FOOD AND NUTRITION

AGRICULTURE

ENVIRONMENT



RURAL AREAS



EDITORIAL



he New Ruralities foresight study was designed to inform INRA's views on the possible future of ruralities by adopting a novel approach that involved a wide variety of actors and disciplines.

Because of the mobility of people, goods, information and lifestyles, rural areas are experiencing profound change. The end of the rural exodus, the transformation of lifestyles and images attached to the countryside are contributing to the design of new areas and are the presage of renewed dynamism. One major aspect of the future of ruralities resides in the increasingly intricated relationships between rural and urban areas. More and more, agriculture is sharing space with residential zones and natural environments. On the one hand, urbanisation is transforming the context of farming activities, while on the other, interactions between agricultural and natural areas need to be enhanced. However, although rural areas no longer seem set to decline, their future is dependent upon finding solutions to many questions. At the horizon of 2030, will the trend towards periurbanisation be sustained? How should regions experiencing increasing land use and neighbourhood conflicts be governed? How should land be managed? What role should be played by agriculture?

The four scenarios of the foresight study invite researchers and public decision-makers to reflect upon the diversity of regions and new complementarities between urban and rural areas, as well as between different activities.

Guy Riba, Deputy Director General in charge of scientific programmes



Periurbanisation

41% of land lies in predominantly urban areas (ZAUER types, INSEE) 82% of the population live in predominantly urban areas.

• Demographic growth in rural municipalities

Rural areas are seeing a reversal of the demographic trend: their demographic growth rate has doubled since 1999 (INSEE)

Residential economy

42% of jobs in rural areas concern activities linked to resident populations and their service needs (INSEE)

SOME FIGURES ON FRANCE

Individual mobility

All types of mobility taken together, a person covers an average of 45 km per day (INSEE-INRETS)

Agriculture

40% of farmers and 45% of farm land are found in periurban zones. In periurban municipalities, agricultural land accounts for 66.5% of the total area. (Agreste)

• Environment

18% of France is covered by schemes intended for environmental purposes: Parcs Naturels Régionaux, Natura 2000, Znief, etc. (IFEN)

PERSPECTIVES ON THE FORESIGHT STUDY

ural areas, or more conceptually "ruralities", have become a major administrative and political issue, an aspiration for citizens and a subject of research. This is because since the end of the 1970s, while the number of farmers has dropped markedly, so-called "rural" populations have bucked the trend of two centuries and increased, not only through the expansion of periurban areas but also due to other factors. What will be the situation in 2030? The trends of the first scenario (periurbanisation), already in motion, satisfy no-one and are even dreaded. One could be seduced by scenario 2 (mobility and its intermittence), both alarmed and attracted by 3 (contrast between wild nature and dense urbanisation) or calmly reassured by 4 (housing and living areas, agriculture associated with networks of towns).

An initial transversal conclusion of this foresight study was that rural diversity will persist but evolve. Indeed, INRA has every interest in being attentive to this "geodiversity" of territories, in the same way as it focuses upon biodiversity. Through an overall review of the dynamics of these four scenarios, three principal types of areas are combined to form the places of new ruralities.

They are first of all areas for living. The current model is that of housing dispersal or small housing estates. These changes to housing, normally outside the remit of INRA, raise questions as to how long they will last.

Areas dedicated to farming and livestock breeding, always in the majority even though they are shrinking, constitute an area of production, a specific lifestyle, and a landscape heritage more or less acclaimed by residents, whether they are intermittent or not. They also constitute a challenge shared by those in favour of productive farming and those who prefer more ecological, social or "sustainable" methods. This is once again the core focus of INRA, requiring renewed scientific and professional rigour when the challenge becomes planetary (water, climate, food and nutrition, etc.).

Finally, "nature" is the third component of rural territories. Humanised nature, made up of forests, marshes, moors, fallow land, coastlines and mountains, is much appreciated for leisure purposes. It may sometimes be spreading, is often under threat and is always under observation and held in trust. INRA's expertise remains of prime importance because it can associate the concept of "nature" with its related components, agriculture and housing, to think the territories of the new ruralities.

Armand Frémont, geographer, previously Rector to the Academies of Versailles and Grenoble

An exploratory approach in order to identify new research issues

he foresight study carried out by a team in the INRA Foresight Unit and led by Guy Riba and Bernard Hubert, was based on a working group made up of experts from a variety of institutional bodies and scientific disciplines. Work started in 2006 by highlighting the major current trends, supported by statistical data. Particular attention was paid to "weak signals" as indicators of movements that are still barely perceptible; for example, by means of analyses of "lived spaces" (by different types of actors), and land use conflicts in different areas.

The New Ruralities foresight study aimed to examine the future of territories based on the combined dynamics of urban and rural areas (dilution of urban-rural boundaries, urban densification, interactions between networks of towns and their surrounding countryside) and by putting forward the hypothesis that these urban-rural relationships

are changing under the effect of the mobility of humans, goods and information. Four scenarios were then drawn up (see opposite). They reflected the future of ruralities from the standpoints of the territories and their actors. Each scenario illustrates a possible future which is not exclusive of the others

Early in 2007, these scenarios were illustrated with four case studies on selected areas: Midi-Pyrénées for rural areas experiencing periurbanisation; Rhône-Alpes for "intermittent" rural areas related with metropolitan systems; Provence-Alpes-Côte d'Azur for rural areas functionalized by dense cities; and Basse-Normandie for rural areas within the mesh of town networks. Because one of its aims was to highlight the research challenges associated with the scenarios, the results of the study were then debated during workshops with researchers.

The foresight study was carried out by a working group comprising:

- an INRA steering committee: Guy Riba, Bernard Hubert;
- a group of experts: Francis Aubert, Christophe Bernard, Jean-Paul Billaud, Luc Bossuet, Thierry Brossard, Henry Buller, Stéphane Cordobès, Patrice Devos, Armand Frémont, Denis Lépicier, Guy Loinger, Amédée Mollard, Philippe Perrier-Cornet, Olivier Piron, Vincent Piveteau, Bertrand Schmitt, André Torre, Ghislaine Urbano;
- a project team: Olivier Mora (INRA) (project manager), Edith Heurgon (CCIC), Lisa Gauvrit (INRA), Clementina Sebillotte (INRA), Maryse Aoudaï (INRA).

COMPONENTS OF THE EVOLUTION OF RURALITIES

The foresight study detected several drivers for the evolution of ruralities (components)

Components	Scénario 1	Scénario 2	Scénario 3	Scénario 4
Mobility in urban-rural relationships	Mobility determined by peripheral urbanisation	Cyclical intermittences	Limited mobilities. People concentrate in dense cities	Mobility determined by networks of small and medium-sized towns
Economic dynamics in country areas	Residential and agricultural economy	Economy based on the population present	Economy specialised and functionalised by cities	Territorial economy
Natural and heritage resources	Erosion of agricultural and natural areas and creation of sanctuaries	Strong attractiveness of natural heritage and/or agricultural areas	Nature inside the cities and partition of natural and agricultural areas	Combination of agricultural landscapes and natural areas
Rural territory governance	Weak, induced by development of the metropolis	Variety of actions to ensure the attractiveness of rural areas	Subject to urban planning	Strong, design of coherent and concerted territorial projects
Contextual elements	Laisser-faire, Facilitated transport	Strong social and technical innovations (transport, information and communication technologies) Innovative governance	Energy crisis. Strong European regional policies	Strong state policies

SCENARIOS OF THE NEW RURALITIES

SCENARIO 1:

Periurban countryside of dispersal city

n 2030, major cities are spreading and periurbanisation triumphs. Urban zones spread into rural areas, the areas of influence of major cities sometimes reaching the size of an entire region. They are marked by an intense level of daily mobility by suburban residents, most of whom work in the cities. This mobility is sustained by innovations in transport systems. Faced with a strong polarisation of activities by the cities, the economy of rural, periurban areas are mainly residential and poorly qualified, even though it benefits from a dedensification of metropolitan activities and is concentrated in peripheral clusters and along transport axes. The increase and spread of individual housing and commercial areas has led to the creation of a vast discontinuous fabric of fields, woods, houses, commercial areas and roads. Periurban rural landscapes are fragmented and have lost their diversity. Agriculture, situated in the open spaces of metropolitan areas, is organised in a relatively concentric manner around urban poles, in response to strong competition for land use. Far from these competitive challenges and outside metropolitan areas, intermediate and sparsely-populated areas are used by various types of agriculture subject to few environmental



constraints. Nature sanctuaries, managed hierarchically by regional government bodies, develop here and there to respond to demands for natural areas from urban populations.

SCENARIO 2:

Intermittent countryside related to metropolitan systems

n 2030, individuals (who have the resources) are highly mobile and alternate periods of residence in town and countryside. By means of this multi-belonging, rural territory with particular advantages have highlighted their peculiarity and developed attractive heritage. These territories are connected to metropolitan systems via networks of public transport. They form archipelagos that are able to attract flows of urban people, notably thanks to information technology and communications equipment and services. Rural economies exploit the income spent by residents who are present locally, through services to the population, shops, agriculture, tourism activities and construction. The reorganisation of rural territories generate an intensification of land uses, that highlight natural and cultural resources, but sometimes generate conflicts. Their governance is hybrid. Integrating public and private actors, this may either privatise the use of rural areas to the benefit of the few, or stimulate the attractiveness of the area, in partnership with metropolitan government bodies. Agriculture plays an essential role in maintaining landscapes and managing ecosystems, and responds to a strong demand for country products (AOC, organic, etc.) and local markets. Outside these areas exploited for their distinctive features, there remain rural areas that

are not connected to metropolitan systems and are now mainly shared between agro-industrial activities, forests and "wild nature" areas.



SCENARIO 3:

Country areas functionalized by dense cities

n 2030, urban-rural relationships have been revolutionised by the marked rise in fossil energy costs and the implementation of restrictive policies concerning greenhouse gas emissions. In the absence of technological innovation, these changes have called into question the model of car-based individual mobility and drastically limited people mobility. Cities have developed more vertically; the residential development of rural areas observed during the early 21st century has ended and populations are concentrated in cities. In anticipation of these changes, major cities have invented new functional relationships with their upcountry by placing them at the service of the metropolis (production of agricultural raw materials, ecological services and biodiversity reserves). At the same time, major cities have integrated within themselves forms of "micro-ruralities" such as parks, woods and agricultural areas. Major public intervention and the introduc-



tion of proactive policies with respect to housing, transport and ecological infrastructures have been necessary to achieve these adaptations.

SCENARIO 4:

Countryside within the mesh of town networks

n 2030, urban-rural relationships have been redesigned around networks of towns. Indeed, the previous trend towards the periurbanisation of major cities has declined to the benefit of small or medium-sized towns, or villages, towards which residential mobility has gravitated. These regions attract new inhabitants because of their quality of life and the variety of landscapes. Regional balances are based on an equilibrated distribution of populations, activities and services, ensuring town-country complementarities. They are supported by project-based territorial governance, backed by national government policies, the principal challenge of which is to guarantee the sustainable co-existence of different land uses. Territorial economies are based on a diversity of productive and residential activities. In this respect, information and communication technologies exert an important effect on opening up some territories. Different types of agriculture co-exist, associated with a variety of production systems (intensive, conventional, organic, etc.) and sector organisations; these activities are entan-

gled with protected natural areas. These complex and diversified landscapes supply residents with pleasant living conditions and encourage the ecological functions of natural environments



LAND USE AND NEIGHBOURHOODS CONFLICTS

André Torre, , INRA-AgroParisTech Joint Research Unit -Science for Action and Sustainable Development: Activities, Products, Territories (SADAPT), Paris-Grignon.

ural, natural and periurban areas constitute important receptacles for tensions and conflicts linked to land use because of their multifunctional nature. They provide a substrate for the production of goods and residential or recreational services, and the preservation of natural, cultural and landscape heritage. Land use conflicts have two main characteristics. Firstly, they are signals of contemporary economic and social change, and secondly, they provide a platform for expression by populations who are dissatisfied with ongoing decisions and projects."

THE DYNAMICS OF RURAL AREAS

Francis Aubert, INRA-ENESAD Joint Research Unit for Agricultural Economics and Sociology (CESAER), Dijon.

esidential migrations constitute the first vector for the evolution and differentiation of municipalities. The demographic dynamics of rural areas are not solely dependent on the direct influence of urban areas: it is undeniable that regions structured by small towns play an important role in economic and social geography. In rural areas, agriculture remains important but has lost its predominant role (less than one job in ten in rural France). Employment in these areas is strongly dependent upon industry, and even more on tertiary activities. The residential economy follows this trend towards population dispersion throughout the country, and is still developing."

SOME REGIONAL ILLUSTRATIONS

Edith Heurgon, Director of the Cerisy International Cultural Centre (Centre Culturel International de Cerisy), advisor on foresight studies.

Inongside evolutions in the physical, economic or technical systems that characterise rural areas, the New Ruralities foresight study also focused on the diversity of uses in "lived spaces" and on territorial projects that require the commitment of actors to encourage their development.

In this context, the scenarios are of particular interest: their feasibility and potential bifurcations are dependent upon the strategies adopted by different actors; they do not apply at the same scales so that their implementation is necessarily territorialised; and although they are not exclusive from each other, they can nevertheless be combined in the same region. Thus their function is to inform strategic thinking by offering contrasted images. This emphasises the value of the regional illustrations proposed, as they enable a clearer understanding of the current dynamics, as well as of the projects put forward by actors so that together they can build the future they desire."

THE INITIAL LESSONS OF THE NEW RURALITIES FORESIGHT STUDY...

New forms of ruralities: to live, work and exchange

- ▶ The future of countryside can no longer be conceived separately from that of towns.
- ▶ Choices concerning lifestyle and daily activities are the vectors for emerging ruralities: search for space, choice of times, mobility, quality of life, etc.
- ▶ The new types of ruralities are associated with changes to society: the individualisation of behaviour, transformation of the population's age structure, the recomposition of families, demands for a good quality of life, ecological values, and an increase in inequalities within territories.

Territorial governance

The scenarios for the evolution of ruralities highlight alternatives between:

- ▶ laissez-faire, where "households choices design land-use" (scenario 1). The issues related to structuring of periurban areas and management of land use then challenge the ability of actors to coordinate coherent territorial projects.
- ▶ hybrid governance (scenario 2) involving both public sector actors (notably regional government) and those from the private sector, which may constitute powerful networks of influence. The challenge here is to stimulate the attractiveness of regions (valorisation of heritage, etc.).
- ▶ strong public action by metropolitan areas (scenario 3) to control the risks of urban concentration and implement the sustainable management of rural areas and natural resources.
- ▶ strong regional governance (scenario 4) based on territorial projects, in order to reconcile the diversity of actors, uses and types of production.

Agriculture

The New Ruralities scenarios address the future of agriculture, its roles, constraints and potential. The challenges concern in particular:

- ▶ the management of land use for an agriculture that is polarized by cities (scenario 1);
- ▶ the contribution of agriculture to enhancing landscape, cultural and productive heritage (scenarios 2 and 4);
- ▶ the management of environmental and health risks affecting agriculture in urban areas (scenario 3);
- ▶ the compatibility of various forms of agriculture (scenario 4):
- ▶ the interactions at the boundaries between agriculture, urban and natural areas (scenarios 1, 2, 3, 4).

... AND MORE CONCEPTUAL ORIENTATIONS FOR AGRICULTURAL RESEARCH

- ▶ The development of innovative farming systems that reconcile the demands of production, yield, respect for the environment and product quality. These innovations, of particular importance with respect to autonomy in energy, water or carbon supplies, etc., are essential in areas seeing urban growth.
- ▶ The development of a comparative approach to ruralities and urbanities throughout the world. This takes on particular importance in a context of globalisation and increasing tensions between urban and rural areas (e.g. major cities disconnected from their upcountry and experiencing problems in food supply).
- ▶ The study and clarification of the factors that determine society's representation of nature, in order to overcome the deficiencies in representation common to both city-dwellers and farmers (a source of tension). These representations form the basis for defining social conceptions of the work of farmers, the quality of foods or relationships with landscapes.
- ▶ The design of tools to enable socioeconomic evaluation of the services rendered by agricultural and natural ecosystems. Alongside regulations (which alone cannot arbitrate conflicts), this economy of ecological services could constitute a driving force for the evolution of ruralities.

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