing considerable emphasis on sustainable development, and clarifies the role of capacity development as "the process by which individuals, groups and organizations, institutions and countries develop, enhance and organize their systems, resources and knowledge; all reflected in their abilities, individually and collectively, to perform functions, solve problems and achieve objectives" (OECD 2006c). Mention is also often made of the definition proposed by Perroux, according to whom development is a "combination of a population's mental and social changes which make it capable of ensuring the cumulative and lasting growth of its real global product. Development encompasses and supports growth" (Perroux 1964). Just like the OECD, Perroux makes a distinction between development and growth, for the former does not merely pertain to factors such as increases in living standards or in GDP, but also encompasses broader dimensions related to people's lifestyles, skills, knowledge and mental dispositions. Furthermore, this definition includes non-economic variables and brings to the fore the central role played by social and cognitive changes. Equitable access to resources such as food, education, justice and healthcare are dimensions that are now commonly included in the definition.

It is justifiable to consider that the essence of development lies somewhere else, in the idea of transformations and dynamic processes, or in the question of economic and institutional changes, along with changes in customs, lifestyles and people's perceptions. In this regard, it is interesting to consider here what the key definition of psychology is: the development of a person, or personality, in his/her early childhood, corresponding to the development of a potential and of qualities and skills during the course of a trial-and-error process that is not necessarily linear. Another approach, of great interest, was initiated by Schumpeter (1934) with his famous theory of economic development, which above all translates a dynamic process of departure from the routine in transactions and homothetic growth, as well as the implementation of new rules and new modes of functioning, characterized by shifts from the more linear phases of growth.

This reference should discourage researchers or practitioners from limiting their reflection to comparisons or typologies, which, while admittedly useful, often merely consist of making observations or evaluations of a given state of development, without directly addressing the question of economic and technical transformations and changes in society.

In this regard, regional science provides a stimulating avenue for re-examining the nature of development processes while taking into account aspects such as geographic scales of reference for coordination and public intervention, and the diverse configurations of overlapping areas.

In addition to these aspects are the configurations and meanings of the concept of development that are at stake and the question of regional science. They place considerations of economic and social change in territories at the heart of the debate, together with issues associated with the development process and the distribution among players of gains and losses resulting from new configurations.

The expansion of definitions of development by integrating sustainability criteria has further complicated the situation in terms of the dimensions to be considered, rekindling debate not just on the hierarchy of goals and the possibility of their virtuous combination, but also on indicators and opportunities for measuring change (Jany-Catrice and Méda 2013). There is also a need to take account of

negative externalities in development strategies, mentioned in particular in the Stiglitz–Sen–Fitoussi report (2009), echoing calls for greater consideration of cultural and heritage dimensions (and more broadly positive externalities) and the issue of welfare in the review of development dynamics. Meanwhile, against the backdrop of maintaining or increasing differences in growth between territories is the problem of necessary regional convergence, and with it the identification of drivers of development and effects of inequality in the distribution of wealth with which scientists and policymakers alike are now faced.

2.3 On Regions and Territories

The notions of "regional development" and "territorial development" now tend to surround the term "local development", generally applied to small, infra-regional portions of territory, undergoing self-reliant or bottom-up development processes. But the generalized use of these expressions raises questions: are they identical, opposed, or substitutable? And, above all, this raises the question of how the concepts of region and territory are defined.

The term "regional" refers to two relatively distinct definitions. The first, which is fading and is mostly used in an administrative sense by regional authorities themselves or by the EU, refers to administrative regions (e.g. the Centre region in France, or the Tuscany region in Italy). The second, used since the 1950s in the literature on regional development and regional sciences, and mostly based on an economic vision, pertains to the "geographical" dimensions of development or growth (e.g. Isard 1956). It encompasses questions relating to the "local", the region, the location of activities or people, as well as the wealth and competitive-ness of certain portions of space or nations.

Although regional development theories have changed significantly since the mid-20th century, there is no unanimity among researchers on this issue, and debates have raged since the emergence of these theories (see, for example, the discussions reported by Isard (1960), according to whom the term "region" refers to "any subnational entity not necessarily defined by political boundaries," or to "generalizations of the human mind"). However, various definitions can be found, all of which correspond to different categories and core interests, depending on whether their authors place emphasis solely on economic or geographical cohesion, or on a more explicit premise (Dawkins 2003). Authors like Christaller (1933) and Lösch (1940) argue that regions can be identified through the existence of central places or cities, while other authors define the region primarily on the basis of the existence of local labour markets. Others still refer to "planning regions", which they equate to political or administrative units. Finally, some define regions in terms of natural resources, ecosystems or geographical boundaries, while more recent theories go further and argue for an approach focused on the interdependencies between natural resources and human populations.

The territory is generally ignored in this type of approach. The qualifier "territorial" was recently introduced in the literature on development, particularly in the English-language literature, although it has been in use for longer in Italian- and French-language literature (Camagni 2009; Pecqueur 1996). It refers to the concept of territory, whose emergence was slow and sometimes controversial in this field of analysis. In this book, we have opted for the following definition: a geographic zone with defined boundaries, within which relationships are organized and governed by groups or particular populations that identify with one another through common projects. Here, mention should also be made of the conventional definition given by Sack (1986): "Territoriality will be defined as the attempt by an individual or a group to affect, influence or control people, phenomena, and relationships, by delimiting an asserting control over a geographic area. This area will be called the territory". As a result, territories are permanent constructs with moving boundaries, and are constituted through oppositions between and compromises among local actors. Many authors, however, consider that the notion of geographical borders is obsolete, and that territories can comprise areas or enclaves that may be very far from one another.

Territories are collective productions of a human community, with citizens, governance structures and organizations, and are not merely geographic entities; they are formed of a combination of individuals and/or stakeholders located within areas whose boundaries may shift according to their interactions. They are under permanent construction, developing through contention and compromise between local and external actors, and are long-term constructs encompassing a history and a set of core concerns that are deeply rooted in local cultures and customs. Far from being set within fixed administrative boundaries, their frontiers are shaped by the existence of a sense of belonging (and awareness thereof), as well as by political governance institutions and specific rules of organization and operation.

Based on these definitions, the concept of regional development refers to the processes that occur within the institutional borders of the region, whereas that of territorial development pertains to a construction of territorialities by local populations (Mollard et al. 2007), in relation, naturally, with policy directives or more general incentives.

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Chapter 3 From the Early Literature to Contemporary Approaches to Regional and Territorial Development

Abstract This chapter deals with the questions of regional or territorial development, introduced in researches undertaken from the end of World War II onwards, and in policies of regional and territorial development and management. The literature can be split between two main competing visions. The first one seeks, above all, to balance the interests and gains from the development process enjoyed by different local actors and to draw up principles that will enable the various stakeholders to obtain maximum satisfaction. The second group consists of approaches whereby the compromises reached among local actors are purely temporary and development processes generate interregional inequalities that are difficult to reduce. These approaches consider that development can increase disparities between regions or territories. They also highlight the existence of local systems with significant specificities at the institutional, economic and technical levels, and whose successes or failures lead to fundamentally uneven development processes, like clusters, districts or milieus. A third category of approaches is based on the idea that regional or territorial development is profoundly linked to the occurrence of dynamic shifts stemming from processes of innovation or creation, which result in varying paces and levels of development from one region or territory to the next.

Keywords Balanced approaches • Clusters • Districts • Innovation processes • Local systems • Regional development • Territorial development • Unbalanced approaches

The questions of regional or territorial development were first introduced in research undertaken from the end of World War II onwards on issues related to local and regional development, and in policies of regional and territorial development and management implemented since the beginning of the 1960s (Isard 1960). As a result of taking account of local issues, and the decentralization process, a large theoretical apparatus—whose purpose has been to identify the rules of development—as well as interventions and blueprints have emerged.

The abundant literature on regional or territorial development can be split between two main competing visions (balanced and unbalanced development), which correspond to strong and distinct analytical presuppositions, and are useful for dividing the analysis of development into four main categories.

3.1 Balanced Development Approaches: Homothetic Growth and Economic Base Theory

The first category of approaches seeks, above all, to balance the interests and gains from the development process enjoyed by different local actors and to draw up principles that will enable the various stakeholders to obtain maximum satisfaction. Accordingly, the standard economic approach, founded on the theory of equilibrium, seeks to maximize stakeholders' utility on the basis of their more or less perfect rationality, and to meet their needs without compromising their neighbours' needs (Solow 1956; Romer 1990). Obtaining an optimum approach—in our case, of growth-makes it possible to define a pathway that the different stakeholders can follow together. We can draw a parallel here with the various approaches that integrate environmental dimensions or are conceived in terms of sustainable development (Hardy and Lloyd 1994; Bourgeron et al. 2009). These approaches, which are also based on a paradigm of negotiation, are supposed to lead, following a deliberation process, to a balanced distribution of rights and duties between different local stakeholders, and seek to take account of both economic and environmental objectives and constraints, from a perspective of weak sustainability: development must not deplete resources, including through the substitution of natural capital by man-made resources (Pearce et al. 1996).

Included in this group are the approaches underlying neoclassical theory, approaches which envisage a form of homothetic growth based on capital and labour inputs, subsequently extended to a third input of a more technological nature, in most cases knowledge or R&D investments (Solow 2000). This involves assessing the volume and growth rate of production, and placing these elements in parallel with the optimum combination of factors and efforts made in terms of productivity or capital accumulation, for example (see Johansson et al. 2001). This approach, which considers the possible elimination, in the long term, of interregional disparities, has met with relative success—relative because of its limitations in terms of homothetic growth and its inability to account for the imbalances signalled early on by the authors of the polarization theory or of the bottom-up growth approach, for example. It has been quite adequately replaced since the 1990s by the New Economic Geography, which is useful for taking account of dimensions related to unbalanced growth and the polarization of activities, in the analysis of development processes.

Economic base analysis (Alexander 1954; Sombart 1916) also advocates seeking balanced development. It rests on the idea that regional economies can be divided into two main components: a "basic sector", which produces goods and services for export and fosters regional development by capturing revenue from external trade; a domestic sector, whose production is for local consumption.

Development then requires expansion of the basic sector, which, among other things, gives rise to a Keynesian multiplier effect on the local economy as a whole. The increasing income of those working in this sector then generates a rise in their consumption levels and, as a result, a development of the domestic production sector. This fosters a virtuous development cycle based, in most cases, on the central role of urban agglomerations in the production of basic commodities.

3.2 Unbalanced Approaches

The second—and most important—group consists of approaches whereby the compromises reached among local actors are purely temporary and development processes generate interregional inequalities that are difficult to reduce. Unlike those of the first group, these approaches consider that development plays an often lasting role in increasing disparities between regions or territories. They also highlight the existence of local systems with significant specificities at the institutional, economic and technical levels, and whose successes or failures lead to fundamentally uneven development processes.

These works are based on the analysis of growth poles initiated by Perroux, Myrdal and, later, Hirschmann and Higgins. Perroux's initial idea is that development cannot occur everywhere at the same time and with the same intensity. Proof of this is the existence of less developed countries or areas, which the growth pole theory was the first to acknowledge. Development is built on a polarization of activities, itself based on the existence of large dynamic firms situated at the heart of the most developed regions. These firms and industrial complexes generate market linkages—with suppliers and subcontractors, end clients and industrial actors which, in turn, results in a polarization of activities and wealth benefiting certain regions at the expense of less developed ones. These changes have often been revealed by input–output methods, which have greatly contributed to testing hypotheses on regional development approaches and tools for regional economic policy (Richardson 1985).

Reversing, or even invalidating, the idea of a convergence of regional growth rates and economic strength levels, the New Economic Geography (NEG)—introduced by Krugman (1991) and popularized by authors such as Fujita, Thisse or Ottaviano, for example (Fujita and Thisse 1997; Ottaviano and Thisse 2004)— acknowledges the high probability that a spatial polarization and concentration of activity might occur—phenomena that can benefit one region at the expense of its competitors. From the possibility of increasing returns in some industries and the supposed preference of consumers for variety and differentiated products, NEG

deduces the probability of divergence phenomena that testify to the industrial specialization and therefore enrichment of some regions or nations, at the expense of competing regions—regions which are less developed as a result of getting a late start in the race for production of non-agricultural and non-traditional commodities. NEG views the world as one in which polarization increases, particularly to the advantage of cities, in which businesses and employees/consumers co-exist; indeed, the model of development put forward implies the development of productive activities, often at large-scale levels (regions, or even nations), through reciprocal spillover between production and consumption activities (workers/consumers). This raises questions concerning the ability of activities to generate spillover at regional level (for example, that produced by the construction industry), the reciprocal impact of firms' and workers'/consumers' locations, and decreasing transport costs, which reinforce polarization processes at the expense of peripheral areas.

Analyses in terms of residential or "presential" economics, according to which territorial development is based on external sources of revenue, provide another illustration of interregional disparities. Adapted from economic base theory, but excluding its approach in terms of balanced relations between local actors, these analyses describe the development of regions or territories that benefit from inflows of revenue from other regions without possessing the necessary industrial or agricultural production capacity to use this revenue as a basis for producing goods for export (Davezies 2008). Coastal or Southern tourist regions belong to this category: they benefit from the temporary influx of tourists who stay for varying periods of time, and who infuse money into the local economy by consuming local goods and services (residential economy; see Terrier 2006), or from the money spent by retired people, who are no longer productive but inject money into their new places of residence (residential economy). The basic sector does not contribute to the development of the region through production, but by tapping into these two sources of external revenue. This leads to a shift in the usual development criteria; development then rests on a service economy based on consumption by these temporary migrants, often at the expense of those regions that gain very little from their production activities.

3.3 The Systemic Approach: Pioneers of Territorial Development

The analysis of local production systems, initiated in the 1970s, is also predicated on the observation of geographically differentiated development processes. Following on from analyses of Italian districts (Becattini 1990), and subsequently of different forms of groupings ranging from clusters, agrifood systems or local production systems, the systemic approach is linked to the systemic nature of the relationships between actors who, together, belong to one territory and shape it through their cooperation and common projects. Whether these groupings imply vertical or horizontal relations, belonging to a homogeneous social group, or relations based on repeated interactions, what matters is the creation of a local community founded at once on alliance and cooperation networks and on more or less formal governance structures through which rules accepted by all participants can be complied with. Development depends on the efficiency of the system and on its ability to renew and transform itself in response to exogenous shocks such as variations in consumers' preferences or the arrival of new competitors. Generally small in size (subregional), the zones in question have a strong connection with the territory and are characterized by different levels of development, depending, more specifically, on the characteristics of these systems and their ability to mobilize and make the most of local resources. We refer here to the concept of bottom-up development—dear to authors such as Stöhr (1986)—as well as to a desire to typologize forms of development (Italian-style districts, state-based systems, systems with a core of large firms or based on innovation, etc.) (Markusen 1996), but little attention has been paid to the actual processes of development and their dynamics.

Of particular importance are two approaches that have played a key role in systemic analysis. The first is Porter's analysis (Porter 1985, 1990), because of its broad impact. Porter considers that the competitive advantage of a region or a territory depends on four main factors that must be exploited in order for the region in question to gain a lead over its competitors: the strategies, structures and the rivalry between firms; the state of demand; the geographical relations between similar firms; and the state of production resources or factors (traditional or skill-related). More particularly, the presence of local clusters—groupings of closely linked businesses and laboratories—helps create and reveal factors of production. Clusters represent a new way of characterizing of the ways in which innovation activities are organized locally. According to Porter (1998), "a cluster is a geographically proximate group of interconnected companies and associated institutions in a particular field, linked by commonalities and complementarities (...). Clusters have positive influence on the innovation and competitiveness, skill formation and information flow and long-term business dynamics of the concentrated area."

The success of this concept is built on four key theoretical foundations, each relating to advantages in terms of the performance or competitiveness of local systems or networks of actors:

- This approach directly addresses the issue of knowledge transfer at local level, emphasizing the critical nature of interactions between members of a network. Knowledge flows between actors or groups located in the same geographic area, through the relationships they have established with one another.
- It is based on the existence of network externalities created locally and between companies. The utility derived from those externalities by any member of the network is directly related to the large and growing presence of other members.
- It refers to the concept of quasi-integration, which generates supernormal profits through the pooling together of certain facilities, and the reduction of transaction costs between participants in the same production processes, resulting in

particular from the important part played by non-commercial relations (Karlsson et al. 2004).

• Finally, clusters are not closed systems and are neither totally nor even significantly isolated; on the contrary, they are forms of organization that focus particular attention on relations with the outside, whether those relations involve other actors or policies initiated at national or supranational level. Clusters thus immediately appear as actors of globalization—actors that make the most of their comparative advantages in terms of location or proximity externalities.

The second, equally important, concept is that of industrial districts. Present in the works of Alfred Marshall as early as 1920, districts were rediscovered in the seventies by the Italian economists (Brusco 1982). At a time when Italy was marked by a contrast between the industrialized north, with its large companies such as Fiat in Turin, and the underdeveloped and rural south, there emerged in the north-eastern and central regions of the country several local systems characterized by the diffuse presence of small, often family-run businesses, but which engaged competitively in the global market through specialized industries. Regional economists and sociologists have highlighted the endogenous dynamics and sociological characteristics of these areas: take the Prato district in Tuscany, for instance, specialized in textile-related activities, which became famous and emblematic of bottom-up development.

Becattini (1990) defines an industrial district as "a socio-territorial entity which is characterized by the active presence of a community of people and a population of firms in one naturally and historically bounded area." It results from the articulation of a local community and a population of co-located firms. A local community is reflected in the existence of a system of representations and values that are conducive to economic initiative and development-values embodied in institutions (market, family, school, church, etc.) and rules that serve to disseminate these values throughout the area concerned ensure their transmission between generations and provide a framework for economic action. In the Third Italy, this role is primarily played by family networks. Firms in that area consist mostly of small businesses in the same industry that divide labour among themselves and exchange products as well as labour. Workers circulate between the various companies in the district and, in so doing, disseminate know-how. The local labour market is a constituent part of the district. The specific skills acquired at local level often cannot be utilized outside the district, and thus the local human resources tend to be captive to the area.

Relations within the firms of the district are characterized by a combination of cooperation and competition on the labour and product markets. Individuals and companies are selected based on their skills and their ability to perform the specialized tasks required to develop a competitive product for the world market; but any individuals or companies that are not selected for a particular project are ensured the opportunity to be considered for subsequent projects. An additional characteristic is an internal credit system. Lastly, districts are not closed systems: gatekeepers, who are able to serve as links between the global market and the

industrial resources of the district, as they have extensive knowledge of both, play an important role.

A similar form of organization has been trialled in developing countries, particularly in parts of South America such as Brazil, with its *arranjos produtivos locais*, or APLs ("local productive arrangements"). This concept is a reinterpretation of analyses on localized systems and an extension of research conducted by authors such as Schmitz (1995), at the Institute of Development Studies (IDS) of the University of Sussex, who have focused on the social-competence dimension of the district approach. The term "arrangement", less formal than "system", refers to a logic of relations—at work in many developing regions—that cannot quite be described as systemic, and to interactions which in some cases are only starting to emerge.

Accordingly, APLs are mostly defined, very broadly speaking, as local aggregations of economic, political and social actors, specializing in a specific set of interconnected economic activities, the links between which are still weak or need reinforcing. We see here that the agglomeration and clustering components, especially of small companies, are central—sometimes more so than interactions. Indeed, these forms of groupings are often incomplete compared to traditional clusters or districts: there is little interaction and little engagement from support institutions. Nevertheless, the groupings thus identified may gain from forms of collective action or benefit from the effectiveness of group organization, and thus generate local externalities or foster development processes.

Because these systems are fragile and evolving, different approaches must be adopted, depending on their stage of development. According to Schmitz, state institutions alone cannot (on the sole basis of collective efficiency) build an industrial organization that can be competitive rapidly. However, once private initiative has led to a minimum concentration of industrial activity and know-how, these institutions can play an important role in helping the organization expand and innovate. It should also be noted that this analysis is an approach that focuses on technological change. Indeed, an APL is considered a local innovation system within which an aggregate of interacting institutions contributes to the development and dissemination of technologies (Cassiolato et al. 2003). Every effort is thus made to establish an environment that is conducive to innovation, considered the key factor for competitiveness. To this end, this environment must first of all promote education, learning and knowledge.

Finally, let us not forget the socio-ecological systems approaches (Anderies et al. 2004), derived from analyses of institutional arrangements (Ostrom 1990) that integrate questions concerning the sustainable management of local resources into the systemic analysis. The originality of these approaches is that they examine the interactions between individuals and the biosphere/environment; this leads to considerations not just of inter-individual relationships but also of the uses of resources and the resulting exclusions.

3.4 Development as a Dynamic Process Linked to Innovative Behaviours

The third and final category of approaches is based on the idea that regional or territorial development is profoundly linked to the occurrence of dynamic shifts stemming from processes of innovation or creation, which result in varying paces and levels of development from one region or territory to the next. Analyses of regional development focusing on the processes of innovation and regulation, as well as some systemic approaches, consider that local systems go through successive phases of growth and stagnation, or even recession, which reinforces or reduces inequalities between social categories, in that the fruit of economic growth may be reaped by certain groups or offshore firms controlled by foreign capital. It is, first and foremost, internal shocks that generate change in the system, along with processes of population and wealth concentration and the emergence of zones of social and spatial exclusion.

The innovation- or technology-based approach to development takes into account the importance of R&D or innovation activities in local development. Partly inspired by Schumpeter's analysis, it is based on the idea that innovation is key to development processes and that efforts geared towards R&D or which offer innovation incentives can play an important role in the development and success of growth dynamics. This often implies a systemic approach, which highlights the role of transferring and disseminating innovation at local level (Feldman 1994; Autant-Bernard et al. 2007), as well as the importance of face-to-face relations and of fostering spin-offs or supporting their creation (e.g. through business or project incubators). The driving force of development then lies in the occurrence of localized innovation or knowledge spillovers within the local system, which can lead to the emergence of highly competitive local innovation systems such as technology parks or competitiveness clusters. It is innovation that drives development and sets dynamic systems apart from others. Often focused exclusively on high-tech activities, these systems mostly find expression in terms of territorial innovation in more rural or less developed territories, by relying on organizational innovations and utilizing the local population. Certain authors, who see the rules of collective action and institutional mechanisms as explanatory factors for innovative territorial dynamics, consider innovation to be a social construction shaped by the geographical context in which it lies; rooted in practices, it is therefore necessarily situated in space (see, for example, the works conducted by GREMI (Groupe de Recherche Européen sur les Milieux Innovateurs) on the notion of innovative milieus, or the work of Florida (2002) on local creative class).

Analysis of spatial dynamics has, in the last decade, been enriched by works that have expanded on the evolutionist theory (Frenken and Boschma 2007), which considers the unequal distribution of activities in space as the result of largely contingent historical processes. Evolutionary economic geography attaches great significance to the entrepreneurial dimension, and more specifically the history and processes of emergence, growth, decline and interruption of business activities (Boschma and Frenken 2011). Particular emphasis is placed on the role of spin-offs and workforce mobility in processes of territorial development (Maskell 2001), as well as on routine reproduction mechanisms within the local industrial network. Taking advantage of geographical, industrial and technological proximity between different sectors of activity (Torre 2008), as well as institutional mechanisms and network structures, these technologies are disseminated via a snowball effect between technologically related enterprises and industries, and end up locking local systems into path dependencies. This process—which offers a much better explanation than co-location economies of clusters' ability to transform themselves and therefore to survive over time—functions particularly well when it involves emerging industries or industries based on closely related technologies, as cognitive proximity facilitates the diffusion of knowledge externalities (Nooteboom 2000).

In this connection, we have observed a gradual shift in the themes and methods adopted for studying development processes on the scale of regions and territories, from macroanalyses to a tendency to focus more closely on local actors. Today, overall, it is unbalanced approaches to regional development that dominate, whether in theoretical terms or on a more prescriptive basis. Accordingly, the polarization processes of large cities and industrial clusters are reflected in observations of persistent disparities in wealth between regions and nations. Furthermore, the territorial dimension is also tending to play an increasingly important role, with a growing interest in local populations and their needs and behaviours. Innovation-related issues are also very much present, with greater consideration given to social variables following the exacerbation of the economic crisis and of inequalities in developed countries, and the gradual rise in the income levels of inhabitants of emerging countries. Lastly, greater attention is being paid to the desires and, above all, the well-being of populations, to the extent that it this now one of the specificities of approaches based on regional science.

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Chapter 4 Policies of Regional Development and Planning

Abstract This chapter considers the implications of main theoretical frameworks on regional science in terms of regional policy design. First are presented works supporting the hypothesis that economic dynamics will, in the long term, lead to a situation of balanced growth between territories, and thus that public-policy interventions have to stay limited as far as possible. Second we take a look at policies settled in order to respond to the challenges associated with polarization phenomena and the unbalanced nature of growth across territories. Thirdly, we focus on regional policies—today broadly dominant—that seek to stimulate innovation, considered as the primary driver of growth. Then follow an exploration of how the implementation of these policies is organized, initially via observations that show that increasing use is being made of approaches linked to decentralized public intervention, and subsequently with a view to examining the rise of territorial governance processes as means of expressing demands and desires and involving stakeholders and local populations in the definition of local regulations.

Keywords Cluster policy · Cohesion policy · Competitiveness policy · Decentralisation · Fiscal federalism · Industrial districts · Innovation policy · Multilevel governance · Regional growth policy · Stakeholders involvement · Technology parks · Territorial governance · Unbalanced growth

The analyses presented above have, for the most part, inspired or promoted the implementation of public development policies, or even of land planning policies, and can correspond to, and are sometimes mistaken for, the latter, even though the objectives may prove to be ultimately contradictory (for example, an energy development policy based on the construction of a nuclear station and a land development policies makes it possible to measure the scope of influence of works conducted in the field of regional science concerning the configuration of the measures implemented and the limitations of the operational transcription of the theoretical principles.

Overall, development policies respond to two main categories of issues—how growth can be stimulated, and how should it be distributed—which pertain to questions of competitiveness and cohesion within territories. They aim, first of all, to improve the operation and efficiency of public activities and services (in reference to location and growth theories, and to works conducted in the field of industrial economics) by optimizing their location and organization. But their purpose is also to minimize, as far as possible, the differences between the pace of growth and/or the level of development of the most dynamic regions on the one hand and the most disadvantaged ones on the other, to redistribute the fruits of growth between territories, and to compensate for situations of recession. Accordingly, these policies attempt to combine a number of principles and ensure their compatibility (Lacour et al. 2003): distribution and redistribution, the creation of economic activity and innovation, the reduction of differences and imbalances, and protection.

In this chapter, we shall first consider the implications, in terms of regional policy, of works that support the hypothesis that economic dynamics will, in the long term, lead to a situation of balanced growth between territories. As we shall see, adopting such a stance results in a whole series of principles aimed at limiting public-policy interventions as far as possible. We shall then take a closer look at the policies that have come into being from the 1970s onwards in order to respond to the challenges associated with polarization phenomena and the unbalanced nature of growth across territories, before, thirdly, focusing on regional policies—today broadly dominant—that seek to stimulate innovation, considered the primary driver of growth. This will be followed by an exploration of how the implementation of these policies is organized, initially via observations that show that increasing use is being made of approaches linked to decentralized public intervention, and subsequently with a view to examining the rise of territorial governance processes as means of expressing demands and desires and involving stakeholders and local populations in the definition of local regulations.

4.1 Approaches in Terms of Regional Balance and Growth

According to the standard growth theory, the efficient allocation of production factors should imply a move of the latter towards regions where wages are the highest, which would contribute to an overall increase of productivity and of individual well-being (Borts and Stein 1964). Indeed, the absence of political intervention was for a long time justified by citing the market's role of resource allocation, which was supposed to bring about a convergence of regional development levels. Policies based on this approach subsequently involved a minimal level of expenditure and selective support, such as that applied in the framework of the eligibility criteria set out by the European Union's regional policy (European

Commission 2004). It is now thought that this approach has too often neglected to take into account the problems of market imperfections, while accepting a hypothesis of substitutability between capital and labour, which has little credibility in terms of mobility.

Considering space as a mere recipient with no influence on economic trajectories, these policies do not take into consideration the mechanisms of subregional aggregation. Based on macroeconomic growth models, they neglect to consider the contributions of location theories, such as the importance of physical proximity in growth mechanisms (Isard 1956) and generally prove ineffective in establishing principles for local development. The same can be said of the economic base theory (Sombart 1916; North 1955)—one of the first approaches intended to provide operational results for regional development policies, which considers an increase in exports as the solution for increasing regional GDP. This solution is limited by the potential inability to increase local production capacities, both in terms of labour and physical capital, and these limitations are evident at the level of small territories.

Despite their academic success, the endogenous growth theory and the New Economic Geography provide few solutions in terms of local public policies. The contributions of the endogenous growth theory have prompted many countries to focus public expenditure on the most dynamic urban agglomerations, at the expense of equity (Scott and Storper 2007); indeed, overly focusing on increasing efficiency and productivity may lead to neglecting issues of redistribution between the various territories within a given region or country. Yet the question of increasing returns and productivity gains that these contributions raise can prove formidable (Martin and Sunley 1998) if we acknowledge that increasing returns and productivity gains are not linked exclusively to a better utilization of production factors (particularly labour) but also to an increase in the overall production volume. The role of external demand in this process-which gives rise to economies of scale (Verdoorn's law)-and therefore the reciprocal link between increases in supply and in productivity are thus neglected by the endogenous growth theory. As for the NEG, its simplifying hypotheses aimed at formalizing mathematical models only account for some of the externalities that generate regional and local growth. Furthermore, it pays little attention to the effects of historical, social and institutional contexts on growth mechanisms.

Although NEG works do not yet lead to unequivocal conclusions, they have been useful in showing that the policies of transport infrastructure development aimed at promoting the development of remote areas can fail and lead to an increased concentration of activities, particularly when they concern territories that are poorly integrated nationally and internationally (Behrens et al. 2007). Controlling the phenomenon of spatial concentration seems to be counterproductive in terms of optimum economic conditions; on the contrary, it would seem appropriate to encourage it, as the most dynamic regions have the ability to distribute the benefits of their development within their territories. Thus, geographical policies, at least in industrialized countries, merely serve to reduce the congestion effects specific to large cities, ensure that a "minimum" level of public services is provided, implement geographically neutral redistribution mechanisms, and facilitate the mobility of resources in order to reduce differences between territories (Prager and Thisse 2009).

4.2 Approaches in Terms of Inter and Intraregional Inequalities

The growth pole theory, based on the importance of local input–output relations as a lever for growth, has been applied extensively in Europe and in South America, particularly since the 1960s. The idea is a clear and simple one: regional development can be driven by the presence of large firms, whose intense activities and growth have positive effects throughout the local production system as a consequence of input–output relations. Based on the belief that the presence of large firms stimulates growth (propulsive industry), various policies have been implemented with the aim of creating and relocating industrial firms. They have resulted in some successes (Biopôle in Lyon, France), but also in a low level of job creation and in the construction of a few "cathedrals in the desert" (Lipietz 2001) in countries like Algeria, for example. This approach differs from the liberal vision of development conveyed by NEG by espousing the idea that polarization is not inescapable and that corrective policies can promote the development of poorer regions, particularly through the proactive deployment of industry and of export taxes.

With the industrial crisis of the 1970s, these models proved incapable of interpreting the emerging phenomena (large firms and industrial regions in crisis, persistence of a certain immobility of capital and populations, success of certain regions—such as the "Third Italy"—that were not organized according to these precepts) or of proposing efficient solutions. Economic theories and endogenous regional development policies (Vazquez Barquero 2002) alike subsequently began to shift their focus towards managing and exploiting local resources more effectively and promoting collective action in territories, particularly following the success of industrial districts and other types of local productive system. Nevertheless, the emphasis placed on endogenous factors and the decentralization of decision-making, particularly of strategic decisions, raises the question of their reproducibility and of their dependence on macroeconomic contingencies that bear little relation to the quality of the decentralized policy.

One of the main criticisms of this policy, based on the advantages of large firms, comes from the "industrial district" approach. This approach was based on the observation of local phenomena and established itself as a principle underlying local development policies in many countries. In the 1980s and 1990s, this spontaneously developed system of organization, from which high technology activities had been absent, was progressively replaced by more structured and regulated systems. Districts, particularly in Italy, benefited from state support in the form of

subsidies for innovation and export, granted in the hope of ensuring their survival and development. The desire to promote innovation and technological development activities within those districts was also demonstrated through local policies supporting industrial districts, especially in Italy or in other countries in Southern Europe such as Spain.

It should also be noted that APLs (*arranjos produtivos locais*)—less formal types of local groups than districts, with fewer prerequisites—have developed in some of the BRICS countries (Brazil, Russia, India, China, South Africa), especially Brazil since Lula's accession to power in 2003. Territorial development then came to be seen as a way of reducing inequalities and, in so doing, of promoting sustainable and balanced growth. This led to the creation in 2004 of a working group whose mission was to design a policy for supporting APLs, on the basis of several pilot projects. From 2008 onwards, a number of innovative regional policies, which had been implemented in a poorly coordinated manner by various ministries, gave way to a unique regional development programme, achieved through "territories of citizenship".

The APL policy was intended to encourage the formation of groups of small local businesses in the same production sector in order to develop relationships between local organizations and foster innovation. In order to receive financial support, APLs have to meet certain criteria, such as a minimum level of concentration of firms in the same industry in the territory concerned, a concentration of individuals employed in the sector in which the APL operates, a certain level of cooperation between participants, and the existence of internal governance mechanisms. Extending this policy to the whole of Brazil, particularly to areas in difficulty, has required the implementation of local development structures. These serve as intermediaries between the support institutions in charge of implementing the policy at federal level and allocating resources and the local producers. Rural areas, in particular, have often benefited from support for collective action, through aid provided to local organizations of this kind.

4.3 Giving Innovation Pride of Place: The Era of Technology Parks and Competitiveness Clusters

One of the characteristics of contemporary development policies is that they consider that dynamism, at local level, in terms of innovation, production and knowledge transfer is a key factor in regional development, hence the important efforts undertaken by regional and local authorities in this field. Policies seeking to support innovation—acknowledged as a source of increasing returns—are now part of the arsenal of measures available to decision-makers, who see increasing returns as the driving force, *par excellence*, of growth and development (Hall 1994). These policies are based on the fact that the appropriability of innovation gains is low, which calls for intervention by the state to compensate for a possible low level of R&D investment. These strategies, which have given rise to policies promoting high-tech activities (Goldstein 2009) or large-scale undertakings such as the Airbus project, are also considered relevant for rural areas, isolated regions and SMEs that lack resources. Their offshoots can be divided into four primary, though not quite self-contained, categories:

- Traditional policies of support for R&D activities and expenditure, in terms of volume or numbers of jobs;
- Policies that promote exchanges between firms and laboratories or universities, so that innovations irrigate the productive sector more rapidly. For example, the Triple Helix approach aims to facilitate communication between these sectors and civil society or the public authorities (Leydersdorff 2006);
- Policies promoting the creation of a knowledge- and skill-based economy, based on both an increase in the level of education and the spread of new technological technologies among the population;
- Finally, policies that seek to attract "innovative players" to certain regions or urban areas, arguing that their presence will promote creation and innovation processes.

In Europe, there are few countries or regions that have not implemented policies dedicated to local innovation systems, such as districts in Italy, the competence clusters in Germany or Denmark, or the technology and science parks in the United Kingdom. France's "competitiveness cluster" policy underlies a large part of the efforts undertaken to promote innovative activities. Governed by the state, which functions as an initiator or facilitator of initiatives, this policy is supposed to orientate the production and innovation activities of a large number of enterprises, through the implementation of an incentive policy. Furthermore, the sector-based logic of previous policies promoting large-scale projects has given way to a concentration of activities and production methods in selected geographical areas earmarked for large businesses. This creates some ambiguity in the policy, in as much as it encourages the development of large industrial concentrations while aiming to promote regional planning. Finally, this policy is compatible with the Lisbon Strategy, which aims to make Europe "the world's most competitive and dynamic economy," as declared by the European heads of states and governments at the European Council of March 2000.

One of the known limitations of this approach lies in its linear conception, which minimizes the importance of feedback loops and of uncertainty in innovation processes. It leads to relatively unsatisfactory results in that it fails to take account of the geographic concentration of R&D and of innovation activities within a small number of regions, as well as the phenomenon of new knowledge being exploited outside the supported areas. Moreover, the usefulness and appropriateness of "picking-the-winner" policies of this kind, which aim to select the areas most conducive to innovation and the most dynamic sectors in terms of future job creation (biotechnology, nanotechnologies), might legitimately be questioned (Boschma 2009). Besides the fact that it is impossible to predict future fast-growth

regions or winning sectors—because new industries are often the result of spontaneous processes rather than orchestrated interventions—these policies typically lead to the same activities being encouraged everywhere, despite the fact that the industrial and innovation systems in place are very different and often incomplete (Camagni 1995). Thus, inertia and lock-in phenomena prevent most regions from developing these industries, resulting in huge losses of public resources.

Another approach to innovation policies is advocated by research works whose views are close to those of evolutionists, who consider that market imperfections should not necessarily be corrected by public intervention for they are inherent in regional economies and can sometimes serve as drivers of innovation and growth (Bryant 2001). The goal of regional policy should then be to encourage and facilitate innovation through the creation, dissemination and exploitation (or commercialization) of new knowledge (Boschma 2009), but also, and above all, through the promotion or creation of businesses. This may involve direct interventions, such as the provision of R&D, education and capital, in order to increase firms' absorption and innovation capacities, as well as to stimulate knowledge transfer through three main mechanisms: incentives for the creation of spin-offs from universities or firms, so as to diversify the regional economy by exploiting the knowledge and skills available in the existing sectors; support for labour mobility; and support for collaborative networks.

4.4 A Trend Towards Decentralizing Public Policies

Since the early 1990s, in parallel with these changes, controversies have arisen concerning the appropriateness of the regional level for regulating and understanding economic dynamics. Some authors have used the terms "new regionalism" (Keating et al. 2003) or "new localism" (Goetz and Clarke 1993) to account for the importance of the region in the logics of economic, social and political actions, and of territorial institutions in development processes. The context is favourable to decentralization policies, whether they involve the reinforcement of regional and territorial structures, the rise of regional identity movements or certain regions' increasing demands for autonomy. Various schools of thought share doubts about the ability of national instruments and policies to solve economic and social problems, and agree that approaches at a regional level (or within a small nation) are more efficient. It is, in particular, at this level that efficient solutions to the issue of firms' competitiveness could be found, by being better able to understand the constraints and actions that characterize them, in an international environment marked by a high degree of institutional integration and economic interdependence (Scharpf 1991).

Thus the role of regional institutions is shifting from that of implementing the competitiveness and redistribution policies developed by the state to that of territorial entrepreneurs seeking to manage and organize the territories in such a way as to make them efficient, promote them, and attract investments—a shift whereby

territories are engaged in a form of competition symbolized by the multiplication of development agencies (Halkier et al. 1998). The role of these agencies—key development actors—is based not only on regional policies, but also on the implementation of mechanisms for developing the supply of training and skills, of technologies, and of facilities responding to expectations in terms of land, housing and even of the natural environment.

This logic is not limited to the regional level, but extends to towns, large cities, and peri-urban or rural areas (Harvey 1989), and combines with the development of local alliances between social and political actors in order to promote local economic growth (Keating et al. 2003). Although, overall, they fit within a neoliberal context, such strategies are sometimes based on different ideologies, as shown by the successful development of Emilia-Romagna—based on the combination of progressive political action, social integration and entrepreneurial success in the context of industrial districts—a region governed by the Italian Communist Party (Brusco 1982; Garmise 1994). Such alliances thus play a key role, embodying the local institutions from which decisions initially emerge concerning the production of public goods to foster development and the creation of relations between economic actors.

Some authors have cautioned against the excesses and negative effects of this entrepreneurial approach (Harvey 1989). Indeed, innovation initiatives and investments approved by territories in order to differentiate themselves and gain a competitive advantage are only relative and temporary, which subjects them to the pressures of a race in which each territory seeks to (temporarily) take the lead in terms of attracting enterprises and households. Despite the resulting stimulation, the risks of inefficiency are many.

Furthermore, there is an important debate about the sharing of competencies and budgetary resources between different authority levels, from the local to the national, and even supranational. Sometimes described as fiscal federalism, these approaches relate to different topics: the optimality of the distribution of powers and financial resources, the coordination of activities between subnational governments within a federal state, interregional externalities, equalization and solidarity, financial transfers, and tax competition. These are traditionally addressed in terms of three main functions allocated, according to Musgrave's typology, to the public sector (Musgrave 1959): efficiency of resource allocation; equitable income redistribution; and macroeconomic stabilization and promotion of growth.

If the federal state or supranational level is recognized in literature as the most suitable level for the function of macroeconomic stabilization, particularly in relation to the budgetary and financial dimensions, analyses of the causes of growth generally conclude that it is appropriate for responsibility to be shared between the different spatial levels. But most of the current controversies concern the optimal spatial level for the allocation and redistribution functions. The "vote with one's feet" approaches (Tiebout 1956) long pointed to the efficiency of the decentralized production of public goods, provided a number of assumptions were satisfied: (a) the preferences of the actors in the various federal entities are not homogeneous;

(b) consumers are mobile; (c) returns to scale are absent when public goods are divisible; and (d) public goods do not spill over from one community to the other.

But the New Fiscal Federalism tends to question the relevance of this model for the management of public expenses, and of fiscal autonomy for local authorities (Rodden 2000; Wildasin 2004), arguing that giving lower-level authorities too much room for manoeuvre in terms of budget policies or borrowing could lead to over-indebtedness and to a non-optimal distribution of resources. Furthermore, the benefits of the tax competition to which the regions subject one another, in their attempt to attract businesses, remain highly controversial, as tax competition can lead to insufficient tax levels in relation to the demands of local development, or even prove inefficient in the case of businesses characterized by low mobility. Finally, the question is raised of the efficiency of the modes of public intervention in matters of redistribution, and more particularly of the organization of social benefits between individuals or territories. The questions of interregional solidarity, and therefore of tax-base mobility, also pertain to equity between regions and to the relationships between central government and decentralized authorities.

A solution to this debate lies in the implementation of multilevel governance policies (Marks et al. 1996). Extensively used in the political science literature (Bache and Flinders 2004), this term emerged in the mid-1990s to conceptualize the complex relationships within the European Union between state and subnational actors, public and private actors, and transnational and supranational actors, within diversified networks of horizontal and vertical relationships (Payne 2000). Indeed, a close examination of practices shows a reinforcement of the direct interactions between supranational and subnational (especially regional) authorities in the implementation of policies (Rodriguez-Pose 2002), with the EU becoming an evolving arena whose dynamics cannot be reduced to an intergovernmental logic. To the local (or regional) and national (federal) tiers, for example, has now been added the European tier, with all its attendant decisions and regulations.

Though states remain the main actors of the decision-making process and of the implementation of public policies, collective decision-making processes cause the executives of each state to lose some control, while in the meantime subnational actors are directly involved in the national and supranational arenas, creating transnational associations. Thus the states are no longer the sole link between subnational and European actors and now appear as one actor among many operating at different levels. Some justify this evolution by the diversity of the geographic scales (from the local to the global) of the externalities related to the provision of public goods (Hooghe and Marks 2001). However, certain fields of public action remain the prerogatives of national governments—for example, labour market regulation, taxation and public investment, the last two of which enable them to perform the function of redistribution between the better endowed regions and those that are less well off.

4.5 Territorial Governance as an Emerging Form of Territorial Dynamics Regulation

Following the institutional innovations generated by the decentralization and contractualization processes, local actors in many countries experimented with new forms of public action and participation in decision-making, and moved from a pyramidal or hierarchical organization, based on public institutions, to a network organization (Kooiman 2000; Powell 1991) incorporating public–private partnerships (Wettenhal 2003) and, beyond this, involving actors of very different types (Pierre 2000). The concept of territorial governance came into use, indicating the emergence of a new way of administering territories, based on involving local actors and on implementing projects, and on more or less consensual visions of the future (Torre and Traversac 2011).

The concept of territorial governance has emerged in response to two key changes in territories, in a context of increased competition and at a time when it is necessary to find new paths towards development. The first change lies in the increasing heterogeneity, and therefore complexity, of local actors, particularly in rural and peri-urban areas: the mosaic of stakeholders includes not just the public authorities, but also the producers of services and industrial goods, as well as old and new residents and even tourists and visitors. The second change is the increasingly strong involvement of populations, who wish to take part in decision-making processes and territorial projects and to have some influence on the changes in local democracy through pressure or action groups such as associations or more or less formal lobbies. It should also be noted that the number of entities in charge of decision-making or implementing public policy has increased at local level. In France, for example, intermunicipal cooperation bodies and "project territories" (natural parks, "pays") have been introduced alongside municipalities, the basic level of administration. This, as well as the growing competencies of departmental and regional councils, has added complexity to the landscape of public action.

Territorial governance cannot be reduced to the exercise of local power by decentralized state services, nor to the actions undertaken by local or regional authorities. It involves the participation of populations in decision-making mechanisms, through different groups or representatives, as well as the interweaving of the local and global levels. It must be understood as being at once the origin of and a source of support for local or territorial development; indeed its purpose is to: (i) promote the implementation of development projects; (ii) contribute to the development of broad consultation mechanisms; (iii) facilitate coordination between heterogeneous groups of actors; (iv) limit the departures of players; (v) prevent debilitating clashes; and (vi) ultimately decide on development paths.

Often presented as a form of "government by compromise", or as a multilevel and multipolar coordination process, in a polycentric and highly asymmetric environment, it calls into question the mechanisms in place and calls for a reinforcement of the processes of local or deliberative democracy. Stakeholders are active in particular during the periods between elections, grounded in the belief that the delegation of authority granted to elected officials does not in itself give them or the state general competence, nor the ability to deal with all matters or address new issues in an informed fashion. Territorial governance can thus be equated to populations exercising a voice [in the sense meant by Hirschmann (1970)] in the course of their daily lives.

The actors—or stakeholders—of territorial governance are manifold. They obviously include the decentralized services of the state or local authorities. But other private or semi-public actors also play a role in coordination processes and action projects. Among them are cooperatives and groups of producers in the farming and agribusiness sectors, which are long-standing and deep-rooted lobbies, or innovation, technology and knowledge-transfer networks active in localized production and innovation systems. It should also be noted that in the fields of land-use planning and collective decision-making, associations and NGOs are playing a growing role, by supporting or opposing projects. Nature-protection and residents' associations are among these organizations.

But governance is also based on concrete land-planning tools or on entities that govern activities. These include planning documents (in France, local urban development plans and territorial coherence schemes), which determine which land areas are to be used for which purposes (housing or other facilities), land-planning schemes implemented at regional level, and different zoning types resulting from public policy (Natura 2000 in Europe, for example). It also makes use of hybrid mechanisms (Gilly and Wallet 2005), some "top-down" (such as the mechanisms that depend on European or national financing), and others more at grass-roots level, giving local actors the freedom to initiate and experiment with specific forms of intervention. Projects such as poles of rural excellence in France and local structuring projects, co-financed by LEADER funds and national funds, provide an example of a combination of internal and external support: the logistical and financial resources emanating from national and European sources combine with local resources and territories' innovation capacities.

Territorial governance is constantly developing and its mechanisms are therefore not fully stabilized and are a subject of debate and controversy. This is evidenced by the unending drafting of laws pertaining to local democracy, or the increasingly complex regulations concerning decision-making in matters of public infrastructure projects (in France, declarations of public utility, public inquiries, creation of the national public debate committee, consultations preceding the preparation and review of planning documents, consultative commissions on local public services, etc.). This array of participative and information mechanisms is intended to facilitate public decision-making and adoption, and is characterized by rising levels of participation, ranging from communication to negotiation; however, it also complicates procedures. They also serve as levers of intervention for populations, who sometimes react strongly against public projects, especially those involving the building of new infrastructure.

As a result, there has been rising opposition and protest, particularly against projects to develop transport, energy and waste-management infrastructure initiated by the public authorities. This raises the question of collective good, since this infrastructure is necessary for people's everyday lives, particularly in peri-urban areas, but some residents also reject and oppose it. Thus, land-use conflicts take the form of resistance and the expression of opposition (through litigation, media campaigns or acts of violence) to decisions that cause discontent among certain members of the local population (Darly and Torre 2013). Land-use conflicts are platforms for private actors to test the decisions made: they are trial-and-error processes through which territorial innovations are accepted, modified or rejected (Torre et al. 2014).

Thus, conflicts constitute, for some stakeholders, a way of initiating debate on the issues of, and paths towards, territorial development, and of influencing decisions by taking part in ongoing processes (Dowding et al. 2000). They typically pertain either to decisions concerning land use (arbitrated negotiation) or to the composition and representativeness of the bodies in charge of making decisions (arbitral negotiation). A conflict is thus an integral part of the deliberative process at the local level, by allowing an expression of local democracy and the re-inclusion of stakeholders who were forgotten or felt negatively affected during earlier project development stages.

The governance of territories does not therefore consist of some idyllic management of economic and social relations (i.e. forms of cooperation and common constructions). Far from being long, calm rivers, territorial development processes and the way they unfold over time include phases of negotiation, collaboration or appeasement, as well as more heated or conflictual periods during which certain groups or categories of stakeholders clash, sometimes violently, over what steps to take and which options to choose. The process of territorial governance has two complementary sides, the mutual importance of which varies according to the period and the situation. It feeds on these opposing views (Glazer and Konrad 2005), which, once processed and combined, lead to the definition of territorial development paths.

Regional policies, under the influence of neoclassical thinking, have long considered that the mobility of production factors in the search for greater efficiency and income should, in the long term, ensure balanced growth between regions. As a result of this, principles for the limitation of public intervention were developed, the broad lines of which essentially boiled down to ensuring optimum performance in terms of market regulations and the location of production factors. By minimizing the imperfections of the mechanisms for allocating such factors, these policies have partially and progressively given way to measures resulting from the analytical frameworks of endogenous growth theory and NEG. The funding of infrastructure projects and the accompaniment of agglomeration processes therefore occur with the aim of taking advantage of financial and technological externalities, which generate growth that is supposed to spread, by capillary action, from the most dynamic metropolitan areas out to the most isolated rural territories.

However, in the 1970s, observations of a permanent imbalance within and between regions in developmental terms led to the implementation of different policies. By aiming to reinforce the effects of intangible factors (knowledge, cooperation, organization of chains and networks), these policies sought to foster the emergence of local configurations enabling the development of territorial resources by exploiting comparative advantages. Policies promoting industrial districts and, later, clusters were thus met with considerable success, which was extended and subsequently amplified in the early 2000s following the widespread adoption of policies based on innovation dynamics.

In parallel, the desire to achieve greater efficiency in public policy and reduce implementation costs lead to a fundamental change in favour of decentralization processes. More or less everywhere in the world, the reinforcement of local and regional authorities' prerogatives has accompanied the success of the principles of fiscal federalism, with a view to meeting the expectations of populations more effectively, stimulating drivers for growth, and above all attempting to control the growing burden of funding and public debt, to a large extent at the expense of principles of cohesion and equal opportunities among territories. Accordingly, a new architecture for public intervention has been put in place, leading to a repositioning of state prerogatives, though this should not be interpreted as a weakening of central government. These efforts, sometimes described as "remote government" (Epstein 2008), are in fact more a sign of the establishment of multilevel governance involving intricate balances. In redefining the role of the different tiers of public authorities, this form of governance increasingly-and necessarily-takes into consideration the diverse expectations of local populations, the greater demands that are made of it, and the need to manage conflictual situations, by gradually changing the way development projects are conceived and implemented across territories.

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Chapter 5 In Search of Rural Development

Abstract This chapter questions the concept of rural development. Pointing the difficulty of reaching a definition generally accepted, it also presents the historical evolution of ideas that underlie this concept. From the technical approach centered on agricultural modernization that prevailed in the 1950s to the current interest in agro-ecological issues, different dominant models of rural development are successively presented and discussed: technicist, local networks, empowerment, capabilities, civil society, and environmentalist approaches are considered. From these successive adjustments of rural development models resulted in the early 1990s, the idea that rural areas are engaged in a new development paradigm, responding to expanded logical, particularly in the sectoral dimension, on the place and role of agriculture, the modalities of public intervention, and types of involved stakeholders. Our purpose here highlights the turning point constituted by the recognition of agriculture's multifunctional nature.

Keywords Agricultural modernization • Agroecology • Capabilities • Civil society • Empowerment • Environment • Local networks • Multifunctionality • New paradigm • Rural development • Technicist approach

Considered in its most general sense, the term "rural development" is a variation of the term "development" referring to an area with specific characteristics: "The term rural development is a subset of the broader term development (...) It connotes the overall development of rural areas with a view to improving the quality of life or rural people" (Singh 2009). However, this approach has proved difficult to maintain. Indeed, Singh identifies no less than four successive and alternative meanings for the term "rural development", which can be seen as a process, a phenomenon, a strategy or a discipline!

Choosing the right definition for rural development is also complicated by the aforementioned difficulties in defining the terms "rural" and "development".

Long confused with the notion of agricultural development, because of the predominance of agribusiness activities and the importance of the farming sector, the notion of rural development has emerged in the social and political debate and has progressively established itself in the OECD countries (OECD 2006b). Whether it is conceived by member states as a broader form of agricultural development, a component of regional development or a way of taking account of environmental issues such as the preservation of natural resources and biodiversity or the provision of environmental goods and services (Perrier-Cornet 2011), rural development is now an integral component of EU policies and one of the pillars of the Common Agricultural Policy. In countries of the Global South, the priority was previously urban development, marked by structural adjustment policies and rapid modernization processes. The renewed interest in rural development, triggered by international organizations (World Bank 2007) and by local initiatives, is related to the environmental impact of development operations (deforestation, destruction of biodiversity, etc.), the increase in social conflicts, the dissemination of new modes of production, and the fear of a widespread food crisis.

Although a large number of works and handbooks have been published on the question of regional or territorial development, as well as presentations of research conducted in this domain, the equivalent literature on questions of rural development is not as easy to come by, as the latter is a field of study that cannot readily be described as a discipline per se (see Cloke et al. 2006). Nevertheless, questions related to rural development are now included much more frequently in public policy agendas, as can be seen in the European Commission's well-stocked website devoted to questions of agriculture and rural development (European Commission 2010) or in various books describing field experiences or actions conducted in collaboration with local actors (for example, Moseley 2003). It is therefore necessary to keep reading and searching in order to define the content and the research conducted in this field, which ranges between broad analyses of actions and policies implemented in the field and more detailed analyses of studies where questions of development are not necessarily priorities. Incidentally, local practices and policies lead to theoretical reflections, and therefore contribute to the construction of the "new paradigm" (van der Ploeg et al. 2000; OECD 2006a).

A historical interpretation of rural development practices and of analyses thereof could be broadly built around the notion of an organizing principle specific to each decade since the 1960s: the paradigm of modernization was succeeded by the paradigm of public market intervention and income support; this was followed in the 1980s by trade liberalization and later the emergence of the precepts of participation and empowerment, and, finally, since the beginning of the 21st century, by growing concerns about the environment and the sustainability of livelihoods.

However, closer examination shows that each of these structural principles is confronted with older "paradigms" and their corresponding effects and intervention mechanisms. Moreover, they have not imposed themselves radically or suddenly but have resulted from gradually rising concern and social and political structuring processes which have ultimately led to their predominance. This has resulted in transitions and overlapping processes rather than radical breaks.

Furthermore, the question remains of how these changes have affected rural areas. It has to be said that the paradigms that have dominated each decade refer more to offshoots of macroeconomic and cross-sector policy (Keynesian policy,

consumption and demand boosting policies, liberal policies, etc.) than to any rural or even agricultural specificity (Ellis and Biggs 2001). Change in the guiding principles of rural development can therefore be interpreted within the context of wider developments, the analytical interest lying in the originality of the variations on these principles when they concern agriculture and rurality. In this respect, the recognition of agricultural multifunctionality (Vollet 2002) and changing expectations in terms of the amenities associated with rural areas (biodiversity, demand for space, landscapes, leisure, etc.) highlight a change in the status of rurality. The latter is no longer confined to its function as food provider—whatever the dominant paradigm. It is necessary to analyse the extent to which these new characteristics provide a foundation for new forms of rural development.

5.1 The Paradigm of Agricultural Modernization: A Technicist Approach Focused on Agricultural Production

The first contemporary analyses of rural development are based on the experiments conducted in the 1950s following development programmes initiated in various regions of the world, particularly by the United States or the United Nations. These programmes were characterized by a strong emphasis on agriculture, which can be explained by two historical factors: the necessity to increase the food supply, and the massive presence of farmers in most rural areas on the planet. Farming constituted both the main economic activity, in terms of income and occupation of the population, and the main user of rural space. It is for this reason that these programmes focused above all on promoting the development of agricultural production and productivity, in particular through technology transfers, the implementation of new technical paradigms and the pursuit of higher returns, through the rationalization, mechanization and intensification of production. The green revolution was under way, for the greater benefit of rural areas (IAASTD 2008).

This rationale was put into practice through the reinforcement of state intervention aimed at regulating the market, including through farm price and income support mechanisms; it was then progressively called into question as a result of the WTO's competition principles. The debate around the issue has been all the more intense because the export-oriented nature of agriculture has become established through a process whereby farms have been growing in size while becoming fewer in number, and working for an increasingly productive food industry.

However, doubts and concerns are fast emerging as to whether these programmes are entirely valid. First, because they focus essentially on the productive dimension without paying a great deal of attention to the welfare of populations and their access to resources other than food. Second, because they pay little attention to demands for equity or equality in the treatment of individuals, and often contribute to certain categories of people becoming wealthier at the expense of other groups who continue to live in poverty or dependence (Partridge and Rickman 2008). But also, third, because the ecological and environmental consequences (in relation to pesticides or water resources, for example) of these policies are seldom considered, or because the populations are rarely included in the decisions made in this regard decisions which they follow or are subjected to rather than controlling or initiating them. Finally, one major event has called into question the very nature of these policies, namely the rural depopulation and resulting loss of influence of farming in rural areas. It has become impossible in many regions, particularly in Europe, to found a development or even a growth policy exclusively on agriculture. Rural economies are thus characterized by a loss of knowledge capital and know-how and a loss of population, as well as by a process whereby a balance between farming and other, tertiary or secondary, activities can be achieved (Marini and Mooney 2006).

5.2 Challenges to the Technicist Paradigm and Recognition of the Human and Social Dimensions of Development

Some scholars subsequently began to call into question the diffusionist paradigm and its validity. Their works are based, in particular, on revealing the limitations of the automatic transfer of innovations and technologies by placing emphasis on the obstacles to dissemination resulting from various types of social resistance and the limited competences of local actors (Chambers 1994). This was followed by a recognition of the necessity to leave behind development strategies based solely on the efficient use and exploitation of tangible productive factors, as well as the urgent need to consider the social dimensions of the development processes analysed or examined.

Furthermore, a number of research studies have highlighted the need to take into account the opinions of local populations, including non-farming populations, and enable civil society to participate in decision-making with regard to matters of development. Similarly, the desire to ensure that the populations intended to benefit from the development processes are not sidelined, and are able to participate in the decisions made about them or their future, has led a number of large international institutions to address this question and initiate a debate about participatory approaches to development (see, for example, the Neuchâtel group 1999).

In parallel to this, the core issue of empowerment in terms of local competencies and capacities has slowly emerged in the literature, in particular following works such as those of Sen (1999). The difficulties associated with local populations' poor involvement in—or even rejection of—certain technical solutions meant to bring about development, the limits to the transfer of successful models to new areas (especially from the North to the South)—the mismatch between cultural models, and the lack of individual and collective skills required to master and implement technical solutions have all led to a revision of the notions of rural development.

It then became urgent to take account more effectively of local specificities and of populations' expectations and value systems in the definition and implementation of development processes. "Bottom-up approaches" began to be considered as alternatives to traditional centralized models, and more attention was paid to local cultures and know-how. Thus, alongside a dominant but now weakened agribusiness model, there came to be recognized alternative production models based on approaches centred on quality, a better use of specific local resources, and strategies of product and territorial differentiation. In the meantime, the desire to optimize the potentialities and initiatives of populations led to a re-emergence of local agricultural traditions as a means of supporting rural development strategies. Finally, demands from Southern countries have challenged the efficiency and hegemony of Western models, and have called into question the legitimacy of the stringent solutions advocated by international institutions to exit crises, such as structural adjustment policies.

5.3 Consideration of Local Diversities, Collective Competencies and Rising Demands

The demonstration of the limitations of the development model based solely on the improvement of economic performance through technical progress has pointed to the need to find new organizational models. Consequently, alternative approaches have flourished, all of which have made a greater effort to take social dimensions and local particularities, in their various forms, into consideration. Among the profusion of approaches, a few broad lines of thought can be identified, all corresponding to various streams of research that are sometimes difficult to distinguish but which are in fact based on different analytical perspectives.

(a) Local networks approach

A first set of studies relates to the phenomena of learning and knowledge acquisition by local populations, at individual or collective level. These studies concentrate first of all on the channels and means of diffusion of technical information—particularly relating to farming activities—among local actors, in terms of both its physical and social dimensions. Accordingly, attention is focused on the development and spread of information and communication technologies (Richardson 2005), deployed to serve farmers, as well as on the role of agricultural consultants in this process, deemed vital for the growth of farming. But other works also examine how this diffusion takes place and consider the learning processes established by the local populations, by focusing on the way knowledge is appropriated by actors and exchanged within groups (Falk and Harrison 1998) rather than on the analysis of the knowledge itself.

As Coudel has highlighted (2009) "these approaches are based on the concept of 'community', understood as a group sharing common interests, goals or values (this type of community may be a geographic entity, but not necessarily so)". The aim is to understand the learning mechanisms at play within these "communities" and to promote their development. We are referring here first and foremost to approaches in terms of local (innovation) networks, or even approaches for the development of social capital or of networks that interconnect local actors within collective and shared dynamics. The development and reinforcement of these communities, with which a significant part of the population identifies, must allow for a faster technical and social learning process, in order to foster development and the enrichment of the local population (Murray 2000). Priority is given here to a systemic or network approach, with an emphasis on the importance of linking and bridging relations in development processes. The APL policies discussed earlier, which are often intended for rural regions, particularly in northern Brazil, offer a useful illustration of this approach.

(b) Enhancing empowerment and capabilities

A second group of studies refer to the capability and empowerment dimensions, and bring to the foreground the improvement of the capacities and competences of rural residents. It is interesting to note that this is related to the conception of social psychology, in the sense that it is the development of individuals that is brought to the fore, even though the individuals cannot be separated from the group or groups to which they belong. Originating in research centred on notions of gender, racial minorities and healthcare (Lincoln et al. 2002), empowerment approaches are often used in Southern countries in relation to marginalized populations, such as peasants or small farmers, or women. Indeed, these approaches involve helping these marginalized populations improve their own competences and capabilities and social integration, particularly through experience-based learning.

The capability-based approach, originating from Sen's works, has more individualistic foundations and is built on the idea that actors must be free to choose from a range of action possibilities offered by their environment. It is from the interaction between individuals' desires and the constraints of their environment that the possibility of controlling and acting upon one's physical, economic and political environment emerges, for the benefit of the development of individuals and social groups (Nusbaum 2000). Of liberal inspiration, these theories are based on an idea of social justice in which individuals are granted rights and tools of intervention enabling them to attain their freedom, and therefore to choose their own development path, taking into account, however, the reality of the environment.

(c) Civil society approach

A third and final group comprises approaches that accord an important role to civil society, by including not just farmers and public authorities in projects, decision-making processes and local development initiatives but also a whole range of mostly local actors. The question of territorial governance is present here and

takes into account the diversity of opinions and their necessary reconciliation, as well as the multiplicity of stakeholders, who play a role in the development process by pushing for the implementation of principles of participative democracy (Berger 2003). The defenders of these approaches seek to move beyond approaches based on endogenous development by considering both the interests and goals of local populations and the policies and directives from outside the territories, with governance being understood here as a "government of compromise", or as a process of multilevel and multipolar coordination in a decentralized and highly asymmetrical context (Jordan et al. 2005).

Development thus first requires that oppositions and conflicts be overcome, so as to rally the different parties around a common vision and project (Leeuwis 2000), a procedure based on an intense process of exchange, discussion and social learning, and which can sometimes lead to the implementation of a process of territorial innovation. Accordingly, as Coudel has highlighted (2009), these approaches give priority to development processes rather than to the definition of targeted, or even quantifiable, goals. This brings us back to one of the initial dimensions of approaches to development, which places emphasis on evolutions, and sometimes changes (little discussed here), rather than on the comparison of states or the evaluation of the capacity to achieve goals. Here, too, we can find approaches in terms of local systems, along with studies of localized agrifood systems, that can be related to a significant part of the literature on localized production systems, of which they are a rural variation.

The question of development is addressed differently depending on the approaches adopted. With regard to the phenomena of learning and knowledge acquisition by local populations, the idea is above all to facilitate the diffusion or establishment of new techniques, which are expected to generate productivity gains or contributions to growth. In the case of research into capabilities and empowerment, the idea is more to develop the capacities and competences of the population and increase levels of education and know. Finally, approaches that focus on governance and participative democracy mostly see development as a happy outcome of the implementation of governance processes based on the participation of the population, the ironing-out of opposition and the definition of common projects.

5.4 The "New Paradigm"

While opinions converge towards rejecting the traditional paradigm of rural development, the diversity of analyses often comes across more as a patchwork of approaches than a unified approach. Synthesizing these approaches is challenging, especially as they continue to develop and either compete with or overlap one another. Nevertheless, most analyses consider them components of a new paradigm (see Table 5.1, Sect. 5.5) that has emerged in the last 20 years—components which all represent departures from the once dominant model.

	Technicist paradigm	Local networks	Empowerment Capabilities	Capabilities	Civil society	Environmentalist
		approach	approach	approach	approach	approach
Conception	Farming	Local network	Cognitive	Individual	Territorial project	Agroecology
of			community			
development						
Structural	Increase of	Development and	Social capital	Individual choices Governance and	Governance and	Sustainable
principle of	agricultural	exploitation of	and learning	and exploitation of involvement of	involvement of	development
development	productivity and	specific human	dynamics	competencies	stakeholders in	
	technology transfer	resources			projects	
Key	Technical mastery of	Quality and	Knowledge	Implementation of	Power relations and	Multilevel and
development	agricultural	development of local		choices and social	coordination	multi-actor governance
variable(s)	production	resources		justice	mechanisms	of environmental
						systems

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In view of the successive challenges to the modernist paradigm mentioned above, questions might be raised about the extent of the success of this notion of a "new paradigm". Is this approach different from those previously established, based on the promotion of local initiatives, empowerment and the development of the capabilities of the population? We tend to be of the view that the considerable success of this concept-in both academic and public-policy circles-at the beginning of the 2000s corresponds rather to a tipping point. It follows the gradual settling of innovative local initiatives, changes in the farming sector, institutional changes, and reforms of agricultural policies, which have all progressively helped to call into question the modernist paradigm. In other words, while there is today agreement regarding the coexistence of two major agricultural models based on achieving competitiveness through action on costs and pricing on the one hand, and on more territorialized approaches that give priority to quality and local supply on the other, the early 2000s were something of a critical juncture. The multiple adjustments that affected farming and rural practices, as well as political reforms in these domains, achieved a certain coherence at this time, resulting in the definition of a new reference that more effectively incorporates territorial dimensions (via sector-specific diversity, bottom-up initiatives and decentralization) and environmental dimensions (via multifunctionality in agriculture, the preservation of natural resources and, more recently, an increasing focus on climate change).

This paradigm is thought to be emerging both in the practices and interventions of actors in the field and in public policies. It appears to be gaining autonomy from the dominant agro-industrial production model based on the use of chemical input and the health control of products, while developing an alternative representation of rural areas to that of dependence on the phenomenon of urbanization (Roling and de Jong 1998; Marsden 2006). Added to this is the emergence of issues related to the environment and sustainable development, which have a strong impact on the conception of activities conducted in rural areas—particularly farming activities— and influence public policies and their implementation at local level, especially with regard to zoning matters (Natura 2000, habitats directives, green and blue corridors, etc.).

The new paradigm comprises different elements, which influence and interconnect with one another. Three of the key elements are as follows:

- The rise of alternative practices in the field of rural and agricultural development, in response to the limitations of the dominant productivist model and aimed at overcoming or even rejecting this model. There have, since the 1990s, been many local initiatives and experiments, largely based on the idea of the multifunctionality of agriculture and of a necessary diversification of economic activities in rural areas.
- The production, through local expertise, of new scientific knowledge, demonstrating the limitations of the dominant model and presenting alternative farming techniques, along with possible combinations of farming production activities and other means of using and developing resources in rural areas.

3. A change in farming and rural policies, supported, for example, by the OECD and the European Union: reducing direct support, exploring measures for improving farms' competitiveness, shifting from subsidy-based approaches to investment-based approaches, extending rural policies to include activities other than farming, developing new forms of governance, and promoting the involvement of infra- and supranational authorities and stakeholders.

Rural development would then be seen as a multilevel, multi-actor and multidimensional process, composed of responses to the limitations of the modernization paradigm (van der Ploeg et al. 2000). It is a multilevel process first in terms of the diversity of the policies and institutions aimed at addressing the question of rural development, but also in terms of the evolving relationship between agriculture and society, taking into account the production of public goods, the development of a new model of agricultural production integrating the interactions between farming and other activities, and the territorial combination of activities carried out by firms located in rural areas. It is a multi-actor process, with interactions between farmers and rural actors, and rural development policies aimed at generating new links between the "local" and the "global" as well as restoring the legitimacy of local leaders and minimizing clientelism. Finally, it is a multidimensional process in that rural development occurs in the form of different practices, some of which are still developing and may be interconnected (landscape management, nature conservation, agritourism, organic farming, specific agricultural products, short food-supply chains, etc.) in such a way that elements considered superfluous in the modernist paradigm acquire new roles in the relations between farms, and between farmers and urban populations.

One of the main implications of this new paradigm pertains to the means through which rural areas can adapt to the challenges of global change. Indeed, global change necessitates the development of new agricultural models capable of reducing the environmental impact of farming while maintaining sufficiently high production levels to meet the growing global food demand. In this regard, we have observed a rise, in recent years, of agroecology (Gliessman 1990). Indeed, in the past decade, the necessity to further develop farming practices that conserve natural resources has become central to production models and policies, at a time when the effects of climate change are growing in intensity. The challenge here is to initiate the development of new agricultural production models, improving both economic and environmental performance, through the reinstatement of certain agronomic practices such as crop diversification, integrated pest management, agroforestry, and so forth, whose positive effects on both the environment and the economic performance of farms have already been demonstrated.

In 1993, the writings of the European Council for Agricultural Law indicated that it was initially the need to consider agriculture as multifunctional (Robinson 2008) that appeared central for harmonizing the agricultural legislation across Europe and for providing the general notion of "sustainable agriculture" with a legal definition (Losch 2004). This concept gradually gained ground in the political and scientific debate on the role of agriculture in the economy and society. In this

way, a consensus emerged on the need to recognize and assess the diversity of production and the impacts of agricultural activities on biodiversity, environmental amenities, landscape management, agritourism, food quality, and so forth.

However, there are three competing interpretations of this concept of multi-functional agriculture (Wilson 2007):

- 1. Multifunctional agriculture as a palliative to the productivist "cost-price" squeeze. This take on the concept is rooted in the agro-industrial paradigm informed by the neoliberal logic of scale and specialization that ties farms and agrifood into an industrial bioscience dynamic. Thus, the multifunctional nature of agriculture is restricted to the notion of pluriactivity, conceived of as the combination of agricultural and non-agricultural incomes within the farm household (Bateman and Ray 1994). This farm-based approach considers multifunctionality as a means of fighting against poverty or as a survival strategy for the least productive farmers struggling to adapt to market conditions.
- 2. Multifunctional agriculture as spatial regulation of the consumption countryside. This interpretation has its roots in the post-productivist approach, and is based on the idea that rural areas can be exploited not only by industrial capital but also by urban and peri-urban populations. It takes into account the loss of centrality of agriculture, and focuses on the need to identify the various resources that can be created through the recognition of the functional multiplicity (productive, ecological, social and aesthetic) of agricultural land (Vereijken et al. 2005), and thus shifts from a farm-based approach to a land-based approach. Policies based on this perception place emphasis on planning for local environmental protection and amenity enhancement.
- 3. Multifunctional agriculture as part of sustainable rural development. This third interpretation reasserts the socio-environmental role of agriculture as a key factor in the economic and cultural sustainability of rural areas and places emphasis on the dimensions of food production and agroecology (Altieri 1987; Warner 2007; Wojtowski 2006). In contrast to the aforementioned atomistic perceptions of farms, this interpretation is based on an integrative approach to the development potential of rural areas: it envisages rural development as a wide variety of multidimensional and integrated activities that fulfil a number of functions for the territory and for society as a whole (Knickel and Renting 2000). It follows from this that multifunctionality should be seen as a development tool for promoting more sustainable economies of scope and synergy (Marsden 2003).

These three competing approaches correspond to different interpretations of agroecology, a concept which is still developing and whose outline is not yet clear. The still uncertain outcome of the confrontation between these different approaches will affect how agroecology is integrated into emerging models and policies of rural and territorial development, particularly with regard to the requirements of territorial competitiveness and innovation, in a context of intense budgetary pressure.

5.5 Approaches to the Question of Development in Rural Analyses

One of the greatest challenges currently facing rural analyses lies in the necessity to bring analytical depth to the contemporary approach to development, by enriching it with a conceptual apparatus able to take account of the main characteristics and original features of rural development in relation to development in other types of geographical areas, while respecting the diversity that now characterizes rural areas, their inhabitants and the activities they engage in.

A look back at the approaches discussed above reveals that a broad consensus exists around the need to focus attention on the social, human and environmental dimensions of bottom-up development, and the need to take greater consideration of rural issues in regional and territorial development theories. But although there is sometimes talk of an emerging new paradigm of rural development, it is also quite clear that the different approaches appear more as a patchwork of influences and recommendations than as a consensus on the key components underlying rural development in its diversity.

Rather than attempting the impossible task of synthesizing approaches based on often different and sometimes opposing views and methodological presuppositions, it is more interesting to build an analytical grid of these approaches. This is useful for drawing up an assessment of the conception of development advocated by each of these approaches, for examining their articulations and limitations, and even for potentially developing a harmonized model for approaching rural development processes. The work presented here is based on three elements that underlie these analyses and which structure discourses on development and, in some cases, recommendations. These elements are: the favoured conception of development; the basic principle of development; and, finally, the key development variable(s) in question (see Table 2.1).

The works underlying the technicist paradigm are based on a vision of development centred on agricultural production and a transformation of agriculture through technical progress (higher yields and increased acreage, mechanization and use of crop-protection products). Thus, in this approach, the key variable of rural development remains technical farming expertise based on technology transfers, leading to increased productivity. Regarding the learning and knowledge acquisition processes, they are thought to be based on complete or incomplete networks, the formation of which must be encouraged. Thus, the aim is primarily to develop and use local resources and facilitate the dissemination and implementation of new techniques by tapping local human resources and promoting collective action.

In the case of the capability and empowerment patterns, the aim is more to develop the capabilities or competencies of the population and to raise its levels of education and know-how. The empowerment pattern advocates improving the level of knowledge and inference skills of the population by promoting collective learning processes within local communities, in the hope of enabling them to "take control of their destiny". The capability pattern has a more individualistic approach

in that it embraces the notion that it is right that each individual should achieve a level of development that corresponds to his or her expectations and capabilities. As for approaches centred on governance and participatory democracy, they tend to envisage development as a happy by-product of governance processes based on popular participation, overcoming opposition and defining common projects.

Finally, environmentalist/agroecology approaches place the sustainability and resilience of agroecological systems at the heart of the challenges of territorial development. They place emphasis on the ability of the different stakeholders to steer agricultural, energy and dietary models towards the socio-technical transition necessary for them to adapt to the constraints of global change (climate change, demographic change, etc.).

This brief overview of the successive patterns of rural development highlights several major changes. Over time, the notion of territorial diversity and the specificities of the challenges, stakeholder configurations and resources have gained ground, making obsolete any attempt to define a standardized and canonical model of rural development that would be valid at all times and in all locations. The waning influence of agriculture, concomitant with the economic socio-demographic diversification of rural areas, has required that the multifunctionality of farming systems and their interaction with other activities and interests be taken into account. The search for new solutions to emerging development challenges and territorial competition has made innovation in practices a constant imperative and called into question the linear models based on the definition of standards. It has led to recognition of the advantages of dispersed expertise, collective learning approaches, negotiated agreements and a shift in focus from agricultural production to territorial and multilevel governance. Finally, broadening the focus from purely economic aspects to the social and environmental dimensions has highlighted the need to determine and implement the principles of sustainability at local level, together with mechanisms that take account of the diversity of stakeholders and of development challenges.

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Chapter 6 Rural Development Policies. The European Example: A Long Journey Towards Integration and Sustainability

Abstract This chapter is devoted to the analysis of rural development policies in Europe. The focus is on the diversity of policy instruments and public authorities, but also the plurality of objectives, supporting and promoting economic activities (including agriculture), land planning, residential attractiveness and maintaining the quality of life of populations, conservation and preservation of local resources. But the main purpose is about the evolution of the rural development policy of the European Union, its gradual structuring as part of the CAP and of regional cohesion policy, and the latest inflections with the smart development strategy. Examination of successive reforms highlights the progressive affirmation of the territorial dimension in the guidelines and the growing environmental concerns over the past decade, although the support for agricultural competitiveness remains largely dominant. A presentation is finally devoted to the present period, marked by the will to take better account of regional differences in the rural development policy and the focus on innovation processes in the context of smart specialization. The place of rural areas in the new European strategy is then discussed at length.

Keywords Agenda 2000 · Cohesion policy · Common Agricultural Policy (CAP) · Cross-compliance · Decentralization · European Agricultural Rural Development Fund (EARDF) · European Regional Development Fund (ERDF) · European Social Fund (ESF) · Innovation · LEADER · Regional policy · Rural development policy · Second pillar · Smart specialization

While rural development policies have existed for decades and their success has always been acknowledged by local actors, they have nevertheless been subject to many shifts in vision and strategy—shifts which echo the changing perceptions of what rural development means and of what its objectives should be. Both the policies and the concept of rural development have evolved with economic circumstances, been discussed in the same debates and have undergone the same reversals. They have changed in parallel with the shifts in focus from large-scale farming production to recognition of the multifunctionality of agriculture, or with transitions from centralized decision-making to greater inclusion of the various users of rural areas and even greater consideration for social criteria and ecological and environmental variables. Following a long period in which rural development policies were essentially top-down decisions imposed by state and central governments, the policy-making process has since been decentralized (or "regionalized") and localized, and has in more recent years sought to include the views of the populations concerned and involve the different stakeholders of a territory in the mechanisms of territorial governance.

The need for rural policy derives from observing the differential incidence and persistence of poverty between rural and urban areas in the least and most developed countries alike, the pervasiveness of environmental degradation associated in part with the very same determinants of poverty and negative spillovers from metropolitan areas. Determinants of these problems can be traced back to the structural features of rural areas (distance, dispersion, resource-based activities, incomplete property rights, inequality in the distribution of assets, etc.), the pervasiveness of market failures for a significant share of households (particularly for credit, insurance and information, as well as high transaction costs in accessing product and factor markets), serious gaps in agrarian institutions essential for productivity and welfare, lags in the intersectoral reallocation of resources, a lack of coordination to escape regional low-level equilibrium traps, pro-urban policy biases, and a lack of bargaining power for the rural poor. However, these actions are more often shaped by a desire to bring about the convergence of rural and urban dynamics than by a perception of how to preserve and promote rurality, viewed on an equal footing with cities, as territories whose cultural, environmental, social and economic specificities are to be valued and developed.

For a long time centred on agricultural issues, rural policies have, since the 1990s, undergone important shifts. They are increasingly diversified and oriented towards ensuring better management, exploitation and preservation of local resources, providing support for business and commercial activities in the secondary and tertiary sectors, maintaining or increasing populations in rural areas (residential logic) and improving the organization of territories. New policies of rural development are being implemented almost everywhere in the world, taking various forms according to the type of rural areas and their preferences in terms of development: mass farming production, production of high-quality products, residential development or tourist activities, for example. Policies focused on supporting agriculture and maintaining farming activities are slowly being replaced by approaches that take into account the variety of activities present in rural areas: new industries and services, the introduction of ICT, cultural dynamics, and so forth (OECD 2009a). At the same time, the principle of bottom-up regulation and support has competed with collective arrangements involving state representatives and various other stakeholders, first among which are local authorities and associations. Finally, the link between rural worlds and urban areas is increasingly being brought to the fore, at the expense of approaches targeting rural areas in isolation.

Their changing nature makes it difficult to provide a unified definition of rural development policies (Delgado and Ramos 2002; OECD 2009c). Indeed, measures intended for rural areas have often taken the form of a wide scope of intervention

rather than a general and coherent policy. Moreover, the changing and multifaceted nature of rural areas, as well as the major transformations they have undergone since the beginning of the 20th century, does nothing to clarify or simplify this situation. The diversity of definitions, and the lack of consensus regarding the consequences, in terms of zoning and action, of the criteria and scales selected to define rurality further increase this complexity. Indeed, interventions vary greatly, in terms both of objectives and of how development tools are implemented. Whether in the field of regional land-use policies, regional or rural development policies, sectoral (including agriculture) or structural policies (employment, living environment, healthcare, education, etc.), several generations of mechanisms have succeeded one another, shifted and become intertwined, exhibiting combined effects, making it particularly difficult to identify the specific impacts of each action or group of actions.

It is interesting to note that rural development policies stand out from other types of public intervention-in the financial or social fields, for example-by the fact that they are spatialized. Consideration was first given to the diversity of the natural and human resources of these territories, seen from the perspective of agricultural activities. But the 1970s marked an important turning point, and it was in rural areas that new ways of doing things emerged-ways which better reflected the spirit of the local people. Once the principles of the dominant models began to be challenged, initiatives were undertaken, experimentally at first and then supported by state and the territorial authorities, and spurred bottom-up approaches to development, placing more emphasis on local diagnosis, consultation and cooperation in the implementation of public sectoral policies (Lascoumes and Le Galès 2004). It should be noted, however, that those interventions primarily targeted rural, farming-dependent areas in difficulty, leaving aside other types of areas with challenges such as peri-urban development or zones dedicated to services. Initiatives promoting closer rural-urban relations or a stronger interface between the countryside and the city have long played second fiddle, and there are still no real policies for peri-urban areas, with a primary focus on the rural rather than the urban, that take account of the specificities of these areas. Examples of this include the recent policies promoting agroecology, which indicate that the primary focus is once again on the agricultural dimension.

Four main categories of public intervention can today be identified, each an important instrument in the toolkit used by policymakers interested in the development of rural areas:

- policies for the conservation and development of localized resources—i.e. land (through the promotion of agriculture and forestry)—and of natural or built heritage;
- interventions promoting economic activities, whether through industrial enterprises or commercial activities in the secondary and tertiary sectors, including tourism;
- policies to encourage rural populations to remain in rural areas or attract new migrants to these areas, via a more residential approach;

 actions facilitating territorial land planning and management, including through the creation of local facilities and institutions for rural land management, or even through the reorganization of towns and municipalities (related to the decentralization process).

In this way, the rise of peri-urbanization, the recognition of ecosystem services and agricultural multifunctionality, the search for sustainability, and changes in the economic structures of rural areas and sources of wealth creation all contribute to the emergence of new policies in line with changes in the paradigm of rural development. New orientations in rural development policy consist of implementing intervention mechanisms that interconnect the various scales and sectors as part of integrated approaches. Illustrations of this kind of action can be seen in the changes in European rural development policies, as well as in their diversity which is of great interest but at the same time potentially confusing. The limitations of purely sectoral approaches have highlighted the advantages of place-based policies involving local stakeholders that combine efforts in favour of competitiveness and job creation—through strategies for innovation, ecological and energy transition—with measures to reduce poverty and social exclusion.

6.1 The CAP Before 2000: The Gradual Construction of a European Rural Development Policy

The European Union's rural development policy, one of the oldest and most structured in the world, provides, through its shifts in orientation and reconfiguration of mechanisms, a good illustration of the varied and ever-changing nature of the measures implemented to support rural areas. The policy has been a testing ground for public interventions, and the many changes it has undergone are indicative of the difficulty of shifting from an approach centred on agricultural dimensions to more diversified actions undertaken within rural areas and aimed at promoting different economic activities as well as social cohesion.

Since the Second World War, the balances of power have changed in every country in Europe. The Guardian State has been succeeded by the Partner State acting alongside the EU and local authorities, and this evolution has been accompanied by the development of experiments with contractual relations in rural areas (Gaudin 1999). Meanwhile, a shift has gradually occurred from an exclusively sector-based approach to policies intended to promote the development of regions or centred on the rural component of regional development (Muller 2013). Often presented as having changed as part of the development of the Common Agricultural Policy (CAP), those policies have evolved from being interventions aimed at dealing with the structural problems of the agricultural sector to measures addressing the multiple roles of farming in society and, in particular, the challenges faced in its wider rural context.

In the early years of the CAP, the original focus was on supporting physical capital (investments) on farms and in the downstream sector. Support for processing and marketing was intended to help the integration of the food chain, from production through to marketing, and contribute to the further improvement of agricultural structures and of the competitiveness of the primary sector. Gradually, attention also turned to human capital in the form of early retirement and vocational training. The measures implemented later as part of the first "pillar" of the CAP have, on the whole, paid off, and helped partly reduce important imbalances, particularly on the cereal, beef and milk markets. However, questions concerning the efficiency of agricultural policies, the costs of financial support and changes in rural land use led to the replacement of financial aid with direct interventions at local level. This was achieved through the second pillar of the CAP (Midmore et al. 2008), related to rural development.

However, from the time the Treaty of Rome was signed in 1957, the first steps towards future policies for rural areas were taken through the creation of the European Social Fund (ESF), which focused on promoting training and employment, and which was also utilized to support actors in the farming sector and the wider rural population. By this time, the emphasis began to be placed on experimenting and developing localized operations. In the context of the CAP, an "Orientation" section of the European Agricultural Guidance and Guarantee Fund (EAGGF) was created with the aim of improving coordination between the structural and agricultural policies of member states; and, above all, the European Agricultural Fund for Rural Development (EAFRD), founded in 1975, was intended to take into account more effectively questions of economic and social cohesion between regions. Meanwhile, the first territorial component was included in the CAP with the Less-Favoured Areas Directive, which sought to combat rural depopulation. These structural arrangements foreshadowed the wave of reforms of the next decade, marked by the successive implementations of intervention mechanisms by the European Commission, focusing on territories: Integrated Development Programmes (IDPs), Integrated Development Operations (IDOs) and the Integrated Mediterranean Programme (IMP) were all attempts to build a collaborative and cross-cutting approach between the EU's Directorates-General, through experiments conducted at the levels of territories and new member states.

These first attempts to move away from sector-based thinking to integrated actions fostered the reform of the Structural Funds in 1988. The objective of promoting economic and social cohesion at EU level was for the first time clearly asserted, the project-based approach¹ replaced by a programme-based approach,

¹At this time, the coherence of targeted intervention and of support operations for local experiments in the EU reached its limits. The decision was made to replace the project financing approach by framework programmes with clearly stated objectives designed to ensure overall coherence. Structural policies were reinforced and programmes of Community interest such as LEADER (social innovation and sustainable rural development), URBAN (regeneration of cities in crisis), EQUAL (inequalities and discrimination in the labour market) or INTERREG (interregional cooperation) were implemented.

and the financial allocations to the Structural Funds were initially doubled, and then quadrupled in 1993. The introduction of zoning to provide territorially differentiated support was also a major innovation, and made it possible to focus on particular types of areas (Objective 1 areas, or "regions whose development is lagging behind"; and Objective 5b areas, corresponding to fragile rural zones), along with policies aimed at supporting farming (Objective 5a). However, the term "rural development policy" first appeared in the EU vocabulary a few years later, at the Cork Conference in 1996.²

6.2 Policies of the 2000s: Affirmation of the Importance of the Territorial Dimension and Growing Environmental Concerns

The diversity of these mechanisms tends to hinder coherence and points to the need for a common implementation framework. A further step was taken with the Agenda 2000 reform. This new regulation set out the guidelines and procedures for implementing the CAP for the period 2000-2006, and introduced a second pillar, a regulatory tool for implementing the rural development policy that included rules making it compulsory for member states to implement environmental protection measures. The introduction of these regulations marked a turning point in the environmental field, and the continuation of a trend that began in 1985 when the first measures addressing environmental issues were adopted (Regulation Article 19) and were explicitly reinforced with the 1992 reform. At the same time, the second pillar also pointed to the need for greater flexibility in the European rural development policy. Thus, each member state was provided with a "menu" of 22 measures to choose from for integration into its national or regional programmes. This ability to pick and choose measures also marked a shift towards a better recognition of the diversity of rural areas and of the objectives defined by the states and regions, embodied in the principle of decentralization of responsibility in terms of the procedures of implementation of the CAP.

The changes made to the Common Agricultural Policy have highlighted the need to strengthen territorial approaches and to define integrative strategies to overcome the limitations of the actions undertaken in the context of previous reforms, especially those with a strong focus on agriculture, deemed excessive. Though the agricultural market policy remains the cornerstone of the CAP, the rural development component appears to have become an important issue. Accordingly, Agenda 2000 combines, within one mechanism, the new CAP and structural measures aimed at strengthening economic and social cohesion in the European Union for the

²However, the Green Paper of 1985, describing the objectives for the future of European agriculture, was the first to mention the need to better integrate the agricultural question into regional development by extending the conception of the policies to include the rural component.

period 2007–2013. The complementarity of these two pillars has been reinforced by the introduction of three major principles: "decoupling", "cross-compliance" and "modulation", implemented since 2005. The first pillar now concentrates on providing basic income support to farmers, whilst the second supports rural areas in their development, as well as agriculture as a provider of public goods in its environmental and rural functions.

While the gradual construction of these intervention mechanisms has foreshadowed the development of a true policy for rural areas, it has also left an impression of a conglomeration of measures subject to the influence of certain member states rather than of a coherent whole. For example, the UK and Germany have indicated their intention to "green" the CAP by making it a requirement to introduce mechanisms for funding environmental protection, whereas France tends to be a driving force for the adoption of support measures for farmers, through the provision of advisory services to farmers, or even in the field of territorial development. This results in both a lack of integration and in restrictive interpretations of some measures by various countries. This is evidenced, for example, by the difficulties of implementing the Natura 2000 environmental programme in France. The interpretation of the conservation objectives of the programme has given rise to strategies to block progress and even to hostility on the part of local officials and farmers, who feared that the programme would cause various areas to be sanctuarized, despite the fact that the text proposed several possible paths towards sustainable development. This resulted in the delayed and rushed implementation of the programme, which consequently failed to reach its full efficacy and potential.

But it would be simplistic to examine the European development policy for rural areas through the lens of the second pillar of the CAP alone. Indeed, while €88 billion was allocated to the EAFRD (single fund for the second pillar) in the 2007–2013 budgetary period, €67 billion of the European Regional Development Fund (ERDF) was dedicated to rural development. Moreover, the abolition of zoning over the period 2007-2013 reveals a decline of a certain conception of the territorial dimension of rural development policies. Indeed, it indicates that measures have been implemented with less and less differentiation between different types of rural areas, and with no specific treatment for sensitive areas. This was in keeping with the Lisbon Strategy's focus on competitiveness, innovation and employment, and with the new cohesion policy, centred primarily on the growth potential and driving role of cities. This new absence of distinction between those areas with fewer resources and less engineering expertise and other areas has led to increased competition among projects for European funding. Thus, the orientations of the European policy for the development of rural areas are shaped by goals which must be coherent with those of the agricultural development policy set out in the framework of the CAP, and with the European regional development policy, which seeks a convergence of growth rates and development paths for the different European territories.

6.3 Greater Visibility for Regions and Territories in European Rural Development Policy

Beyond these general observations, it is important to emphasize the diversity of interpretations and the diversity of procedures that exist for the implementation of European policies-diversity that has been reinforced since the adoption of Agenda 2000 and its "menu" system. The growing attention given to regions and territories in agricultural policies (Trouvé et al. 2013), designed to promote decentralization, and take account more effectively of the different issues facing the various territories and encourage recognition of the multifunctionality of agriculture (OECD 2009b), takes different forms: measures giving the regions more budgetary and regulatory leeway, differentiation between their levers of agricultural intervention, greater territorialization, and more openness to forms of governance involving new actors. At the same time, the regional and local authorities (municipalities, intermunicipal communities, départements, etc.) have significantly strengthened their policy and financial support for rural areas and the agricultural sector, creating a European mosaic of intervention models. As a result, one cannot speak of a European rural development policy as such, but rather of interventions of various natures that combine elements of support provided by the states and the EU with local initiatives (Guérin 2008), and which are not limited to rural development policies. They are undertaken at the level of national and regional planning policies, as well as through sector-specific mechanisms in favour of agriculture, habitat, land, the environment or tourism in rural areas.

However, one question that may legitimately be raised is that of the links between these different policies, as well as that of the cohesion objective stated in the EU's regional policy. Indeed, there is often a degree of institutional inertia, at regional level, in the allocation of support funds. Furthermore, we find that the model of joint governance continues to be reduced to dialogue with professional farming organizations. By contrast, some authors (Berriet-Solliec and Trouvé 2013) underline the fact that the leeway granted to regions and territories in terms of innovation is greatly reduced by constraints imposed nationally and at European level. The objective to liberalize agricultural trade, and the associated introduction of competition between beneficiaries, is one such constraint. Another is the reduction of farming budgets and of the leeway available to regional authorities. Will this regionalization/territorialization of agricultural policies be the backdrop of future resistance or opposition to supraregional and supranational approaches to rural development, or will their diversity ensure that support measures are designed and implemented according to local specificities?

With the end of the European policies implemented between 2007 and 2013 the CAP and the regional cohesion policy—new orientations are emerging and the debate concerning future intervention mechanisms is structured along three lines: improving the mechanisms set up within the framework of the second pillar of the CAP; articulating and ensuring cohesion between the objectives of the first and second pillars; and possible means of taking account of the Europe 2020 strategy in rural development policies.

The initial evaluation of the rural development apparatus underlines the lack of integration between the physical (environment, landscape, biodiversity) and socio-economic dimensions of the measures implemented, despite significant progress in each of these areas (European Commission 2012). The commitment of farmers towards taking environmental considerations into account in their production practices is now obvious, but agri-environmental measures alone are not sufficient to achieve all objectives of rural development. Better coordination between objectives pertaining to different key areas is necessary, as is a reinforced application of cross-compliance principles. Finally, another question to be considered is that of how economic and socio-cultural factors can be taken into account in the development of intervention mechanisms aimed at supporting marginal rural areas of high natural value. Indeed, the environmentally oriented measures implemented within these territories are insufficient for revitalizing them socially and economically.

This analysis also draws attention to the fact that a sector-based approach still prevails, to the detriment of more territorial approaches (Berriet-Solliec et al. 2009). This results, among other things, in a lack of coordination between the national and regional levels of the rural development component of the CAP and of EU funding for rural areas. The objective is therefore to strengthen the scope of the LEADER programme (Scott 2004; High and Nemes 2007) and make it the primary tool for the local development of the areas concerned, through innovation and territorial governance in particular (Dargan and Shucksmiths 2008). To ease the bureaucratic burden and overcome the weaknesses identified over the 2007–2013 period, significant changes are envisaged; these involve concentrating on and strengthening capacities to promote networking between stakeholders and encourage their participation, as well a greater involvement of private actors in partnerships with public actors, multi-fund financing and, more specifically, better coordination between the ERDF, the EAFRD and the ESF, thus marking a return to the initial rationale of the LEADER programme. While the two-pillar structure is maintained for the 2014-2020 CAP, one of the main objectives is to develop a more comprehensive strategy, based on greater coherence between the two pillars. The new CAP aims to address economic, environmental and territorial issues simultaneously, by establishing three long-term strategic objectives: sustainable food production, sustainable management of natural resources, and climate action and balanced territorial development. CAP interventions will be based on the reduction of market-support measures, a further decoupling of subsidies and production volumes, and a slow but progressive improvement of the funding of the second pillar, which now accounts for over 23 % of the allocated funds; in addition to this, the member states now have the option of shifting up to 15 % of the national envelope from the first to the second pillar. There will therefore be greater emphasis on the joint production of public and private goods by farmers, with a more territorial approach: contributions to the conservation of landscapes and biodiversity and climate-change adaptation will be key criteria for aid allocation.³

Alongside the objective of improving the competitiveness of European agriculture, the most important change in the new CAP is a heightened consideration for environmental issues, at three levels: (a) the obligation to meet cross-compliance requirements. Compliance will entitle farmers to simplified and better-targeted aid; (b) the introduction of a new instrument of the first pillar, the Green Direct Payment, accounting for 30 % of the national direct payment envelope and rewarding farmers for respecting three obligatory agricultural practices, namely the maintenance of permanent grassland, the creation and maintenance of ecological focus areas, and crop diversification; (c) the obligation for member states to allocate at least 30 % of the budget of each rural development programme to environmental and climate-change adaptation measures.

These developments could be interpreted as an intention to increase convergence between the CAP and regional policy, which is reflected, in particular, in the designation of the regional executive authorities as managing authorities of the funds allocated by the European Union, a "regionalization" of national programmes, and, above all, the desire to adapt the European regional development policy to rural development issues. But they also raise controversy. Some consider that the apparatus has been gutted of its original purpose, and argue that the qualitative objectives that it was set to achieve lack precision and that the public goods to be protected and developed are not defined precisely enough. Moreover, the method imposes strict threshold conditions for receiving environmental aid instead of promoting progressive approaches taking into account the type of amenities; and the definition of the objectives and measures does not take into consideration the geographical scales in question or the diversity of local challenges. Finally, by focusing the debate and measures on environmental issues, it hinders rather than promotes integration. The measures fail, for example, to address employment and poverty-reduction issues, which now represent a marginal portion of the second pillar. The prevailing logic is therefore that reinforcing the innovativeness and competitiveness of farms and agricultural sectors will foster economic growth in rural areas.

³For the period 2014–2020, CAP spending will be financed from two new funds: the European Agricultural Guarantee Fund (EAGF) for the first pillar and the European Agricultural Fund for Rural Development (EAFRD) for the second.

6.4 Europe 2020 Policy: What Will Be the Role of Rural Areas in the Context of Smart Specialization?

The coming period will present major challenges and will be a turning point for redefining the objectives of rural development policies in Europe. Indeed, the contours of the future CAP, and therefore of the next European policy for rural development, will be defined as part of what is known as the Europe 2020 strategy, implemented by the Commission in March 2010 to revitalize the economy of the European Union. The future CAP will have to be consistent with this new policy and in particular with its new smart specialization strategy and place-based orientations, which give a prominent place to territorial dimensions and to the choices of European territories.

6.4.1 Smart Specialization: The Concept

The concept of "smart specialization" first surfaced in the mid-2000s in the context of debates on EU competitiveness and in the wake of doubts over the success of the previous European policy, namely the Lisbon Strategy for a knowledge-based economy. The Barca Report (2009) shows that the Lisbon Strategy has not yielded the expected effect: there has been a reduction in competitiveness, innovation has been slow compared to the USA or Asia, and some enterprises have been tempted to relocate production to non-EU countries. These weaknesses are usually attributed to excessive uniformity at EU level, which results in insufficient specialization, as well as in a lack of interest in the spatial dimension and territories. Indeed, the basic idea was to develop high-tech sectors at European level, without any special recognition of regional differences, resources or the status of the development process.

In an attempt to make gains in competitiveness and counter the decline in the EU's influence, it was decided to implement and operationalize the concepts of smart development and smart specialization, developed by a group of European experts known as "Knowledge for Growth" (K4G), and more particularly the recommendations of economists such as Foray et al. (2009). For these authors, the S3 (Smart Specialization Strategy, or Europe 2020 strategy) provides an answer to the difficulty involved in choosing specializations in an ever more competitive world, with limited resources. The geographic level selected is that of the region. The idea is that each region should specialize in activities in which it has a competitive advantage based on differentiation (as described by Porter)—or, to put it another way, in which it can outperform its competitors, based not only on a product's attributes but on the whole value chain. In each region, S3 determines intervention priorities selected from a limited number of sectors or technologies that are potentially in competition with one another on international markets, and in which the region in question has a competitive advantage over other territories.

The EU policy proposes to operationalize these principles through practical recommendations in terms of policy and action. Each region is invited to choose a few key activities or technologies, based on three criteria: the overall context (the chosen activity should fit into a value chain and not be isolated at the local level), specialization in specific fields of activity, and coherent diversification through related variety (the sectors selected must be closely related or belong to interconnected and complementary fields of activity). The region does not necessarily have to be competitive in high-tech sectors—all types of innovation are concerned, whether technological, social or organizational—rather, it is important to ensure coherence and to reason in terms of regional production systems and in terms of knowledge absorption and diffusion.

Using a self-assessment process, each region is required to focus on a few specific areas. The role of public policy is then to ensure the implementation of the new strategy by supporting regions in the choices they have made. The public authorities may create incentives for entrepreneurs, support investments in the sectors they specialize in, ensure that the different areas of innovation or innovation diffusion are connected, or redirect existing investments towards smart specializations. It should also be noted that the allocation of EFRD funding to member states and regions is now conditional upon them having defined and implemented a smart specialization strategy that sets investment priorities. With this in mind, each region in the EU has undertaken to identify its priority sectors.

6.4.2 Smart Rural?

One key question is that of the place of rural areas in this mechanism, which requires regions comprising both urban and rural areas to establish priorities. Is it still possible to focus on rural territories and promote their development? More specifically, is it feasible to shift from a support-based approach focused mostly on mass agriculture to an approach that seeks to promote other forms of agricultural organization and practices and social innovation in these territories? This, in turn, raises the question of how to move away from general policies and to place emphasis, in the growth process, on interventions and activities aimed at very specific areas. The future of rural areas and their growth patterns is at stake, and one major concern is that the transition to region-based policies might result in less attention being paid to rural and peri-urban areas, considered to be of secondary importance compared with large industries and urban areas. Does this approach not run the risk of reopening the centre-periphery divides between those rural areas that will successfully specialize in dynamic sectors related to urban and global economic development on the one hand, and, on the other, those exposed to international competition that risk of falling behind at the slightest loss of competitiveness, or between those in a position to promote a residential economy and those which lack residential attractiveness.

The rural development strategy set out for the period 2014–2020 provides some answers on this subject. As mentioned above, it is structured along three main lines (European Commission 2013): *smart growth*, by supporting innovation, skills and green technologies and by improving uptake of research, but also by providing incentives for social innovation; *sustainable growth*, by increasing resource efficiency, maintaining the food, feed and renewables production base, providing environmental public goods, reducing emissions, enhancing carbon sequestration and developing bio-energy, ensuring sustainable land management, and addressing biodiversity loss; and *inclusive growth*, by unlocking local potential, diversifying rural economies, developing local markets and jobs, and opening up alternative opportunities to accompany agricultural restructuring.

But beyond these broad directions, the challenge lies in the ability to operationalize the mechanism and its potential adaptation to different regions according to their specific context and choices of rural development policies. In order to meet this challenge, the European Union has structured the rural development policy around six priorities (European Commission 2013) on the basis of which the regions can define their action plan for rural areas:

- (a) fostering knowledge transfer and innovation in farming, forestry, and rural areas;
- (b) enhancing farm viability and boosting the competitiveness of all types of agriculture in all regions, and promoting innovative farm technologies and the sustainable management of forests;
- (c) promoting food-chain organization, including the processing and marketing of agricultural products, animal welfare and risk management in agriculture;
- (d) restoring, preserving and enhancing ecosystems related to farming and forestry;
- (e) promoting resource efficiency and supporting the shift towards a low-carbon and climate-resilient economy in the farming, food and forestry sectors;
- (f) promoting social inclusion, poverty reduction and economic development in rural areas.

As we can see, this form of the concept of smart growth in the context of a renewal of European rural development policy remains very much geared towards agricultural priorities, in conjunction with environmental goals, whereas the constituent aspects of rural diversity have been somewhat forgotten. Vacillating between urban tropism and agricultural bias, the way in which the principles of smart-growth policies will be adapted to take account of the diversity of rural regions remains rather vague (da Rosa Pires et al. 2014). The operational implementation of smart-specialization policies pleads in favour of a rigorous definition of the notion of smart growth and, above all, of the associated economic mechanisms, in such a way as to facilitate the efficient coordination of development policies and the measurement of their effects (Naldi et al. 2015).

The first works to take an interest in this problem underlined the fact that the smart-growth approach is very much suited to intermediate rural areas with close links to urban areas, which tend to have large populations and industrial bases

(McCann and Ortega-Argilès 2013). Indeed, these regions have a number of options for fostering growth as they benefit from the size and spillover advantages of nearby urban core areas (Renski 2014). However, the situation does not appear as favourable for isolated peripheral regions, which do not offer the same potential for the integration of smart-growth approaches, owing to reduced access to resources and markets, as well as socio-economic conditions and social structures that, on paper, are less favourable. There is, however, a growing literature that acknowledges the relevance of place-based amenity services and the entrepreneurial context for the development of rural regions (Rappaport 2009; Gosnell and Abrams 2011). Amenities are also highlighted as particularly important for attracting and retaining creative individuals, who are shown to contribute to the development of rural communities (McGranahan et al. 2011). However, the role played by different types of amenities is not explicitly pointed out as a key driver for achieving rural growth; rather, it is left unspecified and assembled in the broad concept of place-based characteristics. Furthermore, the way in which intermediate and isolated regions are defined, and the question of whether there exist any categories between these two types of region, is not discussed in prior literature. Hence, it is still unclear whether smart-growth policies are appropriate for many rural regions. In terms of the conceptual aspects, and in terms of potential indicators and measures of smart growth and its determinants, there is therefore a clear need for studies that analyse each of the factors that may influence the potential for growth in a diverse set of rural regions.

With this in mind, McCann and Ortega-Argilès (2013) proposed to link the concept of smart specialization with works on geographical economics. They consider that the notions of embeddedness, relatedness, and connectivity provide more precise information about the mechanisms that advantageously interconnect innovation, entrepreneurial dynamics, and regional development.

- Embeddedness implies strong regional or local connections to certain industries, in terms of input-output linkages and the labour force. This aspect is fundamental for non-urban regions, in that they do not have sufficiently large markets or a sufficiently diversified industrial structure to achieve strong, independent endogenous development. As a result, place-based policies must pay particular attention to the definition of relevant perimeters, that is to say by specifying the geographical scale for the place in question, for urban as well as rural areas.
- Relatedness is very much linked to knowledge spillovers. Various works have highlighted the positive influence of technological relatedness across industries in order to explain the dynamism of exchanges of knowledge and their influence on innovation and growth processes. Whether it is related variety (Frenken et al. 2007) or specialized diversification (McCann and Ortega-Argilès 2013) that is considered, these reflections emphasize the industrial structure of a region in order to explain the phenomena of smart specialization. Accordingly, studies conducted have sought to mobilize industrial classifications so as to measure this relatedness. In reality, this structural proximity between different components of the industrial fabric constitutes nothing more than a potentiality that is

favourable to knowledge spillovers. Moreover, it would seem more fruitful to focus on how the relations established between individuals in the context of organized proximities (Torre and Wallet 2014) foster (or do not foster) innovation dynamics. In other words, relatedness on the individual level—for example, in terms of education and occupation—appears to be at least as important as relatedness in terms of industries (Wixe and Andersson 2013).

- This last idea can be found in the notion of connectivity, which stresses the importance of being connected, in terms of networks, face-to-face contact, and the mobility of human capital, as these elements underline the fundamental role played by transport infrastructure and ICT.

These criteria can be used to characterize the situations of rural areas, in order to determine the policies to be implemented in the context of smart-growth strategies and avoid the development of a one-fits-all European rural policy. The smart-specialization approach that recognizes diversity and structural changes in rural spaces must thus make a distinction between intermediate peri-urban spaces and peripheral or isolated rural areas, and also take account of the diverse range of social and economic dynamics, types of enhanceable amenities, and production possibilities of rural spaces. Rural regions that cannot benefit from their geographical proximity to urban spaces in terms of development must envisage forming specialization-related links that respond to the production or consumption needs of metropolitan areas (Johannson and Quigley 2004). As a result, it is essential not to base smart-specialization policies on available local resources and potentials alone but also to ensure these policies take account of changes in terms of local social capital and its external connections (Westlund et al. 2014).

All these considerations show the advantages of taking account of the specificities of rural spaces in smart-specialization strategies. After all, their specificities concern both the original forms taken by innovation processes, the potential for enhancing amenities (particularly environmental and heritage-related assets), and the importance of the stakes with respect to land use and land management. Accordingly, the definition of operational priorities in a limited number of sectors and technologies must be combined with an approach based not just on making best use of related variety between sectors and along value chains, but also on taking advantage of related variety among selected compatible land uses. As far as innovation processes are concerned, the less formal nature of innovation in rural settings-which is instead more closely linked to interpersonal practices and exchanges-is necessary in order to broaden understanding of phenomena that extend beyond the technological and organizational dimensions in order to integrate the importance of social innovations—even more so than in urban spaces. In parallel, if the search for specializations offering competitive advantages is to focus on production activities such as agriculture, this must be combined with a debate on attractiveness, bearing in mind the resources linked to residential functions (services, housing, etc.), touristic activities, environmental amenities (landscape, etc.), or well-being (community relations, local culture and heritage, etc.).

Lastly, the approach at play in the Horizon 2020 policy, which involves mutually reinforcing priorities in the growth strategy, including smart growth, sustainability and social inclusion, is particularly crucial for rural spaces, bearing in mind not only the role that environmental resources play in these areas and the pressures affecting these resources, but also the social changes that affect the countryside and peri-urban areas. The new challenges associated with action aimed at mitigating the risks linked to climate change, the attention given to the preservation of biodiversity, and the need to envisage land-use figures compatible with smartness and sustainability call for innovation dynamics and new knowledge. Similarly, social and demographic changes bring both new risks and opportunities for rural spaces, in terms of the need to include various types of population, the participation of the local population in decision-making processes (governance), and spatial cohesion that avoids fragmentation in rural–urban relations.

6.5 New Approaches to Rural Development

As revealed by the European situation, rural development policies, long characterized by the multiplicity of funds and the large number of actors involved, have faced major changes. Not only have they been confronted with a diversification of the development trajectories of rural areas and constant uncertainty regarding the role of rural areas in processes of regional development, but they have also had to include new goals such as risk prevention and the limitation of the negative effects on resources. Furthermore, these policies have enhanced the involvement of local actors by placing emphasis on territorial governance processes that facilitate the participation of the population. Thus, the rise of peri-urbanization, the recognition of ecosystem services and of agricultural multifunctionality, the desire for sustainability, and changes in the economic structures of rural areas and in sources of wealth creation all call for the introduction of new types of policies able to take account of the characteristics of the new paradigm of rural development presented above in Chap. 5.

While traditional policies sought primarily to equalize situations, increase agricultural incomes and improve farms' competitiveness, new approaches focus more on the territorial dimension, striving to boost the competitiveness of rural areas, preserve and enhance local resources, and encourage the exploitation of underutilized resources. The scope of these policies has also expanded from actions focused exclusively on the agricultural sector to interventions benefiting different activities undertaken in rural areas (tourism, manufacturing, ICT, etc.). There have also been changes in support mechanisms, with a gradual shift away from subsidy-based interventions to direct investments or more precisely targeted investment support. But it is probably in the governance of these policies that the most significant change has occurred: negotiations between central government and representatives of the main farmers' unions have been replaced—to varying degrees, depending on the countries and subregional territories in question—by

multilevel governance involving local authorities and, in the case of Europe, supranational authorities. Finally, another change worthy of note is the growing diversity of the public, private and civil-society actors that have become involved at each of these levels, starting with the local level.

These various developments have called into question models of rural innovation. Indeed, an approach to rural development that takes account of the multifunctionality of agriculture and truly recognizes the importance of the territorial dimension of innovation requires an examination of the processes of transition from one socio-technical system to another (Geels 2002) by identifying the interactions between niches of industrial innovation activities with strong environmental performance. This requires a reassessment of production systems' resilience and of the ability of policies to support these changes at different territorial levels.

From this perspective, the governance of networks and of territories in rural areas must take the current development of local relations into consideration. Through close social and geographical proximity, rural social networks strengthen linking dynamics and local anchoring, improving trans-sectoral cooperation and their ability to react to economic change. They generate innovative solutions and opportunities to capture external funding and to build bridging networks. Various types of local stakeholders are at the basis of territorial governance processes and play a key role in the advancement and definition of projects and future development paths. Indeed, they can be considered territorial resources when analysing the potential development paths of rural areas (Table 6.1).

Key policy issues concern several aspects of rural development. The first relates to how agricultural and rural development policies can be combined; the second concerns the integration of public intervention for rural areas in regional development strategies, including rural–urban relations; a third aspect relates to how different forms of public action (involving various stakeholders) are managed at sub regional level; and a fourth and final aspect concerns the forms of public management of local resources that are needed to support sustainable development.

	Old approach	New approach
Objectives	Equalization, farm income, farm competitiveness	Competitiveness of rural areas, valorization of local assets, exploitation of unused resources
Key target sector	Agriculture	Various sectors of rural economies (e.g. tourism, manufacturing, ICT, etc.)
Main tools	Subsidies	Investments
Key actors	National governments, farmers	All levels of government (supranational, national, regional and local), various local stakeholders (public, private, NGOs)

Table 6.1 Changes in policies supporting the emerging paradigm of rural development

In that respect, new policies for rural development are structured along three main lines. First, measures implemented are intended to strengthen the competitiveness of businesses, sectors and territories by providing support to innovation initiatives (Coudel et al. 2013). A second objective is to address environmental challenges, through the implementation of measures and regulations that contribute to the conservation and development of natural resources, the preservation of biodiversity, and climate change adaptation. The shift in favour of territorialized agroecology, and its associated controversies, is indicative of a new approach to farming practices (Boiffin et al. 2014). Finally, interventions adopted to help maintain the quality of life in rural areas are to a certain extent giving way to measures aimed at addressing the dire social, health and employment situations of certain categories of rural populations in territories severely hit by the recession. Priority is given to the fight against poverty and exclusion so as to keep the most disadvantaged rural areas from being left behind, which might result in a much feared territorial divide (Davezies 2012). Thus, addressing not only economic difficulties but also the shift to ecological farming, the energy transition and the demographic change characterized by an ageing population is the new challenge facing rural development policies, which are expected to help find ways of improving the resilience of rural areas through approaches based on integrated development and a better coordination of rural and urban development dynamics.

Finally, it is fair to say that policies concerning rural areas face four major issues related to the new rural paradigm mentioned above (in Chap. 5):

- Agriculture remains an entirely inescapable activity because it is the basis of human subsistence and occupies a large part of the planet's land area in order to be able to meet those needs. However, its role now goes beyond the production of food products, and includes, for example, the maintenance of the countryside, or can serve as a means of protecting land against urbanization.
- The characteristics, methods and practices of agriculture can no longer be the result of farmers' decisions only. Farmers must take into consideration the opinions of other local actors, whether in relation to the management of rural land, pollution, agroecology and nature conservation or in relation to peri-urban areas and the demands of urban consumers in terms of modes of production and types of products.
- Rural development is decided and managed by the different "families" of stakeholders: the producers on the one hand, but also residents, associations, actors from the cooperative and voluntary sectors, and local or decentralized public authorities. The methods used to make decisions and implement rural development projects correspond increasingly to territorial modes of governance that involve different stakeholders participating in the decision-making process (Torre and Traversac 2011).
- This multilevel governance process has two key characteristics: it depends on a wide variety of local actors and local networks, together with their social, economic and political implications, but also involves global actors (at national and supranational level) who impose constraints, regulations and rules from the

outside. This process can occasionally be filled with contradictions, as in the case of the European Community, where the increasing weight of the Commission in matters of regulation is combined with the spread of principles of subsidiarity and decentralization that give regions more opportunities for initiative.

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Chapter 7 What Future for Rural Areas? Scenarios for Possible Development Paths

Abstract The purpose of this chapter is to outline the main trends for a prospective study of rural areas, based on a brief presentation of future scenarios that respond to the need to identify the main potential avenues of development for these regions. The purpose of these differentiated but well-reasoned scenarios is to foster reflection on the various possibilities, by envisaging extreme trajectories of change. This work helps reflect upon differentiated development processes, adapted to the idiosyncrasies of rural and peri-urban areas. We examine successively five major, but often overlapping, possibilities of future development, respectively: (1) the possible preservation of agricultural activities and their prevalence; (2) the unrelenting rise of urbanization and peri-urbanization; (3) the role of industry and business in rural areas; (4) the development of services to individuals and of the residential economy; (5) the coexistence of different land uses, and competition between them, in certain areas. As a result, the five scenarios proposed for the development of rural and peri-urban areas correspond to the following items: (1) Towards a preservation of agricultural activities?; (2) The unavoidable progress of peri-urbanization; (3) Intensification of industry and business; (4) The countryside: a new El Dorado for the service sector?; (5) Mixed or competing land uses: an arena of conflict and segregation?

Keywords Agriculture · Business · Conflict · Development · Development paths · Industry · Land use · Rural areas · Scenarios · Segregation · Services · Urbanization

The major changes and developments experienced by rural areas throughout the 20th century have raised the question of the future evolution of these areas and leave much ambiguity about what lies in store for them. These profound changes have thus placed them in a relatively unstable and shifting position, which contrasts sharply with that prevailing in earlier historical periods. Agriculture was then undoubtedly the core activity of these regions and the primary source of their wealth, on which ultimately all other production and activities depended. But this situation, which still exists in many developing countries, is now without question a

thing of the past in most developed countries. Moreover, the changes observed could well spread to other regions or territories that are currently still devoted primarily to farming and food production.

Indeed, rural areas nowadays are places marked by strong tensions, as illustrated, for example, by the paradox of land consumption. While the question of food security in the world, and therefore of the maintenance or expansion of agricultural production, naturally finds itself at the top of world leaders' and forecasters' agendas, less attention is paid to the risks of urban sprawl and the consumption and artificialization of farmland, which have never been greater globally. In parallel, rural areas are also places offering new opportunities as a result of the limitations of urban development and of the renewed attractiveness of rural amenities. Development options thus seem both numerous and open-ended. Maintaining agricultural activity, developing industrial production and business, developing services to individuals or the residential economy, and developing urban activities in peri-urban areas, for instance, are all possibilities for the future of rural (and now peri-urban) areas, which are experiencing growing concerns about the competition and/or compatibility of these alternative land uses and their viability in terms of economic and social development.

The purpose of this chapter is to outline the main trends suggested in a prospective study of rural areas, based on a brief presentation of future scenarios that respond to the need to identify the main potential avenues of development for these regions. The purpose of these differentiated but well-reasoned scenarios is to foster reflection on the various possibilities, by envisaging extreme trajectories of change. This work should help us reflect upon differentiated development processes, adapted to the idiosyncrasies of rural and peri-urban areas, as is advocated, for instance, by the EU 2020 policy, which paves the way towards various forms of development for regions and territories, based on their own local resources and skills. Smart-specialization or place-based policy approaches help to shape a differentiated and coherent future for rural areas, while respecting their past and the desires of their populations.

With the anticipated curves of evolution of rural and urban population in mind (Figs. 7.1 and 7.2), we shall examine successively five scenarios for the development of rural and peri-urban areas, which correspond to the following five key possibilities, respectively:

- the possible preservation of agricultural activities and their prevalence;
- the unrelenting rise of urbanization and peri-urbanization;
- the role of industry and business in rural areas;
- the development of services to individuals and of the residential economy;
- the coexistence of different land uses, and competition between them, in certain areas.

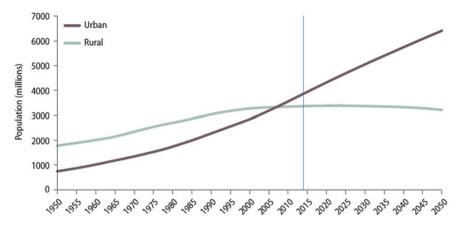


Fig. 7.1 Urban and rural population of the world; 1950–2050. *Source* United Nations, Department of Economic and Social Affairs World Urbanisation Prospect, 2014 Revision

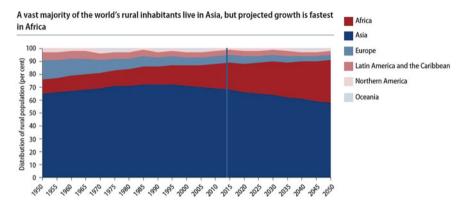


Fig. 7.2 Projected evolution of rural populations in the different continents. *Source* United Nations, Department of Economic and Social Affairs World Urbanisation Prospect, 2014 Revision

7.1 Towards a Preservation of Agricultural Activities?

The first scenario examines the possibility of preserving agricultural activities, which runs counter to the current trend, but is coherent with population growth and the necessity to feed these growing populations.

Agricultural activity has played a great part in shaping rural areas, which were the result of the sedentarization of populations and the conversion of hunter-gatherer groups to soil cultivation and animal husbandry. It is therefore not surprising that it is the basis of our first scenario of development activities. Indeed, farming has, since prehistoric times, been the primary activity of rural areas, as well as an important differentiating factor between rural and urban areas, and so has generated and

maintained an often complex relationship with cities. While, on the one hand, rural areas had power over cities through their capacity to supply food to urban populations, they were, on the other hand, dependent on cities for the sale of their produce and for the purchase of wares that could only be found in trade fairs and city markets.

The dominance of agriculture started to wane during the 18th and 19th centuries, at the time of the Industrial Revolution, with the implementation of the system of enclosure in England, and the migration of part of the rural population to cities and the factories of industry. Mass migration to urban areas caused significant changes in the rural areas of many industrialized countries—first and foremost the United Kingdom—and a sharp decrease in the importance of farming. This trend spread throughout the 20th century, to the point where agriculture often became a secondary activity in terms of value-added or GDP contribution. However, a large part of the rural (or even peri-urban) land area continued to be used for farming; agricultural production dominated the rural landscape, and farming activities left their mark on the land and in the organization of space. Lastly, it holds a special place in the psyche of both city dwellers and rural populations.

However, agriculture remains dominant in many developing countries and is still the leading production activity in rural areas throughout the world: if it is true that the world population is increasingly urbanized, almost 3 of 7 billion people in the world live in rural areas (World Bank 2007). The global agricultural population defined as individuals dependent on agriculture, hunting, fishing, and forestry for their livelihood—accounted for 37.6 % of the world's total population in 2011, the most recent year for which data are available. This is a decrease of 12 % from 1980, when the world's agricultural and nonagricultural populations were roughly the same size. Although the agricultural population shrunk as a share of total population between 1980 and 2011, it grew numerically from 2.2 billion to 2.6 billion people during this period, principally in Africa and Asia (Fig. 7.3).

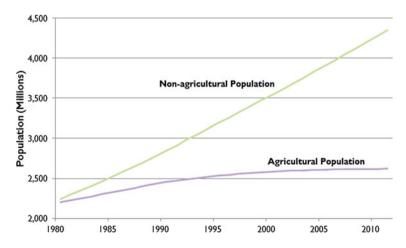


Fig. 7.3 Projected global agricultural population, 1980–2011. Source FAOSTAT, World-watch institute

But it has also undergone important changes that have, in many territories, significantly altered its structure and its relationship to the land, nature and local populations. The modernization of agriculture has led to a process of rationalization of production, prompted by a desire for higher returns as a result of mechanization, the use of fertilizers and pesticides, and the expansion of cultivated land areas (see Sect. 5.1 above). Today, the trend is towards a reduction of the number of farms but an increase in their average size, or even towards a separation between large, high-production, highly mechanized farms and multi-production smallholdings. Among the former, we have observed a trend towards single-crop production of wheat or corn, for example, or even of non-food products such as synthetic fuels.

Alongside the current decline in farming, the place of agriculture in rural areas raises serious questions about the future of the planet. In the face of a growing world population and a scarcity of arable land, the problem of land-grabbing, and therefore also of land and soil quality control, arises. Many countries that do not currently have sufficient arable land to feed their populations are considering and/or adopting strategies whereby they purchase land located outside their traditional areas of influence. This trend was initiated by China when it began purchasing land in Africa, as well as by several Gulf and Arabian Peninsula states, which do not have enough arable land to ensure the sustainable growth of their economies and meet the food needs of their growing populations.

This has resulted in rising prices for agricultural land, and growing concerns about the future availability of land needed to accommodate the growing world population and meet its basic needs. These concerns are not unlike those regarding the availability of water in sufficient quantities and of adequate quality. The future of rural areas as food reserves for the planet is a question of crucial importance, and it now seems increasingly certain that a large portion of these areas will be dedicated to producing either food or green fuels. This major issue, which is linked to the need to protect the best-quality land for food production, clearly raises the question of the preservation of these areas, particularly in the face of urban sprawl. Land consumption for housing and urban infrastructure (roads, railways, power generation, waste treatment plants, etc.) often occurs to the detriment of high-quality agricultural land surrounding urban centres—land whose purpose is precisely to produce food for city dwellers—and is increasing at a rapid rate, as shown in France, where land consumption is increasing at a pace of one *département* (or subregion) every seven years.

This, in turn, raises the question of the type of farming that must be developed to meet these needs. Intensive agriculture, often chosen in the hope of substantially increasing returns and thus responding to the food needs of the increasing population, is not without its difficulties. It obviously poses the problem of soil and groundwater pollution, caused by the use of large quantities of agricultural inputs, as well as those of soil damage (erosive run-off) and landscape damage, consequences of the increasing size of agricultural parcels. Also associated with this type of farming are socio-economic problems, with the disappearance of small farmers and their often difficult transition to single-crop farming, and the risk of local communities disappearing or experiencing disruptions to their social equilibrium.

Agroecology certainly represents a possible solution to this dilemma, or at least a means of improving farm production conditions, in that it reduces the quantity of inputs and seeks productive efficiency while complying with the requirements of sustainable development, whether they be related to pollution control or the preservation of local communities.

These current developments in rural areas may, however, be influenced by three major changes, which are to a certain extent predictable but rank very high on the agendas of policymakers:

- (1) The first and most often-mentioned of these changes relates to the possible seriousness of climate disruptions and their impact on agricultural production. The magnitude of these changes and their precise characteristics cannot be predicted accurately, but they have already begun to influence the spatial distribution of agricultural activities in at least two ways. Areas historically used for agriculture are gradually becoming unsuitable for farming because of water scarcity or natural events causing soil loss or erosion: the issue that clearly arises here is that of climate refugees and the possibility of massive population migrations resulting from those external factors. The second consequence concerns the relocation of cultivation in connection with global warming, which affects the choice of crops to be grown or livestock to be raised in a given region. In such situations, it is necessary to find varieties that are more resistant to drought or greater insolation, for example, or to consider new types of crops that do not always meet current food requirements or are not suited to previous economic models.
- (2) The second development is related to possible changes in the diets of urban and rural populations. In particular, a number of drawbacks associated with dietary habits in developed societies have been identified, and it has now been acknowledged that these habits are not sustainable in a world whose massive population is constantly growing. First, the negative effects and dangers of these habits in terms of public health, particularly the rise of obesity, must be recognized. In particular, there is a need to reduce the fat intake of Western consumers, which is paralleled by the necessity to prevent emerging nations' populations from adopting similar diets; the necessary volumes of animal production would put too great a strain on the planet. Second, the negative externalities of this type of production must be identified, particularly those associated with livestock-generated waste-which is a diffuse source of pollution-and those related to excessive water consumption and the resultant depletion of water resources. In sum, it will be necessary to consider reducing the consumption of animal protein in more-developed countries and giving priority to vegetable proteins in food diets, associated with smaller carbon and environmental footprints.
- (3) The third and final development stems from changes in food-supply chains and the respective roles of long and short food-supply chains. A twofold shift is therefore taking place which calls for tighter control of mass distribution and the development of shorter, more local supply chains. Large-scale retail, with

its brands and logistics, has become a dominant player in food-production chains and now tends to have ever-increasing control over farming activities upstream, in terms not only of the types and methods of production that are prioritized but also of the regulations and standards imposed. It often dictates prices to local producers, who are placed under ever-greater pressure from external determinants and decisions made outside their territory, and are losing their independence. Meanwhile, the preferences of consumers, particularly middle-class urban residents, are tending to change under the impact of the various food and public health crises, such as avian flu, for example. They are expressing an increasing demand for products with an identifiable geographical origin, promoting local production. Local foods, short supply chains, organic food and local networks of producers tend to develop and prioritize local procurement, with a small number of intermediaries between producers and consumers. Geographical proximity is also favoured as a means of reducing food miles and minimizing the environmental footprint of products requiring long-distance transportation. However, the opportunities provided by these new forms of demand for food products have also sparked the interest of large manufacturers and mass retail groups, which now use them as part of their overall strategies, giving rise to some uncertainty regarding the future configurations of supply chains.

7.2 The Unavoidable Progress of Peri-urbanization

The second scenario is based on ever more intense urban sprawl and the resultant peri-urbanization phenomena.

Generalized urbanization is without doubt one of the most important markers of the changes that occurred in the 20th century—so much so that it is inconceivable to believe that this phenomenon might be reversed or even significantly slowed down. The process was first observed in the most developed countries in the 1920s, notably as a result of massive rural exodus on the one hand and the destruction caused by two world wars on the other, and since the end of World War II has spread to most countries in the world. Today, urbanization is particularly strong in the least developed nations. Rural populations continue to migrate from rural areas to urban centres, which are growing in number and size. Indeed, urban centres are growing fast and many Third World cities now feature among the 50 largest cities in the world, a fact that chimes with the official recognition that over half the planet's population now lives in urban areas.

However, this seemingly irreversible phenomenon takes different forms from one place to another and varies according to the income levels of the populations in question. It affects small rural towns as well as large industrialized cities, and concerns all kinds of urban fabric, ranging from low-rise housing in sprawling suburban areas to the *favelas* and slums of megacities in the Global South, to the vertically concentrated CBDs of globalized metropolises. However, the one characteristic that all these places indisputably have in common is intense urban sprawl around cities and concentrated urban areas. This phenomenon, often referred to as peri-urbanization, leads to the urbanization of areas previously devoted to farming or nature-related activities, and occurs in the form of horizontal, low-density urban development typically associated with low-rise housing, parks and gardens, and major urban infrastructure (such as large shopping centres, power stations, waste treatment plants).

This results in more dispersed land use than in city centres, with extensive artificialization of land, and housing areas in which people reside but seldom work --places they use for sleeping or for spending weekends. Consequently, a large number of the residents of these areas commute daily to and from workplaces that are typically located in city centres or their immediate peripheries, which leads to transport-related problems that are exacerbated by the fact that urban sprawl makes public transport coverage less efficient than in denser areas; this leads to reduced public transport use and increased use of cars or other individual modes of transport. Although this process poses serious problems for urban planners, who see it as a corruption of what a city is supposed to be, with the development of areas that are extremely inefficient in terms of land use and consumption of environmental goods, it does, however, respond to a strong demand from populations. Indeed, peri-urban residents largely support the individual residential housing model, especially detached houses with gardens and outbuildings, close to open spaces, parks and natural areas. Surveys (Bérard et al. 2001; Maresca et al. 2008) have shown that this model gives people the impression of living in the countryside rather than a town, and reflects a desire for nature, embodied in a preference for proximity to green spaces, forests and even agricultural areas.

The presence of housing and various types of infrastructure in these areas is not, however, without serious consequences. These places are home to intense land-use competition and conflicts of interest between various categories of users with different land-use projects. While these areas are admittedly less dense than city centres, competition over the use of land has proved fierce. The intended land uses are numerous: individual housing, office buildings, transport infrastructure such as highways and railways, power-generation and waste-management facilities, recreational areas such as parks and fitness trails, farming activities, forests, and even nature reserves. These intentions often lead to tensions between stakeholders, and sometimes even result in land-use conflicts between opposing groups of residents that use or intend to use the land differently.

The land-use conflicts that occur in peri-urban areas typically involve groups of stakeholders who each strive to impose their vision of how the local territory should be developed, and therefore constitute a form of voicing (in Hirschmann's sense of the word) for groups of people who believe that the development decisions taken are not in line with their goals, or even harm their interests. They, for the most part, result from decisions to change what a territory is used for—decisions that often meet with resistance or opposition. They may have a blocking effect, in that they may prevent the realization of some projects—involving the construction of

infrastructure, for example (airports, waste-treatment plants, nuclear power plants, etc.)—but they are hardly ever destructive or extremely violent. They are, rather, a form of expression and of local democracy, and act as a signal of ongoing change and innovation at local level. Innovations occasionally cause resistance, leading to conflicts which, through their very existence and the changes they impose, lead to shifts in developmental trajectories.

The problem of multiple land uses in peri-urban areas, and the competition, tensions and conflicts it causes, is usually taken very seriously by local authorities, which work hard to establish land-governance arrangements that allow for the development of urban areas while preserving some of the amenities associated with these areas. It is for this purpose that they enact land-use regulations aimed at preventing the total loss of natural, forest or farming areas and maintaining the possibility of developing productive and recreational activities near urban centres. In particular, there has been a widespread development of urban and land-use plans incorporating environmental and natural dimensions in the construction of peri-urban areas, aimed at maintaining some balance in land use as well as monitoring the actions of private parties. The production of these local regulations is clearly largely the outcome of action by municipalities or communities of municipalities, which choose to become closely involved in the management and governance of the territories for which they are responsible.

However, conflicts and land-governance approaches differ according to whether the land-use-related disputes in question occur in a developed or a developing country, and depending on the property-rights regime and the general level of education of the population. In emerging or less-developed countries, there is very little local urban planning, so most conflicts only arise following the construction of major infrastructure facilities, and express the dissensions of displaced populations who have been either deprived of their territory or affected by the negative externalities produced. In industrialized countries, on the other hand, conflicts tend to be more preventive in nature and aimed at blocking changes that a large part of the local population does not want. This phenomenon is observed, for example, in coastal areas where large numbers of people now tend to concentrate, and around which extensive urbanized zones develop as a result of urbanization processes that pose formidable problems in terms of environmental effects and, more generally, in terms of sustainable development.

But the effects of this process reach beyond developed areas, and the influence of a city is felt not just in its immediate periphery but also deep in the surrounding countryside. Indicative of this is the increasing size of small towns situated in rural areas, which are tending to attract people from nearby villages and countryside. An increasing number of activities in the field of services to individuals or in the administrative or healthcare sectors are concentrating in these small towns, attracting not only people from the rural hinterland, who visit them on a regular basis, but also new settlers who wish to enjoy the advantages of town living and have easy access to large cities—thanks to their proximity to railway stations, for example. Finally, urban thinking and lifestyles appear to be filtering more and more into the countryside. The traditional gap between urban lifestyles and the characteristics of rural populations tends to be narrowing, especially under the influence of information and communication technologies. For many years, television has, in electrified areas, played a key role in the spread of fashion culture and lifestyle practices that are mostly urban—for example, through television series and shows. The rapid development of the Internet, and now smartphones, and the ability to eliminate the need for heavy and costly communications infrastructure, have also helped disseminate and normalize urban life and modes of thinking—if not worldwide, at least in some of its subregions (including North America, South America, South-East Asia, China, the Middle East, North Africa and Central Africa) that are still dominated by rural areas. Global or sub-global references are spreading and promote an apparent normalization of behaviours marked by clearly dominant and pervasive urban standards.

7.3 Intensification of Industry and Business

As suggested in the third scenario, one path to rural development involves the intensification of industrial and business activities.

Talking about industry may appear paradoxical in the context of rural areas, which have traditionally been devoted to agriculture and a few other service-related activities conducted within villages or small towns. The industrialization process in the 18th century was associated with a division of labour between rural and urban areas, the former specializing primarily in farming and to a much lesser degree in recreational, nature-related or residential activities, while the latter were marked by the expansion of factories and other manufacturing establishments, as well as the construction of blast furnaces. These production activities, which required a large workforce, strongly contributed to the growth of cities and urban agglomerations in a twofold manner that is often highlighted in economic geography literature. First, the settlement of large populations of workers able to get to work quickly was necessary, particularly as the machines in these massive manufacturing facilities used to run 24 h a day. This resulted in the construction of working-class housing, and the development of workers' communities and villages, in which attempts were made to combat the poverty and unsanitary conditions related to the growth of this mode of production.

Second, it became increasingly important for the capitalist world, especially during the 19th and 20th centuries, to be able to rely on a population of captive customers that would consume the goods produced by industry, so as not to have to transport their products long distances, which was expensive. This dual strategy grew more sophisticated with the development of local labour markets and the desire to establish the activities involved in the various segments of the production chain nearby, once again in order to minimize the cost of transporting intermediate products. This was a key factor in the concentration of populations and in the development of industrial production centres within cities. This is why most large production complexes are located in immediate proximity to cities; in some rarer cases, cities have even been developed around these manufacturing centres (examples of such cities can be found around car production facilities or related activities such as tyre manufacturing plants, e.g. Akron in Ohio or Detroit).

Little is said about rural areas in the literature on the Industrial Revolution, apart from their being pools of labour or places where industrial goods were consumed. And yet a large number of pre-industrial manufacturing activities were conducted in rural forges, blast furnaces, textile factories and tanning workshops, for example. But the process of concentration of labour and manufacturing activities destroyed this proto-industry, which lost its credibility and proved uncompetitive with the emergence of industrial goods. Consequently, the industrialization process occurred in conjunction with a growing domination of urban centres, with the exception of short-lived and unsuccessful attempts to establish small industrial facilities in rural areas, such as that of the Great Leap Forward in China's provinces, for instance. However, this massive decline of traditional productive activities was accompanied by various phenomena, reminding us that the place of industry in rural areas has been and remains important. In rural France, for example, production in the secondary sector today generates more added value than agriculture. Rural areas are home to important non-agricultural and non-service activities that are conducted and organized differently in different regions and countries, and based on several converging dynamics.

The first of these dynamics pertains to the significance of small-scale production facilities in rural areas. Changes in industrial activity, particularly the dematerialization of products and the development of ICT are, in many countries, promoting the development of SMEs (small and medium-sized enterprises) or VSEs (very small entities), operating either independently or as subcontractors for larger firms. Small businesses can now set up in rural areas, and do so for three main reasons. The first is related to the fact that lightweight products can be transported to factories or end consumers located in urban areas at reduced cost, which does not add excessively to the cost of production. The second lies in the fact that the salaries offered in rural areas are often lower than those demanded in big cities. The third pertains to the low cost of land, or even to the fact that all or part of the facilities are often provided by local authorities and that companies are granted various kinds of exemptions from national or local taxes as a means of attracting certain types of businesses.

This has had the effect of encouraging entrepreneurs to locate their industrial operations in rural areas, particularly in view of the fact that environmental and natural amenities are attractive to many people: many employees aspire to work in areas they perceive as more pleasant than urban centres and which offer benefits and neighbourhood externalities. In addition, the low cost of developed land in rural areas makes it possible to develop both production and housing facilities at affordable costs, which fosters the emergence of peri-urban areas around small rural towns. We can also observe a capacity for resilience among many small clusters or industrial districts, many of which emerged in the 20th century in rural areas or in

areas that have since become peri-urban. Their successful survival has its roots in flexibility and a strong ability to adapt, even if this involves a change in trajectory in terms of the products manufactured (shifting from industrial handkerchief or ceramics production to the manufacture of electronics components, for example). The example of Nokia, which switched from the timber industry to the production of mobile phones, could serve to symbolize those areas where business continues to thrive despite external economic and social changes.

The second factor relates to the place of traditional rural industries in this context, and more specifically industries that have reached a very high level of competitiveness, as a result of which they have been able to reduce their workforce, leading to the somewhat paradoxical departure of their employees to the city. Among these industries are, of course, agroforestry, which remains a dominant activity in a number of rural areas, and, above all, food production, given the increasingly important role played by the food and retail industries in rural areas. The decoupling of agriculture and the food sector has become particularly marked since the end of World War II, and the emergence of a powerful agrifood industry reflects an indisputable split between farmers and an industry whose function is to transform basic agricultural commodities into consumer goods for end users all over the world. Requirements in terms of volumes and food-production costs, which have become key variables, have led to the emergence not just of large agrifood corporations and cooperatives, but also, at a more local level, of highly standardized production chains.

The latter have prompted the expansion-often over vast areas-of large-scale monoculture (wheat, corn, soy, rice, sugar cane, palm, etc.) and have in some cases enriched rural areas while profoundly affecting the lifestyles of the inhabitants working there. The introduction into these areas of the notions of efficiency and profitability, taken straight from the industrial world, has led to the implementation of industrial and financial management methods, hitherto unknown in the farming world. It has also helped to make farmers dependent on external parties-especially large retail groups-because the standardization of agricultural products is the logical outcome of a desire to streamline and standardize production processes, and is based on a cost-reduction approach, imposed on local producers. In addition, the growing influence of mass retail and the large supermarket chains downstream has had significant effects on agricultural production methods, in terms of both the concentration of operators and the volumes of goods transformed. Indeed, these new actors have developed commercial approaches that have impacted on local production patterns and transformed human-land relations. The example of the vast expanses of land devoted to soy production, or of some Latin American haciendas, comes to mind. This quest for profitability and productivity often leads to environmental damage, caused by the infiltration of pesticides and fertilizers in aquifers and rivers, the destruction of woodland landscapes and countryside, and soil deterioration as a result of run-off-induced erosion.

The third and final factor, related to industrial activity, also plays an important role in the changes that rural and peri-urban areas are currently experiencing. It consists of the ability of some of these areas to attract populations of employees or managerial workers who work in factories or offices located in more urbanized areas. Rural areas thus become "havens" for workers who can commute daily thanks to the improvement of roads, railways and other lines of communication. Doing so enables them to enjoy the landscape and environmental amenities provided by their adopted home area, and contribute to its enrichment through a mechanism of income transfer, discussed further below. For all of these reasons, the relationship between industry and rural and peri-urban spaces seems well established, probably durably, and could well intensify in coming years.

7.4 The Countryside: A New El Dorado for the Service Sector?

The fourth scenario emphasizes the fact that the service sector becomes increasingly important as countries—and therefore also their rural areas—develop.

All indicators show that rural areas are facing a significant rise in service activities: the share of the tertiary sector has been increasing in these areas, and now exceeds that of agricultural production and industry in many regions, particularly in the more developed countries. This boom in the service industry, which has supported the development of many areas, raises the question of the sources of growth and of its sustainability. Can the future development of these areas be envisaged without the prevalence of the traditional productive activities (primary and secondary sectors) and be based solely on service activities? Part of the answer to this question lies in the fact that growth related to the development of the service sector involves very different phenomena, and that the concept of services actually corresponds to several distinct processes, which all contribute to growth in rural and peri-urban areas. Thus, at least three parallel mechanisms emerge.

The first pertains to the question of services to the person, and is ambiguous in nature in that it is mostly observed in the main small towns of rural areas. It is based on the fact that the services and assistance provided to rural populations, especially to frailer individuals, have increased in terms of volume and sophistication. This is particularly the case for medical and paramedical services and assistance for elderly people (in-home care, home visits, meal or monitoring services), as well as early-childhood services. The proliferation of these services and their increasing sophistication, as well as the fact that they represent a real boon for local people, are unmistakable signs that they make a significant contribution to the welfare of rural folk and thus constitute positive amenities in these areas.

The development of services to the person has undoubtedly helped improve the quality of life and health status of local populations. But while these have undeniably grown, they have also become concentrated in the small towns and larger rural villages. Post offices, schools, grocery stores, bakeries and so forth are tending to disappear from small villages and less-populated areas and move to small towns, which consequently turn into service clusters. This phenomenon, which concerns services in both the public and private sectors, causes rural residents to travel regularly to these more urbanized areas and in turn leads to a further concentration of populations around towns that offer a large variety of services, and in so doing contributes to the urbanization processes mentioned above. Thus, the development of services and their growing availability in rural towns—now literally transformed into service hubs—also reinforce migration from rural to urban areas and, through a boomerang effect, leads to a renewed process of rural depopulation in favour of small towns or large villages.

The second phenomenon, sometimes referred to as the "presential economy", pertains to the development of tourism and leisure activities and the increasing number of short- and medium-term migrations of urban and rural dwellers to places outside their place of residence. This trend also involves a massive increase in the number of holiday homes, which not only has a profound impact on practices and house prices in rural areas but also shapes the demand for services and infrastructure needs, and changes the social structure of these areas. This phenomenon includes occasional short-term travel by people attracted to rural regions and what they offer, particularly in terms of landscape amenities, lifestyle and living environment. In particular, the early 20th century saw the emergence of tourism and large volumes of people travelling to coastal or mountain regions for leisure purposes. The development, in more recent years, of agritourism, with holidaymakers choosing to stay on farms or in the country, has added to this phenomenon. These new "agritourists" are attracted not only to sunshine or beautiful landscapes but also to the possibility of being able to hike or discover regional products, first and foremost food products made locally by people with specific know-how.

More and more self-catering country cottages or farm guest houses offer visitors products and hospitality services with a regional identity. There has also been renewed interest in the production and promotion of locally made products, sometimes sold in packages or bundles by tour operators or local producers and distributors eager to attract customers by offering high-quality local products and services. All these activities provide income opportunities for rural dwellers who can manufacture quality food products (such as cheeses, oils and fruits) or provide specific services in the fields of culture (shows, local museums, visits, etc.) or nature discovery (hiking trails, conservation and development of heritage sites, access to outstanding landscapes, etc.), which can then be offered to visiting tourists.

But it is the rise of what is known as the residential economy that has contributed most to the new dynamics in rural areas. In recent years, there has been a massive influx of people migrating permanently to specific regions in developed countries, or even to neighbouring countries, which offer attractive amenities. The zones most affected by these massive population displacements are generally in the Global North, and more particularly around urban centres affected by congestion and overpopulation problems, and high housing, land and real-estate costs. The regions these populations choose to migrate to are, on the contrary, characterized by attractive positive externalities. Coastal areas or southern regions, characterized by pleasant and sunny weather and attractive natural landscapes, are destinations of choice for many people, who thus contribute to the process of migration towards seaside regions. Moreover, these areas are also often characterized by low levels of congestion, as well as easy access to natural resources or recreational activities.

Two main categories of people undertake this type of migration. The first and largest consists of pensioners who move to areas considered more restful or which offer easy access to nature and/or a milder climate. The second group is composed of young couples fleeing cities and their high housing costs, relocating instead to areas offering more space and more childcare and recreation facilities. Both situations mostly involve upper-middle-class individuals or households with high incomes, whose arrival gives rise to activities aimed at helping and welcoming them: the construction of homes, mostly in peri-urban areas, and the provision of recreational facilities and services, medical or paramedical care, and various other assistance services are but a few of them. This has a knock-on effect leading to the emergence of a local economy based on transfer incomes and revenue generated by production activities conducted in other regions. It could be said that these rural areas grow—thanks to the advantages provided by their amenities—by benefiting from revenue generated through work performed in urban centres situated either further north or in highly urbanized regions.

7.5 Mixed or Competing Land Uses: An Arena of Conflict and Segregation?

We have intentionally proposed caricatural or symbolic scenarios of extreme development paths, although they do correspond to reality in some rural or peri-urban areas. They do not purport to describe the future development of these areas based on only one of the tendencies described above, which would then dominate all others. They do not seek to suggest, either, that certain areas could become entirely devoted to one or other of these activities (except in rare cases). They are intended, rather, to identify some possible development pathways for the future. Indeed, the most common development situation that will undoubtedly arise in rural areas, and even more so in peri-urban areas, will involve, on the same land, the coexistence of—or competition between—different land uses, leading to mixed land uses and the existence of different lifestyles within a common territory. It is this situation that the fifth and final scenario shall describe.

We could draw up a very long list of possible land uses, but we shall limit ourselves to describing the main ones only. Agriculture and agroforestry embody a type of land utilization geared towards the exploitation of natural resources that could be likened to mining or ore-processing activities: while they involve traditional land-exploitation practices, they are nevertheless essential to the survival of populations and should in no way be overlooked. They constitute the bedrock of human existence and therefore lie at the heart of sustainable-development processes. Moreover, they reassure economists in that they guarantee income and profits, and therefore a sometimes modest but real possibility of development for rural areas. The tertiary and secondary sectors are based on very different land uses and are characterized by an uncertain future. As regards the future development of industry and business, the question raised is whether this will be possible without further processes of spatial concentration bound to result in the emergence of new urbanized areas. As for agribusiness, on the other hand, it continues to extend its hold on many rural territories and raises the question of sustainable development in these regions and of the future of agroecology: monoculture raises the risks associated with an intensification of production, such as surface erosion and soil and groundwater pollution. The question must therefore be raised of whether it is possible to develop more environmentally friendly production methods and manufactured products whose characteristics are more closely linked to their origin.

With regard to the service sector, the issues raised are different. Is medium- to long-term development possible if it is based exclusively on transfer activities (for example, if it relies on revenue generated in other territories)? Another key question is whether a region can function if it relies solely on services to individuals, without the contribution of revenue generated by industrial production or services to the production sector (and, again, by relying on income produced elsewhere or in other sectors, by the people who pay for these services, or even by relying on transfer income). Where is the productive base that can generate this revenue at local level? And is a dynamic based solely on transfer income sustainable? Such a dynamic would certainly have to involve the specialization of some of these areas, which would then become devoted to nature-related or leisure activities in specially dedicated spaces intended for city dwellers who do not have access to such amenities in their immediate living environment and who are prepared to pay a premium to enjoy them, albeit only temporarily.

Finally, the expansion of urbanization removes any doubt concerning its pervasive nature. Not only will these urbanization processes intensify at the expense of traditionally rural areas, and increase the size of cities, some of which will become denser and more concentrated, but they will also give rise to new types of territories. First of all, new peri-urban zones will emerge that are characterized by mixed land uses to serve urban dwellers. This will undoubtedly encompass the development of horizontal single-unit housing, and of various types of infrastructure for use by city communities, but will also involve, in some areas, more scattered urbanization processes, which will combine natural, agricultural and recreational spaces with more or less extensive pockets of dwellings, small villages, residential subdivision developments, small towns, and suburbs. And this trend might well extend to such a degree that open expanses of land, free of any urbanization, may become very rare in some emerging countries, with the exception of farming areas exclusively reserved for large-scale crop production.

However, aside from a very few exceptional situations, none of these various uses is likely to single-handedly dominate many land areas, without any competition from other activities, or at least not as far as large expanses of land are concerned. It is more likely that coexistence of mixed land use will increase, giving rise to new types of territories that will resemble traditional rural areas, used for farming alone, less and less. The future will undoubtedly see an ever-growing expansion of such mixed-use land areas, to which it will be difficult to assign a specific qualifier. They will combine rural and urban dimensions, as well as different sets of values, will be characterized by the coexistence of different types of uses, and will probably initially appear in developed and emerging countries. Regions such as Belgium, Singapore, and southern England can be considered forerunners in this regard, in that they are bearers of a new way of using and living on the land. They are territories in which work and leisure activities, housing and natural parks, farming activities and transport and power-generating infrastructure all coexist. Much more than dormitory or transitional zones, they are becoming living spaces in their own right and will in all likelihood grow and multiply in the near future.

However, these areas pose a very serious problem associated with mixed land use, and are exposed to a doubly fatal risk: the rise of conflict and the spread of exclusion. Land-use conflicts obviously arise from the coexistence, in areas of limited size, of multiple uses and populations with diverse and often conflicting expectations. They are due to the concentration of different or conflicting land uses in the same geographic neighbourhood. They are synonymous with peaceful expressions of opinion when they are non-violent, but can also jeopardize the development of territories when they involve violence or decisions made undemocratically or which are tainted by corruption. But it is the rise of exclusion processes that represent the greatest obstacle to harmonious and equitable development. The development of these processes-which are already significant in rural areas—is now in full swing in new territories such as peri-urban areas, giving rise to the establishment of ghettos for both rich and poor populations. On the one hand, favelas, slums and zones of social exclusion outside large urban areas, far from city centres and transport infrastructure, are developing and are often quagmires of poverty and misery; on the other, the number of wealthy condominiums and gated communities in which the rich choose to confine themselves-through fear of falling victim to the violence and insecurity generated by the people around them and as a result of the nature of the territories surrounding them—are also increasing.

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Chapter 8 Conclusion. Rural Development in the 21st Century

Abstract The conclusion operates a return on the objective of this work, which was to provide elements of understanding on the dynamics of rural and peri-urban territories, combining regional science and works more explicitly dedicated to rural development and the policy relating thereto. The need to take fully into account the territorial dimension—i.e. a fine knowledge of identity, governance, organizational aspects and local resources, etc.—is emphasized as a central element for understanding the diversity of trajectories and patterns of rural and peri-urban areas, and implement appropriate public policies. But think future patterns of development rural areas also means paying attention to adaptation and resilience processes, energy transition and climate change issues, and new initiatives—often marked by technology and collaborative dimensions—that bloom everywhere on the planet. The development and implementation of experimental, interdisciplinary and participatory research devices is in this context a crucial need.

Keywords Experimentation • Participatory research • Public policies • Regional science • Resilience • Rural development • Territorial dimension

The objective of this work has been to provide the reader with tools to examine the question of rural and peri-urban development, from two main perspectives: regional development approaches—and more specifically regional science—on the one hand, and studies relating to development processes and rural policy on the other. Accordingly, our aim has been to provide analytical insight into these issues by reviewing the main contributions of both schools of thought, and also to identify possible areas of reflection for decision-makers and policymakers to consider.

The interpretations and avenues of research we have invited readers to consider have led us not only to discuss notions of regional and rural development, as well as the conditions under which different modes of development occur, but also to outline some possible scenarios for the future and study some of the policies implemented in different countries. This overview has shown, among other things, that understanding the dynamics at work in rural and peri-urban areas, in addition to the policies associated with them, requires in-depth analysis of the determinants of change in the territories and regions in question. Indeed, it is quite difficult to grasp the changes that occur in these areas without examining their organization, their distinctive identity, their economic and social characteristics, their governance structures, and the ways in which local resources or sources of revenue from other territories are utilized and developed. We cannot understand the changes, or indeed the present and future challenges, that rural areas experience without closely considering the territorial dimension.

Our working method has been based on spatial and regional-economy approaches, which constitutes a new way of examining rural (and peri-urban) territories and obtaining additional insight into the processes at play in these areas, as the link between issues of regional and territorial development on the one hand and rural development on the other has, for a long time, been relatively unexplored, despite the similarities and overlaps that exist between the two fields of analysis. Making use of the tools of regional science has enabled us to investigate the relationship between the two types of development—and identify what they have in common and the differences between them—and also show that these powerful analytical tools can help provide new and relevant insights into the topic of rural development. In fact, regional-science analyses have tended to focus on regional growth, agglomeration effects and urban phenomena, but have paid little attention to the processes of rural development, except through the now obsolete notion of rural areas as being exclusively dedicated to agricultural production.

Our careful analysis of the literature and of the state of public interventions shows that the disjunction between both approaches is now tending to vanish. Academic analyses are starting to converge around common watchwords such as territory, governance, subsidiarity, local democracy, competitiveness, innovation and local systems, at a time when fragmentation no longer exclusively affects urban areas. In the meantime, policies that apply to rural areas have lost some of their distinctiveness, especially since the establishment of the place-based or smart-specialization principle whereby all territories should be given development opportunities based on their own resources and their social and cultural context. However, there remain important differences between the two sets of analyses, if only in that there is a unified corpus of ideas in the field of regional development and policies, whereas approaches to rural development correspond more to a patchwork of field research, theoretical intuition and intervention practices that set themselves up as an action theory.

It is therefore difficult to provide a canonical overview of the approach to rural and peri-urban areas, and even more so to build a solid and indisputable corpus of analyses on the subject. Though these approaches often consider the territory as a privileged field or context of application, it is above all the institutional dimension that prevails, taking into consideration targeted measures, administrative zoning and/or boundaries, combined with development methods and field experiences conducted by stakeholders, consultants, and through territorial management mechanisms. The theoretical approaches to rural development are for the most part based on detailed field surveys rather than on academic theory or modelling. The analyses are meant to be based on concrete experiences, and to take into account the behaviours and strategies of actors in the private, public and associative sectors. Recommendations follow findings and are accompanied by concrete implementations, the impacts of which are evaluated, often by comparing them with a catalogue of predefined goals. The constitution of groups of actors is encouraged, along with conflict-resolution methods based on protocols and guides for action.

This analysis is accompanied by a reflection on public policy that takes two forms. First, a critical analysis has been made of the policies implemented, their key features and their limitations. Second, a large part of the research conducted on this question is aimed at the implementation of new rural development policies and of recommendations to public decision-makers: this expresses a need to translate reflection into concrete measures and operational solutions that can produce results in the near future, and a desire to serve the actors of development. At this juncture, the questions of territorial engineering, decentralization and the acquisition of new competences by local partners supporting territorial development projects should also be mentioned.

Lastly, to conclude this work, we should like to emphasize two points we consider essential considerations for anyone wishing to pursue research in the—to date under-explored—field of rural development:

1. It is always necessary to reflect upon the concept of rural development itself. Its definition is broad, sometimes ambiguous and lacks theoretical foundation.

First, its field of application reaches far beyond the economic dimensions. It is not only Perroux's idea of development (growth + integration of human and social factors) that is at stake, but also the fact that the competencies of the populations and their participation in the decision-making process related to development choices have become central considerations in policies. It is thus necessary to build a unified framework, with more normative and efficient development models, on the basis of which policies taking into account local specificities can be developed. Second, the diversity of rural territories in terms of their regional development patterns, the way they are connected to global markets, the way they relate to cities and peri-urbanization, or with regard to their development paths makes it difficult to determine a common modus operandi. Diversity in the configurations and long-term development trajectories of territories, differences between territories in terms of their ability to develop their own resources, and differences in their competitiveness and attractiveness are all arguments in favour of developing locally based solutions. Third, development projects are typically chosen on the basis of a delicate trade-off between various local or supra-local lobbies and stakeholders with different ideas and interests, and who make temporary deals for their own sake and for that of the territory. The diverse development paths considered then take the form of trial-and-error processes, depending on whether the choices prove favourable or give rise to opposition and conflict, leading in turn to new dynamics.

The concept of rural development is therefore at once deeply ambiguous and highly promising. Although it has been reintegrated into the framework of programmes of more or less complex local public actions, rural development is in fact a largely autonomous process, and one that is self-maintained by local actors (van der Ploeg et al. 2000). A large number of practices are not directly initiated by national or federal state policies and result instead from the implementation of local projects, supported and managed by different local actors, territorial project-management mechanisms, and skills acquired through trial-and-error processes or through the transposition of models tested outside the rural arena—for example, within large organizations. As a result, rural development is a heuristic mechanism, the purpose of which is above all to seek new futures and to reflect not only upon policies but also upon the efforts and projects of local populations. Understanding this model and the profound paradigmatic changes it causes and which affect it may well require new theories reflecting its networks, interactions, practices and new identities.

Reflecting upon the subject of rural development involves analysing the different models of development proposed or implemented by territories, along with the paths taken by these territories. In addition to the activities or combinations of activities prioritized in development processes (services, agriculture, industry, tourism, residential or presence-based economy, etc.) and the foundations or development paths selected (productive economy, transfer economy, social and solidarity-based economy, etc.), it is also necessary to examine the resilience of territories, in terms of their ability or inability to maintain and attract activities, as well as local factors of attractiveness and territories' ability to weather the recent crisis and invent a new future. Finally, the question of inequality needs to be addressed, especially in view of the emergence of pockets of poverty, exclusion and social relegation in some rural areas, which could run the risk of being left behind.

2. The recent developments in contemporary societies and economies significantly influence the emerging rural development paradigm. In particular, they call for a reconsideration of societies' relationships with nature and the living world, as well as of the importance placed on social innovations and governance processes.

In the context of challenges related to energy transition, climate change, waste and recycling, and food scares, there is increasing demand to give rural and peri-urban territories greater autonomy. This has led to the development of green-economy practices and of industrial ecology, and motivates concern for food regions or cities. The question of how a territory functions—with its incoming and outgoing flows of raw materials, food and power resources, and its recycling or export of waste—is posed in terms of territorial metabolism. This implies examining the models and processes of territorial development, as well as their sustainability. One component of sustainable territorial development is the circular economy, with the methanization of waste, biomass conversion, the conservation and development of agricultural and forest resources, and integration of these resources into economic processes and local flows. Another component is the development of short supply chains, together with urban agriculture and a reconnection between food and the land. They raise the questions of the future of agriculture in rural and peri-urban areas, of how producers relate to their land, to places and to the origins of their products, and of consumer behaviours and urban food supply and demand.

Moreover, the demand for increased participation of local populations-who are becoming more and more highly educated and more diverse-in decision-making processes contributes to the reinvention of rural and peri-urban development models. This involvement can also take the form of challenges to decisions made at the territorial level or at various levels of multilevel governance. Local democracy implies the involvement of different stakeholders and requires that the concept of innovation be extended to include social and territorial dimensions, and new individual and collective practices of production (product-service systems), marketing and consumption (collaborative economy), and collaborative invention (crowdsourcing) or project funding (crowdfunding). Such experiments are essential to constructing the future of rural and peri-urban areas, but they also raise the question of the capacity of state and local authorities to support, or even stimulate, new forms of social and solidarity-based economy, cultural policy and support for dependent persons, while also focusing attention on land-use and real-estate management policies, particularly those concerning the interface between the rural and the urban.

Finally, if we adhere to the now widely accepted idea that development largely depends upon the production and dissemination of knowledge, and if we agree that it requires the specificities of territories to be taken into account, as we have done throughout this book, then we must recognize the role of local expertise and consider how to utilize and develop it. In particular, these fundamental changes in how territorial development is envisioned and their associated implications require the adoption of new approaches to development strategies that go beyond the traditional divide between research on current dynamics and intervention promoting and stimulating the development of new processes and practices. Through participatory research, involving local actors, informed researchers can bring their skills and knowledge to the table in order to assist local stakeholders and policymakers in building tools for territorial governance. The existence of knowledge mediation tools facilitates dissemination, and is essential for the emergence of new forms of territorial innovation, provided they can be captured by local actors. This raises major issues in terms of the way research results and territorial engineering are used, implying recognition not only of the diversity of local actors' expectations, strategies and perspectives but also of the decentralized and diverse nature of expertise. The development of rural and peri-urban territories therefore calls for territorial engineering practices that are adapted to specific local contexts, and which involve the participation of public authorities and local stakeholders-and researchers-in decision-making processes concerning the future of their territories.

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