Rethinking rural human resource management

The impact of globalisation and rural restructuring on rural education and training in Western Europe

W. van den Bor, J.M. Bryden, A.M. Fuller

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CHAPTER 1

GENERAL INTRODUCTION

This book is about change and the capacities of people and institutions to adapt to rapidly shifting circumstances in a period of global restructuring. It is also about the need to have greater local control over what should be changed. In particular, it is about change in agriculture and rural life in western Europe and it poses the question of what sorts of ideas, mechanisms, and adjustments should be considered in the fields of education, training, and knowledge generation to enable people to relate to their own lives and to larger changes and if they are to play a more active part in the processes involved. That rapid structural change is occurring globally is not in question. What is less clear is what the impacts are of this restructuring on rural society and economy and what the consequences might be for human resources development and research planning. As this book is intended to foster thinking about the education, training, and knowledge generation systems in western industrial nations in this period of rapid change, it has not been designed as an explanation of the changes taking place, nor as a prescription for solving the problems identified. The book is offered as an instrument in the process of change itself, as we believe that ideas and discussion should precede and inform action.

1.1 Introduction and rationale

Our basic premise is that major restructuring of the global economy has been sufficient to warrant a rethinking of the way we generate and disseminate information — especially for agriculture and rural development — and how we plan and provide related educational services. The scale and nature of global change are such that there is a drastic need to reconsider the entire system of formal and non-formal education in western Europe, focusing especially on the organisation, training, and information components. We believe that the various institutions of agricultural education, rather than be reactive to change, should be part of the mechanisms that determine change such that the benefits can be distributed more equitably among future economic, social, and environmental goals. To do this effectively, the system needs its own 'intelligence' such that the exogenous and endogenous changes that continue to occur in the various marketplaces can be more effectively anticipated and, when beneficial, incorporated into the curriculum or research programs of our institutions. As Anthony Giddens (1991) suggests, " institutions need to be an integral part of the process of change". In order for this to be possible, it is necessary to break with the conventional thinking about agriculture in western Europe and to create a new framework through which different ideas about agriculture and rural development can be incorporated.

The agricultural production paradigm

Rethinking the agricultural production paradigm is a daunting task. The model of increasing agricultural production has achieved long-standing success and agriculture has remained

important in the national and local economies of most European nations (Tracy, 1993). Since World War II there has been a remarkable congruence between the interests of the agricultural industry and the concerns of the public in that food security has been a common goal. Never again would people be haunted by the spectre of food shortages in a time of crisis. This made the aims of national and European Community policy relatively consistent, at least up until the late 1970s when a number of serious problems began to be recognised (Dûchene *et al.*, 1985; Tracy, 1989). Throughout the post-war period, the objectives of the major education and research institutions were similarly coherent, being governed by the same food 'production' imperatives that underpinned policy. Research programmes, educational curricula, extension services, and training schemes were all designed with the same basic objective: to increase agricultural production directly by utilising greater inputs of capital and scientific knowledge, and indirectly by increasing trade (Davey *et al.*, 1976; Engel and Van den Bor, 1995).

The difficulties associated with the singular adherence to one paradigm — the agricultural production paradigm — are manifold. The economic and political costs of food 'surpluses', the deleterious effects of farm intensification on the environment, the ever increasing role of governments, and the maintenance of farm incomes are policy issues that have been fomented by the support role of research and education (Busch, 1994). The adherence to one paradigm also has questionable effects on the quality of education, as little debate about alternatives is generated and practice is governed by conventional wisdom based on linear knowledge generation systems involving mainly reductionism and incremental problem solving. For those with vested interests, including education and research specialists, the paradigm of production becomes an objective in itself rather than the means to an end.

The rationale for this book

It is in this rapidly changing context that many new questions arise. If the production paradigm is found to be lacking or if it can be said that it has achieved its objectives, then what are the new needs and critical alternatives in rural Europe? In this book, we first turn to the evidence of global restructuring to summarise what has been learned so far and to draw out some general trends of structural change and their characteristics. In Chapter 2, we examine in some detail the literature on the new conditions emerging in many rural areas as a result of global and local change. The forces of global restructuring are seen to mix with those of local adjustment to produce a highly variegated pattern of effects. This is producing a spatially differentiated mosaic of new conditions across rural Europe. In Chapter 2, we puzzle over what such new conditions might mean for education, training, and knowledge generation, placing emphasis on the prospects of new information technology and asking what our institutions of education and training might do to provide direction and leadership in these rapidly changing circumstances.

In Chapters 3, 4, and 5, we utilise the experience of European agriculture and rural change to illustrate with empirical evidence and case studies the changes referred to in the first section. Chapter 3 focuses on policy and represents a 'macro' or top-down view of restructuring, while in Chapter 4 a bottom-up approach is taken by examining farm household adjustments from 1981 to 1991. In Chapter 5, some questions are posed about the future of European agriculture and rural areas. The example of Europe illustrates the complexity of

rural and agricultural restructuring and the fact that although change is ubiquitous, the impacts are highly differentiated over time and space. In Chapters 6, 7 and 8 the implications of rural restructuring for agricultural and rural education are explored. Chapter 6 addresses the policy level of concern and suggests that we move towards rural communications management. Chapter 7 deals with institutional management in response to rural restructuring and Chapter 8 suggests new platforms for appropriate knowledge generation and dissemination.

About global restructuring

Global restructuring and the debate about its origins and significance is on-going (Marsden, Lowe and Whatmore, 1990; McMichael, 1996; EADI, 1997). From our perspective, global restructuring is a fact, the significance of which is that globalisation is radically changing the agricultural and rural world in which our interests lie. Before moving to discuss the new rural conditions that derive from global change, however, we must first consider global restructuring itself and identify those forces that are directly affecting the rural world and those that are changing the context in which rural society and economy operate. Although many post-modernists would say that the process of global restructuring is without pattern or predictability, we have devised a simple schema in order to review in logical sequence those trends of restructuring that we feel have implications for rural conditions in Europe.

Global economic restructuring appears to be an advanced stage of capitalism (Urry, 1984; Martin, 1989). The accumulation of capital is still the primary goal, but the means of assembling capital and profiting from its various rents are rapidly being changed (Kolko, 1988; Koc, 1994). To enable the recombination of capital and to maintain competition as the engine of growth, a wide range of related restructuring activities have become necessary. Some provide the necessary enabling conditions for economic change, others are responses to it. By reviewing these in sequence we infer a causal logic which we think is useful in identifying those elements which have most affected rural life. A schema outlining the sequential links between selected aspects of global restructuring is provided in Figure 1, together with some basic indicators of how these restructuring events are commonly recognised.

The sequence in Figure 1 suggests that global economic restructuring is primarily based on competition and the increasing mobility of capital such that global sourcing of inputs to the production process has become possible at a new and spatially fragmented level (Drache and Gertler, 1991; Dicken, 1992). Capital can be assembled wherever the costs of production are the lowest and where social and environmental restrictions are the fewest (Scott, 1988). Increasingly, the component parts of a product can be manufactured in different international locations and assembled at one spot, either through the wide reach of multi-national corporations and the out-sourcing and 'just-in-time' techniques of the new production system or through 'flexible specialisation' (Piore and Sabel, 1984). Although there are many variations of how these economic links are established and maintained (for example, there is a debate in human geography about whether the flexibilisation of production has centralising, decentralising or recentralising spatial effects — Reid, 1995), the essential features of global economic restructuring are the increasing mobility of capital and the delinking of the different stages of production (Gertler, 1988; Bernat, 1993; Cappellin, 1994).

The main implication of importance to rural areas is the differential in mobility between capital and labour. As capital becomes more mobile, with international transfers and investment strategies, labour is much less affected and tends to be more tied to place, that is, within national boundaries. This means that some rural areas are increasingly being seen as sources of labour; labour that is low cost, reliable and unorganised (Glasmeier, 1993). Conversely, some industrial labour markets such as those concentrated in early industrialised cities are being bypassed by the current processes of production (Urry, 1984). The relationship between capital and labour has been expressed by Gertler (1995):

> *"With the increasing hegemony of the public discourse on 'competitiveness', business had found a new motherhood concept with which to make the growing demands of their workers seem reasonable".*

It seems to us that the competitiveness discourse has also enabled business to shed and squeeze labour by agreeing to new 'productivity' contracts that freeze real wages or reduce benefits. The demise of the Swedish Model, which is based on a state-industry contract that secured a fairly equal spatial impact of state and private enterprise, is instructive in this regard (Persson and Westholm, 1994). Without the 'equalising' influence of state policy, rural regions in Sweden are rapidly becoming highly differentiated (Persson, Westholm and Fuller, 1997).

This model of global economic restructuring is enabled by a number of necessary conditions, three of which are of interest here: an effective free-trade ideology, favorable geo-political events and the development of telematics. In the first instance, a trade liberalisation strategy has been adopted by most western industrial nations and there has been a vast increase in the trade, not only of finished goods, but of components and related services, especially business services (Fuller and Rounds, 1993). The expansion of the European Community as a trade area, the success of the Uruguay round of GATT, and the North American Free Trade Agreement are all examples of trade enhancing economic unions. Capital markets in themselves have become a major international economic sector.

In the second instance, the surprising nature of geo-political change has symbolised the whole of restructuring. The demise of the Soviet Union, the collapse of apartheid and the unification of Germany have produced new arenas for competition, capital investment and models of economic development. Such events have demonstrated that anything is possible and that not all changes are linear and predictable.

The third necessary condition has been the widespread use of telematics. The vast increase in the amount and quality of information has been made possible by the spread of new information technology. The use of telephone wires to transmit data, messages and facsimile, almost instantly over vast distances has facilitated the rise of sophisticated global management techniques (Drucker, 1994). For example, information technology has enabled the fragmentation of production to proceed. The assembly of all the necessary parts 'just-in-time' can be organised by a computer program and the parts brought together in one central place for assembly and distribution. Similarly, professional design teams can be brought together using the Internet for communication (Bryden, Fuller and Rennie, 1996).

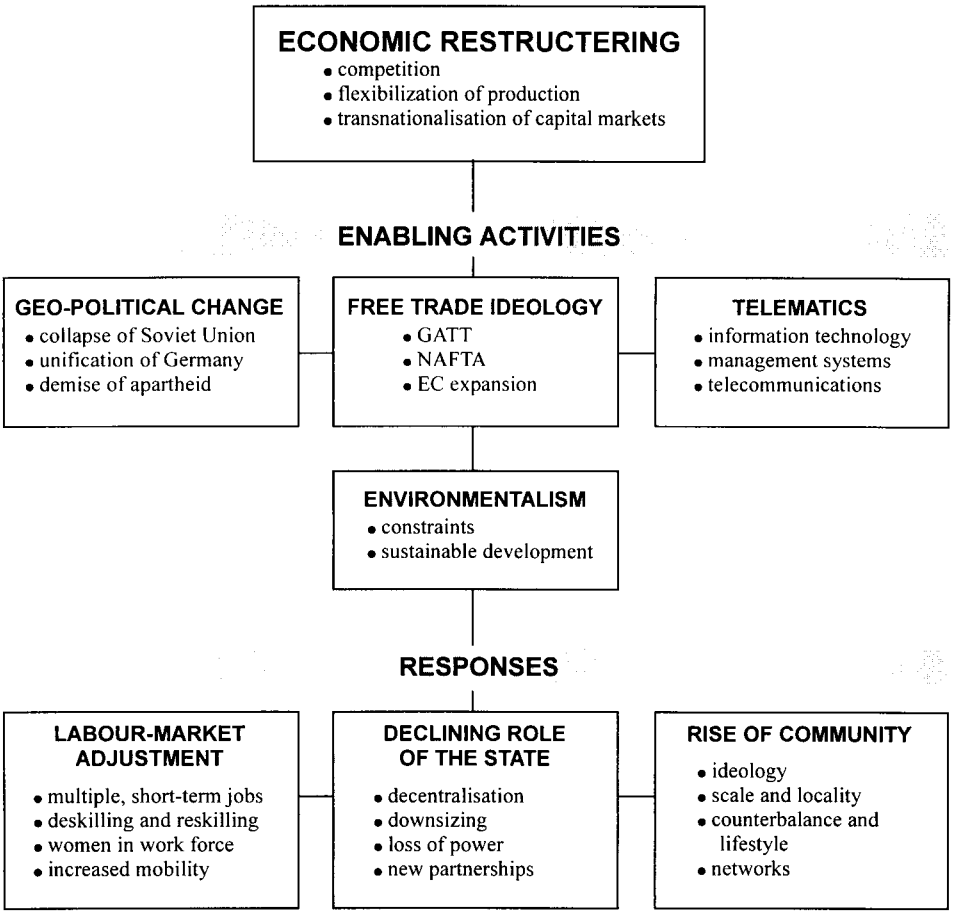


Figure 1 Scheme of global restructuring

Another contributory element of global restructuring is the rise in the political efficacy of environmentalism, which has matured from a social movement to a position of national and international importance in a decade (Bryden, 1994). Like all the other factors in restructuring, the relationship of environmentalism and global economic change has multiple aspects, one of which is the pressure that environmental policy and practice has brought to bear in the industrial nations on the production process, particularly on waste management. As a result, some extractive and heavy industries have relocated in the less developed countries where the environmental protection requirements are less stringent. In many cases, environmentalism has become a constraining mechanism for the location and practice of economic as well as leisure activities, giving further emphasis to the spatial resorting of businesses, especially in rural areas. Perhaps most importantly, the rise of environmentalism has led to the adoption of the popular notion of sustainable development where economic activity and ecology have come together to form a new set of standards and guidelines for economic practice (Daly and Cobb, 1989; Goodland, 1990).

The responses to global economic restructuring are manifold and in most cases represent the filtering through the system of economic change such that all sectors and most levels of business enterprise, institutions, and organisations have been downsized (made smaller), restructured (reorganised), or rationalised (streamlined) over the past few years. In most cases this has meant a change in the size and nature of the labour force and we will argue that changing labour market conditions are among the three most important responses to global restructuring. The other two are the rise of the concept of 'community' and the declining role of the State (Figure 1).

The restructuring of the labour market has had common effects in most industrial nations, although the impact on rural areas has been differentiated by the nature of the primary economy involved — fishing, forestry, mining or agriculture — and the degree to which capital had already penetrated the local economy. The common elements of labour market restructuring include the rise of unemployment and the changing nature of work (Redclift and Mingione, 1985; Pahl, 1984). An increasing number of jobs are contract-based, short-term, and casual, such that an increasing proportion of the work force has two or more income-earning activities that are part-time and provide limited social benefits. As heavy industry declines and information economies expand, the nature of work is changing, with a distinct rise in employment opportunities in the service sector, even in rural areas, and a decline in manual labour. Despite this, manufacturing is still important in terms of local employment and is especially buoyant in car making areas. Much deskilling has taken place and where reskilling has occurred it has been selective and particular to favoured locations (Newby, 1987). In this massive shift in labour market structures the participation of women has generally increased, which together with the growth of feminism has contributed to an important shift in gender relations and household maintenance (Barthez, 1982; Whatmore, 1990). For most aspects of labour market change, there is an equivalent effect in rural areas.

Not all responses to global restructuring represent compliance or adjustment to the trends of change. The rise of 'community' in many ways, is a counter-reaction to the sometimes oppressive size and scope of global reordering. It represents a more human or meaningful scale for people to relate to in a world of ever-increasing size of trading blocks, economic alliances, giant corporations, and big governments.The structural features of

capitalism, referred to by Kolko as "all the arrangements in the economy at a particular time that have a major influence on society — neocolonialism, the international division of labour, monopoly, inflation, deflation, debt, slow growth and the like," keeps people off-guard by the use of terminology and, generally in awe of capital. One representation of the new capitalism, referred to as 'social capital' by Sayer and Walker (1992), is derived from more comfortable conceptions of community and locality. To this may be added the popular notions of rurality which appear to have an increasing influence on the choice of residential location of a growing number of people who wish to move to the country for lifestyle reasons.

The term 'community' has been adopted by governments and social agencies to indicate a more caring and localised scale of service delivery. Community programming in government agencies represents a form of decentralisation. Communities and minority groups in many areas are fighting for recognition in a globalising world, where social movements offer a counterbalance to the 'inevitability' of aggrandisement and reorganisation that seem to dominate people's lives and their institutions. Furthermore, our understanding of community is being informed by the recent 'social construction of rurality' debate (Halfacree, 1993; Harper, 1987).

The third response is the changing role of the state (Figure 1). In the context of globalisation, governments appear to be shifting some of their responsibilities while shedding others, reportedly in an effort to balance the budget in a time of fiscal crisis (OECD, 1993). National borders are less relevant in a world of international finance and global liberalisation of trade, the laws of which are determined collectively at the international level rather than by single nation states. Governments are more and more called upon to ensure participation in world affairs by upgrading communications and transportation infrastructures, agreeing to environmental standards for international bio-regions, and reconciling legal and technical difficulties between trading partners.

Of equal significance is the attack on public social provision in most industrial nations as a means of controlling the national debt and the size of government. Downsizing of ministries of defence, social welfare, health, and education are common strategies to reduce budgetary deficits, to appease the free market, and to accommodate the requirements of credit rating firms. Such responses reflect social agency accommodation of predictable demographic change, especially the aging of the population and consequent increase in dependency ratios. The role of governments is increasingly to facilitate development rather than to direct it, to collaborate with other nations for trade purposes, and to initiate partnerships with community groups, including local government and private enterprise to stimulate economic development that is locally driven and cost-shared.

1.2 Global restructuring: some generalisations

The remarkable feature of restructuring is its pervasiveness. Changes due to economic restructuring, either causal or responsive, are evident in all sectors of the economy and in most walks of life. Most corporations, institutions, state bodies, and non-governmental organisations are being restructured in some way. The collective outcome is one of complexity and because the changes are often non-linear and surprising, there is an

atmosphere of uncertainty. Whether we consider uncertainty 'the handmaiden of capitalism,' as Kolko suggests (1988), or the natural state in a chaotic or troubled world is a matter of perception. It does mean, however, that uncertainty is a common element in contemporary life and that uncertainty may be likened to doubt and distraction in the post-modernist world view. If we consider the number of unexpected events (see Figure 1, Geo-Political Events) that have taken place in the 1990s, then it might be suggested that 'anything is possible.' It is debatable whether to consider global restructuring in all its manifestations as a disjunctive or quantum leap in the progress of capitalism (Drucker, 1986; Campanella, 1990). Some contemporary philosophers liken it to romanticism, a stage in communal life which integrates both traditional values and progress (Hall and Jarvie, 1992). To Giddens (1991) globalisation is a form of advanced modernism, while others, such as Gellner, suggest that it may be post-modern (Gellner, 1988; Harvey, 1989). Whatever one's view of the significance of global restructuring, the point remains that it continues to unfold and will go on influencing the nature of rurality for some time to come.

Three generalisations can be made to summarise the main impacts, so far, of global economic restructuring on rural life in general. The first effect is that of distance shrinking. Robertson (1992) refers to this aspect of globalisation as 'both the compression of the world and the intensification of consciousness of the world as a whole', but points out that globalisation is not simply a world of converging societies. Accelerated globalisation is counterbalanced by increased consciousness of cultural groups and communities, which is one of the main contradictions of restructuring. The notion of 'global culture' is advanced by Featherstone (1990) in which there is increased global consciousness, but heightened awareness of the individuality of culture groups. This reflects the notion of the 'global village' forecast by McLuhan and advanced by Sachs (1993) as 'cosmopolitan localism', and builds on the concept of the 'global village' first put forward by Mcluhan *(Understanding Media)* and best reasoned as:

> *"Our speed-up today is not a slow explosion outward from centre to margins but an instant implosion and an interfusion of space and functions. Our specialist and fragmented civilization of centre-margin structure is suddenly experiencing an instantancous reassembling of all its mechanized bits into an organic whole. This is the new world of the global village".*

Perhaps the most important contribution on the shrinking effect of globalisation is that made by Giddens, who likens it to 'time-space distanciation' (1984). By this he is referring to the re-evaluation of distance which, because of changing technology, is greatly reduced as an obstacle and which takes less and less time to overcome. Advances in transportation technology enable people and goods to cover greater and greater distances in less time, while advances in communications technology enable information to be moved over space more quickly. Both technologies in their current state have important consequences for rural areas, as the former (personal transportation) enables people to commute to jobs and to satisfy their needs from rural locations, while information technology permits information to be transmitted in and out of rural areas without the rural receiver having to move to the centre — at least not very frequently. Unlike earlier industrial technologies and business management

techniques that had agglomeration effects and tended to concentrate people and businesses in major centres, the new technologies allow for personal and data mobility such that rural areas are not automatically disadvantaged. Distance shrinking technologies are thus an important variable when seeking to calculate the impact of global restructuring on rural areas.

The time-space distanciation concept can also be used to restate the fragmentation of production idea where increasing amounts of space separate the various parts of the production process, while the time needed to assemble the components to produce the final product, despite their being far-flung in their manufacture, is shrinking. Also, as Bryden notes (1994), space distanciation occurs more frequently between the places of manufacture, where environmental damage is done, and the places of assembly where there is little or no awareness of the damage previously done. The division of production over time and space can nullify accountability in the globalisation process.

A grim example utilising the time-space distanciation idea and the ideology of trade liberalisation will illustrate the interconnectedness of the globalisation thesis. The demand for high-protein feedstuffs in Europe has led to the situation where soya meal produced in Brazil, on lands cleared from the rain forest at considerable ecological cost, is shipped to northern Europe where it is fed to cattle for beef which, because it is in surplus, is then sold to developing countries at prices below the cost of production (Von Meyer, 1994). For the sake of trade, some very doubtful environmental practices are incurred in the developing world and, while the effects on rural economies in Europe are minimal, the practice tends to promote further concentration of animal production in those areas of the north European lowlands least able to support it. Whether, because of such practices, the world is shrinking and becoming a global village and a 'better place' is questionable. The issue of trade ethics is raised, as is the responsible use of space and time shrinking technologies in a period when national governments have less power to control the 'diseconomies' of globalisation. Shipping toxic wastes from rich to poor nations, the control by multinational corporations of seed variety generation in foreign environments (Shiva, 1992) and the whole question of biotechnology and its imminent impact on farming structures (Kloppenberg, 1991; Goodman and Wilkinson, 1990) reflect the new moral dilemmas brought about by the shrinking of time and space in the process of globalisation.

The second generalisation we can make about global restructuring is the related paradox between global and local scales of change. Although global restructuring is dominant and is the most dramatic in terms of trade figures, movements of capital and regional information systems, there is nevertheless a good deal of new vibrancy at the local level, where concepts of community, lifestyle, and sustainability come together. While many segments of physical communities are linked to international capital and trade by the production process or by information in the form of global news and culture, there are many signs of communities identifying themselves in terms of heritage, lifestyle, location, and community spirit such that a distinct wave of 'localism' has developed which is linked in spirit, if not in purpose, to the identity-driven movements of other minorities. The re-emergence of locality and community as desirable elements in lifestyle goals is of importance to rural areas which themselves can offer many of the countervailing features to globalisation.

The third generalisation about global restructuring is specific to Europe and reflects the need to emphasise the importance of the proximity and the promise of Eastern Europe. The

democratisation and economic development of Eastern Europe — a major restructuring event in itself — poses new challenges and opportunities for rural economies (especially those adjacent to the old borders) in Western Europe. The prospect of utilising the low-cost production base of eastern rural areas will be very tempting for agri-business and rural entrepreneurs in the west, who can use time and distance shrinking technologies to reorganise the use of space and, in effect, recombine capital. At the same time, the public cost of helping to develop rural regions in Eastern Europe will potentially constrain the budgets available for rural development initiatives in the rural areas of the European Community (Tracy, 1993). Viewing Eastern Europe as a source of cheap raw materials and then as a potential market for western goods does little to enhance the notion of sustainability unless post-industrial models of development are employed. Whether a 'branch plant' economy, flexible specialisation, or conventional rural industrialisation models will be adopted is yet to be seen. Whatever the model, competitiveness and flexibilisation will be the main features, both of which will have profound repercussions for rural economies in both Eastern and Western Europe.

Global restructuring is a dynamic and as such is a continuous process. What will remain as constant and known is not yet clear. It means that educational objectives will less likely be based entirely on substantive knowledge areas and more likely to be concerned with process. For example, the concept of flexibility is likely to be increasingly important for future entrepreneurs, as well as for program designers and managers of public programs. Dealing with 'uncertainty' may confront the certainty of science. With these types of question in mind, and the awareness that globalisation is a constant, we can turn our attention more specifically to what restructuring means in the rural context.

CHAPTER 2

RESTRUCTURING AND THE NEW RURAL CONDITIONS

In this chapter we aim to identify and discuss the general parameters of the new rural conditions in Western Europe. Primarily, we propose to review the forces of change that emanate from globalisation and to select those that have direct implications for rural areas. Three other forces can be significant in shaping the nature and spatial pattern of the new rural conditions. The first is the reaction of local people, institutions, and rural systems to global pressures. The second is the propensity of rural people and communities to initiate change at the local level, a form of endogenous social force. The third is the influence of history. The relative permanence of landscape and the formative nature of the built environment are examples of the enduring influence of historical features. These four factors — global forces, local responses, local initiatives, and historical legacies — whether they merge, integrate or conflict, provide the substance of the new conditions in rural areas (see Figure 2). They combine in various ways to form a patchwork of mixed rural conditions across Western Europe.

Empirical evidence from various sources will enable us to describe the new conditions in agriculture and rural life in Chapters 3 and 4, concluding with some ideas on future trends and possibilities in Chapter 5. It is sufficient here to outline the convergence of the four forces and to discuss in general their influence on rural change. In order to do this we will utilise the global restructuring logic as presented in Figure 1 to develop the key exogenous influences which differentially affect rural areas. When combined in various ways with individual and local reactions to global trends as well as community initiatives, these forces become the agents of rural restructuring. In order to integrate the role of history into the nexus, we use a conceptual framework called the Arena Society which allows us to take into account the role of time and to identify, in a general way, those features of the new rural economy that are legacies from the past. What emerges and what we conclude with in Chapter 2 is a list of the key conditions that describe the new rural economy and which we feel will have important implications for the various education, training, and knowledge generation systems of western Europe.

2.1 From global to rural restructuring

The national institutional filter

The process of rural restructuring is complex. It is affected by the exogenous forces of globalisation and by the endogenous initiatives of local systems. Global forces — economic, political, social, and environmental — either influence rural systems directly or pass through the national legislative and institutional framework (Figure 2), in which case they are often altered themselves. Institutions are also multiple and complex and can be categorised into first (government), second (private), and third (voluntary) sectors. Moreover, such institutions are themselves being restructured, often by the same local and external forces that affect the

sectors, such that the process of rural restructuring is mediated through institutions and structures that themselves are being altered by restructuring. The entire process therefore produces an endless variety of possibilities, many of which are multifaceted and unpredictable. Furthermore, the process is not yet concluded and promises to go on, producing a new and irregular dynamic into the rural system.

The local response

Much of the confusion caused by this emerging reality is exacerbated by the variety of responses of local communities and groups to global forces. Rural areas are themselves made up of a variety of structures and traditions and frequently react differently to external pressures. For example, while many rural interests are expressed locally, some rural interests are represented by groups and organisations which are not area-based. Some farm organisations are area-based; others are commodity-based and transcend physical communities. In addition, the local system generates initiatives of its own and all forms of agency, whether local or global, are subject to local conditioning by the historical artefacts of landscape and built environment. Fragmented and variegated responses are thus common, which further complicates the picture of rural change in western Europe and which seems, often, to be without pattern or logic. Confusion born of complexity and increasing diversity produces a major challenge for the conventional education system where universal programs that can be standardised and delivered uniformly tend to be the norm.

2.2 Forces of rural restructuring

Within the context of the generalisations made about global restructuring in Chapter 1 — time-space distanciation, global and local poles of change, and the promise of eastern Europe — we have selected three forces which, we feel, have contributed strongly to rural restructuring and which will have long-lasting effects on the educational and research programmes of many western nations. These forces are:

- the growth in commitment to rural policy,
- the re-emergence of the third sector, and
- the rise of community and rural ideology.

For the purpose of demonstrating the general effectiveness of these forces in shaping the context of rural restructuring, we shall approach them from a policy perspective.

Growth in commitment to rural policy

The principle shift in policy outlook is from an agricultural to a rural and/or regional perspective — indicating for the first time the inclusion of rural as a component of European agricultural, regional, and social policy (COM, 1988; Clout, 1990; Persson and Wiberg, 1995). In practice this shift is neither universal nor uniform across western Europe and although it appears to be embedded in the thinking in Brussels, it often has little meaning at the local level where strong sectoral interests remain and can effectively resist change, especially the sharing of power or access to programmes. In fact, this shift in policy outlook has often had the unfortunate effect, in the short term, of being divisive at the community

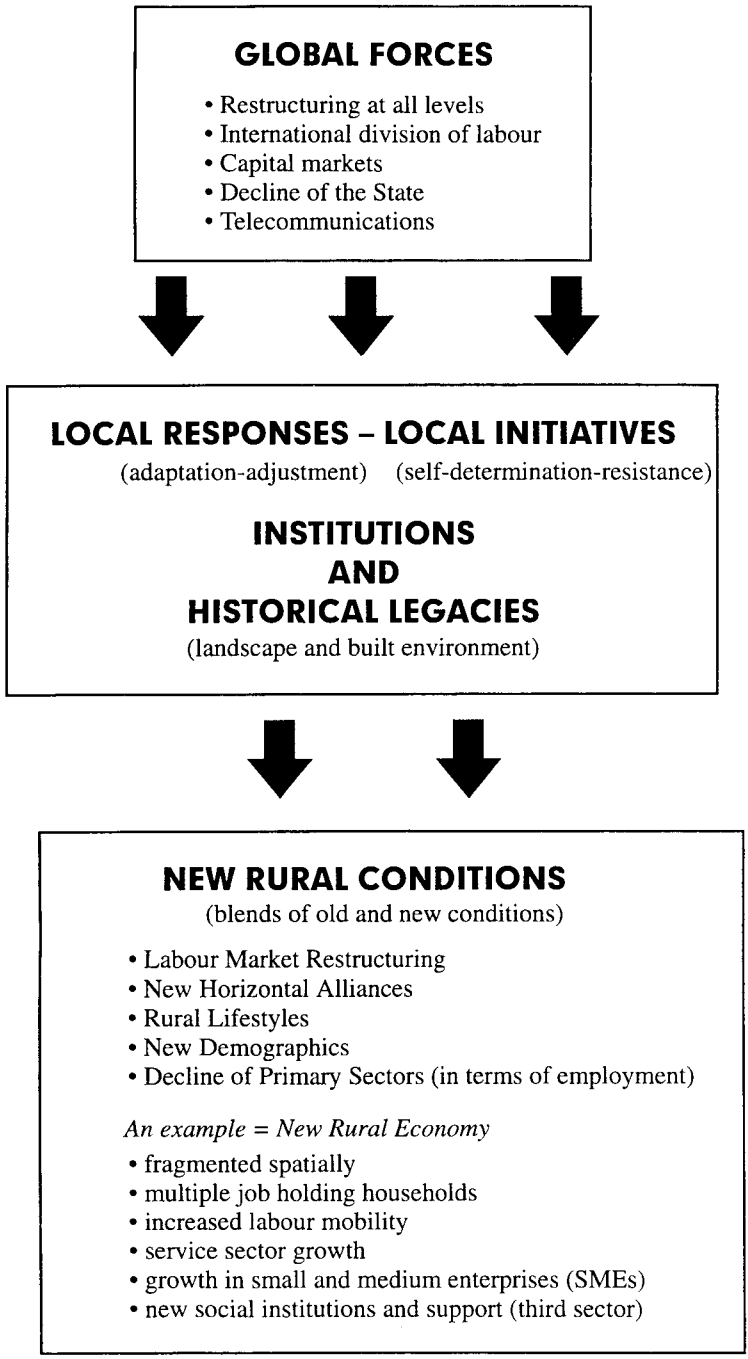


Figure 2 From global forces to new rural conditions

level. Moreover, the rural policy interest is largely illusory as very little increase has occurred in government budget allocations for rural development (Tracy, 1993; OECD, 1993; Allen and Yuill, 1994).

It is, however, the symbolic effect of this thinking that has the most striking influence, as it signals the recognition that rural matters are important and quite often separate from those of agriculture (FJRRP, 1996). Subsequently it will be the task of local and regional agencies to demonstrate that the interests of agriculture and rural development are intertwined and that an integrated approach will best serve the two. This task should not be overlooked by the educational, development, and information agencies at the regional level. Despite the fact that rural development policy and programming is largely being generated for rural Europe at the central level, the administration of rural programmes inevitably falls to agricultural units at the state and local levels such that the interests of the agricultural sector still tend to be served first. Thus, although the renewed interest in rural development at the Brussels level is significant, it remains largely seen as an 'offshoot' of agriculture, rather than being seen as a spatial issue in its own right.

Re-emergence of the third sector

The second generalisable trend of government policy restructuring is the need expressed by most western states to reduce spending and to target social services as one of the main areas of cost saving. The reduction in the number of programmes available, more stringent eligibility criteria which restricts public access to programmes, and the downloading of some programmes to local authorities and non-governmental agencies is becoming common. Together with the privatisation of some services, particularly in health care, the overall effect is to lessen the burden of social provision on the state. Just how this affects rural areas is not clear, as traditionally more people in rural areas are self-employed and rely less on social welfare programmes in the first place. Usually, there has been a more 'informal' way of dealing with some social issues, such as rural poverty. On the other hand, rural areas are less well-served by social services in general (Lowe, Bradley, and Wright, 1987; Cloke, 1992). The effect may be to maintain the status quo and not to tackle the existing problems. What is clear is that the burden of providing services to those in need will fall more and more to the voluntary or third sector in rural areas.

Generally, it is in the structure and operation of the third sector that some of the great differences lie between member states of the European Community. In many areas of the North, the voluntary or third sector is being restructured substantially as old organisations decline and new groups emerge to address the needs of youth, the elderly, farm women, and the environment. The role of the church, service clubs, and cooperatives in community organisation and support is being altered in the South as even these institutions are being restructured in response to changing membership profiles, reduced funding and a revised assessment of needs.

There is a need, for example, to recognise 'social exclusion' as a consequence of globalisation, which has particular relevance to some rural areas in Europe (Shucksmith, 1994; Shucksmith, 1995). Access to jobs, information, and the services that will assist job creation are often missing in rural areas where the critical mass is said to be too low to permit public expenditures on such 'developmental' services. Getting a job, for example, often

means being able to travel (i.e. having access to transport), being active in several networks, and maintaining access to information (as well as having the skills to use information services. These are, in effect, a new form of literacy. Having access to transportation, a telephone, and educational services has become essential. The maintenance of social provision in rural areas in a period of global restructuring is a question of major and increasing importance.

Rise of rural and community ideology

The third force of policy significance is the rise of the idea of 'community'. There is a clear shift in the rhetoric of central agencies to adopt the term 'community' with the intention of making public programmes more relevant as well as more acceptable to local groups and areas. Whether this tendency is a genuine recognition of the need to promote 'bottom-up' approaches to development or whether it is a means to offload some of the programming to local agencies is not clear, but the fact remains that community programming is in vogue. The advent of the LEADER programme, which has initiated community-based local development activities in 218 places across Europe, is testimony to the new thrust in community development (Moseley, 1995). The principle of local stakeholder involvement has shifted some of the basis of programming from a sector approach to an area-based approach (Shortall, 1995).

The demand for community-based approaches has arisen, at least in part, because of the alienation caused by globalisation. As Europe becomes larger and more integrated, the demand for human identity and a sense of place increases; as trading blocks grow in size, the search for niche markets intensifies; as cities become dysfunctional, the search for rural retreats increases. Although the weights of these counter-balances are not equal, many of the opposite' effects give visibility and prominence to rural areas as having comparative advantages in the newly restructured world.

Linked to the issue of community is the ongoing debate about 'rurality', the only difference being that the debate over the term "rurality" is largely academic (Newby, 1986). With the application of deconstructionism in the social sciences, the social construction of the rural–urban continuum has again been challenged (it was first debunked by Pahl in 1966) and a search for new ideas and different taxonomies has ensued (Hoggart, 1990; Mormont, 1990; Cloke *et al.*, 1994). As rural restructuring proceeds, the sorting out of what is significant, because it is attached or influenced by space or is clearly rural in some way, depends on the situation and the observer (Philo, 1992). It does reflect, however, the realisation that space and function are not consistent over time and that new functions in old spaces that are not adequate or fully suitable creates a disjuncture that is often confounding. These categories and inter-relationships become subject to the views and experiences of the observer such that 'change' may be seen as daunting or promising. That 'rural is a category of thought' (Mormont, 1990) is useful to academics and planners, but is less helpful to practitioners and local development agents who often find the disjuncture of time, function, and space too much to deal with (Salant, 1994). Rurality, like community, has a positive image and as such is a useful category for sorting out the causes and effects of restructuring.

2.3 Local level responses and initiatives

As a result of the sometimes overwhelming external forces of change and the uncertainty that develops in rural areas, there are a variety of responses to restructuring as well as many completely separate initiatives. These responses and initiatives may take place at the community, household, or individual level. Between the extremes, they range from embracing more fully the market economy or rejecting it in favour of self-reliance. In the main, however, communities seek to moderate their response by diversifying their economic activity and adjusting to the new conditions. Much will depend on the structural and institutional makeup of the community, its history, the local leadership, and how the effects of restructuring are interpreted: as a threat or as an opportunity. At first communities are affected in a partial and fragmented way as industries and institutions are downsized, rationalised, or closed. Only when the collective impact of such changes is assessed as serious will a community or individual initiative begin to emerge. The more normal pattern of response is for pressure groups to react first and for them to organise a tactical response. This may further fragment the community or it may lead to an alliance between the various stakeholders in the area. Communities divided by religious, political, or cultural differences may find their differences exacerbated by restructuring impulses. On the other hand, the external pressure is sometimes so great or is considered so threatening that restructuring leads to a diminution of these divisions. New community-wide groups form which may cross traditional boundaries and that may give rise to new community initiatives.

Some responses are stimulated by government action in that a change of policy or programme may oblige local authorities to adjust their level of service or style of governance. Reduced budgets from central agencies may prompt partial privatisation, communal responsibility, or greater involvement of the voluntary sector at the local level. Two examples of local responses to the effects of restructuring include horizontal networking, and partnerships. Horizontal networking means the strengthening of ties between members and agencies within communities and between communities. This implies seeking to manage the effects of restructuring by joining forces with other affected or interested parties in the community, area, or region. Local enterprise development is strengthened when a network of enterprise associations is formed where examples of successful enterprises can be shared and common problems solved. This form of networking increases the sense of local autonomy and can reduce dependency on central authorities. Needless to say, such networks become strong seekers and purveyors of information.

Another form of collaboration is between local authorities who are either mandated to join forces by national agencies or who collaborate voluntarily around a specific local or regional issue (Bryant, 1992). New groups of organisations are emerging around environmental problems, for example, where watershed management needs often transcend political boundaries. The emergence of community round tables is another example. Managing environmentally sensitive areas in a sustainable way will require new cross-sections of stakeholders, including members of the public. Horizontal groupings may be expected to expand in this climate of sustainable development, although the propensity to do so will vary greatly across western Europe. Different approaches to Agenda 21 programming are instructive in this regard.

Local initiatives are many and varied and reflect a strong sense of self determination at the group, community, or multi-community level. Whether led by agency incentives, strong individual leadership, or community enterprise, the result is a wide range of private and not-for-profit activities that often enhance and diversify the more official and formal institutional responses to restructuring. The examples of rural change in the volume edited by Whatmore, Lowe, and Marsden (1991), are indicative of small-scale initiatives and community enterprise, sometimes referred to as Small and Medium Enterprises (SME's). To these may be added some social experiments and community activities that have grown up to express individual and collective freedoms and choices. Retirement and leisure communities are examples of this type of initiative. Local ventures are often based on a perceived comparative advantage — a niche product for example — and community development often stems from that point (OECD, 1995) Whatever the core component or starting place, the collective result is that of diversifying rural areas, whether in direct response to global forces or the need to express local ideas and needs.

In sum, rural restructuring is a combination of effects produced by global forces and local initiatives and responses (Figure 2). It often takes the form of a dialectic between the global and the local, and can result in a renewed importance for regionalism (Marsden *et al.*, 1993). As functions change, the struggle to keep them consistent with the way we have organised space in the past becomes increasingly difficult. Whether parishes, communes, counties, and districts continue to make sense as administrative units depends upon the context, that is the new spatial configuration of the restructured economy, the emerging significance of socio-political relations, and the combined pattern of activities of community and regional residents. Rural restructuring, then, will vary across space and time with innumerable combinations of conditions and physical expressions. To understand this more fully and to provide an historical context for the new rural conditions, the temporal construct of the Arena Society will be introduced. It will be utilised to illustrate the complex range and historical depth of rural restructuring in western industrial nations.

2.4 Conceptualising rural restructuring

It is easy to be concerned about the speed and dynamism of rural restructuring and rattled by its severity and unpredictability. It is important to remember, however, that the impacts of rural restructuring in any one location or rural system are selective. Indeed, many of the 'old' conditions that underpin rural society remain in place to help shape the outcomes of the many new interactions that occur in rural restructuring.

In order to unravel some of this complexity we think it useful to offer a summary of the rural restructuring idea by developing a simple three-part construct that introduces the essential element of historical time. The main point is that the present is built upon surviving components of the past and that complexity arises out of the overlayering mix of physical and cultural elements, both old and new, static and dynamic. To keep the construct simple and to avoid defending it as a concept in itself we will adopt the three-part sequence suggested by Persson (Johansson and Persson, 1991) which includes the Short Distance Society, The Industrial Society, and the Arena Society (Fuller, 1994 and 1996).

The Short Distance Society alludes to the agrarian period before industrialisation when most activity was focussed on the local hamlet, village, or town. In general, excess production was secured by the church and/or the estate through various forms of feudal tenurial arrangements. The essential compass of experience for most people was the local community and was only interrupted, for some of them, by war or migration. The legacy from this period is a rural settlement system that in most countries was highly nucleated, and although it has thinned out over time, the basic patterns of pre-industrial society continue to be evident.

The experience of industrialisation varies across Europe, especially in terms of timing and duration. Nevertheless, the broad sequence of events is the same and the general effects of the industrial society are similar. After an early period of domestic work, which concentrated cloth goods production in rural areas, industrialisation took place near water-power sources and then in towns and cities which had some locational advantage in the production or distribution process. In early industrialised countries, rural populations were attracted as cheap labour to towns and many rural villages declined. In some instances agrarian change was fomented by various enclosure movements in the nineteenth century, which further reduced the vibrancy of some rural places and altered the function of others. Many rural market centres were industrialised with agricultural processing and related industries, while others declined as agricultural concentration took place over time. In the south of Europe, where the industrialisation process took place later in the nineteenth century, the related population movements were less pronounced. Rural society was maintained by the various land-holding systems based on estate structures and nucleated settlements which survived in many cases, despite land reform, until after the Second World War.

The term Industrial Society refers not only to the physical expression of industrialisation on the landscape, but also to the way in which life became organised in general. The concept of industrialism includes the proletarianisation of labour, mass production, and the notion of welfarism, for example. Whether rural areas experienced these industrial modes of organisation directly, or indirectly through the loss of labour to industrial centres, the prevalent form of structure is that of authoritarianism and hierarchy, which either reinforced the dominant position of estate owners, on whose land the natural resources were located, or gave rise to a new generation of industrial entrepreneurs. Often, when the new 'captains of industry' were not based in rural areas they spent their new-found wealth on establishing rural estate properties. In this way many countries experienced the entrenchment of class distinctions until the eventual rise of a professional middle class with the development of urbanisation and suburbanisation in the twentieth century. The rural experience of industrial society, although uneven and varied across Europe in terms of local expression, has provided a common culture, one whose dominant mode of thinking is hierarchical, male-dominated, and urban-centred.

The Arena Society is an amalgam of the Short-Distance Society and the Industrial Society and supplements the three-part construct we are describing with a growing number of post-modern elements. It implies a more wide-open structure of rural society with fewer boundaries and, for many people, more choices. Consciousness of global trends, environmental issues, and the universal debates on social values is producing a new common culture in which at least the links and differences between people, territories, and ideas are more apparent. It is a relative rather than an absolute state, suggesting that conditions in

contemporary society are more open than previous ones. Although everyone is in the 'Arena' in this sense, not all people are active or willing participants. Some are excluded by their circumstances and others by choice.

Mobility is an important feature of the Arena Society, mobility of people and the mobility of information. These combine to bring a new dynamic to the Arena Society. Increasing access to personal automotive transport has generated the propensity for people to move over greater distances (extending the 'reach', Johansson and Persson, 1996) to fulfill their regular needs, while information technology makes it possible for some people to stay at home and to remain in touch with central agencies. Both forms of mobility (people and information) suggest new linkages and a different use of space from that of the Short-Distance and Industrial Societies. In the Arena Society more choices are based on lifestyle preferences rather than on the locational imperatives of the Short Distance and Industrial Societies.

By looking at rural Europe in this way we can begin to sort out the features that remain in place from the past and those that are changing. For example, the basic patterns of settlement and the routeways of rural Europe have remained essentially the same as in the Short Distance Society and although overlaid and sometimes altered by the transportation systems of industrial society, they are basically still in place today. Curiously, when under-utilized, they often constitute much of the 'charm' of contemporary rural areas. It depends very much on how one looks at these residual structures. For example, seen from an Industrial Society perspective, most rural roads are inefficient; from an Arena Society view they could become the basic infrastructure for rural tourism. In the Arena Society, rural areas will be re-evaluated, not only for their productive capacity but for their heritage and tourism potential. In this way the Arena Society confirms ideas of rural consumption articulated by Marsden *et al.* (1993).

The essential nature of the Arena Society is that it is made up of residual elements of both the Short Distance and the Industrial Societies. The landscape is like a 'palimpsest' in that it has the accumulated marks and scars of previous eras and uses and thus becomes quite attractive for cultural appreciation and residential location. However, many features remain from the industrial periods, including the industrial work mentality and outlook, such that the present is made up of many incongruous and potentially inconsistent pieces. These are typical of the formative elements that create the complexities, uncertainties, and indeed new problems of the Arena Society and which are becoming common in rural Europe today.

2.5 The new rural conditions

What becomes apparent from this review of rural restructuring is that a new set of rural conditions is emerging that represents an amalgam of local influences and global forces. The diagrammatic representation of the cumulative process of change as presented in Figure 2 illustrates how global economic forces and related environmental and social trends are being filtered down the system to form, at the local level, the new sets of conditions of rural life. Just how this is configured locally will vary enormously depending on the structures itemised in Figure 2; the nature of local responses, the impact of any independent initiatives, and the

importance of enduring features such as physical landscape, the built environment, and community institutions. The amalgam therefore has many variables in it and can produce a variety of situations on the ground, from the status quo to radically different socio-economic conditions. As was implied in the Arena Society discussion, the landscape may often appear to be the same, but the functions and activities of the social and economic system may be changing rapidly, but without any clear physical representation on the surface. This raises the question of how the new dynamics will best be measured.

Despite the differences that may appear at the local level, there are a number of generalisations about rural restructuring that enable us to characterise the new rural conditions and, at the same time, to offer a summary of this chapter. In so doing we intend to raise initial concerns about the implications of such changes for education, training, and knowledge-generation, focussing on the changing information needs created by these new circumstances. In compiling a list of new conditions we considered it unwise to present them as single items, as one of the main outcomes of restructuring is the new interconnectedness that comes from global and local change. It is also important to cross sectors, which responds to the challenge that the sector approach is under in a post-modernist debate. The following list of new conditions, therefore, is formulated in bundles of points which are selected for their potential impact on the agro-rural education and research establishment.

Declining status and structural importance of primary sectors

The decline of the primary sector, especially in terms of employment, is perhaps the most disconcerting feature of current restructuring. It can generate an overwhelming sense of uncertainty in rural communities. Although people in the period after World War II have faced large changes before, they have most often done so with a sense of certitude, knowing the direction and purpose of change — which usually has been growth and production oriented, with continuous technological improvements. The closure of the fisheries in some areas, the mixed fortunes of forestry, and the continual downsizing of agricultural employment have been disorienting. Communities have been delinked from their main and original economic functions.

Not all rural areas have suffered this fate, however. In southern Europe, many rural areas, notably in Spain and Portugal, still have more than thirty per cent of the population in agricultural employment. With this level of dependency on agriculture, the potential social dislocation should there be further downsizing could be dramatic. This belies the belief, held by many, that a common agricultural policy should be applied universally, a point explored specifically in Chapter 3. Not all rural areas are experiencing the delinking effect. Some people and communities are consolidating their commitment to farming or to forestry, either on a commercial basis or as the continued focus of simple commodity production. Although it may be an oversimplification, it can be said that commercial farming is becoming dominant in good, well-drained lowland areas and petty commodity production is consistent with remote or mountainous regions, mainly on the periphery of western Europe.

In terms of policy, the primary sectors are losing some of their political prominence. Despite the growth in economic value, the primary industries have a declining status at the cabinet table, which will hardly be reversed in an era of increasing trade liberalisation (Bryden, 1995). In terms of farm structures, the new conditions reflect the growing duality in

farm business size, between the few that produce much of the product and those that occupy much of the land, but which produce very little in terms of total economic output. This bundle of new conditions, as applied to agriculture because of its central importance to the structure of agro-rural society, will be more fully explored in terms of policy and farm-level conditions in Chapters 3 and 4 respectively.

Shifts in the demographic base of rural areas

A second set of new rural conditions is also structural and may be described as shifts in the demographic composition of rural areas. A decline in the proportion of young people in a rural area or a rise in the proportion of the elderly are useful indicators of change, but reveal very little about the actual conditions of those groups or the population mix as a whole. Demographic change is influenced by the life and death rates of rural populations in the long run, and much more dramatically by mobility of population in the short run. The main trend in twentieth century rural Europe has been that of depopulation as agriculture and rural industries have slowly shed their labour, causing people to leave rural communities mainly in search of work. To this may be added the phenomenon of the temporary migration of workers, both men and women, who have left their homes in rural areas to find work elsewhere, either as guest workers in foreign countries or as general laborers and domestic help in other regions. The important effects on local economies of the return migrants has also been noted, both in terms of the introduction of new capital and innovative ideas (Brunet, 1991).

More recently, a return migration phenomenon has been recorded in continental rural Europe (Blanc, 1995; Serow, 1991; Williams and Jobes, 1990). There have always been people moving into and back to rural areas, but according to the 1991 census, more people have moved in than have left in some regions, which constitutes an important 'turnaround' trend. Although this only affects certain zones — those near cities or with attractive landscapes for second homes, for example — it does reveal a new and critical dynamic in the demographic structure of those areas. Whether the net intake of people is of working age, elderly or entirely made up of newcomers makes a big difference to the residual structure of the local populations and can quickly overwhelm the longer-term effects of fertility/mortality. For example, if the newcomers are retirees with professional backgrounds, then they will have a very different local effect than if they are largely the working poor who are seeking access to affordable housing in rural areas. The impact of demographic change on education services could be immense.

To the impact of in-migration can be added the important effects of temporary in-migration which mainly includes the seasonal movements of people for vacation and recreational purposes. Tourist populations are substantial in some areas and can radically alter the demographic balance on a seasonal basis. A good proportion of this new population mobility can be linked to the restructuring movement in that many of the newcomers to rural areas are seeking perceived environmental benefits. Some are hoping to practice the environmental ethics of the new age, while others are seeking the sense of 'community' referred to earlier. Whatever the motive, a growing number of people are entering rural areas for residential, tourism, and environmental purposes and collectively can be seen to be making 'lifestyle' choices. The impact of this reality on traditional economies and institutions

has yet to be fully understood, but it is certain that it will substantially alter the composition and outlook of many of Europe's rural populations.

Labour market restructuring

The third bundle of points constituting a new rural condition is that of labour market restructuring. The similarities between international labour market changes and conditions in rural areas are noticeable, such as the growth of employment in the service sector, the increase in multiple job-holding tendencies, and the general short-term, insecure nature of employment in the rural labour market (Brun and Fuller, 1991). Related to this are shifts in the business structure of rural places. An example of the confusion caused by structural change relates to changing gender relations. Growth of the rural service sector is again consistent with restructuring in general and is characterized by men increasingly occupying blue-collar jobs while women take short-term, insecure service employment. This reflects the changing nature of work where multiple job-holding, part-time and short-term jobs, and greater female participation in the labour market are the main elements. The impact of such structural change has yet to be examined in the rural context, but it does seem clear that a basic change in the gender balance of some rural households and communities is taking place. Formal patriarchal systems are being replaced by a new set of social relations in which women are more visible, having greater access to jobs, income, and power. Small business starts are increasing generally as are new jobs in the private side of the social service sector, but the distribution is uneven across rural Europe as national policies, location practices, and opportunities vary between regions and states. In some areas in the south, especially in Iberia and Greece, the rural location of some manufacturing industry is still going on (Hudson and Lewis, 1985). Some new industries are based on the processing of local raw materials such as minerals or agricultural produce, and others are located near to ample supplies of available labour (Persson, 199-). These are traditional location factors and reflect the very different stages that nations have rached in their various courses of economic development (Saraceno, 1994). Economic restructuring in particular has differential impacts on Europe's rural regions. Alternative concepts such as 'the periphery is the centre for business innovations' are also feasible interpretations of the changes afoot (Johansson and Persson, 1996). In general, as some areas continue to specialise and seek 'niche' markets in the agricultural sector, the majority are in the process of diversifying their economic base. It is in this context that access to information about the opportunities and processes of change, both for specialisation and diversification, have become vital.

Rural lifestyles

Transcending the three bundles of conditions is the growth in the attraction of rural lifestyles. The search for rurality, for the rural idyll, for environmental health, for a return to the land, and for a cheaper standard of living are all part of a search for lifestyle satisfaction. The perceptions of such lifestyles themselves are very different, but the idea that they can be realised in a rural area is a common notion and testifies to the increasing attractiveness of rural areas in the minds of urban-based people. It is becoming evident that people in northern Europe increasingly move to the countryside based on lifestyle preferences rather than assumed reasons such as employment (Fuller, Persson and Westholm, 1997). Consumption of

the countryside in southern Europe reportedly is still associated with elitism and is not yet fashionable among the middle class. The whole notion of lifestyle-driven population movements affects the economy, the labour market, the social relations, and the demographic composition of rural areas. It constitutes one of the drivers in the new wave of consumption of the countryside. This reversal in the flow of direct consumption is depicted in Figure 3 and contrasts with the arrangement of flows in the Industrial Society (Part A) with those emerging today (Part B). Not every community will be affected by all the direct consumption flows, but experiencing some of them constitutes the mix of new conditions referred to in the Arena Society. The circle around the rural activities in Part B of Figure 3 indicates the increased level of interaction within the rural area as the multiple and diversified functions begin to constitute a market as well as a local service system in itself. The interpretation of this development for education, training, and knowledge generation is a major challenge for education and research planners.

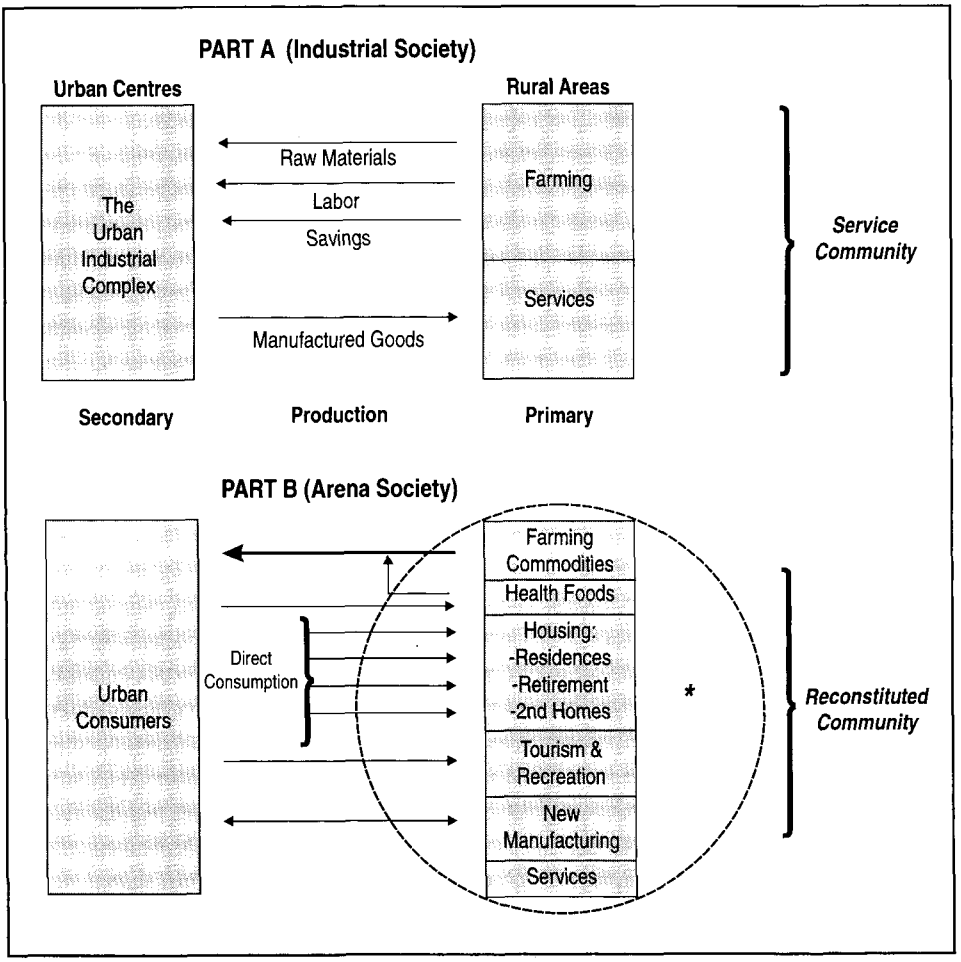
Horizontal alliances

A fifth way to look at the new rural conditions is to consider the nature of institutional development which reflects different ways of doing business in rural areas (Fuller, 1997). As with the other new conditions, the evolution of flatter institutions is not yet fully developed and may well take new forms as restructuring continues. At this stage there is a growing shift to collaborative arrangements rather than competitive or hierarchical ones, among certain kinds of enterprise, local authorities, service agencies, and volunteer groups. The rise of 'whole community' groups which represent the multiple stakeholders in an area reflects the more inclusive approach to community direction and for coping with change. Horizontal groups of agencies and institutions reflect the reconstituted community depicted in Figure 3 (Part B) and the pluralistic conditions of the Arena Society. Partnerships and networks are two particular features of this new institutional arrangement.

New communication possibilities

Information technology stems directly from global forces and connects rural areas most directly to the need for new and better ideas in education and research. The whole development of computer-based communications utilising telephones and digital switching systems has suddenly liberated rural areas from a dependence on urban agglomerations for information. Information can now be accessed from wherever telephone lines and short-wave radio communications exist and can be delivered or sent by fax message or via computer hookup to information networks. The significant development here is that information is location-free and can be transmitted almost anywhere such that rural areas need not be disadvantaged as they might have been in the past with respect to other new technologies.

The implications of this distance-shrinking technology on rural areas has been the subject of two seminars held by the Arkleton Trust, in 1986 and 1995. At the first seminar, ideas about the impacts of the new technology on rural life were divided between those that saw increased dependence on urban centres and those that predicted greater opportunities for rural development. In the first case, it was felt that the scramble to link up rural areas to information networks would lead to the further dominance of urban over rural systems where, as in the past, most of the new information would be generated and stored. Alternatively, it



* The reconstituted community, once the service community, is not only linked to urban centres by capital and production flows, but also by direct urban consumption of rural amenities. Critically it becomes a market in itself and produces an internal or regional dynamic which is depicted by the circle.

Figure 3 The reconstituted rural community

was argued, computer-based information networking could lead to horizontal links between rural users as well as, or instead of, vertical links with information suppliers in metropolitan centres. The promise of computer-based communications for distance education was also noted (Bryden and Fuller, 1987).

At the follow-up seminar nine years later, it was generally agreed that it was not clear whether rural areas had benefitted as much as was expected from the new technology or whether rural areas had lost ground. Although no major comparative studies have been done to provide empirical evidence of either case, the impression was that gains had been balanced by the losses. This was certainly true with new employment generation: as many jobs had been lost through consolidation of technological services to rural areas as had been generated by use of the new technologies themselves. What this does reflect, however, is a shift in labour market structure from blue collar jobs to white collar service employment, which is consistent with the patterns of employment change brought about by global restructuring in general. Other trends noted in the second seminar included the slow and uneven development of telecottages and the critical issue of access-call telephone costs which can discriminate against rural areas where distance is included in the cost calculation. Although access questions predominate, they remain ill-defined, as do the questions of impact. In the latter case, the question of whether restructuring of jobs in rural areas is a benefit remains to be answered. Many of the newly created jobs related to information technology are 'back office' jobs occupied by women for low wages. In this regard, teleworking has yet to be fully evaluated. The rise of self employment utilising new information technologies, on the other hand, seems to have given rise to a new wave of opportunities for both locals and newcomers. It has encouraged the urban to rural migration flow to those areas which are thought to be attractive and that have amenity value. Like the uptake and use of telecottages in Skandinavia, the teleworking phenomenon is uneven in its impact. It is especially uneven across rural space.

The impact of information technology as a new condition in rural areas is yet to be fully realised. The distribution of infrastructure and the commitment to use information technology in rural development varies among the EC member states. The Swedes have the highest number of cordless telephones per capita, while Spain has the best fibre-optic system. What this means in terms of rural access and use is largely unknown, such that although the use of information technology is a condition for participating in the global economy, the pros and cons for rural Europe are not yet clear.

From our discussion of the new rural conditions can be drawn several broad signals about changes in rural Europe and their implications for education, training, and knowledge generation. Primarily, it is evident that change is ubiquitous in one form or another and is most critical in those rural areas where dependency on primary industry is, or was until recently, above the European average. Delinking from primary-sector dependence is a major issue and involves the search for niche markets, an alternative economy based on a comparative advantage, or diversification to form a mixed economy. Strategies to make these choices and to achieve the transition are essential support tasks and will require a new generation of change agents: people with knowledge about the appropriate processes, and the skills, to assist community transitions through 'whole community' participation. This one

simple example and subsequent line of thinking would require substantial adjustments in the research agendas of our research institutes to furnish the new knowledge base, to initiate training for community-based agents of change and retraining of existing agency staff and bureaucrats, and to create new information on local economic, social, and environmental development. Deciding what needs to be done is fairly straightforward compared with determining which type and level of institution should provide the training and how curricula should be changed. In most institutions, education is a zero-sum game, in that anything new that is added requires something else to be dropped. In this sense, institutions are like communities in that those with a controlling stake will not welcome change very readily, as they see it as losing in the game. This suggests that we need decision-making models and mechanisms which can achieve change without threatening the individuals involved. Flatter or horizontal decision-making based on consensus-building approaches might therefore also be appropriate for education and research planning. Chapter 6, 7, and 8 of this book are devoted to exploring the restructuring of our education system in the fields of agriculture and rural development, subjects that have been introduced but need not be pursued here. Suffice it to say that if the needs and prospects are not accurately forecast and discussed, then adjustment in agricultural education and rural development will be a waste of time.

It is with this view that we offer an in-depth examination of the agro-rural policy and farm household trends in rural Europe in Chapters 3, 4, and 5. By analyzing the details of agro-rural issues in western Europe, it is intended to illustrate the complexity of rural restructuring and the importance of the new conditions of rural reality. There are several good reasons for considering agricultural policy and farm family adjustment in some depth. First of all, agriculture provides an important window on the nature and effects of globalisation, especially when considered alongside the upstream and downstream industries such as agro-chemicals and food manufacturing and distribution. Secondly, agriculture remains a central focus of policy concerning rural areas, accounting for approximately half of the budget of the European Union in 1995. In addition, in most cases the 'rural' remit at government level has been given to agriculture ministries and departments. Thirdly, farm families are more important to rural areas than their contribution to agricultural production would suggest, through farm family pluriactivity and through contributions to local and regional labour markets and the voluntary sector of rural communities. A review of their internal processes of adjustment through changes in their activities, investments, and participation in civil society shows that farm families provide an important window on other changes occurring in the rural economy and in society. Fourthly, farming remains the primary user of land in most rural areas, affecting landscapes and environment, including water and air quality, which are becoming crucial issues in society at large. Fifthly, many rural institutions, including in particular educational institutions, still reflect the prior significance of the farming and agricultural industry, which is still of importance today, especially that part of it which is concerned with commercial agricultural products.

Our review of global and rural restructuring demonstrates clearly a significant and continuing shift in European policy in the fields of agricultural and rural development and this needs to be examined more closely to analyze the patterns, promises, and problems that are emerging. The breakdown in support for the food security agenda of Western Europe places greater emphasis on rural space for alternative uses and functions. Spatially defined

rural policy may well replace universal programmes, but the questions remain as to which areas will be favoured and why. What sorts of mechanisms and partnerships are likely to emerge in this case and what sorts of policy instruments are we likely to see that will enable these shifts to become practical reality? Most of all, how can changing policy and farm family strategies be understood so that direct connections can be made to the research and education agendas of western nations?

CHAPTER 3

AGRICULTURAL AND RURAL RESTRUCTURING IN WESTERN EUROPE

3.1 Introduction

This chapter looks at the specific forms of restructuring in agriculture, agro-industry and rural economy and society in Europe, focusing on developments since the Treaty of Rome and up to the present day. We analyze restructuring in two ways, first by looking at relevant policy changes over the period, and second by looking at rural conditions, particularly agrarian change, the restructuring of agro-industry and the changing nature of rural economy and society. We argue that what have been thought of as 'structures', that is to say relatively fixed macro-level factors which determine, influence or at least heavily condition individual behaviour, have changed and are changing radically. Moreover, these changes reflect the diverse decisions and actions of farm households and individuals within them, and of other rural 'actors', as much if not more than those of the State and Supra-State (EC) through structural and rural policies. This articulation between 'structure' and 'agency' provides the background for the subsequent chapters.

Today, direct employment in farming accounts for less than one-tenth of total employment in western Europe. Few rural regions today have direct agricultural employment exceeding one fifth of the labour force. The most obvious point about rural restructuring is this decline in agricultural dependence, and its counterpart, the growth of other activities. Rural Europe, in general, is no longer agricultural Europe, but economically and socially diversified. Moreover, 'farming', interpreted as what farm households actually do to earn a livelihood, has become much more than the production of food, drink and fibre; it is about any income earning activity involving the use of farm-based resources including household labour.

Yet agricultural policy remains very important to western Europe as a whole, absorbing about half of the European Union budget in 1995, and agriculture's dependence on policy measures and payments seems to have increased inexorably. Nevertheless, the basis of this policy has shifted in important ways, especially since the mid-1980's. These shifts reflect growing budgetary constraints, international pressure for market access and fairer international trading conditions, and growing criticism of both the environmental impacts of agriculture, and agriculture's links with rural development. The growing relative importance of the non-agricultural rural population and of economic and political interests connected with non-food producing elements in rural economy and society (such as tourism, recreation, environment, commuting, retirement services) has led to a gradually increasing mobilisation of interests in rural as distinct from agricultural development, again mainly since the 1970's. These shifts represent the linkages between the policy and economic and social dimensions of restructuring, or the interaction between structure and agency.

Taking the post war period as a whole, in general the period started with a broad consensus between farmers, consumers and policy makers that greater security of food supplies was required in Europe. This consensus extended into policy, and broad agreement that an element of protection was required within which farmers could be provided with a more secure return, supported by investment in new techniques and associated research and extension work. The

system of agricultural research, training, education and extension was reinforced during this period and form the basis of what we have today, albeit in different forms and to varying degrees, in much of western Europe.

Moreover, although the resulting technological improvements in this period inevitably led to substantial reductions in the agricultural labour force, at least up to the early 1970's these reductions coincided with relatively rapid rates of employment growth elsewhere in the economies of western Europe, thus easing the problems of adjustment.

Towards the end of the period, however, this consensus was in the process of breaking down under the weight of food surpluses, the cost of support regimes, growing unemployment elsewhere in the economy, doubts about environmental and rural development effects of intensive agriculture and the policies which support it, and last but not least international pressures within the frame of the General Agreement on Tariffs and Trade, and, more recently, as a consequence of proposals to enlarge the European Union to the east. Thus, one of the key structures underpinning the course of agrarian development has by the 1990's reached a critical point or disjuncture.

The general situation in the labour market also changed markedly after the early 1970's, as unemployment rates generally increased and remained at high levels into the 1990's. This had the effect of slowing the rate at which labour was leaving agriculture, at least compared with what would have been the case had labour markets remained buoyant.

Our analysis of agrarian change highlights the gradual concentration of farm land and more especially production at farm and spatial levels, the loss of farm families and labour from the countryside, and yet the continuing persistence of smaller farms, especially in the southern member States, in Germany, Ireland, parts of France, and the North and West of Britain. The reproduction of these small 'family farms' depends less on agriculture than on the availability of off-farm and non-agricultural work and transfer payments, in particular through the varied social security support systems in most countries.

By the 1990's, in the European Union, roughly one-fifth of all farmers produce some 80% of Europe's food and absorb roughly the same proportion of the Common Agricultural Budget. The most intensive agriculture is concentrated regionally in the Netherlands, Denmark, East Anglia in England, parts of Germany and the Po Valley in Italy. This concentration of production at regional and farm levels has been accompanied by a concentration of agro-industry, again at the levels of the firm and of regions. In addition, farming has tended to become more specialised, with a smaller range of enterprises on individual farms, and also within regions. These aspects of specialisation and concentration represent a specific form of restructuring which has important environmental, public health and regional economic implications. For example, alongside the concentration of food processing there has been a decline in farm and other small scale forms of food manufacturing which were important for rural economies and for food variety.

Rural economies have nevertheless diversified in some cases into manufacturing activities, in others into a range of service activities, including tourism and recreation which has brought in its train new commercial uses for land and buildings, and new conflicts over private and public rights in land (for example over access, or rights to clean water). Such tendencies are not uniform through time or across space, and agricultural and rural restructuring takes diverse forms within western Europe.

These processes of change - concentration and diversification - combined with a certain

persistence of small farms and the resulting differentiation within and between rural areas, and the disjuncture reached by agricultural policy all have important consequences for actors and institutions, including communities, families, individuals, the State, interest groups and the market.

3.2 The agricultural and rural policy framework

The debates surrounding the GATT 'Uruguay Round' of trade talks may have given the impression that agricultural protection was a relatively recent phenomenon in Europe. This is not so. It is over 100 years since there was almost free trade in agriculture products in Europe (for example within the France - UK Treaty of Commerce 1860; and the abolition of duties on grain in Germany in 1853). But around 1880 France, Germany, Italy and Belgium reintroduced tariffs as grain exports increased from US, Russia, Canada and Australia (Tracy, 1989).

Post-war agricultural policy

Prior to the establishment of the European Community, and the subsequent development of the Common Agricultural Policy, the individual countries of western Europe, with the principal exception of Denmark, had all developed various systems of agricultural protection. These were reinforced by the need to raise food production both during and after World War II when all countries faced food shortages and balance of payments constraints. Various forms of income guarantees to farmers, price supports, investment aids and indirect measures to support research and extension work were either introduced for the first time, or augmented by post-War policy measures (Tracy, 1989).

The main goals of these post war policies were:

- To raise food supplies and levels of self-sufficiency;
- to relieve balance of payments problems;
- to raise agricultural efficiency;
- to improve farmers incomes (the notion of 'parity' with incomes in other sectors was pushed hard by farming interests and embodied in the 1960 Loi d'Orientation in France);
- to stabilise farm gate prices, and
- to maintain peasant and family farm populations (e.g. Switzerland, Norway).

The implementation of these goals led to the establishment of a formidable set of institutional arrangements including intervention boards, annual reviews of guaranteed prices (often conducted in partnership with farmers unions), research centres, agricultural colleges, extension services, etc. Inevitably this led to a large bureaucracy with its own interests to defend, and which became an element in the inertia surrounding policy reform when this became increasingly necessary. Moreover, certain farmer organisations were either given privileged access to government or developed close relations with the dominant political forces in the

processes of policy development and annual reviews of guaranteed prices[1] (Moyer & Josling, 1990; Tracy, 1989).

The memories of food shortages and rationing during and immediately after World War II, and the vulnerability of supplies to disruption of trade routes, provided an important political rationale for the first of these goals. The economic problems and persistent balance of payments deficits provided yet another set of arguments, perhaps more persuasive to reluctant Treasury officials and ministers. Meanwhile, the relatively high growth of the economies and low unemployment rates, combined with the first objective, provided an important logic for improving technical and economic efficiency. The improvement of farmers incomes, and stabilisation of prices, were seen not only against the background of the economic hardships faced by farmers in the inter-war period, but also as providing the necessary incentives to invest and adopt new technology. The last objective was the subject of more rhetoric than action, and recognised the ideological and political importance of the 'family farm' or the 'peasant' in European society (Tracy, 1989; Bryden, 1987; Moyer & Josling, 1990).

The Common Agricultural Policy

The Common Agricultural Policy (CAP) of the European Community was thus built on the foundation of post war systems of protection in the founding Member States which mostly involved tariffs, import controls and market intervention, and the institutional structures which accompanied them. The UK was not a signatory of the Treaty of Rome[2] and had a different type of protection based on deficiency payments. These involved high budgetary costs, but low consumer prices.

The objectives of post-War policy outlined above were not all of equal importance in different time periods, or in different countries, but most of them were embodied in the Common Agricultural Policy of the European Community as it was developed following the Treaty of Rome. The main instrument was agricultural market and price policies, but these were almost always accompanied by agricultural structures policies aimed at consolidation of fragmented holdings and plots, farm enlargement and the encouragement of investment.

At the insistence of France, the Rome Treaty provided for establishment of a Common Agricultural Policy (CAP). Article 39 of the Treaty laid down the following objectives:

a) To increase agricultural productivity by promoting technological progress and by ensuring rational development of agricultural production and optimum utilisation of factors of production, *in particular labour* (our emphasis).

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[1] For example the Nation Farmers' Unions in England and Wales and in Scotland, the Federation Nationale des Syndicats des Exploitants Agricoles (FNSEA) and the Centre National des Jeunes Agriculteurs (CNJA) in France, the Deutscher Bauernverband (DBV) in Germany and the Confederazione Nazionale dei Coltivatori Diretti in Italy.

[2] The Treaty of Rome was the Treaty which established the European Economic Community (EEC). It was signed in 1957 by France, Germany, Italy, Belgium, Luxembourg and the Netherlands, and entered into force in 1958.

b) *Thus*[3] to ensure fair standard of living for those working in agriculture.
c) To stabilise markets.
d) To assure availability of supplies (food security).
e) To ensure that supplies reach consumers at reasonable prices.

The Treaty did not provide for the mechanisms by which these objectives were to be attained, and it took from the famous and influential Stresa conference in 1958 until 1962 to agree the actual content of the CAP. The basic model was intended to be the support of *prices* through variable import levies, market interventions and export refunds combined with the support of *structural adjustment* to improve efficiency and incomes. Originally it was thought that 75% of CAP spending would go on market support and 25% on structural measures. In fact market support consistently absorbed over 95% of CAP budget, and proved extremely difficult to control.

The 'principles' of the CAP said to have been laid down at its founding in 1962, but not written down in the Treaties, are those of *market unity*, *community preference* (i.e. a level of protection), and *joint financial responsibility and solidarity*. These principles are frequently said to have provided the basis for the construction of the common agricultural market, and they remain important today[4].

Common prices, on average, increased rapidly in the mid-1970's and again in the early 1980's, but after 1984/5 when a policy of restraint was introduced they have fallen slightly. Nominal prices in national currencies, however, continued to increase up to the end of the decade. In real terms, although the support price increases were more than adequate to compensate for inflation in the 1970's, this ceased to be the case in the 1980's.

Tracy argues that this support regime provided a feeling of security to farmers and supply industries which encouraged continuing innovation by supply industries, and on-going adoption of new techniques by farmers (Tracy, 1995). The result was dramatic increases in self-sufficiency of foodstuffs between the early 1970's and the mid-1980's. The overall result was a combination of reduced imports from other countries, increased subsidised exports to third countries, a proliferation of schemes to dispose of surpluses through subsidised manufacture into non-food products such as alcohol, and in some cases increasing stocks held in intervention stores, all of which had to be financed from the Community budget.

As a result of these factors, and the two European Community enlargements in the 1980's[5], the financial costs of the market support regime increased rapidly from around 4 billion European units of account in 1974 to 11 billion ECU by 1981, 18.4 billion by 1984, and around 32 billion ECU by 1991 (Tracy, 1989; EC, 1984; EC, 1991). In 1995, according to the Budget, it was

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[3] We have emphasised 'Thus' in order to stress the point that a 'fair standard of living' was seen to be a consequence of the increase in productivity, and not a separate objective. This became an important issue during negotiations on the MacSharry proposals in 1992 to reform the CAP.

[4] See, for example, the Introduction to CAP Working Notes, 1993: Reform of the CAP and its Implementation, p. 2. Commission of the European Communities, Directorate-General for Agriculture, VI/2024/93-EN.

[5] Greece joined in 1981, and Spain and Portugal joined in 1985.

estimated at around 35 billion ECU.

The development of agricultural structures policy

It was not until 1972 that a coherent set of structural measures was established. These were loosely based on the 1968 'Mansholt Plan', the main elements of which were that structural policy should aim to:

- create 'modern production units', for example with 80-120 ha of cropped land or 40-50 cows;
- help about 5 million people (out of 10 million) to leave in the 1970's through early retirement schemes and retraining;
- encourage the land so released to go to farm enlargement or forestry;
- reduce the dairy herd by 3 million cows.

The Mansholt Plan represented a form of 'indicative planning' which was common throughout Europe up until the 1980's. It reflected fixed, simple, ideas about what represented 'modernity' in particular sectors, such as what constituted a 'viable farm'. This Plan was hotly disputed, but, albeit in a much watered-down version, formed the basis for first three structural directives in 1972. These were Directive 72/159 on *Farm Modernisation*, Directive 72/160 on *Farmer Retirement*, and Directive 72/161 on *Socio-economic Guidance and Training*.

The farm modernisation directive, which was aimed at 'main occupation' farmers, had a considerable impact in the livestock-producing Northern Countries - UK, Ireland, The Netherlands, northern France and parts of Germany - and hardly any impact in areas in which small farms were dominant, most notably in the south. It had the side effect of increasing production. Farmer retirement was very ineffective - the payments to retiring farmers were not attractive compared with national pension schemes and there was very little uptake. Labour mobility and land transfer to 'modernising farmers' was much less than hoped. Socio-economic guidance and training was also rather ineffective, partly because it failed to restructure the overall extension system, partly because of budgetary constraints, and partly because the overall training effort in rural areas increasingly became the focus of other national and EU programmes (including those supported by the Social Fund).

The 'disappointing' impact of these first structural measures has to be seen against the changing macro-economic conditions in Europe in the 1970's and 1980's. Agricultural structures policy had evolved during the post-war economic 'boom', when economic growth rates were generally high, unemployment low, and people in poorer rural areas (for example in Italy at that time) could and did migrate to richer areas (such as Germany) for work. Just after the first measures were implemented, the Community faced its first enlargement (Britain, Ireland, and Denmark joined in 1973), and the oil crisis occurred (also 1973). The oil crisis is generally held to mark the end of the post-war boom in Europe, and heralded a period of generally low economic growth, rising unemployment, and high inflation. These conditions slowed migration, and acted as a brake on structural change in agriculture.

Initially, in the 1970's the effects of this deteriorating economic context on farmers were somewhat cushioned by high and rising levels of market support. However, as the condition persisted in the 1980's, and as successive budgetary crises and rising external pressures

eventually forced a gradual shift in agricultural policy it became increasingly clear that rural diversification would have to play a major part in improving farm household incomes and enabling structural change to take place. Such diversification was initially seen in terms of the non-farming activities and income sources of farmers and farm households, but increasingly the focus has shifted to general economic and employment diversification in rural areas, highlighting such things as rural tourism and recreation, or rural manufacturing.

Arguably, then, the attempts to direct structural change through policy were largely ineffective, and patterns of agrarian change in the different parts of the Community were much more influenced by general market policies, the changing economic context, particular labour market changes in different regions, and increasing demands for such things as rural tourism and recreation.

The shifts in policy were reflected in the so called 'integrated rural development' initiatives in the early 1980's, in the green paper on agriculture in 1984, in the reform of the structural funds[6] in 1987, in the paper on the Future of Rural Areas published by the Commission in 1988, in the change in the title of the European Commission Directorate-General responsible for Agriculture to the Directorate-General for Agriculture and Rural Development, and in the LEADER programme aimed at stimulating 'bottom up' development in rural areas from 1990 on.

Regional measures in agriculture

The first attempt to apply spatially differentiated structural policies was the Regulation on Mountain and Less Favoured Areas, or LFA's (Regulation 75/268). The aim of this Regulation was to keep people in these 'agriculturally disadvantaged' areas (see Map 1). The main instrument was Compensatory Allowances paid on breeding cattle and sheep (sometimes also termed 'headage payments'). Such payments were introduced for 'hill farmers' in the UK during the 1950's, and during the accession negotiations the UK insisted on being able to continue such payments after EC entry.

In 1977 a Regulation was introduced for Marketing and Processing of Agricultural Forestry and Fisheries produce. This provided support for investment in such ventures, and was important in some regions in stimulating farmer's processing and marketing cooperatives.

In the late 1970's and early 1980's, there was an increasingly complex development of regionally and commodity specific measures[7]. In some cases, minor measures were introduced by the Commission as 'sweeteners' during the annual negotiations on agricultural prices in order to obtain support of one or more member State. This process led to a certain lack of coherence and consistency, and significant regional variation in the package of structural measures actually developed and implemented across the Community.

Two further points must be made about these structural measures. First, national and

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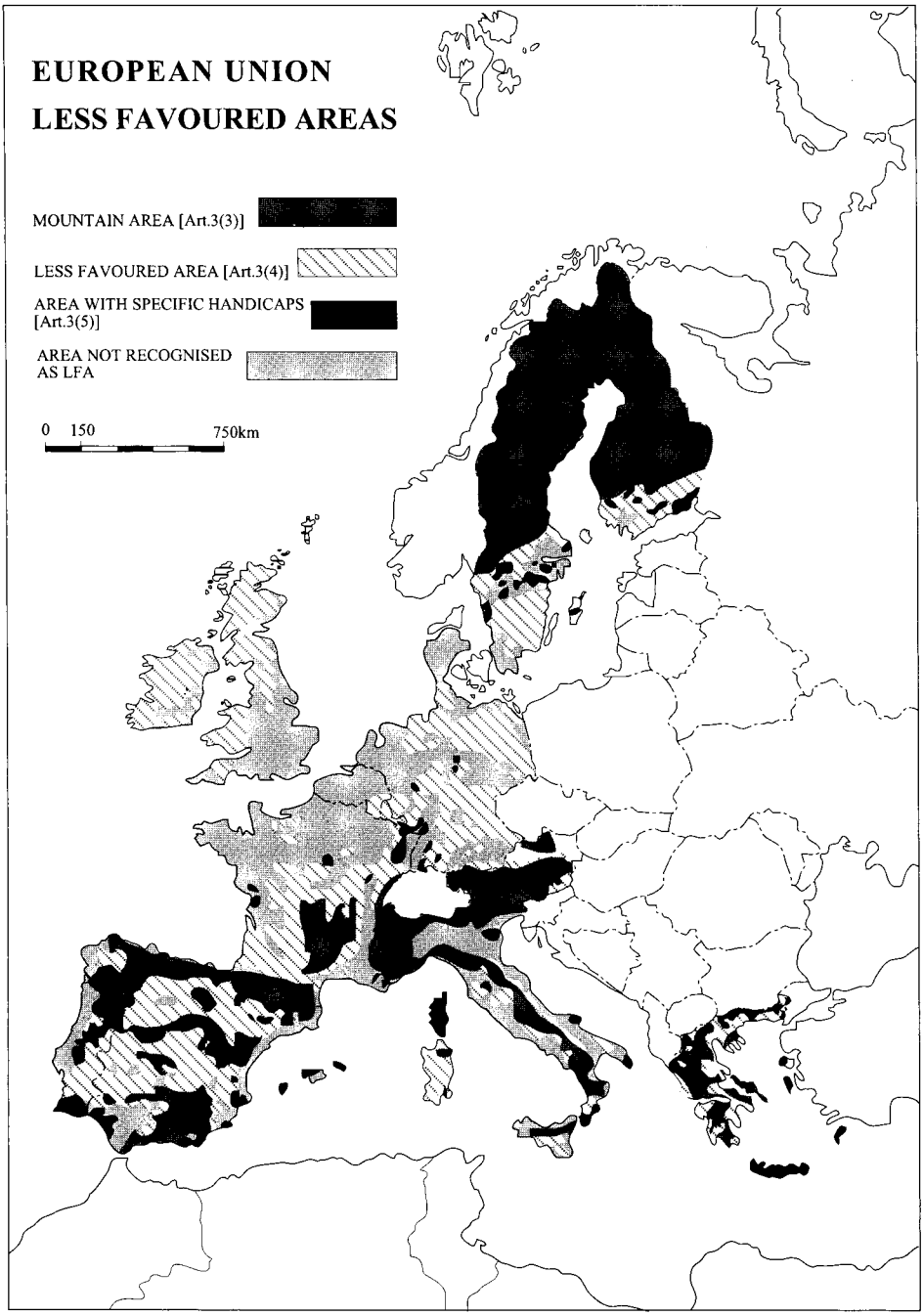
[6] The 'Structural Funds' comprise the European Regional Development Fund (ERDF), the European Social Fund (ESF) and the Agricultural Guidance Fund (EAGGF - Guidance Section).

[7] Integrated Rural Development Programmes, such as those in the Western Isles of Scotland and the Lozere in France; Agricultural Development Programmes such as that in the West of Ireland; Measures for Wine and Citrus Restructuring, for instance to assist grubbing-up of outmoded varieties and replanting with new ones; Aid for the Cessation of Milk Production, etc.



Map 1 The Mountain and Less Favoured areas of the European Community as defined by regulation 75/268 and subsequently amended. Situation at end-1992

regional measures continued alongside EC measures, often with more relaxed rules and criteria. Second, the EC only reimbursed member States with a part of the budgetary cost of EC structural measures - whereas it generally reimbursed the full costs of market support. This added to the already considerable unevenness and variation in the implementation of EC measures[8].

Growing pressures for policy reform

Since they guaranteed a market for any production presented by the farmer at a more or less fixed price considerably higher that world market prices, the market and price policies developed within the European Community ensured that farmers had an incentive to increase supply, and the inevitable end result was surpluses of production over consumption in many key commodities. As we have seen, the cost of support and degree of protection increased as supply and self sufficiency increased. By the mid-1980's, problems with trading partners in third countries had escalated and led to attempts to control production, reduce surpluses and limit the budgetary costs of support.

The fundamental transition from shortages to surpluses in the post-war period thus had important economic and political effects. In economic terms, it not only led to growing budgetary costs due to the need to store or dispose of surpluses, but to high consumer prices, over-utilisation of manufactured inputs, and, in general, significant resource mis-allocations at a time of low economic growth and tight fiscal circumstances. In political terms it led to growing tensions in international trade externally, and with consumers and environmentalists internally.

The increasing strains on the CAP in the 1980's were exacerbated by the collapse of the US dollar which increased support costs, a decline in real farm incomes and apparently increasing income disparities within agriculture, and the manipulation of the 'green ecu' system which led to increasing differences between common prices expressed in ECU and nominal prices in national currencies. These factors provided the preconditions for subsequent policy restructuring.

The main responses included the introduction of a milk co-responsibility levy to penalise over-production in 1977; the introduction of a 'guarantee threshold' for cereals in 1982/3, leading to a co-responsibility levy in 1986/7 (from which 'small producers' were excepted); and the introduction of milk quotas in 1984. Stabilizers were introduced which laid down maximum guaranteed quantities and an automatic price decrease in the case of production over-runs. In addition, from 1984/5 on a restrictive price policy was maintained, limiting annual price increases and paralleled by stricter conditions for market intervention. In 1987 a scheme for voluntary set-aside of cereal land was introduced.

These measures were insufficient to control surpluses and budgetary costs, and coincidentally fell far short of what was required to reach agreement in the GATT Uruguay round. In addition, as we have seen, external conditions were changing. By the early 1990's it was clear that more radical restructuring of policy was needed.

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[8] See Bryden *et al.* 1992, Chapter 5 for a discussion of the implementation of structural and rural development policies in the nine member States included in this study.

Presaged in the Commission's Reflections Paper of 1 February 1991[9], the CAP was 'radically' reformed in 1992. Whilst retaining the three 'principles' of the CAP outlined earlier, the reform was more than a matter of 'degree' in that it established a new mechanism of support - direct compensation payments - which partly 'decoupled' support for farm incomes from production.

The three main guidelines for the reform involved *substantial price reductions* for agricultural products, *full and on-going compensation for this reduction* through compensatory premiums not related to quantities produced, and *control of production* through set-aside of arable land, stocking limitations for livestock, and retention of quotas, etc. The implementation of the reform was complex, and did not cover all agricultural commodities - the Common Market Organisations for olive oil, wine, fruit and vegetables and sugar were untouched by the reform[10].

In addition to changes in market regulation, a set of 'accompanying measures' to the CAP reform was introduced to encourage farm forestry, farmer retirement and environmentally-friendly farming. These were the kind of measures previously funded under Agricultural Structures Policy, and their significance lies in their transfer to Markets Policy, in their flexibility with respect to implementation at national level, and in the fact that they are co-financed by member States.

As a result of the reform, it is reckoned by Commission experts that some 4.6 million ha will be in rotational set-aside and a further 1 million ha in long-term (20 year) set-aside or arable afforestation by 1999. The Commission also reckons that any remaining cereals surplus by 2000 will be compatible with the GATT agreement, which allowed for an additional margin in permitted exports[11].

Although the original objectives of the Common Agricultural Policy laid down in the Rome Treaty, and the three 'principles' of market unity, community preference and financial solidarity, remain largely intact even after the 1992 reform, it is important to point out that some *de facto* changes have been made which have important implications for possible future developments. As a result of the Maastricht Treaty in 1993, all Community policies, including the CAP, were required to take environmental impacts into account. In addition, the co-financing of accompanying measures within markets policy introduces a weakening of the principle of financial solidarity, even if presently slight. Finally, the fact that increased production is no longer an objective of the CAP, and the decoupling of support from production, raises questions about the first two objectives laid down in Article 39 of the Rome Treaty.

We now consider the implications of these 'adjustments' to the CAP objectives and principles, returning to assess the prospects for further reform in Chapter 5.

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[9] COM(91)100 1 February 1991. The actual proposals were set out in Green Europe 2/91: The Development and Future of the Common Agricultural Policy.

[10] The actual implementation is well summarised in the Commission's Vademecum on The New Regulation of the Agricultural Markets: Green Europe 1/93.

[11] However, the tariffication of import quotas will open up some opportunities for exporters to the European Union, for example high quality cheeses.

The impact of the 1992 CAP reform

The CAP reform will have varying direct impacts on different rural areas in Europe, depending on the commodity mix of production, farm and enterprise sizes (crop areas, livestock numbers), the impact of set-aside measures, the relevance and likely uptake of 'accompanying measures', and the details of implementation of the regime at national or sub-national level (treatment of compensation based on national or regional average yields, etc).

A further factor, not envisaged at the time of the reform, has arisen from the collapse of the European Monetary System, and substantial movements in the relationships between national currencies and the European Currency Unit. In theory, monetary compensation payments arising from differences between 'green' and monetary rates of exchange within the Union were abolished on the entry into force of the Single Market on January 1, 1993. However, in August 1993 the permitted bilateral margins within the ERM were extended from 2% to 15%, in effect re-creating a situation in which currencies were floating against each other (Tracy, 1995). Substantial devaluations of the currencies of the UK, Ireland, Italy, Portugal, Spain and Greece against the ECU meant that increases in national prices in these countries cancelled out the reductions in prices in ECUs which the reform had introduced. In Germany, the strongest country, reductions in prices in DM were compensated under the 'floating franchise' system which was devised to give some protection for farmers suffering price cuts from currency appreciations.

Given these various factors, the indirect secondary impacts at local and regional levels will depend on the effects on upstream and downstream industries, and therefore the nature and scale of these industries. Finally, the tertiary and overall effects will also depend on the local and regional significance of the agricultural sector and its associated upstream and downstream industries.

Since the reform initially deals mainly with 'northern' commodities, its impact is largely in the 'northern' member States. Moreover, where 'northern' commodities such as cereals are grown in the south, the effects of the reform are initially more limited because of the relatively small size of farms, many of which escape the set-aside provisions. Nevertheless, the new tobacco regime and its reduced quotas will have considerable direct and indirect effects in parts of rural Greece (Efstratoglou in Bryden, Black *et al.*, 1994; Bryden, 1994).

Other policies are also important for agriculture and for the links between agriculture and the local rural economy, if in a less obvious way. Tradeable milk quotas and hygiene regulations affect local cheese production, and in general employment in the milk system as a whole. The same applies to beef, wine, and other commodities. Opportunities for farm households to earn income off the farm are often critical for their survival, and these are affected by a range of regional development and employment policies. Social welfare policies are also critical for farm families, agricultural labour and other segments of rural populations in some rural regions.

Spatial effects of set-aside

In only a few regions will the proportion of farmed area set-aside exceed 5%, and these are to be found in Denmark, the UK (south-East), Germany (Nordrhein-Westfalen), France (Ile de France, Champagne-Ardenne, Picardie, Haute-Normandie, Centre, Bourgogne, Lorriane, Alsace, Poitou-Charantes) and Spain (Navarra, Madrid, Castilla-La Mancha). These are the areas where the direct environmental and employment effects of the reform seemed likely to be greatest in

relative terms. However, with the exception of the Spanish regions, all are relatively diversified areas in economic terms.

Overall, early estimates of direct employment loss resulting from set-aside suggested an equivalent of around 12,000 to 15,000 annual work units, of which around 10,000 work units will be in the 'northern' regions of the Community. This represents less than 1% of the total annual work units in 1991/2 . However, the effects seemed likely to be more significant in Central Spain, northern France, and south-east Britain. In regional terms, central Spain seemed likely to suffer the greatest relative effects on the regional economy, since the significance of agriculture in the regional economy is greater here than in the other regions affected by CAP reform.

In practice, the currency adjustments which followed the CAP reform, together with relatively strong markets for cereals, meant that prices to farmers did not decline as much as was anticipated, whilst they continued to benefit from direct payments calculated on the pre-reform market and currency situation. Nevertheless, agricultural incomes seem likely to remain under pressure in the medium and long term. The mechanics of the CAP reform also seemed likely to lead to increasing proportions of set-aside, and increased quota limitations, being required in order to reduce production of surplus commodities and make way for imports. Those tendencies combined with the effects of age-structure of farmers and poor succession prospects in many areas will lead to continuing reductions in farm numbers and employment, and generally lower input demand and commodity supply for manufacturing. Indirect effects on regional economies therefore seemed likely to be important in the medium term (Bryden, 1994).

Environmental impacts of agriculture

The environmental impact of intensive agriculture has become a major issue over the past decade, and both National and EU policies have evolved in this area. The Maastricht Treaty in effect amended the articles relating to the CAP through its obligatory provisions regarding the environment. Two of the main problems relate to the progressive disappearance of species on the one hand, and ground water and river pollution, especially from intensive animal (especially pigs, poultry, and dairy) production, but also from some forms of crop and horticultural production, on the other. However, there are also problems relating to air pollution by animals and from the use of energy in the production process. The significance of both of these problems can only be increased by the Climate and Biodiversity Conventions agreed at the Rio Summit in 1992.

The causes of the losses in biological diversity include the abandonment of traditional extensive agricultural systems, the expansion of intensive forms of agriculture (leading to losses in natural and semi-natural biotopes through drainage, hedge removal, and land consolidation). Attempts to counter these losses include the Environmentally Sensitive Areas Schemes introduced in Germany and the UK and then at EU level (under the Agricultural Structures Regulation, and more recently the Agro-Environment Programme).

Over-fertilisation, together with increases in organic nitrogen and phosphate residues from intensive animal production systems, present major threats to the quality of ground and drinking water and impose major 'clean-up' costs on the rest of society. Intensive pig production in Europe is largely concentrated in Denmark, the central and south Netherlands, Brittany in France, and the Po Valley in Italy. Intensive dairying is also regionally concentrated, especially in the Netherlands, NW France, Ireland, Germany and parts of the UK.

The development of EC structural and rural development policies in the 1980's and early 1990's

During this period, we can identify two main strands of rural policy as it developed at National and EC level. The first strand concerns measures aimed at farmers and farm households or the agricultural sector, the second strand covers measures aimed at the more general development of the rural economy. Both strands can be further divided into measures aimed at *individuals* (farmers, entrepreneurs, workers, etc) and those aimed at *groups* or *communities* (cooperatives, infrastructure, etc).

Agricultural structural policy measures directed at *individuals* have been of four main types. The first type concerns measures aimed directly at farm structures, such as the EC's modernisation and investment aids, young farmer aids, farmer retirement schemes and consolidation of fragmented plots. In the 1980's such measures were increasingly complemented by a second type directed at stimulating income diversification, for example the encouragement of farm forestry, farm diversification (tourism, artisan crafts, direct marketing), and more recently environmental improvement or maintenance measures (farmers as 'park keepers' for society). A third type of measure aimed at the improvement of food 'quality' and market adjustment, for example livestock breeding and animal health, vine and citrus grubbing up and replanting with improved varieties, and set-aside of land. Finally, various income support measures were introduced, such as the compensatory allowances on breeding cows and sheep in Mountain and other Less Favoured Areas, and, at National or regional level, specific social welfare payments for farmers. Gradually, the emphasis of policy has moved from the first and towards the second, third and fourth of these types.

Agricultural structural policy measures aimed at *groups and sectors* has also been important, particularly in southern Europe, where there were large numbers of small farmers, serious problems of agro-infrastructure and institutional weaknesses, but also in other areas with significant numbers of small farmers. These include aid for group training schemes, socio-economic guidance services, the SAFER (a National scheme for land purchase and transfer in France), irrigation, farm roads, electrification and water supplies, group breeding schemes, regulatory measures (health, quality standards, etc), group marketing schemes, group machinery schemes, and cooperative processing.

Measures aimed at regional and rural development

Regional Policy in rural areas has been of growing importance since the 1970's and is now a major element in both EC and National Policy. Commonly, since the Single European Act of 1987 and subsequent reform of the EC structural funds, these apply in designated 'priority regions' or to sub-areas within regions. The reform of the structural identified three types of priority region - the Objective 1 regions which were deemed to be in need of development because they had an average GDP per head of less than 75% of the EC average, Objective 2 regions which were suffering from industrial decline, and Objective 5b regions which were rural areas suffering from decline or from the impact of CAP reforms. The list of designated regions is reviewed every five or six years, and the current (1994-99) designations are shown in Map 2. These include the new 'Objective 6' regions in two of the three countries (Austria, Finland and Sweden) which joined the European Union in 1995, and which represent an additional designation of priority regions in Finland and Sweden, based largely on sparsity of population.

The 'structural funds' include the Regional Fund, the Social Fund, the Agricultural Guidance Fund, and since 1993 the Fisheries Guidance Fund. In the 1995 EC budget, the structural funds together amounted to some ECU 21 billion or about 28% of the total. In this category, measures aimed at *individuals* include small enterprise supports for investment and training of workers, unemployed people and entrepreneurs, counselling and consultancy services, and, at national and/or regional levels, rural housing improvement schemes.

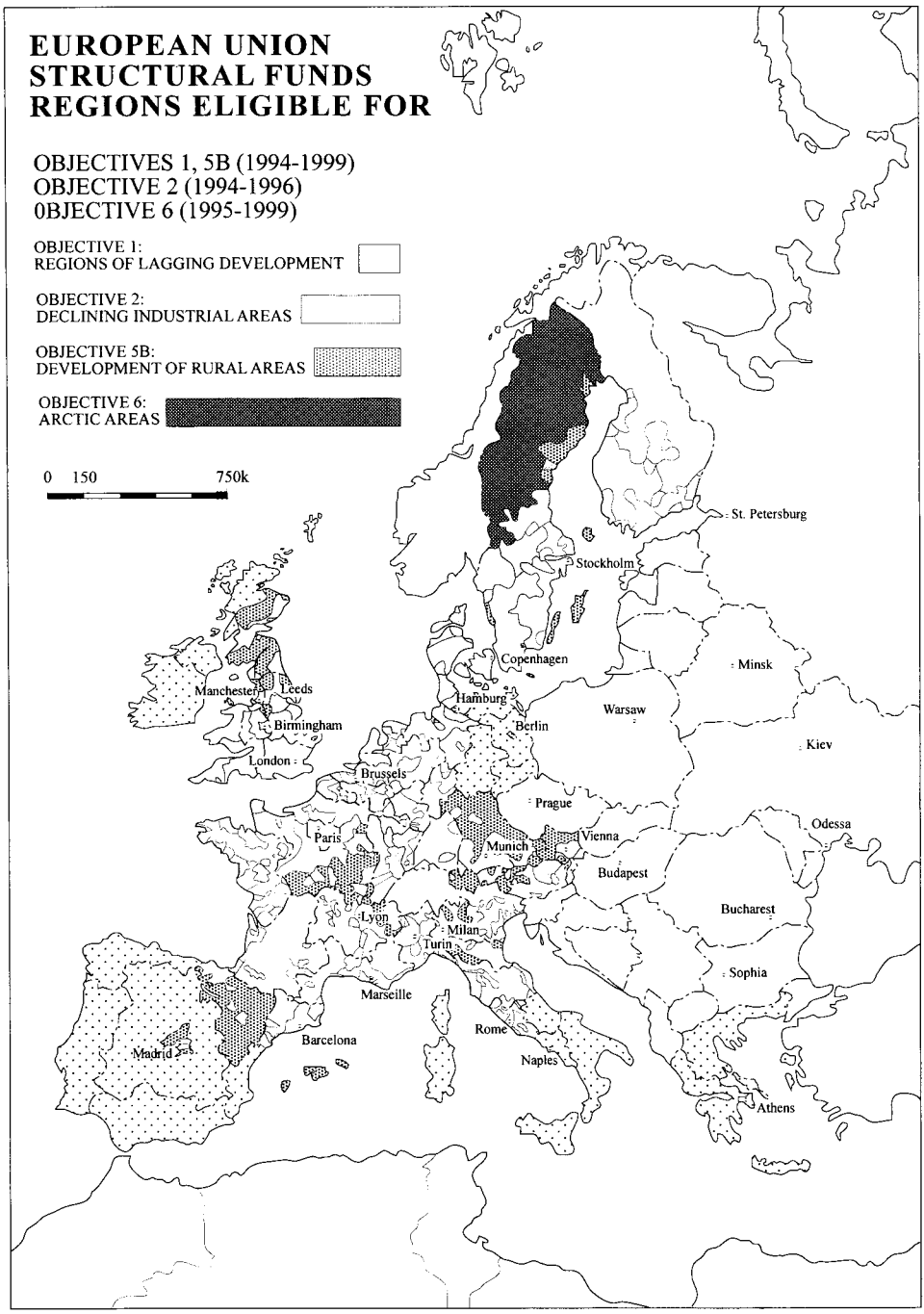
Measures directed at *regional and local economies, groups etc.* are of three main kinds. First, support for infrastructure investment including economic infrastructure (roads, railways, airports, electricity, telecommunications, water, sewerage, etc.) as well as social infrastructure (education, training and innovation centres) and for serviced industrial areas and advanced factories. Infrastructure investment has always taken a large proportion of the structural funds, and in the period 1984-99 there will be additional efforts to improve transnational links within the Community, much of which will be under the new Cohesion Fund aimed at the poorest southern member States, and agreed in 1993[12].

Increasingly, however, there has been emphasis on support for initiatives which enhance regional identity, such as regional labels and marks for rural products, green tourism, rural tourism, community tourism, preservation of the natural and built heritage including village renewal, and environmental improvements. In many cases this emphasis has come about as a result of the shift to more decentralised and 'partnership' approaches to development planning and initiatives (see below), and is closely related to the notion of developing 'niche' markets for locally or regionally defined goods and services. Finally, although not always driven by regional or rural development objectives, there has been support for regional nature parks, heritage areas and the like which have had important development effects in some rural areas.

The top priority Objective 1 regions generally have higher proportions of agricultural employment in the workforce, and large rural areas within them. They are also located around the periphery of the EC, especially in the Southern countries (the whole of Greece and Portugal, the Italian Mezzogiorno, much of Spain) and in the North West periphery (The Irish Republic, Northern Ireland, and from 1993 the Scottish Highlands and Islands).

Another important aspect of regional policy since 1988 has been the development of *partnerships* for the development of regional plans, measures and for their implementation. Typically these partnerships involve the EC, National Government, Local Authorities and Development Agencies, Environmental Agencies and sometimes key NGO's and the private sector. They are therefore both 'vertical' (different levels of government) and 'horizontal' (different regional interests). Moreover, in principal the regional plans cover a very wide range of public policies - infrastructure, human resource development (post-school levels), private sector incentives, marketing and processing and agricultural structural measures - in other words they are intended to be both 'integrated' and 'comprehensive'. At EC level, mechanisms have evolved to ensure that the various 'structural funds' work together in the assessment, financing and monitoring of regional plans - in particular, the Community Support Framework (CSF) sets out the agreed contributions of both EC, Member State, Regional Authorities, and Private Sector in contractual form, once the regional plan is agreed. The idea here is to involve local

[12] The Cohesion Fund is additional to, and legally separate from, the Structural Funds, and its budget in 1995 is ECU 1.75 billion. It is however categorised as a 'Structural Operation' (Budget Head B2).



Map 2 Priority under Objectives 1, 2, 5b and 6 of the Structural Funds, 1994-99

stakeholders more in the preparation and execution of local development measures, and to ensure greater consistency of EC supports and funds at local levels.

Typically, regional development plans will specify a set of aims and objectives, targets, programmes and sub-programmes, and measures, outlining the costs and sources of funding. They normally cover infrastructure investments, structural support for agriculture, support for investment by small and medium sized enterprises, support for human resource development, environmental measures, etc., and infrastructure is commonly the largest component.

The Structural Fund Regulations provide the legal framework for such actions. These also provide for so-called 'Community Initiatives' for which a portion of the overall budget is set-aside (about 10%). These Initiatives are intended to respond to particular regional of local problems which have a trans-national element, thereby respecting the principles of 'Subsidiarity'[13] and 'Community Value-Added'. Community Initiatives are regarded as a kind of test bed for new ideas for dealing with social and economic problems, and are expected to contain innovative elements[14]. In the rural sphere, the main Community Initiative was LEADER - designed to support innovative 'bottom-up' development initiatives in small rural areas in the priority rural regions (Objective 1, 5b and, since 1995, 6). LEADER I which supported 216 'local action groups' ran from 1991-1993, whilst LEADER II runs from 1994-1999 and is expected to support over 800 local action groups. Regional programmes in rural areas, and initiatives such as LEADER, have therefore become much more important since 1988, and may be expected to become more so in future. They have been important not only for the non-agricultural dimensions of rural development, but also in terms of the introduction of a framework for planning, programming, partnerships, and evaluation.

The development of EC agro-environmental policy

A further strand in European policy which developed during the 1980's concerned the inter-relationships between agriculture and the environment. There was a growing recognition, thanks mainly to various environmental movements and their growing political presence, that structural change in agriculture had "led to growing environmental problems: threats to landscapes, habitats and biodiversity as well as pollution and degradation of natural resources and ecosystems such as water, soil and atmosphere" (Von Meyer, 1993, 1994). In the Commission's 1984 'Green Paper' on 'Perspectives for the Common Agricultural Policy' it was explicitly recognised that there was a "need for agricultural policy to take more account of environmental policy, both as regards the control of harmful practices, and the promotion of practices friendly to the environment" (Von Meyer, 1990).

The notion that farmers should be paid for providing 'environmental services' which were not marketed thus formed the basis for one strand of policy from 1985 onwards. This was the

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[13] Subsidiarity - decisions should be taken at the lowest possible level of administration. Thus Community decision making should only concern itself with issues which cannot properly and effectively be taken by national or regional governments. This principle was strengthened by the Maastricht Treaty ratified in 1993.

[14] LEADER - links between actions for development of the rural economy - is one such initiative started in 1989 and continued as LEADER II for the period 1984-99. LEADER I supported over 200 local rural development initiatives in selected parts of Objective 1 and 5b regions.

support for Environmentally Sensitive Areas (ESA's) first provided in the agricultural structures policy Regulation 797/85, which permitted contractual payments to farmers for adopting less intensive or other specified management regimes for at least five years which were considered to be beneficial for the environment. Up to 1990, the measures were implemented in only four member States, and in a few generally 'less favoured' agricultural areas. The cost to the EC budget in 1989/90 was only about 10 million ECU out of a total CAP budget of some 30 billion ECU. However, the new Agro-Environment Programme which accompanied the CAP reform is much more extensive, with a budget of 779 million ECU in 1995.

Von Meyer criticised these measures because they were limited to 'special' protection areas and did not deal with areas of intensive agriculture where serious environmental damage was occurring, because they dealt with individual farms on a voluntary basis, and because they violated the 'Polluter Pays Principle' which had been adopted by EC environmental policy (Von Meyer, 1990).

In the 1992 CAP reform proposals an attempt was made to generalise and enhance ESA measures through the Agro-Environment Programme, part of the so-called 'accompanying measures', but in practice the result has been disappointing, leading mainly to proposals for a few more 'designated areas' on which no agreement had been reached by the end of 1993. An attempt (promoted by the UK) to introduce more general 'cross-compliance' measures during the CAP reform negotiations failed.

The second strand of policy derives from the environmental policies of the Community, which stress the need for preventative action, the remedying of environmental damage at source, the principle of 'polluter pays' and the intent that 'environmental protection requirements shall be a component of the Community's other policies'. EC legislation on the quality of drinking water (which specifies a maximum of 50 mg nitrate per litre) has backward linkage effects on non-point pollution, notably pollution from agricultural fertilisers, waste products and chemicals.

It is important also to recognise that important developments in agro-environmental policy occurred at national level prior to and alongside these adjustments to community policies, particularly in Germany, the Netherlands and Denmark. For example, ESA type measures were first introduced in Germany in the early 1980's, and legislation was introduced in 1987 in the Netherlands which insists on individual farmers reducing the net surplus of nitrates returned to the soil over a period of years (Bryden *et al.*, 1994).

3.3 An overview of policy restructuring in Europe

This analysis of policy changes in the post-war period indicates that there has been a fairly significant process of restructuring, particularly in the 1980's and early 1990's. The emphasis has shifted away from a predominant focus on agricultural production and technical efficiency and now gives much greater attention to non-agricultural aspects of rural development and to the environment. In particular, the increasing importance of regional and local planning and programming supported through the Structural Funds since 1988 has been important. These shifts arose from several different sources. First, the growing budgetary crisis caused by food 'surpluses', second the growing international pressures backed up by threats of trade sanctions, third the increasing pressures from regional interests and concerns promoting non-agricultural

aspects of rural development, and fourth the growing importance of the environmental lobby. Underlying all this has been a gradual shift in political values in relation to rural areas and agriculture (Bryden, 1987). Further pressures for change have arisen from the prospective enlargement of the Community, and the pressures to provide market access to the countries of eastern Europe and the former USSR.

In the next section we consider to what extent this process of policy restructuring has been related to a restructuring of agriculture itself.

3.4 Farm level changes in western Europe

Introduction

Changes at the farm level in western Europe in the post-War period have involved a steady fall in the overall number of holdings, a gradual decline in the agricultural labour force (including farmers), a small reduction in the utilised agricultural area, and a steady increase in production. It appears that there has also been an increase in the significance of pluriactivity amongst farm families, although pluriactivity has been a feature of work and income of farm households for many generations and its official 'absence' has more to do with the nature of statistical information collected from farmers, and the official farming paradigm, than with its significance in practice (Fuller, 1984; Abercrombie, 1985).

These changes have been accompanied by the increased mechanisation of farming, increased irrigation in regions subject to water deficit, the intensification of production through increased use of new varieties of crops and new or improved breeds of livestock, and intensified use of agro-chemicals. In addition, farming has become more closely linked with agro-industry and more dependent on external sources of finance.

The policy framework discussed above further encouraged these processes. Their consequences have been increases in the productivity of land and labour, in terms of output per hectare or per unit of labour, increases in production and self-sufficiency of many agricultural commodities, larger farm units, and a loss of farms and farm people.

Until the most recent enlargement in 1995 to include Austria, Finland and Sweden, the Community had gone through three enlargements since its establishment, the first in 1973 when Britain, Ireland and Denmark joined the original six countries of France, Germany, Belgium, Luxembourg, the Netherlands and Italy. The second took place in 1981 with the accession of Greece, and the third in 1986 when Spain and Portugal joined, bringing the Community to 12 member States. These enlargements have had an effect on the overall structural picture within the Community. In particular, the accession of Greece, Spain and Portugal dramatically increased the number of small farms in the Community. The following table charts the effects of the enlargements on various indicators of agrarian structure.

Thus the effect of the entry of Britain, Ireland and Denmark in 1973 was to increase the average size of the 'Community holding', whilst the effect of first Greek and later Spanish and Portuguese entry was to reduce average farm size expressed in both hectares and average output. Moreover, enlargement had the effect of reducing the average intensity of farming, expressed in output per hectare of agricultural area. It is therefore important to distinguish between changes in the different constituent parts of the EC through time.

Table 3-1 How enlargement affected the structure of the 'European Community Farm'

	Original EC Six Countries	First Enlargement, 1973	Second Enlargement, 1981	Third Enlargement, 1986
Farms (thousands)	5,883 (70)	+712 (70)	+999 (80)	+ 2,427 (87)
Agricultural Area (thousands of ha)	63,587 (70)	+25,675 (70)	+3,550 (80)	+31,969 (87)
Output (thousands of sgm's)	32,735 (75)	+6,864 (75)	+3,818 (80)	+11,845 (87)
Employment (AWU's)	7,461 (70)	+1,180 (70)	+828 (80)	+ 3,459 (87)
Average Farm Size (ha)	11.94 (75)	+1.89 (75)	-1.59 (80)	-0.86 (83)
Average Output per farm (sgm's)	5.56 (75)	+0.44 (75)	-2.25 (80)	-1.66 (80)

Source: Derived from data in the irregular Agricultural Structures Surveys and Agricultural Statistics, Eurostat.

Changes in farms and farm labour

Between 1975 and 1990, the number of holdings in the Community of Nine fell by 14 per cent and the number of persons working on holdings fell by 18 per cent, or 2.3 million, of which it must be presumed from the decline in holdings that around 0.8 million or 35 per cent were farm occupiers, and the remainder were employees or family members. Other evidence confirms that the largest reduction was usually in employed (usually non-family) labour rather than family labour which now accounts for the bulk of labour input into farming in many regions. Calculated in terms of full-time equivalents, the number of work units fell by 2.2 million or 29 per cent over the same period. The differences between reductions in actual numbers working on holdings and full-time equivalents would be consistent either with an increase in agricultural underemployment or with an increase in the proportion of time spent in off-farm working or with a further deterioration in the age-structure of those working in agriculture, or, as seems most likely, some combination of the three.

These tendencies were not uniform throughout the EC, particularly with regard to the number of holdings and agricultural labour. Between 1983 and 1987, the rate of loss of holdings was over four times higher (18 per cent) in the North than in the South (4 per cent). Agricultural labour in the South fell by only 1 per cent between 1979/80 and 1987, compared with a decline of 18 per cent in the North. However, since 1987, the decline in labour in the South has been more rapid than in the North. The reduction in agricultural area also seems to have come mainly from the North. At the same time, output in the North more than doubled between 1975 and 1987, compared with a much slower rate of increase in the South. Such differences suggest that the differentials in farm size, labour intensity, and land and labour productivity between the North and the South intensified during the 1980's.

Table 3-2 Agricultural holdings, area and employment (EUR 9) 1975-90

	1975	1990	Percentage Change
Number of holdings (millions)	5.8	5.0	-14%
Utilised agricultural area (m ha)	86.5	82.5	-5%
Average size of holding (ha)	14.9	16.5	+11%
Persons working on holdings [a] (millions)	12.7	10.4	-18%
- full-time equivalents, in AWU (millions)	7.5	5.3	-29%

[a] Excluding occasionally-employed non-family workers

Source: Eurostat, Rapid Reports; Agriculture forestry and fisheries, 1993.10, Table 1. European Commission, *Agriculture Statistical Yearbook 1988* and *The Agricultural Situation in the Community 1990;* and Tracy, M. *Government and Agriculture in Western Europe 1880-1988,* Third Edition. Harvester-Wheatsheaf, 1989 , Table 14.1.

The reduction in holdings overall came from the size classes below 50 ha, the greatest absolute reduction occurring in the below 10 ha size class and the greatest percentage reduction occurring in the 10-20 ha size class[15]. The number of holdings in size classes above 50 ha has, by contrast, increased over the period 1979/80 to 1987.

Although the rate of decline in holdings steadily increased over the three decades, the rate of decline in labour (in full-time equivalents) has slowed down. This apparent contradiction partly reflects the changing situation in European labour markets discussed earlier. Nevertheless, these conventional indicators mask important changes which were taking place within the agricultural sector, especially in terms of intensification in specific regions and farm types, and specialisation at the farm level. Although real value-added in agriculture fell by 18% between 1980 and 1991, Table 3-3 shows that the more rapid decline in the labour force permitted real value-added per Agricultural Work Unit to increase by about 18%. Real incomes per work unit increased at a somewhat slower rate, and most probably at a lower rate than in other sectors.

Given these trends, it can be argued that the economic recession, through its effects on migration opportunities in particular, and more generally on job prospects outside agriculture, depressed the rate of structural adjustment as it relates to the loss of farm labour over this period. The recent study involving 24 rural study areas in 9 EC and 3 non-EC countries of W Europe found that in most areas outside France and Germany, the pace of structural change measured by farm exits remained very slow between 1987 and 1991[16].

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[15] There are many thousands of examples in Italy of holdings left by emigrants that are used by relatives, but which do not appear as an abandonment or exit on the commune register.

[16] The results of the Research Programme on Farm Structures and Household Pluriactivity in Europe strongly suggests that the statistics are underestimating the rate of 'disengagement' from farming. In the case of Freyung-Grafenau, the family may continue to live in the farm house and rent the land to neighbours, possibly informally. Such cases would not always lead to a statistical disappearance of a holding.

Changes in agricultural prices and incomes at EC level

Rapidly rising inflation following the 1973 oil crisis raised costs of production in agriculture as in other sectors, leading to demands for price compensation by farm organisations. We have already indicated that real support prices increased in the 1970's but declined thereafter. The relationship between guarantee prices and producer prices also widened during the 1980's as the situation in world markets deteriorated and as the European Commission made the conditions of intervention purchases for commodities increasingly stringent.

Agricultural price trends in the new member States of Greece, Spain and Portugal varied somewhat from those in the rest of the Community, especially in Greece where domestic prices prior to EC entry were significantly below common prices. The same did not, however, apply in Spain and Portugal which had relative high domestic prices prior to entry.

Farm incomes, whilst influenced by prices, also depend on changes in productivity. The following Table indicates the broad tendencies in real net value-added per person employed in agriculture since the 1970's. From this it can be seen that real incomes per work unit over the period remained broadly static up to 1988. This suggests that at least for most of the period the gap between farm incomes and incomes elsewhere in the economy was widening, rather than narrowing, contrary to one of the main objectives of the CAP. Incomes improved somewhat in 1989, 1990 and 1991, but fell back again in 1992.

Since labour productivity had been growing at around 4 per cent per annum over this period, significantly faster than real value-added per work unit, it must be concluded that the terms of trade shifted against agriculture[17].

The beginning of this period (1973) coincided with the end of the post-War economic boom, and a consequent decline in economic growth rates, and rising unemployment, in western Europe. The high levels of unemployment which persisted since then meant fewer opportunities for those leaving farming. Lower growth rates and high unemployment together put pressure on Government budgets.

The period since 1973 has also been marked by increasing currency instability, with the DM remaining strong in Europe, and the US Dollar rising against the ECU in the late 1970's and early 1980's, and collapsing in 1985-88. The costs of surplus disposal were therefore disguised in the late 1970's and early 1980's by the rise in the $US, but were increasing again by the mid-1980's when the CAP reform process started. By 1988, a modest recovery in the dollar led to savings in the Community's 1988 farm budget, and at the same time improved economic growth and falling inflation rates led to a brief period of optimism, coinciding with the implementation of the Structural Fund reforms. In 1990-91, however, the costs of German re-unification, lower growth rates - indeed global recession - and continuing inflation, once again led to a serious situation with the CAP.

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[17] Between 1977 and 1984 labour productivity in the Europe of 10 increased by an average of 4.4% per annum on the basis of final production. Between 1984 and 1987, this time for the Europe of 12, it increased by 3.9% per annum on the same basis. The Agricultural Situation in the Community, Reports for 1986 and 1990, Table 3.1.11.

Table 3-3 Farm Incomes. Index of Agricultural Income per Person Employed in Agriculture (Net Value-added by Agriculture at Factor Cost Per Person Employed, in Real Terms (using GDP Deflator)

	EUR 10	EUR 12
1973/4/5 av	100	
1980/1/2 av	95.2	95.2
1982/3/4 av		100.8
1984/5/6 av		100.0
1986/7/8 av		99.1
1988/9/90 av		107.1
1990/1/2 av		109.3

Source: Commission, *The Agricultural Situation in the Community*, 1983, 1993.

Pluriactivity

Despite work in the 1970's by the OECD on the role and extent of 'part-time farming' (OECD, 1978), it was not until the 1980's that consistent data on at least some aspects of non-agricultural work by farm families in EC countries became available through the Farm Structure Surveys. This data focused on the numbers of farmers, spouses and family members with at least one 'other gainful activity', categorised either as a 'principal' or a 'subsidiary' activity, based on whether or not that other activity absorbed more, or less, than 50 per cent of working time. No information was gathered on income sources, or on the nature of activities pursued by farm households, and little systematic analysis was undertaken of the social and economic characteristics of farm families involved in such activities other than by economic size class of holding. More important, the Farm Structures Survey underestimates the significance of off-farm working for farm families since it does not appear to include information on the off-farm activities of spouses and family members who are not also working on the farm (Bryden *et al.*, 1994).

The Farm Structures Surveys data does not reveal consistent trends in the proportions of farmers with other gainful activities, although the number with no other gainful activity fell in 5 of the 10 EC countries for which data is available in 1983 and 1987. For spouses, however, the proportion with other gainful activity increased in all except Greece and Italy. Other family members also increased their other gainful activities except in Greece, France and Italy.

The OECD 1978 survey, supplemented by national census results in 1980, established some trends in the number of 'part time farmers' and in the activity of farm operators or heads of farm families. This suggested a tendency for the proportion of 'part-time farmers' to increase in Austria (1960 to 1973), Norway (1969 to 1979), Switzerland (1965 to 1980), and the UK (1971 to 1979). In France (1970 to 1980) and Germany (1970 to 1975), there was a slight opposite tendency.

Although there is thus no consistent and convincing evidence from official sources, at least

for the period to 1987, that pluriactivity was a markedly 'increasing' phenomenon at least when measured by the Eurostat definitions, the pressures on farm incomes and the rising interest in rural development has made it a more *significant* phenomenon. Prior to the 1980's it was considered a largely 'transitional', and in productive terms inefficient, form of farm household organisation, either assisting people who wanted to become fully engaged in farming, or those who wanted to leave farming. Since the prime values relating to agrarian policy related to efficiency and professionalism, such Policy either ignored or discriminated against it. During the 1980's it gradually became accepted not only as a fairly stable, and possibly growing, phenomenon. This lead to greater policy interest in encouraging it, on the grounds that it could aid agrarian transition without leading to loss of rural population, may help to avoid further over-production (by being less-intensive), and could assist processes of development in rural areas by providing labour for new economic activities or by stimulating these very activities (Bryden and Fuller, 1988).

The answer to the question whether the apparently slow rate of structural change during the 1980's was due in part to an increase in off-farm work and income of farm households is thus by no means evident from the official statistics, and this is one of the key questions addressed in the following Chapter.

3.5 Restructuring of agro-food and agro-chemical industries in Europe

These farm-level changes have been paralleled by restructuring of the agro-food and agro-chemicals industries. Thus there has been a process of concentration in the inputs market, reflected for example in the merger of two of the large machinery manufacturer Ford New Holland and Fiat in 1990 and transfer of finance to other sectors, especially biotechnology. Similarly food processors and retailers have been affected by the further concentration of the retail markets, increased international competition and an influx of new biotechnology-derived products (Ward, 1990). Recent research shows that the food manufacturing sector is undergoing rapid restructuring in Europe - this sector had the largest value (and almost the largest volume) of cross-border European acquisitions in 1989, led by firms such as BSN, Hillsdown, and Unilever (EC, 1991a). This has led to a response in the distribution sector, with food retailers joining forces to maintain bargaining power - an example being the partnership between Ahold (the Netherlands), Casino (France) and Argyll (UK). Tracy has recently concluded that, so far at least, restructuring in food processing has been offset by similar restructuring in the distribution sector, and the result has been "in the public interest" (Tracy, 1993).

The increasing integration and concentration of agro-industry has numerous implications for farmers, not to mention consumers. Supply industries rely on the continual updating of their products and related innovation to retain a market share. Once in the market such new products are heavily marketed and require farmer's supplying processing industries to obtain credit, thus linking the farm business with both credit agencies and industrial firms. Furthermore, because of the highly technical nature of most new inputs their purchase (and even their application) is often put in the hands of advisors, generally from the firm concerned but sometimes from state agencies. In either case the farmer is often encouraged, although not always successfully, to take on a 'rational' set of values based on commercial principles.

Similarly, the influence of retailers, particularly the large supermarkets chains is increasing. Operating both through direct market links, and indirectly through food processors, they are laying down exact specifications for the type and quality of farm produce, and because of their increasing size and concentration, creating a buyers market in terms of price negotiations. This process in the late 1980s led some academic writers to argue that farmers may remain the nominal owners of the means of production but their managerial control was becoming severely constrained (Goodman *et al.*, 1987). However, as Porter points out, all markets are segmented, and it remains clear that different farmers produce for very different markets, and are not therefore subject to the same kinds of buyer pressure (Porter, 1990). For example, the highly organised commercial fruit producing, and related distribution and marketing cooperatives which export to both the rest of Europe and S America, rely on new varieties produced under strict technical conditions using irrigation, generally by a few large scale farmers. Small farmers producing traditional varieties with traditional methods, on the other hand, tend to focus on local markets. Even within the same production sector, there is a variety of production, distribution and marketing methods, each with particular conditions for those concerned.

In the context of large arable farms in south-east England or Picardie in France, it is easy to visualise the influence of agro-industries. However even in peripheral areas with poor agricultural structures the influence of supply and marketing industries should not be ignored. For example in the South we find the influence of co-operatives for marketing produce and in Greece we note the change from black to Virginia tobacco to serve multi-national tobacco companies and EC based policy regimes which assist this change.

However in these discussions it becomes implicitly assumed that as farmers become more involved with external agencies it will be the external forces that begin to shape the form of production rather than farm households. But empirical studies of farmers reactions to markets have stressed the ability of farmers to shape such processes. Whatmore and others (1987) refer to the 'various compromises of capital' shown by farm businesses in South East England, while Van der Ploeg (1989) in a very different context of small holding potato production in Peru shows the variable success of agribusiness in controlling farm production. It is therefore important not to over-stress the importance of such 'structures' over the 'agency' of farmers themselves, often acting through farm organisations and cooperatives.

It follows that we must consider the various structures of kin and community networks and their use of non-wage labour and resources, the use of such networks to solve problems, the motives of individuals, and the active response of farmers as they integrate or seek to resist external forces within their farming production, innovation and marketing strategies. Economic theory alone cannot explain local variation; the ideology and cultural dimensions of the societies should be given greater priority as factors in shaping the past, present and future farm structure (Long *et al.*, 1986).

3.6 An overview of restructuring in agriculture and agro-industry

Traditional economic theory, whether Neo-classical or Marxist, implied a much more radical restructuring of agriculture in the 20th Century than has in fact occurred, due to the operation of market forces, the effects of technical change including mechanisation and the assumed existence

of economies of scale. Whilst these forces have caused enormous change in production methods, labour, and in agricultural structures in the EU as elsewhere in the world, their operation has been constrained and modulated by several factors we have identified. The growth in unemployment in the European economy since the early 1970's, has limited the 'pull' on agricultural labour to leave the industry even when incomes may be declining comparatively. In addition, the probable growth of pluriactivity and relative success in maintaining and even increasing employment in other sectors of the rural economy has meant that incomes for farm households from non-agricultural sources have increased. Moreover, the strong ties to the land which many farm families still have in Europe, and cultural values relating to its use and continuity within the family, have acted as a barrier to mobility. This barrier has been increased in many cases by very imperfect housing markets. In some cases too, processes of adaptation to more intensive and specialised crops, or new forms of direct marketing and value-added enabled higher incomes to be attained from a given physical area.

The effects of policy, and specifically the CAP, are more ambiguous. On the face of it, and if one believes those who predict a mass exodus of farmers were the CAP to be significantly 'downsized' or even abolished, it has acted as a constraint on restructuring. However, the CAP market policies has provided relatively larger gains to large scale producers - the 20% of farmers who produce some 80% of agricultural output. Moreover, structural policies also favoured the larger, more commercial, farmers. Both policies also increased domestic food supplies, producing market clearing prices below those which would otherwise have prevailed and thereby adding to pressures on those farmers producing with relatively less policy assistance. It could therefore be argued that the CAP might tend in practice to speed up structural change. At any event, we note that these adjustment trends are in directions which are consistent with those in other industrialised economies.

Whatever the precise balance of these various forces, we have shown that substantial structural change has taken place in the agricultural sector of the EU over the past twenty years or so. There are many fewer farms and a much smaller farm work force; production has increased substantially, as has productivity of both land and labour; the food production industry has become more concentrated on larger commercial farms, over-represented in certain specific rural regions, and heavily dependent on policy supports; the majority farm households on smaller farms have become more reliant on non-agricultural income sources including off-farm work and social welfare, and benefit less from agricultural policy. These changes have been generally more marked in the 'north' than in the 'south' of the EU, and regional disparities in agriculture have consequently increased.

Yet agriculture remains a very diverse industry in the EU, reflecting different 'styles' of farming, agrarian histories, enterprise patterns, access to capital and technology, and natural resource endowments as well as varying foci on different markets, even within the same commodity group. This diversity provides but one of the many on-going challenges to a 'common' policy framework which has been a central plank of the European Community, now the European Union, since 1962.

Alongside these adjustments in agriculture, but only partly related, there has been substantial structural change in agro-industry. With the intensification of agriculture, came substantial growth in the agro-chemicals industry. With increasing prosperity and growing participation rates in the workforce came the growth of food processing. With Europeanisation,

and growing tourism, came changing food preferences. With advances in enzyme technology, natural vitamins, and food storage and preserving technologies, came new food manufacturing techniques and new modes of distribution. With food hygiene legislation and growing industrial concentration came the decline of small scale local food manufacturing, and the growth of large multinational food firms. With growing concentration in food manufacturing, storage, and marketing, and new patterns of consumer behaviour came growing concentration in food distribution. Again, the market appears to dominate these structural shifts, although policy has had an impact through legislation framed in the context of consumer protection - food handling and hygiene, food storage - and intervention rules for surplus agricultural production, as well as policies to encourage changes in processing and marketing.

These changes in agriculture and agro-industry have undoubtedly had major effects on employment and incomes in rural areas. Yet, as we shall see in the next section, most rural areas remain economically and socially dynamic places, challenging those who argue that declines in agricultural and related employment necessarily imply a decline in rural employment and income. This is perhaps the most unforeseen consequence of the agrarian changes which have taken place, and it is therefore worthy of further attention.

3.7 Restructuring of rural areas and rural employment

What is rural?

Rural areas everywhere have been associated with primary production, particularly agriculture. Yet the steady decline in agricultural employment has not led to general and persistent rural depopulation in western Europe. Indeed, quite the reverse has often occurred, particularly since the early 1970's when many rural areas have experienced an increase in population (Bontron, 1990). Why should this be so?

The first problem posed by this debate is invariably concerned with how 'rural areas' are defined for policy purposes, and the first point to note is the lack of common definitions of 'rurality' across Europe[18]. Thus in France, 'rural communes' are defined as those with less than 2,000 inhabitants in built-up areas - a definition which "ranks market towns or small country towns as urban and conversely treats outlying suburbs as rural areas" (Cavailhes *et al.*, 1993). In Scotland, however, the most commonly used definition in recent years is that of Randall, who used density of population as the sole criteria - local authority districts were defined as 'rural' if they had a population density of less than one person per hectare in 1981 (Randall, 1985). In Sweden, also a relatively sparsely populated country, rural areas are defined at a much lower level than for example in France - as any area outside localities with more than 200 inhabitants (Persson and Westholm, 1993). Thresholds and criteria differ from country to country but in general 'rural' is a *residual* category - all that is not regarded as 'urban'.

In comparative work, this problem is compounded by the fact that historical settlement patterns differ. Thus in southern Italy, agricultural day labourers and later (post land reform) small farmers resided in cities and 'commuted' to work daily (Saraceno, 1993). The differences

[18] We are not here entering the important debates about the different 'perceptions' of rurality as distinct from urbanity, discussed for example by Pahl (1966) and Shucksmith (1994).

in settlement patterns have made international agreement on a satisfactory cut for rural/urban areas so far impossible (OECD 1994).

The inadequacy of settlement density or scale as satisfactory criteria for rurality is discussed by Saraceno (1993):

> *"The two situations [urban and rural] were conceived as a continuum... in which, as communicating vases, one filled up while the other emptied, although almost by definition, the direction has been de facto predetermined: the rural could only lose in this game, and it was considered surprising ('a renaissance') if it gained. Intermediate categories, the peri-urban and the semi-rural provided the necessary links between the two poles of this continuum; they had no concrete or autonomous life but served as 'stages' where everything that did not 'fit' in the two poles could be located".*[19]

The point is that our ideas of 'rural' are socially constructed in ways which reflect particular contexts, needs, and the representations of dominant interests (Newby, 1986; Mormont, 1987; Hoggart, 1990; Halfacree, 1993; Shucksmith, 1994). In what follows, we need to be aware of this.

Demographic change

Using the 2,000 inhabitants threshold, Bontron (1990) shows how the French rural population consistently fell between 1954 and 1975 due to net out-migration. However, after 1985, the rural population grew consistently up to 1990, even in 'remote' rural areas (as opposed to peri-urban rural areas) this time due entirely to net in-migration. Even so, a large number of rural communes did continue to lose population in France, especially in the Massif Central, parts of Brittany and Basse-Normandie[20].

In Italy, however, communes of 3,000 or fewer inhabitants consistently lost population between 1951 and 1991 (Saraceno, 1993). Between 1981 and 1991, however, small increases in the population of communes with between 3,001 and 5,000 inhabitants occurred in northern Italy and in communes with between 5,001 and 10,000 and 10,001 and 50,000 inhabitants the population increased in north, central and southern Italy. On the other hand, cities of over 100,000 consistently lost population in all three regions. Nevertheless, it is only in the high mountain areas that dramatic declines in population can be observed in this period.

In Sweden, using the more restricted definition of rurality, the rural population increased slightly in the 1980's, although this was "strongly tied to sprawl at the fringes of urban regions", especially in the relatively densely populated belt of central Sweden (Persson and Westholm, 1993). These patterns are repeated in many other countries, especially in northern Europe.

A further feature of many rural areas is the presence of an ageing population. This is not

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[19] Saraceno, 1993, p. 5. Saraceno here cites Pahl (1966).

[20] DATAR (Ministere de l'Amenagement du Territoire et des Reconversions): Population: Le Recensement de 1990, L'évolution recente de la population rurale. This useful pamphlet with maps was prepared by Jean-Claude Bontron and others of SEGESA, 51 rue Dareau, 75014 Paris. Its sister pamphlet 'Activités: 7 Années d'implantations dans les cantons rureaux' looks at the creation of new enterprises between 1981 and 1987.

simply due to the net outward migration of young single people, nor just to the generally ageing population of many western European countries. It is also due, in some cases, to a net inward migration of older people - either returning to their place of origin or retiring to rural retreats. Such tendencies have been noted in the UK and France, for example. In remote rural France, for example, those aged 75 or more accounted for a much higher proportion of the resident population in 1990 than they did in the whole French population. However, this situation did not get worse between 1982 and 1990. In Sweden, we can also note an ageing of the rural population, and the preference of elderly people, middle-aged families with children and to a lesser extent workers in manufacturing industry to live in rural areas. Rural Scotland is not very different.

These examples illustrate several important points. First, that the definition of what is 'rural' is of critical importance for the conclusions drawn. Second, that real differences between the spatial distribution of population and settlement patterns do matter, and are partly reflected in the choice of definition. Third, that on many definitions, population has been growing in relatively small settlements, many of which would be considered as rural in their national context. Fourth, that rural populations are generally ageing, and in at least some cases this is due to differential migration processes.

In many cases, however, it is rural areas around cities and larger towns which have had the largest population increases, and this has frequently been associated with commuting to work in or around urban areas. This is a point we return to in Chapter 5.

Changes in rural employment

Turning now to employment, which is normally considered to be one of the main determinants of population distribution and trends, similarly varied patterns can be observed.

In France, employment increased in all but 'remote' rural areas between 1982 and 1990 (Cavailhes *et al.*, 1993). It also increased in towns with between 3,000 and 20,000 inhabitants, although the increase was faster in large towns, especially Paris. In rural areas as a whole, employment in non-food industry increased, as did that in shops and private services, commercial and business services, and 'other services'. However, employment in building and civil engineering declined. The increase in population of remote rural areas thus took place despite the *decline* in employment, and the population increase is explained by in-migration largely of retired people. Naturally, farmers are over-represented in rural areas, especially remote rural areas, but so too are other (very) small businesses. Professional and managerial employment is very much under-represented, as is clerical and intermediate professional employment, if to a lesser extent. This configuration of employment, at a time of relatively fast decline in agricultural employment, explains the failure of employment to grow in pace with population in the remote rural areas in particular.

In Italy, however, employment *increased* in every size class of commune between 1981 and 1991, including those with up to 3,000 inhabitants, and especially in the South (including Islands) - a surprising finding. In communes above 50,000 inhabitants, employment declined absolutely and proportionately in industry and commerce and other services. In the smallest communes of up to 3,000 inhabitants, industrial and 'other services' employment increased proportionately, whilst 'other services' employment increased absolutely. However, increases in industry and service employment were again particularly strong in the South. In intermediate settlements of 3,000 to 50,000 inhabitants, industrial employment increased proportionately and

again in the South absolutely, whilst that in other services increased both absolutely and proportionately. These intermediate settlements are well distributed throughout Italy due to the historical nature of settlement, the relatively decentralised administration and political structure, and the recency of statehood.

In Sweden, similar tendencies for a decentralisation of industrial employment can be noted, but a key factor in regional employment trends has been the growth and distribution of public sector employment. This is related to the Swedish 'welfare model', now under some threat.

Rural Scotland experienced an overall slight growth in employment between 1981 and 1989, as compared with a decline in urban areas. However, some rural districts experienced significant employment growth whilst others suffered significant decline. There was a considerable decline in primary sector employment, whilst service sector employment increased. Although manufacturing employment declined, it did so at a lower rate than in urban areas. In general there was a decline in the proportion of the population of working age in full-time jobs, and the increase in part-time jobs and in self-employment. To give an example of a relatively remote rural region, Dumfries and Galloway, employment declined by 3 per cent between 1981 and 1989. As in the French remote rural areas, the growth in non-traditional sectors was insufficient to offset the decline in more traditional employment including agriculture.

In general, rural employment patterns have become more like those in urban areas, with a range of manufacturing, tourism and other service jobs in addition to more traditional occupations in the primary sector. However, deeper analysis suggests that there is a relative absence of higher order manufacturing and service employment (for example hi-technology industry and business services) and, further, that many new forms of employment are relatively concentrated in small and medium sized towns, rather than in the remoter countryside and small settlements (Bollman and Bryden, 1997).

There is also an employment deficit in many rural areas, reflecting the fact that many people migrating into rural areas are commuters, with urban-based employment.

3.8 An overview of spatial economic change in rural Europe

Such examples challenge our ideas about processes of spatial economic change, whether rural-urban or peripheral-central, because it is clear that all rural areas are not destined to become cities or die, that many rural areas have found avenues of diversification open to them, and that different kinds of diseconomies affect central or heavily urbanised areas as compared with rural or remote areas. This is not to deny that some rural zones marked usually by extreme remoteness and low settlement densities may still be described as 'peripheral' in terms of their economic marginality and demographic fragility. We find these in the mountainous interiors which have not been developed for tourism or recreation such as the southern mountain areas in Italy, the Massif Central in France, and some mountain areas of Spain, Portugal and Greece. We also find them in the sparsely populated areas around the edge of northern Europe - in the Arctic and sub-arctic regions of Norway, Sweden and Finland, and in parts of the Highlands and Islands of Scotland. But these are exceptions, not the general rule, in rural Europe of today.

It is also important to note the changes occurring within rural areas. Although there is no consistent definition of the 'urban hierarchy' in Europe, it is clear that it is the 'medium sized'

urban settlements which are growing fastest in most member States and regions, although in many cases smaller towns and villages have also been growing, all at the expense of the large metropolitan areas. These changes are partly resulting from restructuring of the services sector, for example the strategies of supermarkets and hypermarkets which are of growing significance everywhere as retail outlets.

Political and administrative factors also matter. Italy is a relatively *decentralised* (in *de facto* terms at least) country, not only in terms of population and employment, but also in terms of its political and administrative power and functions. It is also a densely populated country, with an extensive network of medium sized towns across geographical space. France, on the other hand, is a highly centralised country with concentrated population and employment, and concentrated political and administrative power, in a relatively few urbanised centres, especially Paris, but also the North, and the arc through Dijon, Lyon and the South East. Concentration of public services - health, education, etc. - also has an important impact on smaller settlements, whilst planning policies can directly influence differential growth between small rural areas through their effect on housing and employment. Transport policy also has important effects, and in the UK rural areas have been badly affected by the deregulation of transport. Increasingly also, telecommunications policy is having important effects on rural areas and the urban hierarchy.

What we observe is an urbanisation of areas formerly considered rural, the nature and extent of this tendency being tempered by the pre-existing settlement patterns, the processes of centralisation of activity, power, and functions. The tendency is most noticeable in peri-urban areas (near to metropolitan areas or larger towns) and less noticeable in remoter, mountainous and low density settlement areas beyond the peri-urban fringe or undeveloped for tourism or recreation, many of which remain agrarian or 'natural resource dependent' (forestry, mining, oil) in character, and which continue to lose population as employment in agricultural and other natural resource based industry declines.

But, beyond such sweeping generalisations, restructuring is occurring in very different ways, so rendering the catch-all category 'rural' almost meaningless beyond strictly local contexts, and certainly at European, and even western European, level. Thus, in some cases, the dominant form of restructuring is led by tourism and recreation demand, predominately from urban populations in the richer countries, in yet others by a growth in industrial and service activities, in others by an inflow of retirees, and in yet others by dormitory towns and villages with a growing commuter population.

The character and growth of *demand* which these various tendencies stimulate differs in its sectoral and spatial nature, and hence in the employment and income it creates within local economies. Moreover, the spatial effects differ according to the relative presence or absence of economies of scale, transport costs, the 'density' of demand, and other cultural social political and economic factors. Thus the spatial consequences of a growth in local demand in the North-West of Scotland, the interior of the Massif Central or the North of Sweden are quite different from those arising from a similar growth of demand in much of Italy, the Netherlands, the Paris basin, or the South of France.

Writing in the late-1990's, we must also note the effect of transitions and in some cases - most notably the former Yugoslavia - in Eastern and Central Europe on several rural areas, notably in Greece. Thus trade routes and tourist flows have been seriously affected in several areas, especially in northern Greece. And in rural Bavaria, several manufacturing enterprises and

significant manufacturing employment has 'moved' over the border into the Czech Republic, where wages are significantly lower. These issues are further explored in Chapter 5.

3.9 Rural diversity and emerging comparative advantages and disadvantages

Saraceno (1993) argues that such diversity needs a new category, or set of categories, which capture the differentiation of rural (and indeed 'urban'?) areas, and which is based on the idea of the 'local economy'. The concept of 'local economy' itself is, however, clearly too general, and arguably takes us little further than 'rural' (and subject to many of the same objections). No less than a new typology of rural (and indeed urban) space seems to be required. What, however, should be the basis of such a typology?

Bryden (1992) has suggested that a key issue for future development of rural areas is the development of different comparative advantages - which, of course has policy implications. This was not a new idea[21]. Cavailhes (1993) has suggested that the development of comparative advantage, in relation to specific functions or demands, should be the 'guiding element' and opens up the discussion by looking at a matrix of comparative advantages in Mobile and Immobile Resources, although more work is needed here to provide a satisfactory analytical base.

In economics, this notion of comparative advantage goes back to Ricardo who argued that countries would gain from trade so long as they had a relative, or comparative, advantage in the production of the goods and services involved. But the economists definition of comparative advantage is somewhat narrower than what now seems to be required - for example, comparative cost is only one of several factors influencing investment location or migratory movements of people. Porter argues that none of the conventional approaches to the explanation of comparative advantage (factor costs, resource endowments) explain modern patterns of trade between nations, and that a new paradigm is necessary to explain the growth and decline of competitive advantage in regions, nations, industries and firms[22]. Saraceno argues the importance of previous development patterns within and affecting rural regions, especially whether 'industrialisation' came early or late, and what form it took (Saraceno, 1995). Increasingly, however, comparative advantages are linked to perceived attractions of rural life, such as 'healthy communities', 'clean air', access to recreational facilities, lack of crime, and to the diminishing importance of distance in economic terms resulting from improvements in transport and telecommunications infrastructure and technologies.

We can observe the outcome of differential competitive advantage in the specific development tendencies observed over time in different areas. Thus a rural area experiencing relative growth in employment and income in tourism presumably has a competitive advantage in some tourism market segment. However, to explain such tendencies we need to discover the

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[21] George MacDowell (1991) certainly implied the need to search for forces underlying comparative advantage and papers by Nothdurft, by Reid and by Ehrensaft and Freshwater in Tracy (1990) also reach in this direction. The latter also cite Joel Garreau (1981) whose 'typology' of American space in 'The Nine Nations of North America' reflects notions of differential spatial comparative advantage.

[22] Porter, 1990 *op cit.*

more 'fundamental' forces which underlie them, and which can identify divergences of performance from potential caused, for example, by market failure or government interference. We can understand rural economies as becoming 'diversified' in two ways - first through the expansion and increasing diversity of production and consumption of these 'locality specific' services which essentially depend on political decisions and administrative structures on the one hand, and the movements of population and its income levels on the other. Second, through the expansion and diversification of tradeable activities which depend mainly on a set of competitive advantages.

It is clear that different types of local economy not only possess differing competitive advantages in different markets and market segments, but that these differences can be created, maintained or lost, leading to new patterns of differentiation between 'local economies'. As we move, inexorably and progressively, away from an agricultural basis of 'rurality' both for analytical (comprehension of social and economic changes) and policy purposes, so the need to understand this the basis for this differentiation, namely the evolution of competitive advantages over time, and its articulation with national and global restructuring, increases. In addition to traditional explanations based on such things as resource endowments, labour costs, and distance from markets, we need to consider those based on the commercialisation of various public goods (environment, landscapes, cultures and identities) and on the nature and evolution of social capital (Putnam, 1993).

So far, we have identified several different actual development paths in the recent experience of rural areas in Europe. In some, such as Devon in England, Alpine areas of France, Germany and Austria, one apparent engine of new development has been rural tourism and recreation, based on both general growth of demand when disposable incomes increase, and the targeting of specific market segments. In others, for example in parts of rural Britain, growth has come from serving a market for retirement arising from the increasing proportion of elderly people in the population. In yet others, such as North-East Italy, manufacturing industry has grown, often within so-called 'industrial districts' and based on networks of small family enterprises linked through structures of cooperation in materials and technology testing, production and marketing which build on structures evolved within a context of small scale farming (Brusco, 1982; Beccatini, 1990; Piore & Sabel, 1984). In rural areas close to towns and cities, new settlement of commuters in dormitory areas have been a source of growth. In recent years, some rural areas have also experienced an influx of younger couples, often refugees from real or perceived problems in cities, and the development of various forms of distance working are beginning to be noted (IDATE *et al.*, 1983; Sociomics and Arkleton Research, 1993; Bryden, 1997). Often a combination of new sources of growth has emerged, although some of the above are in conflict - retirees do not like new manufacturing or large scale activities, for example. The most problematic rural areas remain dependent on agriculture or natural resources, and those which, often for lack of alternatives, have become heavily dependent on public sector employment as for example in northern Norway and Sweden.

At present we lack theoretical and methodological tools as well as the basic data, at National let alone EU or European levels, to begin to assess the strength of the various factors underlying the different competitive advantages of diverse rural regions and the sectors which appear to be growing or declining in them. However, the available evidence suggests that in the majority of rural regions agriculture now plays but a minor (albeit not always irrelevant) part in

determining these competitive advantages. This fact underlies the need to evolve a conceptual, theoretical, statistical and methodological base for a new approach to the measurement and comprehension of the development paths (and options) for different rural areas[23].

3.10 Conclusions

Agricultural production in Europe has become more specialised, and concentrated, such that a small minority of farm households on larger and more intensive farms now produce the overwhelming majority of our food. The technology of agriculture, and the reality of economies of scale in the industry, has favoured areas with good agricultural land and climatic conditions, or where irrigation has proved possible, leading also to a spatial concentration of production. The vast majority of farm households thus appear, at least in terms of food production, to be almost redundant. Ironically, however, it is this vast majority who form the ideological and political basis for the system of agricultural support, who constitute an important part of the social and cultural fabric of rural areas, and who are in reality the 'guardians' of much of the rural environment and heritage.

The fact that so many of these relatively small producers are located in southern Europe, which, in general terms, has the lowest incomes and the greatest need to 'catch up' with the richer regions in the North links the problem of agrarian transition with the development problems of the South. It means that the problem of the role of agriculture in the development of the South has to be addressed specifically and in context, rather than simply as an agricultural problem for the European Union as a whole. And this problem has to be addressed within a context of surplus production, and high general levels of unemployment.

In this context, neither of the 'traditional solutions' to agrarian poverty or agrarian over-population can be sustained. Increasing production will simply exacerbate the problem of surpluses (and lower market prices, or increase support costs depending on the support regime), and extend the environmental problems associated with intensification to other regions, whilst outward migration of agrarian populations will exacerbate the problems of unemployment.

Given this set of circumstances, the 'solutions' to low income in agriculture are unlikely to be found in a general European agricultural policy, but in specific development policies (and transitions linked to market forces) at regional and local levels. Thus, the evidence suggests that if alternative employment and income earning opportunities exist in rural areas, they will be taken up by members of farm households either in preference to farming or alongside it. In these circumstances, agrarian transition can and does occur, without (and in some cases in spite of) policy, through formal and informal transfers of agricultural usufruct. The persistence of small farms ceases to be a 'problem' because the income needs of farm households are largely satisfied outside agriculture. This indeed has been a long term pattern in the crofting areas of the UK, in many parts of Germany, Austria, Italy, and other European countries. One problem that has to be addressed is how to assist rural areas to strengthen their comparative advantages in an increasingly globalised and competitive environment. Another is how to equip farm families and

[23] This process was started by the Rural Indicators Project of the OECD's Rural Development Programme in the early 1990's (OECD, 1993).

other rural people with the skills needed outside agriculture and in new forms of employment which can be developed in rural regions.

The evidence is that we should not be generally pessimistic about the possibilities here - as we have shown, levels of industrial and in some cases service sector employment in rural areas are often comparable with urban areas, and have shown dynamic characteristics over time. Many rural areas have demonstrated a set of 'competitive advantages' over time, and new demands on rural space from urban consumers have diversified the range of tradeable goods and services to which these advantages relate. Nevertheless, many challenges remain as we seek to achieve more economically, socially and environmentally sustainable forms of rural development.

From the broader 'rural' perspective, we have highlighted two issues. First, the diversity of rural places, their circumstances and prospects. Second, the fact that agriculture is no longer a dominant source of employment in most of these places. Although policy and perception remains heavily biased towards agriculture, large sections of the rural population and economy are concerned with industries like tourism, manufacturing, business services, transport and communications or engaged in public sector work, including health, education and public administration. Increasingly also, there are large proportions of the population who are retired. The interests of this rural majority are generally concerned with the diversification of the rural economy, provision of rural housing and amenities, rural service provision, the quality of the environment, and good transport and communications, including telecommunications. These rural residents have demands on educational and training provision, and other policies, which differ in major ways from the traditional farm-orientated rural education and rural policy framework, even if, as we argued above, the interests of the majority of the farm community are now becoming closer to those of the rural population as a whole.

New information and insights into the processes of rural and agricultural adjustment in western Europe have been provided by a recent longitudinal research programme on farm structures and household pluriactivity. The data generated by this research has allowed us to analyze farm household adjustments over the period 1981 to 1991, and to begin to relate these adjustments to the specific rural contexts in which these adjustments are made. In Chapter 4 we use this data to provide a more micro perspective on the processes of agrarian and rural change. This analysis indicates that there are particular problems in some regions, especially (but not only) in the 'South' due to low levels of education and training in the agrarian population, and lack of alternative work and income opportunities. These problems, we shall later argue, are exacerbated by the characteristics of the supply of rural education and training. Specifically, supply is too much orientated towards high technology agriculture, and too centralised in urban areas and too inaccessible to those who need it most.

CHAPTER 4

RESTRUCTURING FROM BELOW: FARM HOUSEHOLD ADJUSTMENTS IN EUROPE, 1981-91[24]

4.1 Introduction

In Chapter 3 we explored the processes of change and re-structuring in agriculture, agro-industry and rural areas in western Europe during the post-War period, making use of aggregated macro-level data. What we observe at this macro-level is of course often largely the net result of contradictory changes in local economies (the 'meso' level) and in individual farm and rural enterprises (the 'micro' level). For a deeper understanding of complexity and diversity of processes of change and restructuring, we therefore need to complement such macro-level analysis with an understanding of changes at these meso and micro levels.

We address four main questions in this chapter. First, how farm households in different circumstances and local contexts have 'adjusted' in terms of their economic activities, agricultural or non-agricultural, during the 1980's and early 1990's. Second, what combinations of macro, meso, and micro circumstances facing these households best explain the different and diverse forms of adjustment which we observe. Third, what we can say in more specific terms about the role of education and training in these processes of adjustment. Fourth, what can we say about the relationships between the diverse patterns of change at meso and micro levels and the macro tendencies observed at the level of western Europe.

Focus on the farm household

Our micro analysis focuses on the farm household rather than the farm or the farmer, because in western Europe today the farm is largely a family enterprise, and the resident family members form a crucial part of the potential farm labour force, as well as being involved in many decisions.

The farm or 'peasant' family has also formed an important part of much western philosophical thought about the organisation of civil society and the State, and ideas about its social and economic organisation played an important role in the development of both sociology and economics from the Classical period onwards. Ideas and assumptions about its rationale, behaviour, and evolution over time are therefore of considerable interest beyond the substantive questions which we consider here, and have wider implications both for social scientific theory and method.

The aggregative approach to analysis provides the 'big picture' but suffers from basic problems of method and interpretation, particularly by suggesting a uniform response which misinterprets the actual dynamics of change. Micro approaches based on the 'farm' or the

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[24] We are grateful to Dr Joanna Gilliat, formerly Research Assistant at The Arkleton Trust (Research) Ltd, for undertaking much of the analysis of the European data which we use in this chapter. We also draw upon the final report of the Research Programme, see Bryden *et al.* (1992,1994) and on other publications arising from this research, in particular Bryden (1993).

'farmer' on the other hand assume a single decision maker, controlling all the relevant internal resources, and aiming for a single 'objective function'. Such approaches fail to acknowledge or measure the *particular* influence of either the local context or the nature and composition of the farm family or household on the objectives, resources, opportunities and constraints which affect decisions leading to change or adjustment.

The research programme on farm structures and household pluriactivity demonstrated that the forms of farm household adjustment over time have indeed been diverse, and no assumption of uniformity can be tenable. Farmers and their families cannot be treated, either by 'science' or by policy, as a single homogenous group responding to incentives or disincentives, knowledge and advice, labour markets, prices, or other external influences in ways which are similar either in direction or extent. Nor can families running farming enterprises be treated as homogeneous, as if their size, composition and other characteristics were irrelevant to both decision making and outcomes in the form of change. Moreover, although it is possible to identify common 'external forces' of Europeanisation and Globalisation, national and local contexts do matter, and farm households within a nation state or European Community do not face a uniform set of 'external conditions' influencing their decisions.

As in the research programme on farm structures and household pluriactivity in Europe, on which we draw for our micro-data, we adopt the 'farm household' as our basic unit of analysis, and to set these households in specific contexts of study areas or study area groups where 'external conditions' facing households are similar[25]. The farm household is defined as those living under the same roof as the 'farmer', the latter being the person in the household who has most control over the management decisions relating to the farm. Nowadays, most western European farm households comprise a nuclear or extended family, having kinship relations, or, more accurately, forming part of that family and kinship network. The practice, common until fairly recently in some parts of Europe, of housing farm workers not related to the family within the farm house has all but disappeared. It is the farm household which forms the agrarian part of the rural population, and which is a useful unit through which to observe changing relations within farming, and between farming and the rural economy[26].

The basic argument of this chapter can thus be stated in the following terms:

> *The essence of the farm business is that it is normally a family business. This means that farm business and farm family behaviour, including behaviour leading to adjustments, cannot be based on an analysis of the farm and the farmer alone. Adjustments made by farm households include adjustments relating to other forms of gainful activity as well as those relating to farming itself, and adjustments made by other family members as well as those made by the farmer. An understanding of the adjustments farm families are making and the combinations in which these are made, requires consideration of many factors*

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[25] Rural Change in Europe: Research Programme on Farm Structures and Household Pluriactivity 1987-92. Coordinated by The Arkleton Trust (Research) Ltd. Bryden was Research Director and Fuller the Research Advisor for this programme, further details of which are given below.

[26] There are also strong arguments for using the farm 'family', since in some areas the farm work may involve members of the family living under different 'roofs' in the same locality. However, this presents greater practical survey problems. See also Keating (1994).

relating to the farm, the farmer, other family members, and the 'external' context including the context in which the farm is located. Education, training, and use of different sources of information and knowledge are related both to the farm, the family and the context, and play an important role in influencing and conditioning farm household capacities, decisions, and the different forms of adjustment which are adopted.

We start by giving some background to the six-year research programme on farm structures and household pluriactivity in Europe, on which we draw for evidence[27]. We then discuss the nature of farm household adjustments which were observed by this research in Western Europe between 1981 and 1991, and the 'internal' (farm and family) and 'external' (contextual) factors which appear to have been most influential in conditioning these adjustments.

We next look at the way different types of adjustments are found to inter-relate within farm households, and analyze the articulation of the farming and non-farming activities of farm households, especially the function and consequences of non-farming activities both for farm households and for their agricultural activities. Our task here is partly descriptive - what kinds of adjustment have taken place - and partly analytical - why, and with what consequences for farm households, rural economies, policies and institutions including those concerned with education and training.

4.2 What farm household adjustments occurred between 1981 and 1991?

Data sources

The Research Programme on Farm Structures and Household Pluriactivity involved the collection of both quantitative and qualitative longitudinal data from 24 west European study areas, four of which were in three countries which were not then members of the European Union, and twenty of which were in nine member States [see Figure 1][28]. The main data sources comprise the following:

(i) Baseline and final survey data for some 7,000 farm households, about 300 per study area. The baseline survey was undertaken in 1987 and the sample re-interviewed (where possible) for the final survey in 1991. Data was collected by personal interview covering such things as the agricultural and non agricultural activities and incomes of household members, farm and non-farm investment and debt, farm size, tenure and production of all commodities, personal data on household members, the farm workforce, contract work, farm management, buildings and equipment, use of a range of agricultural and non-

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[27] This research programme was part-funded by the European Communities under Article 22 of regulation 797/85 and by institutions in 9 member states. The comparative analysis has been undertaken with support from the Economic and Social Research Council and under the JAEP programme of the ESRC (Award No L103251004), the NERC and the AFRC in the UK. Three non-member States - Austria, Switzerland and Sweden also participated in the programme at their own expense.

[28] Of the three not then within the EU, two (Austria and Sweden) joined on 1 January 1995, and one (Switzerland) remains outside.

agricultural policies, attitudes and expectations.

(ii) Panel surveys involving in-depth qualitative interviews with a sub-sample of some 60 households in each study area, in 1989, 1990 and 1991.

(iii) Context studies relating to each study area and concerning such things as the development of the local economy and labour markets, the implementation of agro-structural and other key policies, and demographic changes.

Forms of adjustment observed

One of the main areas of concern of this programme was with pluriactivity - or multiple job holding - within farm households. Initial analysis showed that between 1987 and 1991 there was an overall increase in the importance of pluriactivity, whether measured by the proportion of household time spent in non-agricultural activities, the numbers of household members engaged in such activities, or the contribution of such activities to the household income[29]. These increases were particularly related to off-farm working, despite the recent policy emphasis which has been placed on on-farm diversification.

Thanks to retrospective questions in the Baseline survey, it has been possible to reconstruct change in the level of pluriactivity over the whole decade from 1981 to 1991. Tables 4-1 and 4-2 show that regular (including both full-time and part-time) off-farm working increased for both farm operators and their spouses, in the decade 1981 to 1991. However, this increase is far more marked in the case of spouses than it is for operators themselves. Indeed, although the proportion of operators with off-farm work increased within all age groups during the period 1981-87, during 1987-91 it actually fell back again slightly for those aged between 35 and 54, with the result that the overall total fell slightly. While the proportion of spouses to have off-farm work was considerably lower than that of the operators in 1981, the increase has been much greater, and although it is not so great in the latter period, it has continued. Taking the decade as a whole, therefore, the proportion of spouses with off-farm work has nearly doubled, and has become much closer to that of the operators. This is a remarkable change, over a relatively short period of time. It is broadly consistent with generally rising female participation rates in the workforce of most western European countries.

The analysis also reveals a clear relationship between age and the proportion of both operators and spouses to have off-farm work.

In addition to examining changes in the off-farm work of farm operators and their spouses between 1981 and 1991, we have also analyzed changes in the off-farm work of the potential successor to the farm, evidence of diversification, in the form of investment in non-agricultural enterprises, and evidence of change in the allocation of resources to agriculture.

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[29] Bryden, Bell, Gilliat, Hawkins and MacKinnon, *op cit.*, 1992, 1994.

Table 4.1 Proportion of operators with regular (full-time or part-time) off-farm work, by age group, %

Age	1981	1987	1991
< 34	25.4	28.9	29.2
35<44	24.6	35.7	33.7
45<54	21.9	28.8	27.4
55<64	7.4	17.5	18.4
65+	1.4	3.0	3.1
Total	18.0	22.6	21.1

Table 4.2 Proportion of spouses with regular (full-time or part-time) off-farm work, by age group, %

Age	1981	1987	1991
< 34	14.5	24.3	31.0
35<44	12.5	24.6	26.8
45<54	8.7	16.7	21.3
55<64	2.4	8.5	10.0
65+	1.2	1.2	1.6
Total	9.6	15.9	18.1

Looking first at agricultural investment, we divided households into those where significant agricultural investments were made during the decade 1981 to 1991, including investments in land, land improvements, buildings and equipment, those where no or low levels of investment were made, and those where the only adjustment was dis-investment, that is, disposal of land.

We next look at non-agricultural investment and divided households into those which have made any investments in non-agricultural enterprises in the period 1981-1991, and those which have not. This is followed by an examination of changes in off-farm work activities by each of the three household members considered: the operator (whether male or female), the operator's spouse, and the potential successor. We distinguish between households in which each household member took up (or increased from part-time to full-time) regular off-farm work since 1981, had off-farm work in 1981 which they have since given up (or decreased from full-time to part-time), or had the same level of off-farm work throughout the period.

'Internal' and 'external' factors which influence adjustments

Social action can only be interpreted through reason and perception of the actors themselves. Adjustments made by farm households are thus influenced by their perception of the resources and opportunities available to them, and the constraints which they face, as well as by their individual and collective objectives. Not only will these affect their ability to make adjustments, but also their perception of what possibilities are open to them. The factors which make up these resources, opportunities and constraints may be divided into those which are 'internal', relating to the 'micro' aspects of the farm and farm family/household itself, and those which are 'external', relating to the ('meso' and 'macro') context in which the farm is located (Bryden *et al.*, 1992, 1994; Bryden 1993).

The main 'internal' factors which influence adjustment were found to be:

- The size of the farm business, in Economic Size Units (ESU's) which is an indicator of the capacity of the farm business to provide income and to absorb labour.

- The age of the farm operator. The findings indicated a clear relationship between youth and a propensity to have off-farm work as well as confirming previous studies on the relationship between age of the farm operator and investment.

- The number of economically active people in the household. Resident family members represent a major labour resource for household enterprises.

- The 'Chayanovian' relationship between the number of economically active people in the household, and the total household size, measured as the total number of household members supported by each economically active member. Where economically active household members have more dependents to support, their propensity to make positive adjustments was found to be greater.

- The stage of the life cycle or life course. The research found that adjustments tend to be made at certain stages in the life cycle, rather than as a continuous process, and to be affected by life-events, such as non-marriage, illness, accidents or early death. In addition to the operator's age, the following factors gave some indication of the household's stage in the life course:

  - whether the operator has had a spouse present during the whole period 1981-1991;

  - whether a potential successor to the farm was present in the household in 1991;

  - the expectation farm operators aged 55 or older had of having a successor to the farm when asked in 1987.

- The work situation in the household at the beginning of the period - whether the operator, spouse and/or potential successor already had regular off-farm work in 1981, and whether non-agricultural work was already being carried out on the farm.

- The background of the farmer and spouse - particularly whether they had a farming or non-farming background. Different attitudes, skills and expectations were associated with these different backgrounds, and these affect adjustment decisions.

- The educational levels of the operator. This was measured in the number of years in education, including school education and professional and vocational training whether agricultural or non-agricultural. Data from 1991 was used here since it was considerably more detailed than that available for 1987. A relationship was found between levels of formal education and the propensity to make many kinds of adjustment.

The main 'external' factors which influence adjustments were:

- The nature of agricultural structures. Where farms are generally small, there are strong 'push' factors acting on farm households to seek non-agricultural sources of income, and/or to exit from farming. Norms and values at local level (for example attitudes to farmers or spouses who work off the farm) also tended to relate to such structural characteristics.

- The nature of the labour market, particularly the extent of non-agricultural work available locally, the nature of that work (industry, services, etc.), and indications of dynamism in the labour market. The extent to which farm households may be 'pulled' into taking up off-farm opportunities is influenced by the nature and availability of non-agricultural work.

- The nature and extent of non-agricultural opportunities on the farm. For example, the opportunities for tourism, the provision of recreational facilities, or use of farm buildings for non-agricultural purposes. The extent to which farm households may be 'pulled' into creating non-agricultural enterprises on their farms is influenced by the level of such opportunities, although investment by farm households may also stimulate demand.

- The implementation of agricultural and rural policy at national and local levels. The research found very significant variations in the implementation of structural and rural development policies, as well as those relating to taxation, social welfare, land leasing, building and planning, and inheritance, all of which affect farm household behaviour.

Types of local or meso context: study area groups

The actual study areas in the research programme are shown in Figure 4.

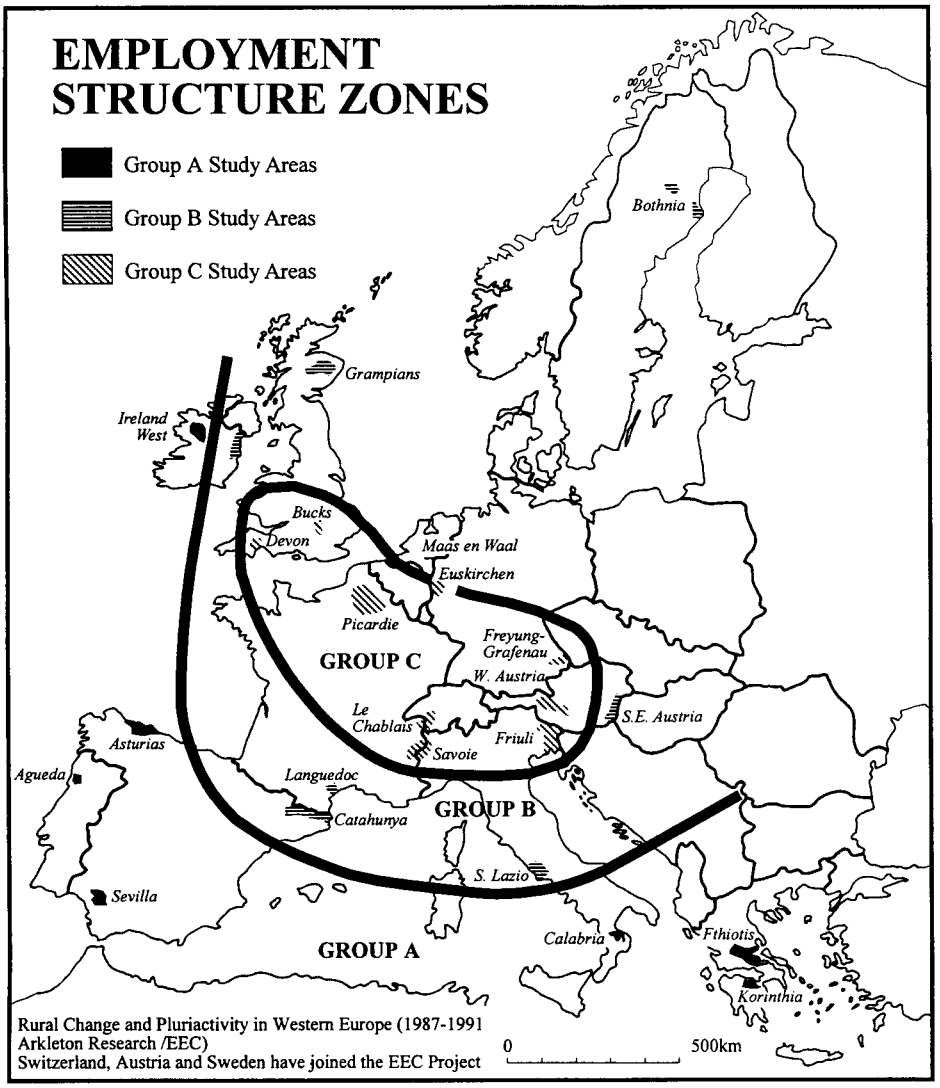

Figure 4.1 Map of Study Areas showing main context groups

The twenty-four study areas in the research programme on farm structures and household pluriactivity can be classified into five types of 'local context'. The two criteria used in this classification were the extent of diversification in local labour markets (measured crudely by the regional dependence on agricultural employment), and the nature of farm structures (measured by the relative size of holdings in each study area). This classification of study areas in context types is summarised below. Although simple, it nevertheless captures the first two of the 'external' influences which were considered significant. It can be summarised as follows:-

Study Area Grouping- summary of criteria

	AGRICULTURAL EMPLOYMENT AS A PROPORTION OF TOTAL STUDY AREA EMPLOYMENT		
	HIGH	MEDIUM	LOW
Large farms predominate	-	B1	C1
Small farms predominate	A	B2	C2

Figure 4.2 summarises the key hypotheses regarding the inter-relationship between internal and external resources, opportunities and constraints, and the patterns of adjustment which farm households adopted between 1981 and 1991.

4.3 Combinations of adjustments

Since we are considering the adjustments households have made on five different criteria (agricultural investment, non-agricultural investment, operator's off-farm work, spouse's off-farm work and potential successor's off-farm work), the range of combinations in which these adjustments may be found within individual households is clearly enormous. Since it would be unmanageable to look in detail at each possible variation, we have selected the most interesting combinations from this range[30]. It is convenient to discuss these in three groups:

I Farm households making no new major investments or work commitments during the decade. Included in this group are those whose only adjustment was to give up off-farm work or to dispose of land, and those who exited from farming altogether. This group accounted for some 52% of the sample.

[30] In creating these combinations certain types of adjustment have been given higher priority than others - e.g. if both operator and successor have taken off-farm work, this is included in the group for operators taking off-farm work. The order of priority is: operator - spouse - non-agricultural investment - successor.

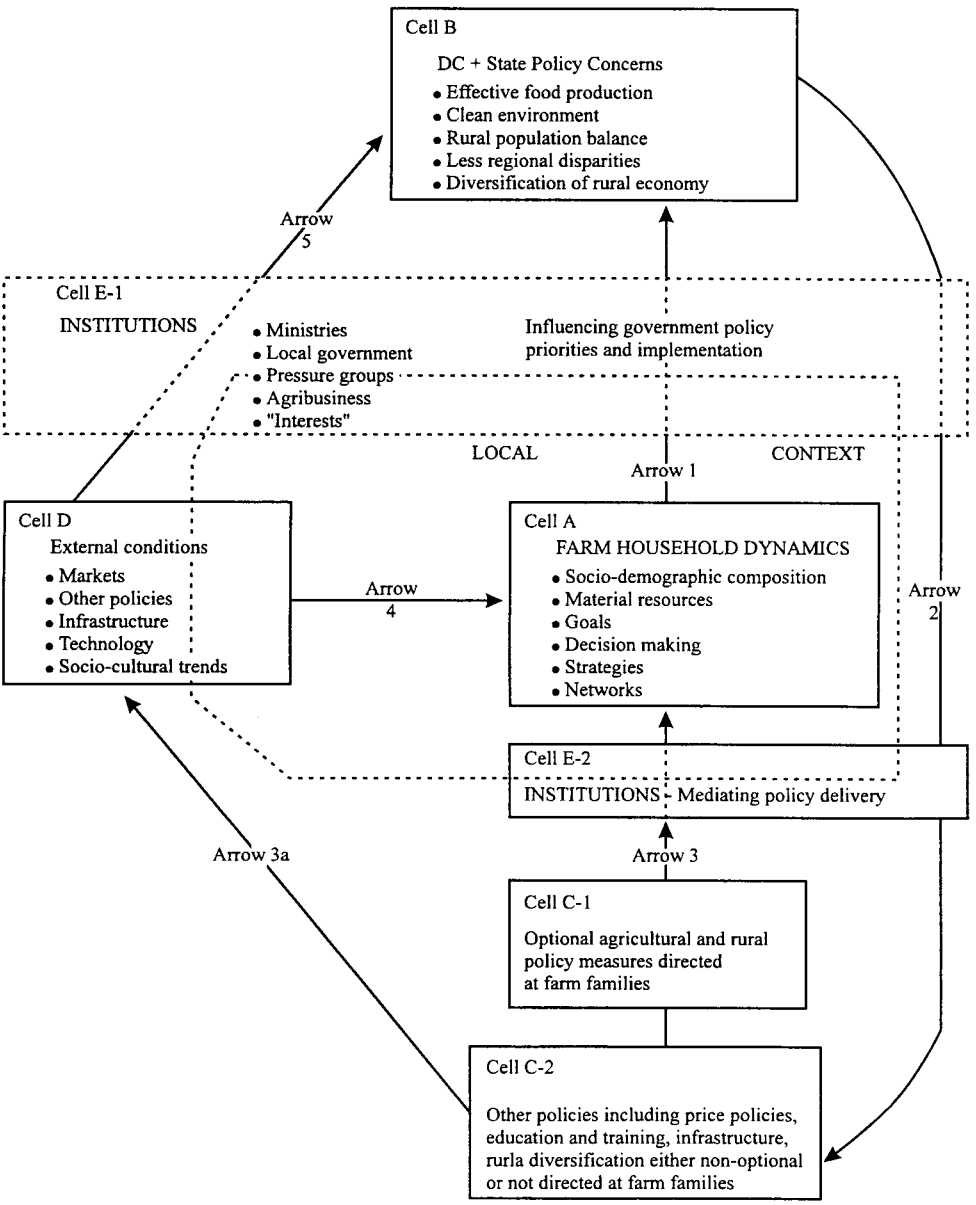

Figure 4.2 The Research Model

II Farm households making significant agricultural investments over the decade, irrespective of whether other adjustments were also made. This group accounted for about 21% of the sample.

III Farm households where the main adjustment consisted in either making a non-farming investment during the decade or the operator, the operator's spouse, or the potential successor taking up or increasing their off farm work - i.e. those whose main form of djustment was in non-agricultural enterprises or work. This group accounted for about 27% of the sample.

We now look at each of these in some detail.

No adjustment, or farm exit

Table 4.3 shows some of the key characteristics of farm households who made no significant investments and did not take up off-farm work, who gave up off-farm work, or who disposed of land or exited from the farm. This group therefore showed little if any indication of increasing work or investments within or beyond the farm, and some signs of withdrawal or 'disengagement', and in some cases exit, from both farming and/or off-farm work.

Households with no adjustments

Farm households with little or no evident adjustment comprise rather more than a quarter of the sample. The average business size of these farms, at around 18 ESUs, is very close to the mean for the sample as a whole. They are most common in the three contrasting study area groups of A, B2 and C1, suggesting that the contextual characteristics identified in the classification of study areas is not significant in this case. However, there are study areas in all five groups which show high levels of no adjustment. The study area with the highest proportion in this category is Andalucia (Group A), at 62%. In each study area group the mean farm size of those who have made no adjustment is close to the mean for that study area group.

The farm households which have made no adjustments are close to the sample mean for a range of other characteristics as well - the mean age of the operator, the proportion of operators from a full-time farming background, the proportion aged over 55 who expected to have a successor when asked in 1987, the proportion for which succession occurred between 1981 and 1991, and the proportions with spouses present in 1991.

However, while the proportion of these households to have a successor present in 1991 is a little below average, and the mean number of economically active members in the household is a little below average, the number of people each has to support is a little above average. The proportion who depended on agriculture alone in 1981 is also a little above average, and turns out to be the same as for those who invested in agriculture alone, despite the fact that this latter group had a much larger mean farm business size. As well as being younger on average, those who did invest also had a higher level of education - an average of nearly 10 years as compared with eight years education for those who did not adjust.

How then can we account for the lack of adjustment of these households? In some cases the lack of adjustment is almost certainly due to lack of resources, as is illustrated by a farm family in the Grampians study area in Scotland.

Table 4.3 Main characteristics of farm households who made no significant agricultural or non-agricultural investments, and did not take up off-farm work, who gave up off-farm work, disposed of land or exited, 1981-91

Sample Average	Variable	No Adjust-ments	Off-farm work given up	Disposal of land	Family Exit from farm
100%	proportion of sample	29.7%	4.1%	8.0%	10.0%
-	above mean in study area types	A,B2,C1	B2,C1	B2,A	C2,B1
18.2	ESU	17.7	16.8	11.0	12.3
27.2	area in hectares	28.9	19.7	16.6	16.9
51	operator age	52	51	58	56
2.1	average number of economically active persons	1.9	2.4	1.6	1.7
1.77	ratio of actives to household size	1.79	1.70	1.71	1.70
70%	spouse present 81-91	71%	80%	72%	-
44%	successor present 91	39%	41%	27%	-
34%	successor expected by operator aged 55+	36%	25%	23%	16%
18%	succession occurred between 1981 and 1991	16%	18%	13%	-
61%	% agriculture work only 1981	71%	0%	61%	63%
13%	% with non-agricultural farm-based work 1981	14%	12%	13%	4%
19%	% with operator off-farm 1981	12%	66%	20%	20%
9%	% with spouse off-farm 1981	5%	32%	8%	6%
6%	% with successor off-farm 1981	5%	29%	8%	11%
75%	% operator from Full Time Farm background	76%	64%	79%	63%
8.7%	operator's education	8.0	8.5	7.8	?

Source: As for Table 4.1.

This is a large mixed arable and livestock farm of mixed tenure (80 ESUs). Three families are currently trying to earn a living from it: these are the farmer, his brother and their retired father. They are under great pressure to expand but cannot afford to increase stock numbers nor to buy land. They are strong believers in the ideal of the family farm. The farmer is keen to pass the farm on to his son, who now works with him.

On the other hand, lack of investment may be related to the operator having permanent off-farm work, perhaps with the consequence that he has neither the time nor the inclination to develop the farm through investment. Where operators have off-farm work the farm may nevertheless be maintained at the same level with the operator combining work on and off the farm, or handing it over to the spouse (usually the male farmer's wife). One such example is found in Ireland; in this case the 'farmer' has a full time off-farm job, and his wife does the majority of the farm work, yet he does still consider himself the operator.

The family have 16 ha and they rent another 4 ha. The farm is heavily stocked by local standards - 12 dairy cows, 6 suckler cows, 10 cattle and 20 calves. The farmer's aim was to progress to having 18-20 cows, but when it proved difficult to acquire extra land he got a job as a caretaker in a local public utility. This meant long working hours for him, but his wife does a considerable amount of work on the farm, which has been crucial in keeping the dairy enterprise going.

When the operator has an off-farm job another alternative is to turn over most of the work involved in running the holding to contractors, while still maintaining some involvement in the holding. This following case is from South Lazio, Italy, and is again a case where it appears that no significant adjustments were made during the period 1981-1991:

The farmer states "my brother and I (age 52 in 1987) grew up on that small farm and were determined to finish high school and take our degrees: there was no future in farming on that small scale. We had seen what being a farmer meant through the sacrifices our parents had made, and we didn't want to depend on farming for the rest of our life. By the turn of the 1980s my father was too old to continue to work on the farm. However, our jobs didn't permit me and my brother to operate the farm directly, nor is my son interested in doing that. Fortunately, about that time 'farming by contractors' was spreading through the whole area. Many of the operations are still done by us, but most of the operations on the farm are done by contractors".

In this case the use of contractors to undertake the main activities of cultivation and harvesting enabled the family to continue farming whilst being mainly employed in non-farming work.

The study area in which the highest proportion of households which had made no adjustments was found was Andalucia in southern Spain. The study team who worked in this area stressed the lack of dynamism amongst farmers in the area, including lack of risk taking, attributing this in large part to the low educational level of most of the farmers. In fact much of the farm land covered by this study area was originally marshland, which was drained and desalinated during the 1970's, and distributed to settlers, many of whom at that time made

expensive investments in land improvement. While the level of investment in agriculture may have been low during the decade 1981-91, therefore, this should be seen in the context of the considerable investments made during the previous decade.

Not all the cases which are included in this no adjustment category did literally make no adjustments at all. At one extreme are the cases where some investment has been made, as illustrated by this case, which does in fact come from Andalucia:

> *This is a 40 year old farmer who has completed secondary studies and inherited his property from his father in 1989. It is a large farm (87 ESU's) comprising 250 hectares used for olive tress and for sunflower and wheat, which are rotated annually. All the crops are sold in their entirety, through cooperatives or dealers. The farmer owns two tractors and one baling machine. His only recent investment was the purchase of one of the tractors, for which he used an official loan at a subsidised interest rate. In fact, this has been his only use of agricultural policies. He works on the farm full-time, hiring operated machinery during the wheat and sunflower harvests, and employing about 30 casual farm hands for the olive harvest.*

At the other extreme are those who are clearly preparing for eventual exit, as illustrated by another case from the West of Ireland.

> *When the family were faced with the requirement to upgrade their dairying equipment, in order to comply with the more exacting standards being set by milk processors for quality milk production, they simply quit dairy farming. There was no money available for further investment. In any case the husband (aged 67 in 1987) and his wife had reached the age of eligibility for the State's non-contributory old-age pension. Furthermore, their children were not working on the farm. One son, living locally but having a profession of his own, will eventually succeed to the farm but the parents think it will be farming on a minimalist basis. In these circumstances it made sense for the parents to lessen their commitment to farming and so be in a better position to qualify for the old age pension, which is granted on the basis of a means test. The result is that while they work less intensively than formerly they enjoy a much better income.*

Households giving up off-farm work

This group shows some variation according to which member of the household has given up off-farm work. However, the average farm size of those whose only adjustment has been to give up off-farm work is relatively close to the sample mean. The farm size for this group is considerably larger than that of those who consistently had off-farm work throughout the period 1981-1991. This is particularly clear in the case of operators - the mean farm size of operators with off-farm work throughout the decade is only 5.8 ESU's.

The proportion of these households is higher than average in study area groups B2, C1 and A - the three groups which also have above average proportions of households with off-farm work being taken up.

The operator's age and level of educational attainment are near the mean for the whole sample. However, the number of economically actives in the household is quite high, and the

number of people each economically active has to support quite low. Since these figures are from 1987, and hence prior to the change, they suggest that off-farm work was given up in some cases because the income from off-farm work ceased to be a necessity.

In the following case from Languedoc in southern France, giving up off-farm work was clearly a matter of retirement at the end of the operator's working life.

> *Operator is 63 years old who set up in 1967 by inheriting 2.5 ha from his father. He was a sales representative and retired in 1988, which enabled him "to work in the vines during the week instead of at the week-end".*

Giving up off-farm work is not always a matter of choice, however. The following example, again from the West of Ireland, illustrates the problems of a farm household living in an area where it is difficult to make a living from farming alone, but in which there is also a shortage of off-farm work.

> *The operator is in his early sixties and his wife in her late fifties. In 1989 they sold their milk quota and also stopped growing cereals mainly because of lack of help on the farm and the difficulties of getting cereal crops harvested in an area where cereal growing has almost ceased. The family have seven children but all except two, who are still at school, have left home. The operator himself had a full-time job until made redundant recently. Now he works 2-3 days per week in other employment. The extra income has to be earned to rear a family. With the proceeds of the milk quota sale he has increased sheep numbers and the various premia make sheep profitable. He has joined a producers' group to market lambs.*

One of the sons living abroad may come home to work the farm of 20 ha, but the parents feel he would need another job to have a 'reasonably good way of living'. The problem, however, is the shortage of off-farm jobs in this area. The family are somewhat disillusioned with the general economic situation both in farming and in the rural economy.

Disposal of land

Those households whose only adjustment has been to dispose of land had rather smaller average farm sizes (in 1987), the highest average age of operator, low educational attainment, the lowest mean figure for number of economically active people present, and a relatively low number of people supported by each economically active household member. An average proportion have a spouse present, but the proportion of such households with a successor present in 1991 is well below the average. In addition, the proportion of households in which the operator expected to have a successor was below the average. The proportion of these households which were dependent on agriculture only in 1981 was also relatively high.

The impression gained of these households is therefore of farm operators reaching retirement age without any expectation of having a successor. In 1987, a mean of 29% of their income came from social transfer payments, mainly pensions. An example comes from Languedoc:

The operator is 66 years old and has retired and transferred the legal status of operator to his wife. He has reduced the size of the holding (from 13 to 10 ha), has stopped cultivating a few plots and hardly uses any fertilizer any more. He continues cultivation to bring in extra income.

Although not typical in terms of the study area group it comes from, the following case from Devon in England (Group C1) provides another example of the circumstances in which disposal of land may occur, this time involving a combination of illness, circumstances surrounding the introduction of dairy quotas, and lack of successors:

The farmer (aged 66 in 1987) has recently retired and sold off all his livestock and land, except one acre. This was brought about by a combination of circumstances. None of the family were interested in taking over the farm. The farmer had been unwell, which culminated in an operation. He had reduced livestock numbers because of this, which resulted in him receiving a low milk quota - he still believes he was unfairly treated. He has not been able to afford to buy quota since. This has affected the economic viability of the farm and was an important reason for the timing of retirement. He has been able to provide financial security for retirement by buying his tenant farm, which he then sold.

Yet not all cases of disposal of land occur amongst 'retirers'. One example where the farmer is younger comes from East Ireland, and may be considered a case of sale 'forced' through debt.

In 1975 the farmer sold a farm which he had inherited and purchased his present 121 ha. Now, however, he is farming only 19 ha. He sold 19 ha and has let the remainder. His case is one where debt forced the sale (and letting) of assets. Between paying for his new farm and for the construction of a new house he incurred unmanageable debts. He leased his milk quota and turned to cattle and sheep farming. His wife has a profession which involves a 30 minute car journey each day - her income is important to their survival; it accounts for 40-50 per cent of the total. The farm income keeps the remaining debt serviced.

Family exit

While many of those who have disposed of land seem to be in the process of exiting from farming, those who did exit during the decade 1981-91 were mainly found in quite different contexts from those who disposed of land without exit. Thus 44% of exits occurred in study areas in group C2, where alternative opportunities for work and income are good, and farms are relatively small. A further 31% of exits were found in study areas in group B1, which also had moderately diversified labour markets.

Those who did exit had relatively small farms, and the average age of the operator in 1987 was well above the sample average. In addition, both the average number of economically active people in the household and the number of people each of these had to support was well below the sample average. A very small proportion expected to have a successor when asked in 1987, and 65% were sure they had no successor. They also had a relatively low level of education in 1987, 72% of operators having only primary, or no full-time education, compared with 67% for

the sample as a whole. In 1987, 28% of their household income came from social transfer payments, mainly pensions.

Exits were highest amongst sheep and goat farmers and dairy farmers in less favoured areas, and amongst wine producers. For dairy farmers, the introduction of the milk quota seems to have encouraged small dairy farmers to give up since they have a tradeable asset (quota rights) which normally has a higher value than the grants to cease dairy farming. In wine areas there have also been grants for grubbing up vines. The schemes for early retirement appear to have had only a limited impact. There is also evidence of a small number of 'forced' exits amongst larger farmers.

An example of one who was forced to leave farming due to an adverse change in external circumstances comes from the Grampians:

> *The operator is an example of a farmer who has been directly affected by high interest rates and the restructuring of banks - the timing of his business expansion was inopportune in relationship to movements in financial markets. The result is that he has been forced out of the farm, which has been sold to cover his debts. He borrowed heavily to buy a 550 acre farm. The business has had substantial debts on it from this point, but otherwise he operated a successful farm. But he was caught in two ways: land prices fell in the 1980s, making his asset debt ratio much worse, and this was combined with pressure on incomes. These twin factors militated against him such that the farm was no longer on a secure financial footing. His bank was at that time bought over by an Australian Bank which immediately reviewed its lending policy, and the result of this restructuring of international finance was to force numerous farmers in the area, including this one, out of business by calling in debts.*

In other cases, the taking up of regular off-farm work by the male farmer may lead to exit, as the following case from Catalunya in Spain illustrates. This case also shows that in some cases of exit, the land is leased to another farmer rather than sold, and the family continues to live in the farmhouse; structural change takes place, but the family is not in such cases lost to the rural community.

> *This family comprises an unmarried farmer aged 33 and his mother aged 68. They were involved in milk production and owned most of the land farmed. The farmer liked agriculture and in 1989 was not particularly pessimistic about the future of milk production. A year later, however, he was much more pessimistic about the future of agriculture and stated he would leave the farm if he were offered a steady external job. In 1991, he had taken up an external job; it is a job requiring no great skills, but he preferred it to carrying on with agriculture. By spring 1991 he had sold his cows and leased out the land he owned, although he continued to live in the farmhouse.*

Processes of adjustment involving disengagement from farming and eventual exit, whilst often regarded as reflecting 'failure', are just as 'reasonable' as any other from of adjustment, and a consequence of individual choice as well as structural conditions over which the individual

farmer has no control. Given that the people involved are often at or near retirement, or find other work, and, as the previous case illustrates, frequently remain in the farm dwelling or the local community, a farm exit does not necessarily imply a loss of a family from the rural community either. Both educational and advisory systems need to address the problem of negative attitudes to disengagement and exit - those involved may be in just as much need of education, training and advice as those involved in other forms of adjustment. Whilst this is particularly so for those households changing to other forms of occupation, it is also true for those who are retiring or moving to different locations.

4.4 Households making investments in agriculture

Table 4.4 shows some of the main characteristics of those farm households who made investments in agriculture between 1981 and 1991.

Study Area Groups

Opportunities for off farm work and non-agricultural enterprises on the farm vary according to the context. Investment in agriculture alone, and investment in agriculture in combination with the spouse taking up/increasing off farm work were generally more common in the large scale farming areas (B1 and C1). A combination of factors is involved here including the marked changes in the role of women on farms in such areas, the increasing numbers of female spouses who come from non-farming backgrounds and who have professional qualifications, the changing labour market conditions for women, and changing attitudes. However, the small farming areas of richer countries (C2) had the highest proportion of households making a combination of agricultural and non-agricultural investments. Here also we find the highest incidence of the combination of investment in agriculture and either the operator or successor taking up off farm work. Again a combination of factors is involved - opportunities for income from non-agricultural activities or off-farm work in such areas are greater, and income expectations are higher.

There is, however, considerable variability *within* study area groups, with often a few study areas showing a much higher proportion of each adjustment than the remainder of the study areas of the group, illustrating the importance of particular contextual conditions for the form of adaptation. This also suggests that education, training and advisory systems and content need to be addressed to particular contexts.

Farm size

Farm size also affects the uptake of off-farm work and extent of non-agricultural investment. The mean farm size of all those groups investing in agriculture was above that for the sample as a whole, but this was particularly the case for those only making agricultural investments, those who combined agricultural and non-agricultural investments, and those who combined agricultural investment with the spouse taking up regular off-farm work. Where agricultural investments were combined with the operator taking up of farm work, and particularly with the potential successor taking up off-farm work, mean farm sizes were much closer to the sample mean. Such nuances illustrate again the combination of contextual factors, and farm business size for this form of adjustment.

Table 4.4 Main characteristics of farm households making investments in agriculture 1981-91 (discrete categories)

	Agricul-tural Investment only	Agric + Non-Agric Investment	Agric Inv + Operator takes off-farm work	Agric Inv + Spouse takes off-farm work	Agric Inv + Successor takes off-farm work
% of sample	11.5	2.7	2.3	2.1	2.9
above mean in groups	B1,C1	C2,B1	C2,B1	C1,B1	C2
ESU	36.0	33.5	27.0	31.4	19.9
Area in hectares	46.1	43.6	32.3	76.2	32.4
operators age	46	44	40	39	51
number of economically active in h/hold	2.3	2.5	2.3	2.5	3.1
ratio of actives to h/hold size	1.81	1.78	1.85	1.76	1.72
spouse present 81-91	78%	84%	74%	86%	93%
successor present 91	45%	53%	33%	41%	92%
successor expected by operator aged 55+	63%	51%	63%	92%	41%
succession occurred between 1981 and 1991	21%	21%	33%	31%	12%
% agriculture only 1981	71%	56%	71%	66%	59%
% with non-ag. farm-based work 1981	9%	19%	12%	6%	12%
% with operator off-farm 1981	13%	17%	8%	28%	25%
% with spouse off-farm 1981	7%	18%	11%	2%	6%
% with successor off-farm 1981	4%	5%	7%	1%	0%
% operator from Full Time farm background	83%	75%	73%	79%	83%
operator's education	9.9	10.5	11.0	11.1	8.5

Operator's age

The mean age of the operator is well below the sample mean for all groups which have made agricultural investments, except where the potential successor has taken up off-farm work. It is particularly low for those households where the operator or spouse have taken up off-farm work. In these latter cases there are also a particularly high proportion of cases in which succession has occurred between 1981 and 1991 - operators who have newly succeeded to their farms have a particularly high rate of uptake of off-farm work, as do their spouses. For example, in 21% of cases where succession has occurred the new operator has taken up off-farm work, as compared with in 9% of cases where it is the same operator.

Level of education

The operator's level of education was well above the sample mean for all these groups in this category of adjustment, the one exception being that where the successor has taken up off-farm work. This is probably related to the higher mean age of operators and the smaller size of farm businesses in this group. Educational levels are particularly high where agricultural investment is combined with the operator or spouse taking up off-farm work, and although again this may be partly age-related, it is also an indication of the educational demands of non-agricultural labour markets, a point which we will return to later.

Household composition and life-cycle

The number of economically active people is above the sample mean for all the groups where agricultural investments have been made. This is particularly so where the potential successor has taken up off-farm work, the successor in these cases commonly being the third economically active member of the household. Since such cases generally occur on smaller farms, this suggests that the motivation was to reduce the number of people each economically active person has to support from the farm business. In the remaining groups the number each economically active person has to support is at or above the mean, but it is particularly high where agricultural investment combines with the operator taking off-farm work. Again, this combination occurs on smaller farms, and suggests once again that such adjustment is frequently driven by the need to increase household income.

Amongst operators aged 55 or over in 1987, the proportion who felt sure of having a successor was well above average for all these groups. The lowest proportion to feel sure of a successor (41%) was amongst those where the successor had taken off-farm work, but even this was above the sample mean.

Taken together with the findings above about the age of the farm operator, we can see the effects of the stage in the life cycle on the extent and form of adjustment.

Operator's background

With the exception of the group where the operator took off-farm work, the proportion of all these cases where the operator came from a full-time farming background was above average. This was particularly so where the only adjustment was agricultural investment, or agricultural investment in combination with the successor taking off-farm work.

Work patterns in 1981
A relatively high proportion of those who made agricultural investments only, and combined agricultural investments with the operator taking off-farm work, had no other gainful activities in 1981. The proportion of those making non-agricultural investments who already had some non-agricultural farm-based work in 1981 was slightly higher (at 19%), and the proportion of those where the spouse took off-farm work where the operator already had it in 1981 was also higher (at 28%).

The effect on agricultural investments of other adjustments
The largest single group amongst households which have invested in agriculture consists of those for whom this was their only adjustment. One such example comes from Maas en Waal in the Netherlands:

> *The farming couple in 1964 has succeeded the parents of the farmer into farming. At that time, the farm consisted of 15 dairy cows, 27 pigs and 16 hectare of farmland. With the years, the farm has been expanded. Pig farming and arable farming have been stopped and there has been a full specialisation into dairy farming. In 1973 the family decided to move the farm from the village to an area outside the village, since in the village there were no opportunities for further expansion of the farm. The household wanted to expand the farm since the eldest son wanted to succeed his parents into farming. The number of dairy cows have gradually expanded to 73 head in 1983. In the eighties, the expansion of the farm has continued. Then, among other things, additional milk quota has been bought. Farm size is now 77 ESU's.*

The study team working in Catalunya also drawn attention to the fact that investment decisions are frequently related to the stage in the life-cycle of a household. They point out that the process of succession may take up to a decade, this being a period during which "the need for modernisation - which should make the farm attractive for the possible successor - is combined with the plans of the young farmers themselves, who start to take part in decision making" (PR1, Catalunya 1990:7).

The following is an example of a household poised in the life-cycle immediately prior to succession, and which has made a considerable number of investments over recent years, it is taken from the Devon study area:

> *This farm is about to be passed on to the third generation. The senior farmers are two brothers who inherited the farm from their father, and have expanded and modernised/improved it since. The son of one of the brothers works full-time on the farm and he is taking over. The farm is well run, and they regard it as an efficient unit. In recent years increased efficiency has come from internal labour and cost savings, not from any drive to increase production.*

While these examples are all of households which have made only agricultural investments during the course of our study, in fact, almost half of those households which have made agricultural investments have made them in combination with some other adjustment. Indeed,

not only are agricultural investments frequently made in combination with other types of adjustment, but also involvement in off-farm work appears to make relatively little difference to the propensity to invest in agriculture. If pluriactivity is indeed 'inefficient' in agricultural terms, this evidently did not necessarily deter those involved in it from further investment in farming.

Even where operators are involved in off-farm work, in other words are classical 'part-time farmers', propensities to invest in agriculture are only slightly below those for households where the operator has no regular off-farm work between. Thus even conventional 'part-time farming' does not necessarily imply a process of disengagement or exit from farming, and indeed can occur alongside some indication of commitment to agricultural activities. In many cases the nature of investment undertaken may be with a view to the adjustment of farm enterprises and/or the introduction labour saving techniques to make the combination of on- and off-farm work less demanding. Again, however, there is no case for limiting access of this group to agricultural education, training and advice through a singular focus on 'main occupation' or 'full-time' farmers.

Table 4.5 Proportion of households investing in agriculture, by off-farm work of the operator, spouse and potential successor

	No off-farm work	Same off-farm work 1981-91	Took Up off-farm work 1981-91	Gave Up off-farm work 1981-91
Operator	25%	20%	23%	20%
Spouse	24%	21%	27%	22%
Successor	25%	12%	23%	15%

An example of the operator taking up off-farm work is from West Ireland, and in this case the operator's spouse has also taken up off-farm work:

> *The family have 26 ha, of which 18 ha are utilisable for agricultural purposes. This is farmed quite intensively with suckler cows, calves, cattle and sheep. Stock numbers were increased in recent years but the operator thinks he has reached the limit in stocking. The family do not keep standard farm accounts, but their estimated income from the farm is two thirds greater than the average figure for the region. Nevertheless, they do not consider this adequate. They have two young children and the operator's mother also lives with them although she has an old age pension. His wife has taken up a job in a local factory, while her mother-in-law looks after the children, and the wages from this employment are spent mostly on household necessities. The parents keenly wish that one of the children will take over the farm, but believe that the successor will need to have an off-farm job to maintain the standard of living the parents have achieved. Bearing this in mind the operator entered the agricultural contracting business some years ago, buying machinery with the aid of some capital grants. With the farm income, the two off-farm incomes and the old age pension the family is in quite good financial circumstances, and regard themselves as better off than most other families in the area.*

While in this case off-farm work was seen as a way to raise the household's standard of living, there are also cases where the operator has taken off-farm work specifically in order to enable investment in the farm.

While the operator taking up off-farm work does reduce the propensity to invest, albeit very slightly, in the case of the operator's spouse taking up off-farm work this situation is reversed. Thus agricultural investments were made in 27% of cases where the spouse took up off-farm work, that is in 3% more of cases than where the spouse had no off-farm work. Undoubtedly there are cases in which the spouse's off-farm work was undertaken in order to enable investment on the farm, or out of financial necessity. In the following case, from Languedoc, the farmer's wife had already taken up off-farm work before 1981, but it does illustrate the point.

> *The operator, aged 47, who set up in 1971 by inheriting 4 ha from his father, enlarged the farm by successive purchases and farms 19 ha today (farm size 39 ESU's). He has replanted with quality varieties and has bought equipment. His wife works full-time as a nurse and the operator considers that his wife's income is essential.*

The evidence from panel surveys does suggest, however, that where the operator's spouse (in this case the male farmer's wife) has taken up off-farm work this is frequently a case of a woman developing a career of her own outside the farm because of a personal desire to do so. Thus the study team from Maas en Waal state that "the process of individuation that takes place in the families of modern farmers, offers the farmer's wife an opportunity to pursue her own career ... The spouses income will certainly contribute to the family's level of living, but is often not considered a necessary condition for the continuity of the farm".

The positive relationship between agricultural investment and the spouse taking up off-farm work may therefore be best understood as being context related. This combination of adjustments principally occurs in areas with larger farms which have good or moderately good external labour markets, where farm work is predominantly undertaken by men, and many women outside the farming community have jobs independently of their husbands.

Considering the off-farm work of the potential successor, the proportion to invest in agriculture is as low as 12% where the successor already had off-farm work in 1981. This may be understood as related to the age of the operator - where successors already had off-farm work in 1981 the average age of the operator (by 1987) was 60. In contrast, while investment took place in 25% of cases where the potential successor had no off-farm work (or there is no successor present), it was again almost as high, at 23%, where the successor took up off farm work during 1981-1991.

An example of the potential successor taking up off-farm work is again found in West Ireland:

> *The parents are in their late 40's/early 50's with five children aged 11 to 24 years. Two sons have finished third level education and work in professional occupations. One daughter has married and two are still in school. The farm is 50 ha and they farm this on a full-time basis. Seven ha were bought in 1981, when the opportunity simply arose to buy a neighbouring small farm. They have increased sheep numbers considerably in recent years but decreased their cattle stock somewhat - the important factor in this decision*

being the financial supports for sheep production and, by contrast, the volatility of cattle prices. They would like to see one of the family take over the farm; however, their overriding priorities at this point are to ensure that the family all get third level education. Even though the farm is comparatively large by local standards the family are uncertain about the future; therefore education and not farm succession is the dominant concern. The parents themselves like farming, but feel that their children should have the possibility of earning another income, even the one who opts to remain on the farm.

As is the case where spouses have off-farm work, there is a positive association between non-agricultural and agricultural investment. Thus while 22% of households who made no non-agricultural investments invested in agriculture, 41% of those who did make non-agricultural investments, also invested in agriculture.

In general, however, the last ten years has seen little investment in food processing in the study areas where these activities are traditional (particularly Friuli and S. Lazio in Italy and Austria SE). Indeed, there is evidence that there is a decline in such activities - for instance, between 1987 and 1991 there was an 18% reduction in labour committed to transformation activities in Lazio.

The reason for this decline may in part be that over the past 10 years there has been an increasing emphasis on hygiene, 'quality' and brand image due to consumer demand and regulations concerning food standards. This has led to a tendency for food processing to be increasingly undertaken by specialist companies and cooperatives, rather than on the farm, a move which has been supported by EC marketing and processing regulations (e.g. Regulation EEC/355/77). Nevertheless, investment in food processing has occurred quite commonly in the Greek study area, Fthiotis (25 cases) and in Austria West (13 cases).

The proportion of households to have combined investment in agriculture and non-agriculture is in fact particularly high in Austria West, those who have not invested in food processing often having invested in tourism. It should be noted here that Austria West has the highest proportion of farm households engaged in farm tourism of any of our study areas. The following is one such case:

This family is an example for combining mountain agriculture with a farm based tourism business typical of Alpine western Austria. The farm consists of a property of 50 ha, medium sized for the Salzburg mountain area. The farm's main business is cattle breeding, and the number of cattle was increased by one third since takeover in 1978. The dwelling house dates back to 1687. In 1979 general improvement and change of the house was undertaken - renovation was difficult and cost intensive, and two apartments, one high quality guest room and two normal guest rooms were created. The main source of income for the family is still agricultural production, but the farmer considers tourism an excellent source of income.

Non-agricultural investments are frequently related to activities associated with the 'urbanisation' and sub-urbanisation of rural areas, and growing demand for tourism and recreational facilities, the latter often in rural areas close to larger centres of population. They are particularly found on larger farms. Another example where non-agricultural investment has been combined with

agricultural investments comes from the UK:

> *The family has a large (179 ESU's), mainly tenanted farm near the Moray coast in the Grampians study area, which specialises in potato production. Between 1987 and 1991 they engaged further in agriculture, which provides over 90% of household income. When they took over the farm it was very run down and required a substantial amount of investment. The farmer still has a substantial overdraft but is not despondent about this. He is very business orientated and believes that the future of agriculture is good, especially for those who are able to produce high quality produce for markets. The farmer owns 23 hectares of the holding and is planning a combined forestry and housing development on this land. He hopes that this will clear his outstanding debts and provide the capital for further investment on the farm. Since 1987 he has reduced his sheep numbers on the farm because of lower profitability of sheep fattening and a belief in concentrating on enterprises which are more economic.*

Other examples illustrate a response to growing recreational demands in areas close to large population centres, for example in Buckinghamshire which is close to London.

Clearly, therefore, making other adjustments does not preclude investing in agriculture, even where the other adjustments concerned are the operator or potential successor taking up off-farm work. Moreover, adjustments involving the spouse taking up off-farm work or non-agricultural investment are positively associated with agricultural investments. Nevertheless, there are cases where adjustment into other gainful activities does involve withdrawal from agriculture. The following case from Eastern Ireland provides an example of how the development of a farm based enterprise can lead to a move away from farming:

> *In the mid-1970's the operator took over a 61 ha farm from his mother. Meanwhile his wife, who had little interest in farming, started a small servicing business, initially as a hobby but 'it took off well' - so much so that the operator has reduced his farming activities to work on the new business, which accounted for about one-third of household income in 1991 and was being expanded further.*

Households taking up off-farm work or investing in non-agricultural ventures

Table 4.6 below summarises some of the key characteristics of farm households whose main form of adjustment was to take up off-farm work or invest in non-agricultural enterprises between 1981 and 1991, and who made no significant investments in agriculture in this period.

Although only 3.6% of the sample undertook only non-agricultural investments, a further 2.7% undertook both agricultural and non-agricultural investment, and the proportion of those farm households undertaking non-agricultural investment is significantly higher in some study areas. This indicates that scope exists for non-agricultural investments on farms which may be favoured by particular contextual conditions which include the existence and/or development of new demands for farm land and buildings on the one hand and local policy and institutional arrangements on the other. Entrepreneurial capacities within the farm population to develop innovative uses for such assets are necessary but may not be sufficient conditions.

Table 4.6 Main characteristics of farm households who took up off-farm work or invested in non-agricultural ventures, 1981-91

	Non-Agricultural Investment only	Operator takes up off-farm work	Op + Spouse take up off-farm work	Spouse takes up off-farm work	Successor takes up off-farm work
Proportion of sample	3.6	5.6	2.0	5.1	10.4
above mean in groups	B2,C1	A	B2,C1	C1,B2	B2,C2,A
ESU	15.9	8.8	9.2	21.6	8.4
Area in hectares	21.3	14.3	14.4	39.2	11.1
operator age	52	43	43	44	56
number economically active	2.2	2.1	2.2	2.3	2.6
ratio of actives to household size	1.75	1.93	1.70	1.82	1.69
spouse present 81-91	87%	65%	84%	90%	85%
successor present 91	55%	42%	42%	40%	90%
successor expected by operator aged 55+	32%	40%	48%	34%	32%
succession occurred between 1981 and 1991	18%	39%	39%	26%	13%
% agriculture only 1981	50%	56%	70%	50%	53%
% with non-ag. farm-based work 1981	22%	12%	18%	12%	20%
% with operator off-farm 1981	24%	10%	10%	35%	22%
% with spouse off-farm 1981	13%	18%	2%	9%	11%
% with successor off-farm 1981	7%	11%	5%	2%	1%
% operator from FT farm background	73%	71%	63%	73%	77%
operator's education	9.9	10.0	10.9	10.3	6.7

Farm size

The average farm size of those taking up off-farm work or making non-agricultural investments, without also making agricultural investments, is significantly smaller than the equivalent groups where agricultural investments have also been made. Thus, for instance, where the combination of investment in agriculture and non-agriculture occurs, the average farm size is around 34 ESU's, compared with 16 ESU's where only non-agricultural investments have been made - on larger farms non-agricultural investments tend to be combined with agricultural investments, while on smaller farms they tend to occur on their own. Similarly, where investment in agriculture is combined with the operator taking up off-farm work, the average farm size is 27 ESU's, compared with 9 ESU's where the operator has taken up off-farm work without also investing in agriculture. Larger farms tend to have more assets which are suitable for conversion to non-agricultural purposes - larger farm houses, more redundant farm workers' cottages, larger farm buildings, land areas which can accommodate golf-courses or other non-agricultural activities, and so on.

The scale of this difference in farm size is much reduced, however, where the spouse only taking up off-farm work is concerned - even where no agricultural investment is made the average size of farms where the spouse has taken up off-farm work is 22 ESU's.

Level of education

The operator's level of education was again well above the sample mean for all these groups, again with the one exception of those where the successor has taken up off-farm work. This is a reflection of the fact that this form of adjustment occurs on smaller farms, most commonly in study areas where small farming predominates, where the levels of education amongst operators is relatively low.

Distribution in study area groups

These forms of adjustment vary in their distribution, and are generally found in different study area groups from those in which the same adjustments in combination with agricultural investments are found.

- The operator has taken up/increased off farm work in an above average proportions of households in the areas most dependent on agricultural employment (A).

- The spouse has taken up/increased off farm work in an above average proportion of households in the two contrasting context of B2 (intermediate agricultural employment, small farms) and C1 (low agricultural employment, large farms).

- The potential successor has taken up/increased off farm work in an above average proportion of households in the areas characterised by small scale farming - B2, C2, A.

- Non-agricultural investments have again been made in an above average proportion of households in the two contrasting context of B2 and C1.

Operator's age

The mean age of the operator is well below the sample mean for the groups where the operator and/or spouse have taken up off-farm work, around the mean where non-agricultural investments only have been made, and somewhat above it where a successor has taken off-farm work.

Where the operator has taken off-farm work there has again been a particularly high proportion of cases in which succession has occurred between 1981 and 1991 - operators who have newly succeeded to their farms have thus had a particularly high rate of uptake of off-farm work whether or not this was combined with agricultural investment.

Household composition and life-cycle

The mean number of economically active people is at, or only just above, the sample mean for most of these groups, though is rather higher where the successor has taken off farm work, again indicating that the successor is frequently a third economically active member of the household. The mean number of people supported by each economically active person is highest where the operator has taken up off-farm work, again suggesting that this form of adjustment is frequently driven by the need to support a family.

Amongst operators aged 55 or over in 1987, the proportion who felt sure of having a successor was slightly above average where the operator has taken up off-farm work, but for most of these groups was at or slightly below the average.

Operator's family background

Apart from where the successor took off-farm work, the proportion of operators who had come from a full-time farming background was below average in all these groups. This was particularly marked where both the operator and spouse had taken up off farm work - in only 63% of these cases had the operator come from a full-time farming background, contrasting most clearly with the group of operators who had invested in agriculture without making other adjustments, 83% of whom came from a full-time farming background.

Work patterns in 1981

The proportion of households which depended on agriculture alone in 1981 is lower for these groups than for the equivalent groups where agricultural investments were also made (with the exception of the group where both operator and spouse took up off-farm work, where an above average proportion had no other gainful activity in 1981).

The proportion of those making non-agricultural investments who already had some non-agricultural farm-based work in 1981 was slightly raised (at 22%), and the proportion of those where the spouse took off-farm work where the operator already had it in 1981, and where the operator took off-farm work where the spouse already had it in 1981, were also raised (at 35% and 18% respectively).

Work situation in 1981, and subsequent adjustments

To clarify these relationships it is useful to consider the following Table, which breaks households down by their work situation in 1981 on the one hand, and the adjustments they made in the following decade on the other.

Table 4.7 Main adjustment groups 1981-91 by the farm household work situation in 1981

Work situation in 1981	Main form of adjustment, 1981-91				
	Agric Inv only	Ag Inv + other adjust-ments	Take up/ increase other gainful activity	No adjust-ments (inc giving up off-farm work)	Family exit and disposal of land
Agriculture only	13.3%	0.1%	23.6%	34.7%	18.4%
On-farm non-agricultural work present	9.5%	10.3%	34.8%	33.0%	12.3%
Operator had regular off-farm work	7.9%	10.1%	30.1%	33.1%	18.9%
Spouse had regular off-farm work	9.8%	10.8%	38.4%	27.5%	13.6%
Successor had regular off-farm work	7.9%	2.9%	21.1%	36.0%	32.0%

Note: Figures add up to 100% in rows - i.e. reading across the table.

Where the successor alone had off-farm work in 1981, the rate of uptake of other gainful activities was low, and particularly so when in combination with agricultural investment. This is clearly related to the higher age of operators who in 1981 were already old enough for their successor to have off-farm work.

We also note the high proportion of households in this group which either exited or disposed of land during the following decade. The process by which this may occur is illustrated by the following case from Euskirchen, near Bonn in Germany, an area of small farms but good labour markets outwith farming. In the following case the potential successor to the farm has taken a full-time off-farm job during the decade under study, and his father, the farm operator commented:

> *We really would have extended the farm but since we have such a low milk quota and we have no other way of production, it's no use! Our youngest son was really interested in farming, but now he says, Dad, it's no use, a family can't make a living from it. And because of that we let him learn a trade. That is a good thing in any case. He can do that later at any time. But if it goes on in farming like this, then there is nothing left in it for the small farms any more .... Yes I think that I will manage for another few years (until retirement).*

Off-farm work by the potential successor does not inevitably lead to exit from farming, however, even when it happens along with the absence of agricultural investment. Instead it may act to facilitate the transmission of the farm to a successor, particularly in cases where the farm is quite small, and cannot support two generations at any one time. Indeed, when succession to the farm does eventually occur, off-farm work may be given up, and at that point agricultural investments made. The following case from Freyung Grafenau provides an illustration of this process, although the eventual outcome has not been without its problems.

> *This farm household may be typical of the process of transmission in households with temporary pluriactivity. The parents of the present farmer have always been monoactive. The son had chosen to acquire a non-agricultural training and to work off-farm. When the parents could not cope with all the farm work any more, their son gave up his off-farm job, invested heavily in farming and expanded. Today the farmer complains that the farm business is too small in terms of income and too large for taking on an additional off-farm job again.*

Table 4.7 also shows that most of the groups which were already involved in other gainful activities in 1981, showed a tendency to continue to take up such activities, with the lowest rates of exit and disposal of land being found where non-agricultural farm-based work or off-farm work of the spouse were already present in 1981.

On the other hand, the adjustment strategy of households which were agriculturally mono-active in 1981 was rather more likely to include agricultural investments only than was that of any other group, and this was one of the groups least likely to include adjustments into other gainful activities.

We can thus observe that pluriactivity can serve several different functions for different farm households and farm household members, notably:

- *a commercial or entrepreneurial function - optimisation of resources to improve households and/or individual household members' incomes;*

- *the individual career development mainly by women and family members, or individuation,* especially on larger farms in richer rural areas;

- *survival of households* at modest or low income levels on smaller farms, where pluriactivity and farming are relatively stable solutions to the 'income problem';

- *assisting with the transition of farms through generations*, especially on medium and small farms which cannot provide work or income for more than one full-time family member, normally the farmer;

- and *assisting the process of disengagement and exit* from farming, especially on small farms where there are no successors.

4.5 The role of education, training and other knowledge and information systems in processes of adjustment

What role has education, training and other forms of knowledge and information transfer played in the various forms of adjustment which we have so far observed? Is there evidence that current provision is matching the emerging needs of agriculture, farm families, and rural areas? Do agricultural investors or 'engagers' make more use of traditional sources of knowledge than non-agricultural investors, pluriactives or others? Do we find any evidence that those diversifying their income sources have found alternative sources of knowledge and information? Is there any evidence to support the notion that farm households take strategic decisions about education and other forms of knowledge-seeking prior to making adjustments?

The evidence so far suggests that levels of education and training attainment have an important influence on dynamism and adaptation, including up-take of new ideas, off-farm work, and new enterprises. The educational characteristics of the sample as a whole are of some interest. Two thirds of operators, and a very similar proportion of spouses, had no, or only primary, level education. A further 28% of operators and 27% of spouses had secondary education, whilst 5.5% of operators and 6.6% of spouses had some form of higher education. A separate question was asked on training. A quarter of operators and 9% of spouses had agricultural training. But 16% of operators and 21% of spouses had non-agricultural training.

The general conclusion is that large proportions of both operators and spouses have little formal education and no agricultural or non-agricultural training. However, a minority have high levels of education, and more spouses than operators have non-agricultural training. It is worth pointing out, however, that there is a strong generational effect in the data: for example, the level of education amongst successors is generally higher in all study area groups.

The level of education is closely associated with the background of the operators and spouses parents. Thus those operators with a non-agricultural parental background were four times more likely to have higher education than the sample as a whole and less likely to have only primary education, whilst those whose parents had been farm workers were the mostly likely to have no full time education, and the least likely to have higher education. Similar patterns are noted for spouses. Levels of education and training in the farming population are however extremely varied across Europe, and in different farm size categories. Broadly speaking, levels of education and training are much higher in the North than in the South for both operators and spouses, and increase with the economic size of the farm measured in economic size bands.

The levels of formal education of operator and spouse tend to be very similar to each other in all Study Area Groups, and indeed in individual family situations. The highest proportions of operators and spouses with no full-time education are to be found in Group A. However, high levels of operators and spouses with only primary education are found in Groups A, B2 and C2 - all small farming areas. By contrast, the highest proportions with secondary or higher education are found in Groups C1 and B1.

One can see the extremes by comparing study areas - in Andalucia, one third of operators had no full-time education, and only 4% had higher education; in Buckinghamshire there were no operators who had no full-time education, and only one who had only primary education, whilst 28% of operators had some form of higher education.

Table 4.8 Proportion of operators and spouses with different educational attainments by Study Area Group, 1991

Level of Education	Group A		Group B_1		Group B_2		Group C_1		Group C_2		All	
	Op	Sp	Op	Sp	Op	Sp	Op	Sp	Op	Sp	Op	Sp
No FT	11	14	1	1	3	4	0	0	1	1	5	6
Primary	67	67	35	35	78	78	12	10	81	82	55	55
Secondary	17	15	54	52	12	12	70	72	16	14	32	31
Higher	4	4	9	12	6	6	17	17	2	3	7	8
Still In	0	0	1	1	0	0	1	1	0	0	1	0
All	35	36	22	21	10	11	15	15	18	17	100	100

The relationship between educational attainment and farm size thus only becomes clear at farm sizes above 16 ESU's. Indeed up to that point the evidence suggests that levels of educational attainment of both operators and spouses of the smallest farms (0-<2 ESUs) may be higher than those in the succeeding two groups of farms (2-<8 ESU's). The reason probably lies in the need for those on the smallest farms to seek non-farming work, and the advantage in competing on the labour market of having greater educational attainment. In other words, those without education and on small farms are much less likely to survive through pluriactivity. This point was also noted earlier in our discussion of households who did not adjust, gave up off-farm work, disposed of land or left farming. Since this group is also likely to be the most difficult to reach, and the least likely to be a 'target group' for conventional education and training measures or extension systems, it seems likely that special measures and approaches will be needed if they are to be equipped to make the necessary adjustments.

Levels of education and training and management practices

The level of operators education also relates to important aspects of management practice, such as the keeping of accounts or the introduction of new technology. Thus, those with no or only primary education were significantly less likely to keep regular accounts than those with secondary or higher education. However, this is mainly a farm size effect, since the level of education, keeping of formal accounts and farming investment in new technology are all strongly associated with farm size.

One might also note here that those with higher levels of education are also those most likely to take up training courses. Over 90% of operators who had attended a training course between 1987 and 1991 had also completed secondary or tertiary education. This training courses are not so much an 'alternative' to secondary or higher education, but rather a supplement to it.

Table 4.9 Levels of education of operator and spouse by farm size band (%)

Farm Size Band (ESUs)	No Full-time Education		Primary Education Only		Secondary Education		Tertiary Education		Still in Education		All	
	Op	Sp	Op	Sp	Op	Sp	Op	Sp	Op	Sp	Op	Sp
0-<2	4.3	6.4	65.2	61.1	24.1	25.6	5.8	6.8	0.5	0.1	15.6	14.1
2-<4	7.0	8.4	64.5	63.4	23.5	22.7	4.2	5.3	0.8	0.2	17.2	16.8
4-<8	7.9	10.4	63.3	63.3	23.9	20.9	4.1	4.7	0.9	0.7	20.7	20.8
8-<16	6.2	7.9	57.5	59.0	30.5	26.7	5.4	6.0	0.4	0.4	17.4	17.7
16-<40	2.6	2.2	42.3	46.0	46.6	41.8	7.7	9.6	0.8	0.4	15.1	15.4
40+	0.8	1.1	19.6	21.0	61.4	61.5	16.6	14.8	1.6	1.7	14.1	15.4
All	5.1	6.4	53.4	53.1	33.7	32.3	6.9	7.6	0.8	0.6	100	100

Note: Percentages are given in rows, the row totals showing the percentage of the sample in each size band, and the column totals showing the percentage of the sample in each category of educational attainment.

Effects of educational attainment on access to various sources of agricultural information, knowledge and advice

Educational attainment in the formal sense also influences the degree to which operators seek or use non-formal sources of knowledge, information and advice.

The higher the level of education, the greater the use made of formal and informal sources of knowledge, advice and information. This is a consistent feature for the sources given, and supports the findings on training courses as well. It is also a consistent pattern across study area groups, although in most cases the proportion of operators with a given educational attainment who access these different sources is very significantly higher in the large scale farming areas of Groups C1 and B1. The main unexpected finding here relates to consultation of advisory officers or consultants, a source used by relatively high numbers of operators in Group A (38%), compared with Group B1 (37.3%) and C1 (45.6%). However, in general, those with higher levels of formal education are also those who make greatest use of less formal sources of information and knowledge. This group also constitutes a minority of farmers, albeit an important minority from the point of view of food production.

Attitudes to farming in relation to educational attainment

A range of attitudes such as those relating to the importance of living in the country, family continuity on the land, or of liking one's job were also related to educational attainment. Those with the lowest educational attainment were likely to be somewhat less concerned with country living, family continuity or liking one's job.

Table 4.10 Proportion of operators using various forms of access to agricultural information/ knowledge according to educational attainment in 1991 (%)

Level of Education	% who keep regular formal accounts	% who read farm literature	% who attend regular shows, demos etc	% who consult advisers etc	% who attended agricultural training in the last 5 years
N°FT	13.1	20.3	4.3	14.2	7.3
1°	20.1	50.6	30.5	32.3	15.3
2°	56.2	75.6	58.7	43.7	24.3
3°	66.2	81.8	63.9	58.1	43.3
Still in	37.6	55.7	50.0	38.0	20.1
All	34.6	59.5	40.8	37.0	19.8

Looking at attitudes towards education, respondents were asked several questions on different aspects of this issue. First, concerning agricultural education, 86.4% of the sample thought this important, and this was fairly consistent across farm size bands. Second when asked if they thought that children did better if they get a higher diploma or university degree, 54.9% thought they did, 37.9% thought they should learn a trade, and 7.2% thought they should start work as soon as possible. Once again, there was considerable consistency across size bands. One may conclude from this that there is a high premium put on education by the farming population in general.

Education and farming investment

Investment in land, buildings and working capital is also related to educational attainment. Those operators with higher educational attainment are more likely to have taken up loans for all of these purposes, and to have taken advantage of policies for farm investment such as the EC Farm Modernisation Scheme. One can also note that just over 70% of those farm households recorded as having had a significant increase in the level of technology in relation to their farming activities between 1987 and 1991 had an operator with either secondary or higher education.

Education and work

There is an association between education, training and the type and intensity of work of operators and spouses. For spouses, those with primary education only are most likely to have no off-farm work, or, if in work, to be in seasonal employment. If spouses have secondary education, however, they are more likely to be in casual work or regular part-time work. Those with higher education, on the other hand, are most likely to have regular part-time or regular full-time work.

Spouses with a non-agricultural training are more likely to be in work than those without,

and are most likely to be in regular part time or casual work. Operators with non-agricultural training are also more likely to be in work than those without such training, but in this case they are most likely to be in regular full time employment. Spouses on larger farms (above 16 ESU) are more likely than not to have such non-agricultural training. However, for operators the converse is true - it is operators on smaller farms (below 8 esu) who are more likely to have non-agricultural training.

Exit, succession and education

Whilst the presence of agricultural training was only slightly less prevalent amongst farmers who exited without replacement, non-agricultural training was markedly more evident where exit took place (with or without a new operator). Three-quarters of all operators, and just under 80% of spouses, who exited without replacement had only primary education. This of course is related to farm size - most exits being on small farms (just under 70% were below 8 ESU's) - and to age. There was a much greater tendency for those operators or spouses whose parents had been part-time farmers to exit, whilst those whose parents had been full-time farmers had the highest rates of family succession.

Changes in agricultural production

Between 1987 and 1991, those operators with primary education only, and/or with no agricultural training were less likely to have increased production by 10% or more than those with secondary or higher education and/or with agricultural training, and more likely to have decreased it by 10% or more. Similarly, those with secondary or higher education and/or agricultural training were more likely to have undertaken one or more agricultural investments. This relationship also held for non-agricultural investments, and for non-agricultural training. Although they also hold, in general, for the educational attainment of spouses, there are some important exceptions. In particular, where spouses work off the farm at any intensity there is a greater probability of non-agricultural investments than where they have no such work. Oddly enough, however, where spouses of continuing operators have off-farm work there is a lesser probability of agricultural investments. It is possible that the knowledge, skills, and contacts which they make during off-farm work encourages them to stimulate non-agricultural rather than agricultural investments.

These tendencies are reflected in the relationship between educational and training attainment and our engagement/disengagement variable, especially where the operator remained the same between 1987 and 1991. Those with secondary or higher education were more likely to be engaging, whilst those with only primary education were more likely to be disengaging. However, where the operator had a non-agricultural training, they were more likely to be engaging *or* disengaging, indicating greater fluidity in this group.

There is a strong relationship between regular off-farm work of the operator and the tendency to reduce production, or, more generally, disengage from agriculture. Those with no off-farm work are more likely to engage in agriculture, and those with part-time seasonal or casual work slightly more likely to engage also. This relationship does not, however, hold for spouses, were regular full-time off-farm work associates with both engagement and disengagement, indicating that it is the operators off-farm work which tends to be the key factor in relationship to engagement or disengagement over time.

Other sources of information and advice to farmers

Conventional sources of information and advice to farmers reach mainly those who are engaging further in agriculture. Thus, 63% of continuing operators who engaged in farming consulted an advisory officer or consultant, whilst less than 23% of disengagers, and 30% of those who were stable did so. A similar pattern emerged where succession had occurred. Once again, whilst nearly 65% of engagers who were the same operator attended agricultural shows, demonstrations etc., only 30% of disengagers did so.

Farmer representation through unions and cooperatives

Two measures of representation tend to support or reinforce these findings, and suggest that those on small farms lack a voice through which to organise greater attention to their needs. The first, membership of a farmers organisation in 1991 shows clearly that the majority were on farms above 16 ESU's, whilst over three-quarters of farmers with less than 4 ESU's were non-members. Moreover, over half of active members of farmers organisations were on farms above 16 ESU's.

A similar pattern emerges in relation to the second measure - membership of cooperatives. This is important because cooperatives are often an important source of information and advice as well as trading. In practice, the study area group or context has a strong influence here - more important than farm size or educational attainment. Thus Group A has the highest proportion of operators who are active members of farm cooperatives (34%), but only 10% are active members of farmers organisations. The highest proportion of operators who are active members of farmers' organisations is in Group C1, which only has 9.3% who are active members of farm cooperatives. Levels of education seem to make little difference to these patterns of representation in any study area group, suggesting that other factors of a cultural and institutional nature are at work.

In considering these relationships, it is clear that farm size is an important link between them - we have already found that engagement increases with farm size, as does educational attainment. Farm size is also an important characteristic of the different study area groups. Such *inter*-relationships may confuse analysis, but for present purposes it is the reality of their existence which is important.

4.6 Conclusions

The nature of farm household adjustments reflects a prior process of decision making. Our first task has been to try to illustrate what now appears to be almost self-evidently the case, namely that the process of decision making, and hence the subsequent adjustments or lack of them, depend not only on the farming system itself, and especially if the focus is on the decisions of the farmer in relation to that system, but also on the internal features of the farm household and the external or contextual circumstances which they face.

These internal and external factors combine to provide a framework of resources, opportunities and constraints for farmers and farm households, and they also affect values, attitudes, goals and expectations. The more we come to recognise that most farm households not only have relations with agricultural markets and policies, but also, through non-farming

activities and work, with the surrounding rural community, the more we see that such interactions matter.

The consequence is a diversity of outcomes, showing no unilineal tendency, and illustrating the complexity of the actions of agents - in this case farmers and farm households - and the interplay of these actions with the 'structures' which surround them. Members of farm households are not passive 'punchbags' responding to external shocks, but active agents in processes of rural restructuring.

In considering the specific role of education, and educational structures, in influencing observed adjustments, we find a strong relationship with farm size and context. These act together, leading to quite marked differences in the level of formal educational attainment between farm households in different study areas. However, there is a widespread recognition of the value of education across contexts and farm size groups revealed by questions about attitudes to education. Moreover, levels of education amongst successors are generally higher than those for operators. We also find a relationship between levels of educational attainment and the capacity to adjust in all ways. Thus those with no adjustment, and those who exited from farming, had lower than average levels of educational attainment. Those households on small farms who adjusted by taking up off-farm work or undertaking non-farming investments had higher than average levels of educational attainment. Whilst we are here concerned with associations rather than with cause and effect, there is no evidence to suggest either that education is not important for all forms of adjustment or that this fact is not widely recognised by the farming community.

Of course, educational attainment reflects conditions of both *demand* by farm households and *supply* of education services. Similar points could be made with respect to training and other forms of knowledge transfer. Whilst we have identified groups on small farms who have not only low levels of education and training attainment but also lack access to other sources of advice and knowledge, we cannot be certain of the extent to which this is due to low levels of demand or to problems of supply or provision. Very likely, these two are connected. However, we are left with the question, what kind of education can be accessed by farm households in different parts of rural Europe, and what kind is important for the adjustments which have to be made in future. What is clear is that for a large and increasing number of farm households the principal form of adjustment will take the form of non-agricultural work and the development of non-agricultural enterprises. This suggests that the traditional presumption that specifically agricultural education (at secondary and tertiary levels) was appropriate for the farming population is no longer sufficient in the European context. What is also clear is that there remain a significant group of households on smaller farms who have not have the benefits of education, training, and other forms of advice and knowledge transfer, and for whom processes of adjustment either within farming or outside it may become increasingly difficult as a result of the processes of globalisation identified earlier.

Our analysis has also helped to enter inside the findings of the macro analysis in Chapter 3 which tended to focus attention on the structures surrounding farm households, and view farming as responding rather mechanically to external restructuring. We find first that farm household members are active agents of change, often going in directions which are apparently contrary to those desired by policy and promoted by advisory services, and second that the processes of change are not in one direction only, but highly diverse. This diversity reflects the

fact that farm household behaviour emerges from a combination of external (or contextual) factors, farm factors, and farm household and family circumstances which, even if a common set of goals could be assumed, would inevitably lead to different outcomes within particular rural areas and *a fortiori* within Europe. Yet this diversity is not *chaotic*; there is a basic (if 'fuzzy') logic which emerges in most cases which helps to explain what is going on. In many ways this diversity is European agriculture's greatest strength, since it will ensure survival in the face of external shocks such as major changes in the CAP, and since it also provides different pathways for agrarian development which can reflect very different sets of external conditions, including new policy and market demands.

CHAPTER 5

SOME FUTURE QUESTIONS FOR RURAL EUROPE

5.1 Introduction

In Chapter 3 we traced the origins and development of agricultural and rural development policy, arguing that the changed reality of rural Europe and Europe's relations with the world had caused policy to change in some respects, especially in the 1980's and early 1990's. In this chapter we build on the analysis of past restructuring of rural economy, society and policy to identify some of the key tendencies which are likely to be important for the future of rural Europe, and hence for future rural policies. We have also drawn on recent perspectives work undertaken for various European projects including Europe 2000 and Europe 2000 plus (Bryden *et al.,* 1991, 1994), for the 'Delors' Carrefour on Science and Culture which dealt with the future of rural Europe and held in Vezelay in May 1993, the various papers at the EU Cork Conference in November 1996, and various papers by Bryden and Bryden and Commins on this topic (1993, 1994a, 1996, 1997).

We have argued that rural areas of Europe are very diverse in economic, demographic, social, cultural, environmental conditions and political and administrative contexts. Nevertheless, we have shown that, despite this diversity, they share some common trends. These include the restructuring of agriculture and fisheries and associated loss of primary sector employment and concentration of food processing and marketing, a significant degree of diversification of enterprise and employment into manufacturing and services, and changes in the demographic and social composition of rural areas. In many rural parts of northern Europe relatively near to large cities there has been a movement of people out to surrounding suburbs, small towns and villages, combined with commuting to work, and in some cases this has formed the major part of rural inward migration. In other areas, there has been an increasing reliance on tourism, a prime focus of most rural development plans and projects in the EU, including LEADER I groups[31]. Efforts have also been made to exploit the advantages of distance-reducing technologies, especially telematics, to provide new sources of work and enterprise, so far with varying success, but with much invested in terms of infrastructure and hopes (Bryden and Fuller, 1986 and 1996; Sociomics Ltd and The Arkleton Trust (Research) Ltd, 1993; O Siochru, 1991; Parker *et al.*, 1989; Bryden, 1995; Bryden, 1997; Sproull, Bryden and Black, 1997). Many too have become heavily dependent on public sector employment and various forms of fiscal transfer.

We have also demonstrated that most rural areas are no longer isolated and insulated either from urban areas or global forces of restructuring, and that they are increasingly subject both to the same material and cultural pressures evident elsewhere in society, and to the common framework of policies of the EU. The influences of mass media, forms of codified practice in the

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[31] LEADER is a 'Community Initiative' in terms of the EU Structural Funds, intended to stimulate 'Local Action Groups' in rural areas. Under LEADER I, over 200 such groups were financed in Objective 1 and Objective 5b rural regions. Under LEADER II which will start in practice in 1995, the number of groups will exceed 500. Rural Tourism was the largest single component of LEADER 1 actions, accounting for some 40% of expenditure.

public sphere (regulation, planning etc.) and other social forces are changing the expectations of rural people (and especially younger people) regarding consumption standards, services, women's work, and many other aspects of life. The development of the 'Information Highway' and the rise in the information content of work in the richer countries is also loosening the ties between people and place, and changing both the reality and perception of both 'distance' and 'social relations', with particular implications for rural people and society.

Although the reduced isolation and growing integration of rural areas is revealing some new competitive strengths, and removing some old barriers to change and development, many rural areas remain highly vulnerable to restructuring. Part of that vulnerability results from the fact that, despite restructuring, many rural areas remain heavily dependent on declining industries (agriculture, fisheries, forestry, mining, certain areas of primary processing), low skill and low wage services (such as tourism), and the public sector. The other side of this coin is a relatively low proportion of employment in the high growth sectors such as hi-tech manufacturing, knowledge-based industries and business and financial services.

Moreover, almost all policies at regional, national, European and global levels affect rural areas and people, although not all such policies are recognised as 'rural' or even as having a distinctive rural character or impact. Rarely are the rural impacts of policies and regulations on environment, energy, transport, education, health, social welfare, planning, telecommunications, broadcasting, and taxation specifically identified, far less debated. Most of these agendas are being set beyond rural areas, and sometimes even beyond the reach of national Parliaments. This represents another area of vulnerability. Given that many such policies are likely to change significantly in the coming years it is important both to understand the existing and prospective impacts of such policies in different types of rural region and to inform policy makers and other concerned groups of such impacts. At the global level of policy making one can refer to the transnational agendas of the WTO (formerly GATT), UN Agencies (for example the Rio Summit). Other processes of globalisation discussed earlier concern the crucial impact of rural areas of the increased mobility of finance capital and the reduced mobility of labour. The restrictions on mobility of labour within NAFTA and between the EU and the surrounding countries to the East and South represent the most obvious and visible foci for the North-South problem, and sources of future tension.

Rural areas and people in Europe therefore face real uncertainties over the next decade about the context in which they will have to act in their various capacities, in the spheres of family, civil society, production and work and consumers. These same uncertainties are faced by people who are trying to promote new policies, argue for institutional changes, for instance within Agricultural Universities and Colleges, or plan future research, and it seems important to base this chapter on a review of some of them.

In addition, rural people face major challenges in the political sphere which concern their ability to be represented in the setting of major agendas, particularly at international level in relation to environmental questions, barriers to trade, conflict regulation, and the activities of multinational companies.

In looking ahead, we are of course moving across the boundaries of analysis and into speculation. However, this speculation is a necessary act, and at this time above all it is simply not tenable to project past trends or rely on mechanistic forecasts. In a piece reminiscent of our discussion in the first two Chapters, Hobsbawm recently argued that

> "We live in a world captured, uprooted and transformed by the titanic economic and techno-scientific process of the development of capitalism, which has dominated the past two or three centuries. We know, or at least it is reasonable to suppose, that it cannot go on *ad infinitum. The future cannot be a continuum of the past, and there are signs, both externally, and, as it were, internally, that we have reached a point of historic crisis .... Our world risks both explosion and implosion. It must change. .... And the price of failure, that is the alternative to a changed society, is darkness"* (Hobsbawm 1994, pp 584-5, our emphasis).

5.2 The nature of the crisis

Hobsbawm identifies a number of elements in this historic crisis including the failure of the programmes founded on the two dominant 20th Century ideologies, communism and market liberalism; the 'two central, and, in the long run, decisive, problems' of demography and ecology about which it can be said 'with reasonable certainty' that they require 'global rather than local' solutions which are 'both radical and realistic' and which 'would be incompatible with a world economy based on the unlimited pursuit of profit by economic enterprises dedicated, by definition, to this object and competing with each other in a global free market'; the crisis of the state or 'democratic predicament' in 'liberal democracies' at the same time as environmental and social outcomes of the market economy rendered "the state or some other form of public authority representing the public interest ... more indispensable than ever" (Hobsbawm, *op cit.*, pp 569-579).

In considering the more limited problem of how to move towards more sustainable rural communities in the richer countries, Bryden argued that "the historic conjuncture of at least four inter-related socio-cultural, economic and political conditions (involving) ... people's relations with nature, society, economy and place" both underpinned the current state of global and local unsustainability and raised "fundamental challenges to the ideas, institutions and praxis which emerged in the 20th Century" (Bryden, in Bryden (ed.) 1994, pp 211-230). Once again the need for new collective ways of dealing with our current economic, social and environmental problems, which are deemed to be 'unsustainable' was contrasted with 'the crisis of the state' which was both limiting the possibilities for action by the state as it had grown up in the 20th Century, and leading to new demands for a different kind of socio-spatial division of power concerning in particular local and supranational levels.

In these and other accounts we find some common threads which reinforce the view that the future will, or must if we are to survive, look very different from the past, and that 'business will not be as usual'. If restructuring in the late 20th Century has indeed been led by the market and by its institutions, then the challenge ahead will be to restructure social and political relations not simply to 'respond' to that restructuring, but to control the market and its effects for the common good.

5.3 Some key uncertainties about the future context of rural Europe

Some of the more important uncertainties in the medium term relate to future processes of globalisation, and within those the development of various forms of trans-national regional groupings, such as NAFTA and the European Union.

In the European case, some key uncertainties concern the future nature and composition of the European Union, the impact of the CAP reform and GATT agreement and probable future changes in agricultural policies, whether at European, national or regional levels; to the impact of fisheries policies and changing fish stocks; to the impact of EU enlargement and agreements with third countries, including the ETA and countries of Eastern Europe and the former Soviet Union; to the impact of the single market and possible monetary union; to the effects of the rebalancing of national budgets, privatisation, and the changing regulatory framework; to the effects of environmental policy and the rising profile of the 'sustainability' issue which has been reinforced by the Climate and Biodiversity Conventions ratified at the 1992 Rio Summit; and to other general changes in national, European and global economy and society itemised in Chapter 2.

Certain assumptions have to be made about these aspects of the future context if we are to inform rural movements, institutions, and policy makers in their efforts to devise new ideas and policies for rural development, education, training and other forms of knowledge transfer, and to set the research agenda. We develop this further in Chapter 9.

Enlargement of the European Union

The fourth enlargement has now taken place, and Austria, Finland, and Sweden have joined the European Union, bringing the number of member States to fifteen. A fifth enlargement comprising possibly three or four countries of Eastern Europe, and (less possibly) also Norway, seems almost bound to occur at some stage over the next decade, bringing the total number of member States in the European Union to around twenty.

The fourth enlargement will have several important effects, as will the fifth. The fourth brings in three relatively rich countries. Two of these have large very sparsely populated rural areas extending beyond the arctic circle, an important new dimension for the profile of rurality in the EU. The same two countries have important forest resources and forest industries which are net exporters. In these countries, it was the rural areas which registered a 'no' vote in the referendum to join the EU, as indeed was the case in Norway. Fears about the effects of changes in their highly differentiated agricultural policies, and of centralisation of economic activity seem to be the main factors. All three countries have highly developed social and spatial policies which in Sweden's case at least seems to have underpinned economic success (Bairoch, 1993).

Economic and political union?

Key planks in the basic European programme established under the Presidency of Jacques Delors were the consolidation of the economic union by first of all removing all remaining barriers to trade in goods and services and movements of people and capital in the Union (and by extension, moving towards common monetary and fiscal policies, and in particular monetary union), and second the development of European political democracy to improve the legitimacy of its institutions (the favoured goal then being the creation of a Federal structure). Whilst many if not

all the elements of the first are now in place, the second faces many challenges mainly because some nation States, led by Britain, fear a further loss of 'sovereignty' and distrust the notion of creating more democratic structures at EU level.

A loss of sovereignty is of course implicit in the movement of power of decision making to a supra-national level, and this indeed is what has occurred with the development of the European (Economic) Union. In the short run, revolts by significant and vocal minorities in national parliaments such as that of the UK have been dealt with by permitting 'opt-outs' from important pieces of common policy, most notably (and in the case of the UK) from the programme towards monetary union and, until the election of a new labour government in 1997, from the social charter. However, such opt-out's are fundamentally incompatible with the proper functioning of an economic union, and certainly not sustainable within a political Union.

Moreover, within a relatively small Union of six or even nine, member States, the practice of proceeding with major policies with unanimity of voting in the Council of Ministers was just about sustainable, but has come under increasing strain after enlargement to twelve member States and is certainly not sustainable with fifteen or twenty. Informed observers are almost unanimous in believing that a move to general majority voting in Council, and the parallel removal of 'opt-out' powers so often used by Britain, will be necessary, which will further deplete powers of national parliaments since any given member State in the Union is bound to find itself being obliged to accept policy measures which it voted against in the Council. Added to this problem is that of the voting 'weights' applied to large and small states.

Such issues may be resolved in the medium term, although most remain unresolved at the end of the inter-governmental conference in 1997 due especially to the particular political conditions in some key member States such as France and Britain. Equally, they may not be so resolved, in which case it seems probable that policy making at European level will face growing difficulties, and *de facto* the focus of policy making will tend increasingly to revert to member State or regional level. In practice, what seems to be emerging in the meantime is greater debate about the appropriate level of decision making in the various spheres of policy, in the framework of 'subsidiarity', and greater stress on the need for 'partnership' between the different levels of government.

The convenience to national governments of moving decision making on certain issues either upwards or downwards to non-elected authorities is itself one of the reasons for the crisis of the State and of democratic politics which Hobsbawm and others have noted. Any sustainability scenario must therefore address this problem. In the European context, the choice appears to be either to proceed with the Delors programme in some form, or to have a two-tier Union in which some countries proceed with that programme and others withdraw into a kind of quasi-nationalism. The complexity of the latter seems so large as to threaten the idea of the Union (and its economic, social and environmental policies) itself. Moreover, it would render the Union weak in the eyes of the world, more vulnerable to turmoil on its borders, and in practical terms less able to deal with the causes and consequences of unsustainability which we have outlined. Our assumption would therefore be that in the medium term the European programme will proceed in many of its major components. However, we suggest that this will only prove politically feasible and potentially socially beneficial if ways are found to revive political democracy at national and local levels, and if federation can be seen to be compatible with decentralisation rather than as necessarily involving an accumulation of central powers. Either

way, the implications for European, national, and local institutions will be profound. There are also implications for education, training and research, which we will pursue later.

The political- ideological complexion of Europe

In the medium term, as Hobsbawm's analysis suggests, a critical issue will be the role and legitimacy of the 'State' which, given the previous discussion, will increasingly imply the role of the 'State' at different levels - central (Europe), national, regional, local. The two issues concern the degree of involvement of the state in economic, social and environmental issues on the one hand, and the relationship between the state and the citizen on the other. These issues connect through the notion of legitimacy. Citizens will resist collective action through the state if they consider that state not to be acting on their behalf, even if they consider aspects of collective action to be a 'good thing'. Paradoxically, in cases where the state has withdrawn from collective activity, however, it has become prey to powerful sectional and sectoral interest groups, which further reduces its legitimacy in the eyes of the citizen.

Neo-liberal states can thus be seen as a temporary and transitional form which turn out neither to represent the people nor tackle the major problems facing humanity. On this view, they represent a culmination of the errors of the 20th Century, not the paradigm for the future. Bryden has argued elsewhere that as with the other disconnections which underpin unsustainability, the challenge here is to reconnect citizens and the state (Bryden in Bryden, 1974). The kind of politics required for this will owe much to the politics of regional and sub-national movements, environmental movements, feminist movements, and communitarian movements which have partially replaced the more class-based party politics of the 20th Century. Nevertheless, these 'progressive' movements are not alone. At the same time, we are seeing some resurgence of 'regressive' movements of the nationalist, racialist, and in some cases religious 'right' which have other kinds of agenda. There can be no guarantee of the outcome, and one must guard against both over-optimism and over-pessimism.

However, in this scenario, if the dominant political complexion of Europe will remain somewhere between Christian Democrat and Social Democrat, there may well be at the same time a greater reliance on coalitions and in some cases direct democracy through referenda and televoting. This last tendency will emerge because of technological developments, declining trust in political 'representatives', and the greater universality of education. One might also anticipate in this scenario that state intervention in the economy will remain, albeit with a less 'top-down' and more 'participatory' orientation, the Social Charter will remain, and there will be increasing concern about, and policies to tackle, problems related to spatial and interpersonal inequalities of opportunity and income.

One must also anticipate increasing concern about the environment. In this connection, the White Paper on Employment (EC, 1993) will probably be revived in some form and linked with more robust environmental policies. This probability is increased by recent political changes in France and the UK. These will seek to combine regulation with market pressure to apply the 'polluter pays principle'. One mechanism will be environmental taxes, the proceeds from which will be used both to invest in major public investments which can have positive environmental impacts and create employment, as well as reducing employment taxes levied on employers and the low paid. This is what is termed the 'double dividend' - lowering environmental pollution will raise the quality of life, whilst the additional revenue will enable more employment to be

created. Meeting the targets of the Climate Convention of the Rio Summit will be very relevant to this question. However, we observe that these agendas are largely being set by an uneasy coalition between the techno-scientific community, the nation State, a few powerful international NGOs and, increasingly, non-legitimated supra-national bodies. Tensions could emerge between this coalition and popular and populist movements, although initiatives such as Local Agenda 21, related to the Rio Summit conclusions, may provide a participatory forum which could help to avoid these.

The very real desire of people to have some say in their future, and the effect of the fourth and prospective fifth enlargement discussed above, is resulting in calls for diminished power at the Centre of Europe in certain areas of public decision-making, and increasing demands for genuine devolution of power and responsibility to regional and local levels in pursuance of the 'subsidiarity principle'. This tendency could alter the policy framework significantly, leading to more diversity in almost all areas of policy and public action, and increasing possibilities for an 'active society' in terms of engagement in civil and political society. In turn, this will lead to significant institutional and indeed constitutional change at all levels. The whole issue of governance at different levels of spatial 'hierarchy' must respond to the new agendas of economic, social and environmental sustainability, and increased citizen involvement.

In addition, if the central problems of globalisation relate to interconnected issues of international income distribution and the environment, then heightened attention to Europe's relations with the rest of the world and to the development of institutions which can deal with these problems in peaceful and more democratic ways might be expected.

If the richer countries can evolve political frameworks of this kind, then we might hope that the global framework will be one in which we will continue to see largely peaceful transitions to more democratic systems, and in which there will be a growing realisation of the one-world problem - how to move towards a neo-Kantian global framework for 'perpetual peace' (Kant, 1795), but extending this notion to cover the behaviour of multinational companies, to tackle growing problems of the environment, and to improve the international distribution of income and 'environmental space'. As part of this endeavour the restructuring of trans-national economic and political groupings in the Pacific, the Americas, Africa, and elsewhere, and a restructuring of international institutions and multilateral agreements would seem to be essential.

In this regard the future of moves to freer trade globally is more complex. On the one hand, nation states and new supra-national states such as a future federal Europe will surely assert their right to protect their citizens welfare. One might also expect other regional groupings such as NAFTA and MERCASUR to be forced to develop supra-national political arrangements to legitimate decision-making within these groupings and to collectively tackle the social, economic and environmental problems which we know from experience will follow freer market arrangements. This would include the freer movement of people between nations and regions and/or compensating public flows of financial resources from richer to poorer countries and regions. On the other hand, an important rationale for such arrangements relates to global competitiveness, and dealing with the issues of global equity is predicated on a degree of equal access to markets and freer movement of people at global level. These and other factors suggest that more attention will be paid to the conditions of trade and international flows of capital and people, than to levels of protection *per se*. Thus, to take but one example, we might expect that the new World Trade Organisation will be faced with increasing demands to take environmental

issues into the GATT, even if this is unlikely to be agreed in the next round of trade talks.

Given these very speculative, and perhaps optimistic, assumptions and scenarios, we now turn to some of the main factors likely to be important for rural areas in the enlarging Europe over the next decade or so, and which are likely to be influenced by the foregoing scenarios.

In concluding this section, however, we would point to the following factors which have specific implications for education and training. First, we have highlighted the growing importance of the different links or connections between local, regional, national, supranational and global levels in terms of economy, environment, human mobility, politics and institutions. This stresses the importance of those aspects of education and training which improve knowledge and understanding of these connections, including geography, languages, cultural studies and anthropology, economics, international law and politics. Second, we have outlined the sources of very considerable uncertainty about the future, and the probability of continuing and even intensifying restructuring at all levels. This in turn highlights the increasing need to equip people to cope with rapid and sometimes radical change, and stresses the notion of life-time learning. Third, we have suggested that many policies are more likely to be articulated to local needs and circumstances, whatever the origin of these policies. This stresses the need for people working in the public policy sphere to be equipped with knowledge and understanding of these local needs and circumstances. Fourth, we have identified the desire for more participation in the development and implementation of these policies, suggesting the need for new kinds of skills. For example, those professionally engaged in various aspects of public policy need to be equipped with knowledge of the methods and tools of participation. Fifth, we have stressed the need for a more holistic approach to regional and local development, which can deal with the many inter-connected issues of economically, socially and environmentally sustainable development. These demand skills in inter-disciplinary, cross-disciplinary, multi-disciplinary theory building, research, institution-building, and practice which are currently in very short supply. They will be outlined further in Chapter 7.

5.4 The future context for rural areas and people

We concluded our analysis of past tendencies in Chapter 3 by highlighting a number of key issues relating to the future of rural areas in the European Union, namely:

- The unsustainability of traditional solutions of intensifying production coupled with mass exit from farming in the context of southern Europe, where large numbers of households on small farms remain. New solutions here will depend on specific rural development policies at regional and local levels, rather than on the CAP.

- The role of farm household pluriactivity in agrarian change and farm household adjustment throughout Europe. This must be a key element for future adjustment by the large number of families remaining on small farms. However, this process depends on training in non-agricultural skills and on the growth of non-agricultural labour markets in rural areas, and increased articulation of policy to reflect the diversity of rural conditions.

- The fact that most of Europe's rural population were no longer dependent on agriculture for employment or livelihood, but were engaged in manufacturing, tourism and a wide range of other public and private services. The concerns which rural people had were no longer confined to traditional agriculturally focused rural education and policy.

- Past experience suggests that we should not necessarily be pessimistic about the prospects for non-agricultural rural labour markets in general.

However, the foregoing analysis suggests that we should revisit some of the issues concerning the future prospects for agriculture and for rural labour markets, and policy initiatives. Some of the key issues are:

- the effects of the 1992 CAP reform and the GATT agreement, including set-aside and the environmental impacts of agriculture, and the nature and impact of the next CAP reform.

- Rural population and employment tendencies, including future prospects for commuting and 'distance working'.

- Rural diversification strategies.

- Rural development policies.

- Other policy changes, especially environmental and social policies.

5.5 Agriculture, CAP and GATT and beyond

Although agriculture rarely accounts for more than a fifth of employment in any rural area of the Union, it remains important for production, value-added, environment, landscapes, culture, policy and ideology. However, this importance now has to be seen in the context of a diversified rural economy, increasingly complex public demands with respect to agriculture, food and rural space, and an increasingly broader rural policy framework, rather than one simply concerned with food and raw materials production. Indeed, as we have seen, this context has totally changed from that which prevailed when the CAP and its antecedents in the form of post-world war II national agricultural policy were devised. In particular, we increasingly need to view the CAP in terms of its impact on the environment and landscapes, on food safety, and rural development. We also need to consider its budgetary impact at EU level, and its impact on cohesion, issues which will become more pressing with future enlargement to the East. There are several reasons why a further round of CAP reform must be anticipated.

Although the 1992 reform sought to 'delink' producer's incomes from current production and expose farmers to a set of prices approaching, and moving with, world market prices, we have argued both that this was applied only partially (mainly on the 'northern commodities') and was in large measure nullified by the subsequent collapse of the European Exchange Rate Mechanism. Whilst the reform was deemed more or less 'compatible' with the subsequent GATT

agreement, in that the ratification of the GATT round in 1994 did not in itself require adjustments to the reformed CAP, some observers doubt if that compatibility can be sustained in practice. Subsidised exports of several commodities remain too high.

In addition, the response to the environmental problems in agriculture was limited, and despite the new link between some livestock compensation payments and stocking rates failed to establish a firm link between subsidy payments (compensation payments) and good environmental practice, through so-called cross-compliance. Moreover, it did not apply the general principle of 'polluter pays' or the 'precautionary principle', both of which are part of EU environmental policy. Some member States such as the Netherlands and Denmark have recently introduced more stringent national legislation to control agricultural pollution, especially concerning nitrogen and phosphates which pollute water supplies. However, this is a problem throughout Europe, even if it is one which, because of time lags, will not have its full impact for ten to twenty years hence. Moreover, due to shortages of water in many regions, the problem of meeting demand for potable water is likely to grow into the next Century, and producers in EU regions subject to stringent national regulation are likely to demand extension of such regulation elsewhere on grounds of fair competition. Those countries which have proceeded with strict national measures to control agricultural pollutants are likely to argue on competition grounds that such regulations should be generalised at EU level. Moreover, it seems probable that the EU will seek to get environmental conditions put into the next GATT round, with resistance anticipated from the US, Canada and no doubt others. Be that as it may, consumer demand for environmental assurances seems likely to play an increasing role in mediating the effects of global competition, especially in the light of the BSE crisis in cattle, and the swine fever crisis in pigs, both of which are widely believed by the public to be associated with intensive systems.

Two extreme scenarios are possible. Either there is a general reduction in farming intensity, or intensive production moves to regions where the problems of imbalance are less severe. A combination of market forces (increased cost of dumping surplus organic wastes, lower market prices and premia for less intensively produced products), fiscal measures (pollution taxes) and regulation seem likely to encourage some combination of these outcomes.

An alternative scenario, discussed for example in the controversial Dutch study 'Ground for Choices', is that EC agricultural production becomes yet more intensive, and is concentrated on half or less of the existing land area, leaving the rest to go into various forms of nature park and forestry. However, this scenario seems unrealistic for political, social, economic and environmental reasons[32].

The fear in some rural development circles is that land abandonment and farm exits will occur mainly in the regions which are both highly dependent on agriculture, and where diversification has so far proved to be most difficult - such as the French massif's. Others fear

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[32] The latter concerns include the possible effects of 'Chemical Time Bombs' which are "sudden non linear releases of stored chemicals in soils and sediments" (Stigliani, 1991). This fear relates to the effects of changes of soil pH and redox potential on the release of heavy metals, and it relates particularly to land abandonment, the effects of acid rain, and reductions in soil organic matter. The distribution of heavy metal depositions on land in Europe shows concentrations in two nodes, first "the area encompassing the Netherlands, Belgium, and Germany near the Dutch border and second "in Central Europe around the borders of Poland, the Czech Republic, and the former East Germany".

that removal of grazing livestock from marginal production areas will have adverse effects on the environment and landscapes. However, as we have seen in Chapters 3 and 4, this will be more likely to occur if policy, market conditions and enterprise together fail to produce alternative sources of work and income in such areas

Medium term perspectives on CAP and GATT

In the forthcoming evaluation of the outcomes of the CAP reform, at least three themes are likely to be important, notably:

(1) Further price cuts seem likely to be at the top of the agenda. Pressures will also arise from market access arrangements, especially those negotiated with Eastern Europe (beef, wine), enlargement to include at least some CEEC's, and from the next WTO trade talks. Cereals will probably not be under pressure because production is currently more or less on target. However, as we have seen, there have been some agri-monetary effects which have diluted the impact of CAP reform, and which need to be dealt with. However the passage of the FAIR Act in the USA indicates a tough stance in the trade talks starting in 1999, and all subsidies including those in the 'yellow box' will come under attack where they can be said to be production-related.

(2) Given that the 1992 reform concerned mainly 'northern' products, the second theme is likely to be generalising and simplifying the principle of support through direct payments. The real problem with direct payments in general is likely to emerge towards the end of the decade, both from enlargement and the WTO talks. The linking or integration of any remaining direct income support to environmental questions - cross-compliance - may also be an issue here, with comparison of the relative merits of cross-compliance, self-regulation and regulation being discussed. The more radical solution of transferring responsibility for direct payments (and cross-compliance) to member States seems unlikely to be adopted at this stage, although the logic of such a move seems sound if direct payments can be further de-linked from production and can be argued to have neutral effects on competition (Larsen *et al.,* 1994).

(3) The third theme is likely to involve a raised profile for rural development as distinct from agricultural policy. The Fourth Framework Programme on Research and Technological Development for 1984-99 has given the diversification of farming incomes and rural economies a much higher profile than hitherto. In 1988/89 tentative steps were taken in this respect, following the Commission's report on the Future of Rural Areas, the inclusion of 'rural development' in the title of DG-6, formerly the Directorate-General for Agriculture, and the increased rural development activity under structural fund programmes including LEADER. The effects of relations with East Europe, and the fourth and possible fifth enlargement will also be important here. The Agricultural Strategy Paper (CEC 1995), the Buckwell Report (Buckwell, 1996), the Hyland report (European Parliament, 1996), the Cork Conference (1996) and the Cohesion Conference have given some strong indications that in-depth analysis of these questions is in progress, and point to the close link between general rural development, and especially economic diversification in rural regions, and the

fortunes of farm families (Bryden and Commins, 1997). In the longer run, funds will need to be reallocated from agricultural policy to rural development policy through the structural funds. From a political viewpoint, the strengthening of the powers of the European Parliament and the creation of the new Committee of the Regions seems likely to reinforce this tendency. On the other hand, enlargement will constrain the ability of the EU to direct transfers to rural areas in relatively rich countries like the UK and Germany.

In the longer term, further surplus land is expected to emerge as a result of the increases in yields of crop and livestock products arising from technological and biological improvements already known, and an important question must be: what will happen to the surplus land? There are of course uncertainties about the timing of these improvements, and about the extent and timing of legislative restrictions, for example on the use of BSV hormone to increase milk yields, currently banned in Europe. In the Dutch study 'Ground for Choices' the minimum reduction in agricultural land use in the four scenarios examined was 40 million ha and the maximum closer to 100 million ha. However, the direction and pace of technological change, and the input-intensity of agriculture, must be assumed to be price-sensitive and not independent of agricultural market policy. If the move to bring common prices in the EU closer to world market prices continues, and if pollution taxes are applied to chemical and raw material inputs, then technological advances may be balanced by reductions in input-intensity. In addition, the lobbies representing consumers, farmers and environmental interests may find common ground in opposing at least some biotechnology developments - the primacy of the alliance between techno-scientific and political interests which evolved in the 20th century, cannot be taken for granted as we approach the 21st.

Up to 1991, less than 2% of land set-aside had been afforested (Anz, 1993). Although forestry is seen as an important non-food alternative use of surplus agricultural land, and although a more generous system of support for afforestation of agricultural land has been introduced under the Accompanying Measures of the CAP reform, implementation has been slow, none of the proposals for such schemes put forward by Member States having been approved by December 1993. So far, schemes to encourage farm forestry have fallen short of their targets for new planting, mainly because of the long term nature of forestry returns, relatively low returns, and the relatively small scale of farming in comparison with perceived minimum scale of plantations. In the longer run, the enlargement of the EU to include Finland and Sweden has moved the EU from a wood deficit to a wood surplus situation by the end of the Century, and this may reduce pressure for further afforestation. Although environmental pressures are having their effect here too, for example the impact of the 'spotted owl' controversy in the USA on felling rates and practices, and world prices for timber are currently high, recent experience suggests that afforestation seems likely to take up but a minor part of any surplus land. Nor are the economic prospects for other non-food land using production presently encouraging, although the introduction of a carbon tax as part of general environmental policy could change this.

At present, various forms of environmental and recreational land use seem to be the most likely candidates for any surplus land. Demand for recreational use seems likely to remain strong in more prosperous and densely populated regions, and to the extent that set-aside, planning controls and other relevant regulations will permit this kind of use on surplus land, the market

will probably function to bring about such land use changes. The now weakened planning system may however be unable to ensure that changes in use do not release environmental 'time bombs' and that environmental improvements occur simultaneously, unless it is strongly reorientated. In poorer regions further from urban population centres the market seems unlikely to produce desirable land use changes, and the creation and enlargement of nature parks will depend heavily on possibly implausible commitments of public expenditure either to national, regional or local public parks, or in the form of payments to farmers to follow particular management regimes. In such regions, economic diversification will help to retain family farming, but other measures will be needed to encourage them to retain grazing livestock where this is needed for environmental and landscape reasons. However, the arguments for including these sorts of payment within integrated regional programmes, rather than as part of an exclusively agricultural policy, seem overwhelming in view of the regional and local specificities of both environmental and developmental problems and solutions.

A number of recent studies have suggested the desirability of a more radical shift in the agricultural policy of the EU, pointing out that once prices are brought to world market levels, and support for farmers is wholly or largely through 'compensatory payments' not related to production and alleged not to affect competition, then the rationale for making such payments within the framework of a Common Agricultural Policy and from the EU budget is rather weak. Rather, it is argued, such payments become properly part of social welfare or spatial policy and responsibility for setting the levels and conditions of payment ought to be returned to national or regional parliaments or authorities. These arguments are reinforced when one considers the problems of the fifth enlargement (EC, 1994). Clearly this would restore some power to the nation State and/or regions.

The stage may therefore now be set for a yet more radical change in the CAP in the medium term. It cannot, however, be assumed that such changes will necessarily have adverse effects on rural areas. We have already suggested that there is little if any evidence that the CAP as it has existed had positive effects on rural areas, and some to suggest that the effects have rather been negative. Thus the CAP has exacerbated rather than 'solved' the income problems within agriculture, and has reinforced production practices which have had adverse effects on the rural environment. In addition, there are likely to be more effective ways of spending scarce budgetary resources at EU level, which will have more positive effects on rural (and hence national and EU) economies. Whether or not this happens, in practical terms we are likely to see further shifts towards more locally based components of agricultural policy in which specific linkages with environmental issues and rural development can be articulated, and greater focus on spatially focused, and more integrated, rural policy.

It is of course certain that a radically reformed CAP would require considerable adjustment by farmers, and there are good arguments for transitional measures to ease this process. Nevertheless our own evidence in Chapter 4 suggests that farm families are indeed capable of such adjustment over time. Although the critical point remains the diversification of the rural economy, in the present context what is important is that systems of knowledge creation and transfer, including agricultural education and training, should assist rather than hinder this process. And part of this challenge is an awareness that radical changes are likely, what their nature is, and what options might exist both within and beyond agriculture.

The possible reaction of farmers to further restructuring

What kind of reaction will farmers have to such changes? In the European survey analyzed in Chapter 4, farmers were asked what they would do if faced with substantial falls in farming income. The following was the response:

If farming income falls substantially, farmers would...

continue with lower income	39.6%
stop farming	30.1%
undertake or increase off-farm work	17.6%
work harder on the farm	11.4%
other	1.2%

What is most interesting is that there is a coherence between these responses and actual adjustments made between 1987 and 1991. Those who say they would stop farming are more likely to have reduced production by 10% or more, less likely to have invested, and more likely to be disengagers. Those who say they would work harder on the farm are more likely to have increased production, to have invested, and to have engaged in agriculture. Those who say they would continue with lower income are more likely to have been stable. Those who say they would take up or intensify non-agricultural work or activities are more likely to have invested in non-agricultural activities, and so on.

The point is, that adaptive patterns in future seem likely to bear some relation to recent behaviour and experience, and will not all be in the same direction, or have the same consequences. Rural education and training provision needs, more than ever before, to face up to this reality. This means going beyond the needs of the few who will continue to 'engage' in agriculture to the needs of the many who must find other solutions to the work and welfare of their families.

Population and employment in rural areas

We have argued in Chapter 4 that the general presumption that a decline in agricultural employment and in the number of farmers would inevitably lead to a 'rural exodus' has not been generally reflected in demographic trends in rural areas of western Europe, at least since the 1970's. However, a large part of the population increase has been attributed to inward migration of commuters who work in towns, and it has therefore taken place on a larger scale in rural areas which are within commuting distance of large towns and cities. We have also seen that the decline in primary sector employment has been countered in some rural areas by an increase in manufacturing employment and in most rural areas by increases in service sector employment. Some of the critical questions for the future concern the prospects for rural manufacturing, services (including public sector employment) and for commuting.

The situation has changed considerably since 1990. We have already noted earlier that direct and indirect employment associated with agriculture seems likely to decline. But what is the situation in other sectors of the rural economies in western Europe?

The dependence of many rural areas on lower skilled and relatively poorly paid manufacturing and service sector jobs is of some concern in the light of the Single Market, the

considerable pressures to open up trade with Eastern Europe where manufacturing skills exist and wages are a fraction of those in the west, and globalisation processes in general. For example, wages in the Czech republic are one-fifteenth of those just over the border in the rural area of Freyung-Grafenau, Bavaria, and Seibert argues that the low wage manufacturing activities which dominate the employment pattern there are under intense pressure from Czech competition - between 1992 and 1993 some 2000 joint enterprises between German enterprises in Lower Bavaria and Czech enterprises, mainly moving production activities over the border (Seibert, 1994 in Bryden, Black *et al.*, 1994). These competitive pressures on the generally more labour intensive and lower wage manufacturing and service sectors in rural areas must be expected to continue in future.

Tourism has been an important source of employment in many rural areas, and many are relying on that potential as a substantial part of their future development strategy. In recent years rural tourism seems to have suffered a setback in many rural areas, the result of growing supply of accommodation on the one hand and falling demand as a result of the recession on the other. In addition to this hopefully short-term problem, tourism is commonly a seasonal and often highly seasonal activity in rural areas, and is a low wage industry, with substantial numbers of part-time and seasonal workers often coming in to rural areas from elsewhere on a temporary basis. It will also be subject to competition from Eastern Europe. Moreover, in some regions, for example parts of Greece, there are real dangers of economic, social and environmental damage from uncontrolled expansion of tourism, and over-dependence on what is a fickle industry. Particular concerns relate to scarce fresh water supplies and water table depletion, pollution due to inadequate waste treatment facilities or regulation, and the effects of imbalances between residents and visitors.

This growing competition for market share in agriculture, rural manufacturing and tourism is recognised in strategies of regional and local development programmes for quality improvement, regional labelling, and 'niche' products which are identified with particular processes, activities and places. However, such strategies have to battle with rules of competition, health and hygiene rules, and individual commodity policies, as well as commercial competitors. Whilst rural areas can in principle capture a larger part of value-added in food chains, and this may offer new prospects for the re-integration of agriculture in local and regional economies, the commerical pressures for centralisation, linked to concentration in the food industry, seem to remain strong.

In addition, the dependence on public sector employment makes many rural areas vulnerable to the pressures arising from the State's need or desire to reduce public sector deficits. In general this need comes from expanding demands for social welfare, education and training, and transport and communications on the one hand, and fiscal resistance of citizens and enterprises arising from intensified global competition, issues of legitimacy and effectiveness of public actions and changing political ideas about the role of the state on the other. In Europe, the need to control public deficits and inflation in line with the convergence criteria for monetary union in the Maastricht Treaty reinforces these tendencies.

Important questions have also been raised in the context of the 'sustainable cities' issue about the future of rural settlement based on commuting. Much of the exodus of people from cities has been based on the perception of declining quality of life in cities due principally to increasing pollution and crime, and the shortage and cost of housing. Moreover, commuting is

highly dependent on personal mobility, specifically use of private vehicles which create social costs reckoned to be at least equal to the private costs borne by motorists. The probable move to implement the principle of 'polluter pays' could thus be expected to at least double the costs of commuting, and this could be higher in heavily congested areas.

If some of the economic bases of rural expansion since the 1970's now seem under threat, it is also important to point out the new opportunities which are emerging for rural areas. Five particular strengths which combine to provide potential competitive advantages for many rural areas are the developments in relation to the 'information highway', the quality of the labour force, the production of more 'natural' goods and services, the quality of the environment, and the quality of life. The link between these is provided by the information highway, which radically reduces the importance of distance from raw material sources and markets, and permits certain forms of production, especially that with a high information-content, to take place on a radically decentralised basis. Given that a high proportion of work in future is expected to be 'information work', we can anticipate that some people will make the choice to live in rural areas whilst engaging in these new forms of work. Indeed, in rural areas where advanced telecommunications are in place we are already seeing such tendencies (Bryden, 1995, 1997). Again, this suggests radical changes in both the form and content of rural education and training. On the one hand, new opportunities for high quality distance education and training are opened up by the information highway. On the other, it is clear that there is an urgent need for training and experiential learning on Information and Communications technologies in all sections of rural society (Bryden, Fuller and Rennie, 1996).

A further important and so far largely neglected aspect of rural change and development concerns gender. Women form half of the rural population. Their traditional roles in relation to production, reproduction and culture-bearing have been changing radically, whilst their role in the labour market has expanded rapidly. They form a major part of the least secure part of rural labour markets - often being in part-time, poorly paid work. All too often, their new roles in the labour market are added to their traditional roles without recourse to the support of child care or nursery provision which is notoriously sparse in Europe's rural areas. Women often have particular difficulties in accessing both work and training due to the problems they face in commuting to centres where work and training are concentrated. Yet they play a minor role in policy making and in rural development plans and programmes - there are few women in senior positions in the European Commission, in agricultural and rural development divisions of national administrations, and even in LEADER local development groups. This will become a major issue both for policy in general, and for rural education and training as we approach the next century.

To conclude this section, we observe that if future development of rural areas cannot be based on agriculture or its related industries, low wage manufacturing and services, unlimited expansion of tourism, or on commuting, then some of the fundamental bases of rural expansion in the third quarter of the 20th century must be critically assessed as we enter the 21st. Questions of sustainability, the importance of diversity, the role of the information highway, and the significance of the gender question for rural areas have been raised in this context. All have major implications for education and training.

5.6 Rural development policy

The rationale for rural development in the EU is expressed by the Commission in terms of the existence of marked and general trends concerning the decline in employment and in agricultural activity, selective outward migration of young people increasing number of rural people who are unemployed or in insecure circumstances, growing isolation due to decline in public and private service provision and damage to the environment (CEC, 1988).

More positively, rural development is considered to need public support at EU level because of:

- underused human and other resources (surplus agricultural land, unemployed and underemployed labour and skills);
- the potential of rural areas, not only in relation to traditional production but for renewable energy and new demands from urban population (renewable energy, healthy food, recreation, environment and space);
- the protection and enhancement of the environment (water, air, fish-stocks, forests, bio-diversity, landscapes);
- the provision of rest, recreation and retirement opportunities (increasing demand, ageing populations, escape from cities, new lifestyles);
- the importance of cultural values, identity and diversity;
- market failure in some areas (e.g. environment);
- policy failure in some areas (e.g. aspects of agriculture, fishing, transport etc.).

A reading of various speeches by Commissioners of Agriculture and senior Commission officials since 1993, as well as the Agricultural Strategy Paper (1995) and the Cork papers and speeches, suggests that the European Commission's response involves the following main lines of thought:-

First, the Commission believes that Agriculture is still important. It argues that we need policies to promote a healthy and competitive agriculture and sustain farming in rural areas. At the same time, they agree that environmental damage from intensive agriculture must stop. To be sure there are contradictory elements in all this - agriculture may not be competitive if it faces more stringent environmental regulations than its competitors do; sustaining farming and farmers has not been a notable successful outcome of the CAP based on price support. But there is a basic understanding that farming is still an important rural activity, and that farmers have a role in the conservation of the natural environment. Nevertheless, the contradictions between policy goals here are increasing, and radical rethinking of both the basis of and nature of agricultural policy is, we have argued, both essential and likely.

Second, the Commission increasingly accepts that diversification of the rural economy is

essential to the maintenance not only of the non-farming population in rural areas, but also for farmers and farm families. The research on farm household adjustment has informed the Commission on this point. Whole new areas of Commission activity have opened up, and will most probably shortly open up even more, in relation to training and re-training, advisory and research work, and in terms of regional policies in rural areas.

Third, assistance towards this diversification should be related to a 'realistic assessment' of the potential of local assets and likely market demand. This applies in particular to rural tourism and the development and marketing of high quality niche food products. There is some evidence that, in some areas or market segments at least, oversupply, stimulated by policy, is a problem at the present moment.

Fourth, initiative and entrepreneurship are crucial. It is insufficient merely to respond to market restructuring for example through contracts with supermarkets, tour operators, or large companies looking to outsource work in rural areas. If rural areas are to prosper farmers, entrepreneurs and other economic actors need to take the initiative to develop markets for their products and services aimed at bringing more income and value-added, and thus employment, into rural areas.

Fifth, harmony is needed between economic development, environment and culture. Economic activities in rural areas must be in harmony with and exploit the natural environment and culture. There is a view, however, that this should be achieved through a constructive process rather than the creation of obstacles through tax or planning regulations.

Sixth, there should be concentration of public effort - public support for rural economic development should be concentrated where it is most needed. It should exclude areas close to prosperous towns as well as abandoned areas. Priorities should be sparsely populated peripheral areas or intermediate areas where agriculture has been important but where there remains some potential for a new economic base. In practice this means increasing the focus of EU effort and expenditure on regions which are a priority in terms of cohesion objectives, currently Objective 1, 5b and 6 regions.

Seventh, the starting point should be a 'bottom up', 'partnership' approach. Rural development programmes should aim to build on the ambitions and initiatives of local people. They should support partnerships between those who can launch these initiatives such as farmers, businessmen, cooperatives, local authorities, and voluntary groups. In practice this is reflected mainly in the EU's LEADER programme which will probably involve over 800 'Local Action Groups' under LEADER II, which covers the period 1995-99.

Eighth, rural people need improved access to services. Local economic actors need better access to competitive services such as training and re-training facilities and courses, information and knowledge systems, risk capital etc. Informatics links can help improve access to such services outside towns.

Ninth, physical economic and social infrastructure is important. This applies not only to roads and telecommunications, but also to social infrastructure at local level - such as village halls, medical centres, and childcare facilities.

Finally, public policies should support better knowledge, information and advice relating to new rural initiatives. Despite advances in communications, rural communities are generally isolated, dispersed and short of information on where to look for information and advice on new initiatives. Knowledge of 'best practice' should be developed and disseminated. Efforts to

provide information and technical assistance to economic actors in rural areas should be supported. It is expected that this effort will be assisted by the 'European Rural Observatory' which the European Commission proposed within the framework of LEADER II.

These ten principles are reflected in policy through the CAP reform, 'Community cohesion' policies implemented through the 'structural funds' and (since the Maastricht Treaty) the new 'cohesion fund', the Community Initiatives (especially, as noted, LEADER), and, most recently, in the Cork Conference.

The implicit vision of rural areas in general thus seems to involve several different, and possibly contradictory, elements, namely:

- continued improvements to agricultural productivity to meet the challenges of global competitive forces, but with reductions in production of most commodities to meet international demands for globalisation and fair competition. Inevitably, this means more intensive efforts to increase the scale of production through enlargement of the physical size of farms rather than increasing the intensity of production alongside efforts to remove land from agricultural activity and into alternative uses.

- Efforts to diversify rural economies to provide alternative employment and income to absorb present and future surplus labour in agriculture. The opportunities here are seen mainly in terms of services provided for urban populations, reflecting the demands of the latter in non-food areas, especially tourism and recreation. Increasingly the cultural and environmental assets of rural areas are seen as key elements in creating competitive positions in these markets.

- Efforts to localise development policies and actions and develop partnerships between local interests to ensure that local needs and desires are central.

- Attempts to establish a kind of new 'social contract' relating to parity of services available to rural people. This reflects the idea that rural people are disadvantaged in what are increasingly regarded as 'basic' services which might enable equal opportunity both to different rural citizens and as between rural and urban people.

- New emphasis on education, training, knowledge transfer, and advice, many of which are considered less accessible to most rural people.

Local rural development strategies and policies

Given this rationale and context, innovative local strategies for rural development have focused on actions which can stimulate the processes by which more sustainable economic and social development of rural areas can be achieved, and on improving the competitiveness of local rural economies in European and global terms. More specifically, the measures concentrate on such areas as:

- adding value to existing products (new manufactured food and forest products, exploitation of niche markets etc);

- the renewal or development of regional/local identities which can differentiate products in the market place (goods and services; relation with local and regional cultural identities etc). This is closely related to the previous strategy, and is also a response to globalisation and the differentiation of mass markets - the successful creation and maintenance of a regional identity acts, in effect, as a non-tariff protection against global competition which is not challenged within the GATT, and difficult to penetrate[33];

- development of rural tourism and recreation (farm tourism, community tourism, special niche tourism products, cultural specialisms, quality standards, targeted marketing etc.);

- identification and development of new markets for rural products arising from the foregoing;

- reducing environmental problems/ enhancing the natural and built environment and landscape (water, air, bio-diversity, village improvements);

- the development of human resources (improve access to education and training, development of capacities to innovate and take risks, development of cooperation between actors, evaluation and learning processes);

- reducing the isolation of young people, excluded groups and the elderly (amenities, services, facilities of sport, entertainment, recreation etc.);

- encouraging cooperation and innovative institutional partnerships between rural actors and agencies at local level, and the integration of their efforts to avoid duplication of effort, wasteful competition and maximise synergies (local partnerships, local brand labels and quality standards);

- encouraging the participation of rural people in strategic planning and development processes;

- maximising the advantages of new technology, especially distance reducing technology (telecottages, teleworking, training in applications, rural electronic mail, bulletin boards and computer conferencing, distance education and training and Internet access);

- new uses for surplus agricultural land and buildings (renewable energy, tourism and recreation facilities and accommodation, business incubators);

- rural job creation (social economy, environment, culture, animation);

- cultural renewal (language, arts, crafts, heritage).

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[33] Compare, for instance 'Harris Tweed', 'Scotch Whisky', 'Rocquefort Cheese', 'Parma Ham'.

Such actions, evident in the LEADER projects for example, represent the local response to perceived opportunities, resources and constraints. They are thus revealed as the areas where local action is seen by actors themselves as potentially making a real difference to incomes, employment and the quality of life. That does not, of course, mean that they are without problems! Opportunities, resources and constraints differ from one rural area to another; markets for 'niche' products are elusive, dispersed, and small, often requiring novel approaches to marketing and distribution; supermarkets are reluctant to carry small scale and sometimes seasonal products; meeting food regulations can sometimes be onerous; and inevitably the very imperfect flows of information and knowledge *between* rural areas means that mistakes are often repeated.

In addition, such local initiatives often tackle aspects of development, such as the encouragement of cooperation between local actors, which at best can only be partially addressed by other European, National, or Regional level policy instruments, such as the Community Support Frameworks and Regional Development Programmes under the Structural Funds. Thus, local rural development projects have frequently addressed important questions relating to rural development processes, especially the idea of simulating horizontal and vertical partnerships and greater participation of local people in their own development. More often than not, as the experience with LEADER I demonstrated, these are new approaches, unfamiliar to local people, and animation plays an important part in stimulating partnership and participation. It is expected that LEADER II groups will also place emphasis on these processes, and many will extend them further to promote networks of entrepreneurs, citizens, and communities which can work to achieve common aims.

These new approaches are often radically different from previous ways of doing things (which have often involved 'top-down' processes or 'patron-client' relations), and again it would be wrong to imply that they are non-problematic in their implementation. Again, there are implications for education and training, especially with respect to the need for process skills, including mechanisms and tools for citizen participation and conflict management.

We can interpret these foci of local action partly as a response to globalisation and Europeanisation (the 'Single Market'), in the sense that they aim to strengthen the natural protection of rural products derived from associations of products with particular places and cultural attributes of people in these places. In a sense they are trying to make all goods and services have greater 'positional' characteristics which separate them from goods and services aimed at the mass market (to adapt from Hirsch, 1977). We can also link them to Cavhailes' idea of 'immobile resources' which influence competitive advantages of different regions (Cavhailes, 1993). At the same time, Saraceno argues that whilst globalisation inevitably means that older manufacturing (and, one might add, service) activities aimed at mass markets move to the 'third world' and newly industrialised countries (NIC's), new opportunities arise to provide for the increasingly differentiated markets observed in the older industrialised countries.

The responses of such local development plans and projects normally reflect efforts to capitalise on local and regional strengths, and minimise the impact of weaknesses. In many cases rural areas share common sets of strengths and weaknesses with other areas at national and European levels, or with other areas sharing certain common features (islands, mountainous areas, mediterranean areas, sparsely populated areas etc.), and this results in similar types of action.

5.7 Some strengths and weaknesses of rural areas

Given the diversity of rural Europe, these strengths and weaknesses of particular types of rural area will vary. They are also mutable - they change over time as a consequence of the actions taken to change them, and of the emergence of new demands. They may also be more, or less, mobile in the sense that they may or may not be associated with particular places or kinds of places, or particular cultures. Some types of strength and weaknesses found, or perceived, in different regional contexts are:

Strengths

- Interest and commitment of local people involved in participatory efforts.
- Cultural diversity reflecting the various distinctive 'cultural landscapes' shaped by history, language and environment.
- Strong traditions of communal and family living, local mutual aid and of self-reliance.
- Adaptability of local people.
- Generally healthy living and working environment (but with considerable problems), and often a good quality of life (but particular groups such as the young, old or unemployed are often isolated).
- New telecommunications and computer technologies can have distance-shrinking effects which offer new opportunities.
- New demands of urban populations for rural products, services and space.
- Underused land and human resources.
- Often relatively low land and building costs.

Weaknesses

- Dependence on agriculture, fisheries or single firms/industries, and increasing centralisation and concentration of related mainstream primary processing and supply industries.
- Fragile demographic structures, with often a preponderance of older age groups and a relative lack of young people.
- Inadequate amenities and services for expectations especially of young people and families with young children.
- Dependence on commuting to urban areas.

- Dependence on public sector services and employment.
- Dependence on social transfers.
- Low levels of education and training and poor local access to quality education and training, especially for immobile and other excluded groups.
- Lack of tradition of self-directed development, dependence on actions of others (central government, agencies, multinationals) and related weaknesses in management and organisational skills.
- Isolation, especially of young people, women in single car families, disabled/handicapped persons, and the elderly without transport.
- Feelings of powerlessness with respect to the development process, and unfamiliarity with 'bottom up' and 'participatory' development methods.
- Vulnerability to factors which are not within the control of local actors (conflict in neighbouring States, Trade Agreements, regulation and deregulation, other policy shifts, the weather and climate, macro economic conditions etc.).
- Lack of coherent and purposeful rural policies (centralisation and sectoralisation of Government and lack of horizontal integration and coordination; lack of a 'presence' of many national organisations such as tourist organisations or government departments at local levels).
- Additional costs and difficulties arising from low population density and physical peripherality with respect to main markets.

Nevertheless, rural development policy cannot be a matter only for local communities for several compelling reasons. First, all policies have an impact on rural areas, and some which may have positive effects on urban areas for which they are mainly designed often have negative effects on rural areas. Second, there are important issues concerning spatial equity and redistribution, especially concerning social and political 'cohesion' in the European Union. Third, and related to the second, there are issues of interpersonal equity and distribution which have spatial effects. Fourth, there are environmental issues concerning rural areas which are of national, European and global significance. The fact that both rural and environmental issues are now 'horizontal' rather than vertical/sectoral in character does raise fundamental questions about the role and organisation of the State.

Nevertheless, the support for 'rural development' is not unfettered by preconceptions about what it should do, or contradictions between different preconceptions. In the first place, it is predominately urban policy makers and interests who are driving rural development policy. These interests are not uniform. First, there are those whose prime interest lies in the 'protection' of the countryside and rural towns and villages in terms of their own image and needs (for rest

and recreation, for holiday homes or retirement houses, for nature etc.). Second, there are those whose prime interest lies in the resources - raw materials, labour, tourism assets - which exist in rural areas. Third, there are those with roots in rural areas whose interests are to support those who remain there. Merely listing such diverse interests is to demonstrate a set of actual or potential conflicts of interest, and these conflicts undoubtedly underpin alternative visions for the future. This reinforces our earlier point about the need for education and training in process skills, including those relating to community participation in rural development policy and conflict resolution.

5.8 Conclusion on the outlook for rural areas

On the basis of the foregoing analysis and scenarios, we would conclude that rural areas are likely to be subject to an increasing number of 'external shocks' which will pose considerable challenges to their capacities to adapt. There is a likelihood of further CAP reform in the medium term, but even if this does not occur, the social and economic structure of agriculture will lead to continuing declines in agricultural employment. There is also strong pressure towards continuing geographic and economic concentration of food processing and marketing activities. Many of the same conclusions can be drawn about the fisheries sector. It follows that, in most cases, the future of rural areas and people, including members of farm families, will be determined not by agricultural policy, but by the development of non-agricultural activities and income sources.

Whilst these non-agricultural developments are increasingly the subject of policy attention and effort, and past experience has indicated some successes in rural diversification, forces of Europeanisation and globalisation are creating pressures on rural regions which rely on low-skilled, low wage activities, whether these be in the form of traditional manufacturing aimed at mass markets for low quality goods, or on newer forms of sub-contract manufacturing or services such as tourism. Moreover, pressures to tackle global problems of climatic change raise serious questions about the sustainability of some forms of rural-urban mobility (commuting) which has been an important element in the 'population turnaround'. Finally, many rural areas are heavily dependent on public sector transfers and employment which are increasingly subject to fiscal pressures and social security reforms.

The diversification of the rural economic and employment base in future will become even more dependent upon the successful identification of specific strengths and weaknesses in an rapidly changing and increasingly European and global context, and the ability of rural actors to collaborate and take advantage of strengths and minimise weaknesses, thereby establishing competitive advantages. The information highway seems set to play a key (but not inevitably positive) role in this context. Future developments will also involve the development of new alliances both with other rural areas and with urban areas both within and beyond Europe. Undoubtedly, these emerging needs will reinforce the importance of developing the appropriate organisational and management skills within the indigenous population.

Specific areas where activities can be anticipated have already been listed and include rural tourism and recreation, value added and the development of niche markets and regional and local identities, provision for young people the elderly and excluded groups, the environment and

landscapes, applications of new technology including telework and other forms of distance working, the improvement of human resources including increasing local access to educational and training resources and improving the application of distance education and training, and the development of new services especially in low density population areas.

A key issue will be the success of new rural development partnerships (including LAG's) which bring together actors, agree common goals, identify priorities for information and knowledge to support innovative and integrated measures (including market analysis and self-evaluation), and take the necessary action.

A vision of rural areas must start by recognising both that they are extremely diverse, and that they are becoming less and less agricultural. Different visions of different rural areas are needed. Since each rural area has its own particular starting point, its own relations with the urban and global economy and society, and its own profile of resources, opportunities and constraints, it follows that a central component of rural development policy must be a local development policy, and an institutional framework to allow a truly integrated approach to be taken at this local level. It is the sectoral institutional structure which has hampered this - the essence of the CAP cannot be adapted to local needs; its local expenditure cannot be captured and redirected to other more pressing local needs. The various economic, social and environmental dimensions of sustainability cannot be constructed on the basis of fragmented and sectoral policies and institutional structures. It is therefore the spatial (local) institutional structure which needs to be re-built, and the sectoral (central) structure which needs to be dismantled. This does imply the dismantling of the CAP, and the evolution of radically different rural policies.

But could a decentralised and flexible rural (and indeed urban) development policy, giving full weight to local needs, opportunities, resources and constraints, be compatible with a 'common market' with all its requirements for free competition and common policies? To view this question another way, if the sole central activity of the EC was to gather in and redistribute resources in a spatial way, what criteria could be evolved for such activities? Going yet further, what political and institutional structures could be evolved which would protect minorities, ensure that criteria were just and equitable, and guard against beggar-my-neighbour policies between localities? These are complex and difficult questions, going beyond the scope of this book, but they do need to be faced if progress is to be made towards a truly 'alternative' approach.

They are also questions which are echoed in the central problems of rural education and training. For as long as the institutions of rural education and training reflect and echo the sectoral interests as they have emerged in Europe, they will not respond to the needs we have identified. Again, radical restructuring is required, raising a similar set of questions. We turn to some of these issues in the following Chapters.

We end this Chapter with a review of the specific issues relating to the future of rural education and training which emerge from the discussion in this and the previous two Chapters.

5.9 Specific issues for future rural education and training policy and practice

A number of themes have been identified which have specific implications for rural education

and training and which serve as a link between the foregoing Chapters and the final three, which turn more specifically to this issue.

Risk, uncertainty and vulnerability about such things as the future global context, the future of trade blocs, conflict, the environment, and the high probability of further radical changes in all aspects of life and living all highlight the importance of personal skills for adaptation and survival, the need for flexibility and open minds, the need for broadly based rather than highly specialised education, and the need for life-long learning.

Globalisation, the development of trading blocs, the significance of international trade and global competition, the new international institutions which have power and policy making functions, and the related importance of *connections* or *relations* between local space and people and people in other parts of trading blocs and at global levels points to the need for greater knowledge and understanding of such connections and their implications at all levels of society.

The crisis of the State and the development of new social and spatial bases for power and action, including localisation and regionalisation of public functions, partnerships, and community participation highlight the need for local information and knowledge, and exchanges of knowledge between rural areas. Within this process the growing stress on partnerships and community participation highlight the need for process skills, including those relating to mechanisms and tools of participation, and the resolution or management of conflict.

Economic diversification, including the diversification of farm household work through pluriactivity, and the new significance of information and communications technologies and other skills related to the information highway is changing the needs and expectations of people with respect to education and training. This concerns both the content and the means of delivery. We also identified the continuing need for adjustment and change throughout life, and the need to tailor education and training increasingly to the needs of people from different backgrounds, training and age groups.

The need to tackle the three, inter-connected, dimensions of sustainability implies more holistic and inter-disciplinary approaches and structures, and the development of appropriate theories, methods, tools all of which require new approaches to education, training and practice.

Last, but by no means least, we identified the importance of gender questions, specifically the changing role of women and the need to address the means of improving their access to education and training and hence employment prospects as well as their participation in rural development policies and processes.

At micro level, actors find that knowledge transferred from the past, or via the institutionalised agricultural education and knowledge sector, is less and less relevant to the diverse and changing demands on them in spheres of work, exchange, local action, environment and political and social participation. Formerly, most rural systems of knowledge exchange were related to agriculture, and 'extension agents' were the main 'exchange agents', with agricultural colleges and universities providing their link to research and teaching of a small elite. The new scenarios for rural development, and for the policies which accompany them, require different kinds of knowledge and new kinds of 'exchange agent', which have clear implications for rural education and research. In particular, knowledge is needed on a much wider potential range of economic activities beyond agriculture, much of it related to environment, recreation and tourism, the information highway or small businesses. Both the nature and content of rural education, and the nature of exchange agents lying between knowledge creation and rural actors,

need to be radically restructured. We have also pointed to the need for locally generated knowledge and information to be shared between rural areas, to avoid repetition of mistakes.

Obviously several of these issues overlap in terms of their implications for rural education and training, and the issues will be addressed in greater depth in the following Chapters.

CHAPTER 6

FROM AGRICULTURAL EDUCATION POLICY TO RURAL COMMUNICATION MANAGEMENT

6.1 Introduction

As we have described in the preceding chapters, agriculture in Western Europe is in a process of serious restructuring. Thinking about social, economic and cultural changes in rural areas surpasses the relatively well-defined domain of the agricultural sector. It also transcends the traditional rural-urban dichotomy as the interdependence of urban and rural areas intensifies through migration, integrating labour markets and the growing importance of mutual functions in such areas as leisure, environmental care and, indeed, education and training.

In Chapter 5 we have argued that different visions of rural areas are needed. The local institutional structure needs reconsideration and the central structure needs to be reshaped to allow for an institutional framework in support of a local development policy. This calls for the re-thinking of national, social and economic policies. In the following chapters we concentrate on the rather specific aspect of the social and cultural re-orientation of development policies at central and institutional levels: the re-thinking of education and training in and for rural areas. Seeing agriculture in a different context forces us to think about the consequences of these changes for education and training. Rural industrial services will be restructured, agricultural activities will be destructured. There will be no jobs for life anymore; life-time learning will have to cater for the need to change personal qualifications and skills according to sudden changes in professional life.

The reconsideration of traditional policy on agricultural education and training is, therefore, both timely and inevitable. It is timely because those who give shape to new development policies and practices for rural development are increasingly confronted with very concrete gaps in their cognitive 'tool-kit', as we will indicate later in this book. Moreover, they feel the heavy strain of public opinion with regard to the consequences of their professional activities. This calls for a reconsideration of values and norms and a re-formulation of ethical points of view. Reconsideration is inevitable because we have become increasingly conscious of misuses and even abuses of natural and human resources. And this is exactly what traditional sectoral educational policy has done for decades: supported a sectoral agricultural policy which has led us into a blind alley of overproduction, soil degradation and water and air pollution and the increasing separation of commercial agriculture from the rural economy and society.

In order to rethink agricultural education policy, or more general policies for rural communication, we need to explore four general developmental trends in the agricultural education sector within the wider context of rural restructuring. This exploration will be related to the analysis of agricultural and rural development in Western Europe, as presented in the preceding chapters. More concretely we will look successively at trends that relate to the general objectives of agricultural education, the conceptualization of agricultural education, its targeting, and the shift from directive macro-policies to remote governance of agricultural education and training.

In Chapter 5 we have formulated the ten main lines of thought concerning rural policy as articulated by the European Commission. These guiding principles have serious consequences for rural information and communication policies. By exploring these consequences against the background of the four general trends mentioned above, we may discover new ways of shaping a macro educational policy which responds more adequately to changing needs and expectations at meso and micro levels. We will also discover, however, that rather drastic changes in macro policies have created and will continue to create a number of (seeming) contradictions for which no panacea can be found. Articulation of these contradictory developments is necessary and may open the way for the discovery of possible remedies.

6.2 Agricultural education policies reconsidered

First, we must realize that it is impossible to speak about one policy or even some mainstream policies on agricultural education and training in Western Europe. National policies differ significantly; the well articulated and integrated Dutch policy on agricultural research, education and extension, emanating from the connection of this societal sub-sector with the Ministry of Agriculture and Fisheries, has other roots than the 'Länder' oriented policy in Germany with its strongly dualistic structure (De Vries, 1993; Grooters, 1994). Reduction in demand for traditional agricultural education in England and Wales has led to agricultural colleges combining their efforts with Further Education Colleges (White, 1992). It is extremely difficult, in fact, to find empirical evidence on the overall development of agricultural education policy systems in the European Union. This is, at least partly, due to the rigid stratification of agriculture within the EU countries, which makes it very difficult to compare different agricultural education systems. Also, the relationship and linkages between different national information delivery systems (agricultural education, extension, and other ways of knowledge dissemination) are different in each of the countries and indeed, within a country. The system of agricultural extension in England is quite different from Scottish agricultural extension, for example.

National systems of agricultural education and training in the different countries of the EU do respond in different ways and at different speeds to changing rural conditions. White (1992), in investigating further education's response to a changing rural economy in England and Wales, discovered that many agricultural colleges, and some Further Education Colleges, are responding to change and are looking at ways to adapt their programmes to provide more relevant and accessible learning opportunities for the rural workforce (see also Errington, Bennett and Marshall, 1989). New textbooks had already been published in the UK in the late 1980's to support training for rural diversification (see, for example, Haines and Davies, 1987). It certainly is illustrative, however, that Muller, Faure and Gerbaux (1989) in their interesting study about rural entrepreneurs in France, wait until the last page of their book before asking the question: "quelle formation pour les entrepreneurs ruraux?" In The Netherlands, by many considered the pre-eminent agricultural innovator, the changes in agricultural education and training policy, were until recently still connected to the agricultural sector and were not based on a re-conceptualization of rural information and communication needs

in a wider sense (LNV-kennisbeleid: Eenheid in verscheidenheid, 1993; Grooters and Van den Bor, 1995). Further evidence on different agricultural education and training developments in the EU is either rather incomplete (REIFEA, 1990) or outdated and limited in comparative scope (Ashcroft, 1985). Information about the response of these systems to rural changes and agricultural restructuring is very difficult to come by or, one must fear, virtually non-existent.

To understand the changing demands put upon macro policies in the domain of agricultural education and training, we will now look at a number of recent trends and tendencies in this domain. These trends and tendencies are either the consequence of structural agricultural or rural change or the result of fundamental shifts in what can be phrased as 'mainstream thinking about the responsibilities of national public policy making'.

Macro objectives in education and training

Education, extension and training in agriculture were tuned to food production in the period immediately after World War II. Later, macro objectives changed as a consequence of the rapid increase in agricultural productivity. In many European countries, the realisation of national food security took only a few decades, especially for some food products: dairy products in the Netherlands and Denmark, cereals in France, wine in France and Italy and some horticultural products in the Netherlands and Spain. Production *per se* and especially production for export markets soon became of high economic interest, resulting in overproduction in the 1970's and 1980's. Until recently, formal agricultural education at the secondary level in The Netherlands has been directed primarily toward training 'agricultural producers'. Farming in some countries in Europe became highly commercialized, technology driven and export-market oriented. In other countries with less favourable conditions, however, farming continued to be directed toward self-sufficiency and local/regional markets. This variance in rural development marked a first period of differentiation in macro educational objectives in rural Western Europe.

As we indicated earlier in this book and in other publications (Journal of Rural Studies, 1990; Fuller, 1990 and 1991 and Van den Bor, 1992; see also De Vries, 1995), we are heading towards a distinct sort of diversification in agricultural land holding and household enterprise in Western Europe. Of the 9 million so-called farms, 20% produce approximately 80% of the agricultural product. The consequences of this type of agricultural and rural restructuring are that there are fewer, but bigger 'modern' farm businesses. A growing number of farm households no longer contributes significantly to agricultural production but takes up or intensifies a rural business on the farm or join the off-farm labour market. This vast majority of land holders while producing very little in terms of agricultural production, is 'needed' in terms of land resources, community sustainability and various forms of rural business enterprise.

This process of diversification is a realistic perspective from which to examine the future generation, transfer and utilization of knowledge and information. The generation of knowledge and the knowledge transfer and transformation system for the first category of 'modern' farmers is already well developed in agricultural schools, colleges and universities and in extension systems. However, there is an enormous confusion as to which disciplines and formal knowledge areas are suitable for the residual category of demands in a restruc-

tured European rural system. This marks a second period of differentiation in macro educational objectives in present-day rural Western Europe. Those who formulate macro educational policies for rural development have only very recently started to think about these changing needs. As we will see later in this book, institutional developments have, at least in some countries, taken a headstart even over national policy making.

Looking more closely at recent and future developments in primary production in the agricultural sector, one might distinguish the contours of a third period of differentiation of macro educational policy objectives for rural and especially for agricultural development. Holt and Sonka (1994) develop the notion of 'virtual agriculture'. They argue that developing and commercializing successful new agricultural products and services in the future will require organizing increasingly complex partnerships. These combinations of expertise bring together specialists with many different perspectives who cooperate in 'value-added-partnerships', adding values to a specific and well-defined production chain. Each of these partners has to make a choice as to what strategic position to take in producing a link of this chain. This will require a very specific combination of general 'chain' information and specific 'link' knowledge and skills. The role of telematics will be very important in this respect. Policy makers in agricultural education and training have not yet started to think about the ramifications of this new division of labour in agricultural production.

In sum, macro educational objectives for agricultural education and training have changed in the post war period:

FROM FOOD SECURITY ORIENTED	TO	EXPORT MARKET ORIENTED
FROM AGRICULTURAL SECTOR ORIENTED	TO	RURAL BUSINESS AND ENVIRON-ORIENTED

and will, as far as primary production is concerned, most probably change rapidly

FROM MULTI PRODUCT FAMILY FARMING	TO	CHAIN RELATED PARTNERSHIPS

This shifting orientation in agriculture will entail an ongoing process of flexible, adaptive but also anticipatory goal setting and will demand the reformulation of consistent objectives for educational policy.

Conceptual issues in macro policies

Changing educational macro objectives will have to be realized in a rural world in which the old concepts and definitions of education, extension and training will no longer satisfy. The term education is very much connected with formal schooling in regular schools and colleges. Formal schooling will continue to be of importance in the near future, but regular day-to-day classroom teaching will have to give way to new didactical arrangements which will be more student-centred and problem-oriented and which will continuously alternate practical periods and school based learning.

The old concepts pertraining to agricultural extension will prove to be too closely connected with a top down communication process in which the extension agent is the

supplier and the farmer is the consumer of knowledge and information. Old ideas about diffusion of information and the transfer of technology will be inadequate to resolve the pressing issues in rural development as described earlier in this book. Röling (1988) introduces an alternative policy model which he calls the agricultural information system. He advocates an 'assembly of mix' following a two-pronged strategy:

> "(1), the creation of customer oriented services providing essential elements of the mix and (2), strong utilizer constituencies, capable of making claims and pulling down services to assemble the mix at farm level, and/or forming effective organizations to ensure assembly of the mix at the community level" (Röling, 1988: 192).

In what follows we will see that there are different types of users with varying degrees of bargaining power. The concept of 'community' transcends space as production processes are becoming more fragmented and spatially diversified (e.g. the auctioning in the Netherlands of flowers produced in Israel). Also, the increase of user influence will be rather problematic in the case of those who have turned to diversification strategies outside the primary agricultural sector. We will come back to this interesting paradox as well.

The whole idea of separate delivery systems or streams to support agricultural production (education next to extension next to mass media) is increasingly challenged. First, government influence on the financing and thus on the management of these separate systems is dwindling, not only because of financial restraints but also as a consequence of a conscious shift towards more user participation and the enhancement of institutional independence. Policy makers at the national level increasingly stimulate the creation of what they call 'knowledge networks' in which publicly financed educators, extensionists and trainers are supposed to work in close harmony, supported by an integrated institutional framework. This should ultimately serve the best interests of the consumer at the farm or rural business level. We will see, however, that this idealistic view is counterbalanced by growing competition in an increasingly critical consumer market. Moreover, this market is entered by private knowledge and information brokers. Another paradox is emerging here as a consequence of well-meant public policy.

Over the past decade, an interesting discussion has evolved at Wageningen Agricultural University on the interrelations between action, knowledge and communication. Protagonists of this discussion are Röling (1992), who developed his theory of agricultural knowledge systems, and Long (1990) who advocates the actor-oriented approach. Leeuwis (1993), using Giddens' structuration theory, has tried to show that actors in processes of negotiating meaning and action draw upon different repertoires of mutual knowledge. Such mutual knowledge (and mutual ignorance) can be seen as the key modality of structure. In other words, actors are actively involved in (re)producing social structure. Teaching-learning activities constitute the arena for such active involvement. Hence, knowledge transfer or information exchange should be considered as a communication process that can only be understood if we analyze how different communication partners construct their own image of meaning, reality, division of power and action.

In sum, macro educational policy makers will have to realize that they have to operate within a rapidly changing conceptual framework in which the old notions of separate, formal

delivery systems do not suffice anymore. They will also have to become aware of the fact that the generation, 'transfer' and utilization of knowledge and information is very much a communication process shaped by the subjective perceptions of different actor groups. These perceptions are influenced by the parameters of the separate social realities (including power structures) in which these actors live, act and to which they, in turn, give meaning and structure. Hence, policy makers have to realize that the time of 'social engineering' in order to meet pre-set macro objectives has come to an end. Increasingly their modus operandi will be dictated by the laws of negotiation.

Changing target groups of macro policy

Historically, macro educational policies in agriculture have been directed at a rather distinct set of target groups. Formal agricultural education in day-schools was and still is tuned to young people who have a farm background or who are interested in taking up employment in the periphery of the green sector (floriculture, landscaping, equitation). Part-time and in-service agricultural training was very much tuned to those who were already employed in the agricultural sector. Agricultural extension, public and private, was meant to provide additional training for farm holders and their families. The number of specialised journals and periodicals on agricultural subjects has increased significantly over the past decades, especially in the more advanced agricultural economies of the EU.

The first 'wave' of target differentiation started in the early 1980's. More emphasis was put on such issues as environmental management and economics, farm related tourism, game management, farm-based production of consumer goods for local markets and handicrafts. These target groups were considered as additional client groups of the formal system of agricultural education and extension more than as a totally new target audience requiring a rather serious overhaul of the structure and the content of the educational system or a new, more holistic focus for all the actors concerned. Many new courses were presented through part-time training and study clubs but were not integrated into the existing formal curricula. Biological, integrated, bio-dynamic or other sustainable low-input approaches to mainstream farming were considered to be marginal by macro policy makers. They were looked upon benevolently but they have never been regarded as serious alternatives.

The second 'wave' of target differentiation hits the formal agricultural education system at the moment of writing this book. This relates to the rapidly growing awareness that diversification trends will create completely new target groups with new professional profiles. First, these target groups may be found in the realm of a restructured and highly specialized primary agricultural sector which needs more specialized and up-to-date training for those managing a farm holding within the new boundaries of a restructured EU common agricultural policy. Second, new target groups emerge from the growing labour market within a developing 'niche' agriculture. A good example is the establishment of snail farms in the southern part of the Netherlands. These evolving target groups demand totally new study programmes within the existing formal system of agricultural education. They may even create the necessity of new specialized institutions within the formal agricultural education system (Van den Bor, 1993). However, it looks as if these new target audiences have not yet induced the breakdown of the existing formal system of agricultural education and extension.

We believe that a third 'wave' of target differentiation approaches the relatively calm beaches of the formal agricultural qualification system. This wave will probably break through the old institutional dunes of separate and independent delivery systems in the agricultural domain. Next to those who are trained for rural employment in a broad sense we will need well-trained professionals who can look at the management of rural areas, who are able to see rural areas as urban spheres of influence and vice versa and who will surpass the boundaries of the formal agricultural education system in their search for adequate qualifications (Van den Bor and De Jong, 1997; Van den Bor, 1997. The key concept will be 'rural management information', in which the content of management does not so much relate to the control of rural activities but rather connotates processes of communication, negotiation and facilitation, in short, innovation. We will most probably witness a growing demand for at least five different but inseparable categories of target groups:

- creators of rural management information who generate knowledge and information through fundamental and applied scientific research. Utilizers of this knowledge and information at all levels are important sources as well.

- Providers of rural management information who will have an intermediary role between creators and utilizers. These providers could be the existing agricultural education school or extension service, both public and private, but it is to be expected that new groups of providers will emerge who will enter this rural information market.

- Utilizers of rural management information such as farm holders and new categories of rural entrepreneurs but also the creators and providers themselves who 'process' rural information in an ongoing and spiral process of rural management innovation.

- Facilitators of rural management information who provide the material, financial and personnel means to carry out and disseminate the generated knowledge and information. There are different categories such as government agencies at several levels, industry, professional organizations, non-profit organizations, international agencies, scientific foundations and even religious organizations that feel responsible for the societal implications of the restructuring process.

- Supporters of utilizers of rural management information who will assist individuals and groups in the preparation and making of specific professional decisions. Decision support systems will become increasingly important as professional positioning in a restructured rural arena will be both complex and risky.

This categorization is an analytical one. Highly trained rural information managers will have to be, in short, jacks of all trades (Van den Bor, Bryden and Fuller, 1995).
It is to be expected that this third wave of target differentiation will force the traditional agricultural delivery systems to look for the most efficient and cost-effective ways of providing the needed rural management information. This could well mark the end of a sectoral approach to agricultural education and extension and the beginning of merging initia-

tives and processes between different sectoral institutions and delivery systems for general and vocational training. New educational partnerships in rural areas will trade their loyalties to the agricultural sector for new and challenging missions in the much wider area of rural management innovation. In Chapter 8 we will go into more detail concerning these different categories of target groups.

In sum, macro educational policy for agricultural and rural development will be confronted with shifting and more complex target groups. Eventually, this will force policy makers to look over the fence of their sectoral policies and to start a process of communication and negotiation with other policy sectors at the local and (inter)national levels.

From directive public policy to remote governance

Gradually, the recognition of the necessity to involve users of rural management information into policy making brings about changes in general perceptions about the role of macro educational policies. For many decades, national governments have used the instrument of central financing to dominate and even dictate macro policies on agricultural education and extension. This differs from country to country in the EU, however. France always had and still has a rather dominant centralized system, whereas the situation in Germany is more strongly de-centralized through the 'Länder' governments. Until recently, the Ministry of Agriculture and Fisheries in the Netherlands has played a leading role in shaping agricultural education and extension policy. However, the Dutch government expressed its intention to de-centralize policy making in this respect through what it called 'remote governance'.

This implies that institutions for agricultural education are much more free now to make decisions about their curricula and about the specific character of their budgets. National government in the Netherlands finances these institutions by providing lump sums in the case of agricultural schools and by providing money for the more general and basic functions of the restructured extension service and the national agricultural research system. The extension service has already been partly privatized, forcing this service to go 'commercial' and to put a price on its services. It is this trend towards more user influence and participation that will accelerate the de-centralisation process in other EU countries as well. This process encompasses a number of distinct advantages and potential threats.

As far as advantages are concerned we can think about the following. First, remote governance enables more user influence on the content and structure of agricultural education and training - that is, if institutions that provide rural management information are willing and able to integrate user participation into their institutional policies. Also, de-centralized governance enables providers of rural management information to react more quickly and flexibly to changing information needs at the local and regional levels. They will usually have more 'rapport' with their immediate local clientele, especially when they develop and adopt standard policies of surveying local labour markets and exploring promising 'niches' in those labour markets. Last, remote governance gives institutional providers of rural management information more freedom to liaise with other institutions who serve local and regional groups of interest. One should not think only of institutions in the domain of education and extension but also of institutions such as chambers of commerce, cultural foundations, local

broadcasting organizations, local political interest groups, churches and even prisons who offer training programmes to their inmates.

The threats are equally evident. The decrease of central coordination can result in overlap of content in curricula of neighbouring institutions who may look upon each other as competitors. Another serious threat is that the general objectives of vocational training which until recently have been guarded by central government, such as general socialization and 'conscientization' of young adults, and attention to normative and ethical questions are not given due attention. Further, remote governance could result in local institutions developing a provincial view in which there is no space for national and global implications of agricultural practice and rural business: a form of parochialism. Competition in itself could be positive as institutions are forced to think critically about their policy. It could also result, however, in excessive attention to the public relations side of institutional management, which could be detrimental to the quality of the product offered. This loss of quality could be enhanced further by the lack of centrally organized quality control. In Chapter 7 we will explore these institutional issues in more detail.

To conclude, the shift from directive central policy making to remote governance in the field of agricultural education and extension policies seems to be based on a rather vague and general formulation of macro policy missions. In view of some evident drawbacks of this policy shift, it seems to be worthwhile to rethink this paradigm. The present era of rural restructuring yearns for creative and flexible solutions at local and regional echelons but at the same time for well-considered coordination, guidance and monitoring from a more central source.

6.3 The ten guiding principles and the restructuring of macro educational policies

As we have seen in the preceding section, macro policy makers in the domain of agricultural education and training are facing a change in macro educational policy objectives, the evolution of new concepts and definitions concerning structure and content and a differentiation of target groups. These shifts are incorporated in the wider context of a somewhat radical change in the dynamics of policy making itself: from directive macro policy making to remote governance. In Chapter 5 we mentioned ten guiding principles which can be considered as the European Commission's response to agricultural and rural restructuring. Against the background of the trends analyzed above, we would like to explore the more practical consequences of these ten guiding principles for the content and character of future macro policies in the field of rural management information. These consequences have to be translated into practical actions at the institutional and the concrete communication levels. This 'translation' of consequences will be worked out further in Chapters 7 and 8.

Principle 1: Persistent agriculture

The Commission rightly states that we need policies to promote the continuation of a healthy and competitive, and we would like to add sustainable, agriculture in rural areas. In addition, the time has come to reactivate thinking about sustainable agricultural production in closed production systems in industrial urban areas. The latter is a logical consequence of the growth

of non-soil or off-land related agricultural production, especially in floriculture, horticulture and aquaculture.

Production agriculture will continue to be important but it will be a different type of agriculture. Hence, macro educational policy making has to re-think and re-shape its coordinating and promotional activities in at least the following ways:

- the agricultural labour market has to be re-defined and re-surveyed continuously to be able to define qualification needs and to anticipate new professional developments. Continuing education and life-long learning are very important in this respect. Learning to learn (see Chapter 8) will become more and more a guiding principle.

- Simultaneously, there should be a continuous formulation of new target groups.

- Strategies are then needed to 'translate' these new qualification needs into professional profiles and curricular contents, taking normative standards and ethical boundaries into account.

- The adequacy of the existing delivery system will have to be critically re-examined, whereby the relationships between existing formal institutions for agricultural education and extension will have to be challenged. The concept of 'value-added partnerships' might also be useful in this context.

- In view of the need to promote user influence, new strategies have to be worked out to organize this user participation in the different stages of restructuring.

- There will be a growing need for support systems at the level of institutions but also to assist users to voice their expectations and interests.

- Once a new and flexible qualification structure has come into being, there will be a need for ongoing quality control, not only of the content of education and training but also of the efficiency and the impact of the new delivery system itself.

- Last, macro policy makers continuously have to look for the optimal balance between central responsibilities and user participation, resulting in a realistic and well-considered form of remote governance.

Principle 2: Rural diversification

At the European Commission level it has been realized that diversification of the rural economy is essential to the professional life not only of the non-farming population in rural areas but also to farmers and farm families. The question is whether the principles of this major structural change are accepted and internalized by national European governments as well. Here again it should be noted that there is a tremendous differentiation among governments within the EU. It is to be expected that the European Commission, as a consequence of its ability to launch research in this area, has a headstart in the development of

thought on rural restructuring (Bryden *et al.*, 1994). Nevertheless, the results of this research strongly support this guiding principle, as we have demonstrated earlier in this book, and the question is how macro educational policy at the national level should follow up on this essential development.

Without going too much into detail, we can distinguish a number of challenges for macro policy makers in the field of agricultural education and training.

- There is a strong need to further explore and clarify the concept of rural diversification and to examine the consequences of this evolving concept for labour markets that can be served by a restructured educational and training system. This could be done in two ways: first by looking at the prospective demand of such a restructured and diversified labour market and second by trying to define how a restructured educational infrastructure could anticipate future trends and 'niche' markets.

- As rural diversification is locally or regionally defined, even if having some common drivers, educational needs assessment should necessarily be directed towards local and regional labour markets. This needs assessment should be carried out in close cooperation with the locally available educational infrastructure.

- Awareness raising is strongly needed among local and regional institutes that are involved in the (re-)qualification and (re-)allocation of local dwellers in a diversified rural setting. What is needed is a combination of locally available inside information about the potentialities of the local rural economy and a 'helicopter-view' of policy makers at the central level who are informed about creative solutions that have been developed elsewhere. Also, vertical and horizontal networking are important.

- Together with local actor groups, policy makers at a higher echelon should investigate whether the new qualification demands can be catered for by the existing agricultural educational infrastructure. As indicated in former sections of this chapter, the term 'educational infrastructure' should be broadly defined.

- It is to be expected that the locally available educational infrastructure in its present form will not be able to satisfy the emerging new demands. Macro policy could be instrumental -but not in a decisive and directive way- to indicate new strategic partnerships between (a) local institutions across sectoral boundaries and (b) local, regional, national and international institutions.

- It is of paramount importance that macro policy making is directed towards the provision of the material and financial conditions for labour market surveying, needs assessment and institutional restructuring, especially in the first stage of the process of diversification.

- It is essential that a good balance is struck between macro policy initiatives and genuine local activity. Locally defined or derived education is no longer relevant only to local

clients, precisely because of the globalization processes discussed in the first chapters of this book.

Principle 3: Realistic assessment of opportunities

The need for a realistic assessment of potential local assets and needed qualifications has been established. We would like to add, however, that the term 'realistic' should be well defined. Realistic opportunities depend on the basic conditions available locally to pursue new professions or to develop new 'niche' markets. However, these conditions can be strongly reinforced by the provision of external financial and human resources. Before activating and motivating the development of local initiatives, macro policy makers should consider carefully to what extent and over what period of time they will be able to generate external inputs. From the outset, they should make it very clear to their local discussion partners how sustainable new economic developments can be in terms of external input provision. This also applies to the creation of additional educational infrastructure in support of rural diversification. In this respect one could learn substantially from the many sad examples of 'white elephant' projects in developing countries.

Principle 4: The need for initiative and entrepreneurship

What does rural diversification really mean in terms of new employment possibilities? Does it imply that rural dwellers get the opportunity to find new jobs in recently established branches of industries that expect to lower their (labour) costs by tapping new sources of cheap rural labour or by benefitting from specific tax advantages? Does it refer to additional (part-time) employment in newly established supermarkets in urbanized rural areas? Or does it encompass the growth of a new kind of home-based labour market through teleworking?

One could argue that, sooner or later, these new labour markets would provide extra rural income and that, eventually, this would lead to investments in newly established locally-based rural industries. There is a growing amount of international evidence, however, that new labour markets are insecure. Tax advantages always have a time limit and urban-rural labour cost disparities tend to dwindle over time, forcing newly established industries to look for new grazing lands and diminishing the relative advantages for suppliers of telework. Moreover, rural to urban labour migration may threaten the viability and living quality of rural settlements. Last, certain areas of production are already in the process of being reallocated to low-wage areas at a certain distance.

Consequently, alternative ways of creating rural employment have to be explored (see also Chapter 5). Rural diversification should enhance the enforcement of new endogenous economic activities through which farmers, rural entrepreneurs and other economic actors can create enduring and tangible sources of income. This requires the creation of local and regional markets for products and services with direct added value. The creation of such economic resources and possibilities demands a combination of local creativity and motivation, local initiative, local resources and external stimuli.

This has rather specific implications for the content and structure of rural information management. Policy makers at the macro level could contribute to these developments in different ways.

- In the first place, local educational and training institutions, together with other social and cultural institutions, could be facilitated to take stock of the motivation and readiness of rural dwellers or interest groups to take up these new economic activities.

- Further, national educational policy could be directed towards initiating training programmes, within or outside the formal delivery systems, in which the basics of economic initiative and entrepreneurship are taught. Again, this should be done by using the locally available expertise, for example through the involvement of chambers of commerce or local branches of financial institutions.

- Last, from the very beginning macro educational policy should participate in the drawing up of local and regional economic development plans. Too often, education and training are the closing entry to regional planning. Too frequently, regional planning is considered to be a pure economic activity in which education and training are seen as ex-post inputs rather than as analytical planning tools.

Principle 5: Harmony between economic development, environment and culture

It is one thing to express the need to harmonize economic development with environmental demands and cultural realities in rural areas but it is quite another thing to operationalize this need in reshaping rural activities. In a diversified rural arena, primary production agriculture has gradually accepted the need for environmental care. Modern farming industry puts the environment within a rather strict economic context, however, and does not take historical, cultural and sociological causalities into account.

For those who seek alternative rural employment, the environment is increasingly a specific task-defining domain. The enhancement of a cleaner and more livable environment will become a matter of principle and even a basis for the multiple jobs of new rural professionals (Van den Bor, 1993). So, the environmental awareness of rural entrepreneurs is diversified according to their professional domain.

The cultural issue is even more complicated. In some European regions modern, high-tech agriculture has shaped not only the physical environment but also the social relationships between those who work in and with this reshaped landscape. This has created a certain rural 'culture' which is quite different from the cultural properties of, say, fifty years ago or from other areas in Europe. It is indeed questionable, apart from the issue of environmental damage, whether this culture should change. One could argue that these regions have now acquired their own cultural identities, physically and socially, and that these should be maintained. Questions of cultural heritage make this discussion even more complex.

Other areas are in a period of transition, both physically and socially. Here the question arises of what kind of cultural identity is desirable or attainable. Is it a question of maintaining the cultural identities of those who were born and have lived there, or are there opportunities to integrate new cultural traits which are imported by new groups of rural dwellers or by new ways of rural activity? An even more difficult question is whether the development of cultural identity, and especially the social aspects thereof, can or should be managed.

Many areas in Europe have maintained their traditional cultural qualities as processes of rural restructuring have to this point had relatively little impact. Yet one can expect that the single fact of trying to keep these cultures intact may sometimes imply external influences. This also holds for those areas in which elements of cultural heritage are re-discovered and emphasized. Paradoxically, these external measures to maintain local cultural qualities will at the same time induce cultural change of some sort, sometimes creating what one could call an 'embarrassment of cultural identities'.

Rural culture will inevitably change over time and within spatial boundaries. And so does the physical and social environment. The concept of 'environmentally sensitive areas' is a good example of something that has changed farmers' perceptions of what 'good' farming is all about. And this is exactly where education and training enter the scene. If macro policy makers in the domain of rural information management can contribute at all in this respect, it should be in the reflection of the dynamics of cultural and environmental change, both in its causal and conditional relationship with rural economic development. The role of macro educational policy could be substantial in this respect.

- First, macro policy makers could stimulate educational research on how processes of formal socialisation and professionalization, implicitly or explicitly, influence attitudes towards the environment and cultural identity.

- Secondly, macro policy should encourage the development of a theoretical framework for how to conceptualize and organize environmental and cultural education and training for rural professionals. This could never be realized without taking local and regional economic developments and parameters into account.

- Further, macro policy makers should stimulate thought and facilitate action research on specific issues such as: who are the target groups of cultural and environmental education, what are the key concepts in programme and course development and how should this new type of education be organized (target groups, participants, methods, evaluation). It is encouraging that this type of research is increasingly promoted (inter)nationally (see for example Kirdar, 1992; Alblas *et al.*, 1993; Wals, 1993, and Alblas *et al.*, 1995).

- Having said this, we must also conclude that the study of the interrelationship between time and space specific rural economic development and cultural and environmental properties is still in its infancy. Macro educational policy, together with other macro policy, could be highly instrumental in stimulating this kind of research and development.

Principle 6: Concentration of public effort

Public support for rural economic development should be concentrated where it is most needed. This sounds rather logical but it is not so easy to develop a set of clear indicators for the assessment of future areas and sectors most needy of extra public support. Here, macro

educational policy makers could certainly contribute by participation in the formulation of new sets of indicators.

As we have indicated in earlier chapters, education and training play an important role as concerns the readiness and practical possibilities of farm households to start new rural activities. It is not so clear, however, how this factor does influence motivation and decision making. It is equally unclear which components of the education and training package have the biggest impact. Is it a question of cognitive learning, skills training or attitudinal change? Can the detrimental influence of educational deprivation be ascribed to the content of education or does it relate to the methods of teaching and learning? These are open questions and macro education policy could stimulate and facilitate research to answer these important questions.

Apart from being instrumental in establishing indicators for areas in need of extra stimulation, macro policy makers have a role to play in providing the educational and training infrastructure, once these areas have been identified. In some cases this will be limited to re-organizing and re-tooling existing educational provisions; in other cases the educational infrastructure has to be built from scratch. In the latter case in particular, macro educational policy should act prudently and should take account of the trends analyzed in section 2 of this chapter. Implying that change and restructuring will go on, therefore less emphasis should be given to 'bricks and mortar' policy and more to improving the flexibility of the infrastructure.

Concentration of public effort also means that the scope and limitations of private educational and training activities should be appraised carefully. It might well be that the promotion of endogenous initiatives to enhance the level of education and training of the local population is more effective and rewarding than the creation of new public educational facilities.

Principle 7: Bottom up, partnership approaches

This paradigm has already been mentioned several times. Building on the ambitions and initiatives of local people is very important. It is also necessary to support partnerships between those who can launch such initiatives. The problem is, however, that ambitions and willingness to take initiatives often lead a sub-conscious life. Local rural dwellers may not be satisfied with their life and may have some vague wishes and even some indeterminate ideas, yet do not feel capable of taking action. Also they may understand that joint action with other partners or even at the community level will be necessary for innovation, yet do not know who the best potential partners are or how to establish and operate such partnerships (group learning skills). This relates to the concept of empowerment which we will discuss in Chapter 8.

The point is that the ignition of bottom-up approaches and the development of participatory action needs a spark. Awareness raising and skills training could provide such a spark but, paradoxically enough, the organization and facilitation of such training frequently originates from a macro policy level and often creates a form of dependency. This seeming paradox can be partly neutralized by assuring that local participation is present at every stage of the innovation process. There is always one party, though, that takes an initiative and sometimes this party is central government.

Taking initiatives and starting partnerships require skills that could be learned in formal agricultural education and training. This means that existing curricula should be adapted to provide more opportunity to realize such highly important learning objectives. Recent research among alumni of senior agricultural schools in the Netherlands has shown that these learning contents are in short supply and yet they are considered to be very relevant and important for professional practice (Pierik, 1993).

Principle 8: Improved access to services

Rural people need improved access to competitive services including training and re-training facilities. Macro-educational policy could contribute in different ways. Access to educational and training facilities has to do with the physical educational infrastructure, the content of training or at least the learner's perception of this content, the learner's motivation, learning needs and orientations and contextual conditions. We will discuss these issues in more detail in the following chapters but we would like to make some general remarks concerning the role of macro policies.

The physical infrastructure will be discussed in the next section of this chapter. Suffice it to say here that multi-functional use of school buildings and demonstration farms can broaden the efficacy of the existing educational infra-structure.

The perceived content and image of formal and non-formal education do strongly influence the motivation of potential learners in all age groups. Research on the participation of adult target groups in agricultural courses showed a number of substantial thresholds, especially among elderly potential learners, such as

- straightforward unawareness of these courses;
- unfamiliarity with agricultural schools (where the courses were given);
- specific image of these courses ('only for young people' or 'too theoretical') (Bijlmakers en Meijers, 1989).

If this holds for a small country like the Netherlands with its rather professional and sophisticated network of educational facilities, one might expect higher thresholds in countries or regions in Western Europe where the provision of educational infrastructure is less well development.

The same research showed that there is insufficient knowledge about the learning needs and orientations of those who are not looking in the first place for another course on primary production agriculture. There is a very strong differentiation of professional activities in rural areas, including agricultural activities and those who want to improve their knowledge about these new activities by taking courses or by participating in study-clubs will discover that these new forms of 'social learning' are still in their infancy. If they have emerged at all, they are in the initial process of image building and gaining momentum.

It seems that quite a few things can be initiated at the central level concerning better access to existing and new forms of rural communication provision.

- First, continuous needs assessment at the national and regional levels is highly important. This needs assessment should not only concentrate on the existing occupational profiles in production agriculture but should also be directed toward making an inventory of cognitive and affective needs and skills of those who seek not so much an occupation in the narrow sense but who want to carve out a proper, sustainable and flexible way of rural living.

- Second, macro policy makers should use their 'helicopter view' position to survey the growing supply of 'alternative' courseware, which frequently originates from non-formal or indigenous initiatives (studyclubs on the mineral balance of soils, on a region's cultural heritage and how to use that heritage, on alternative uses of farm buildings, et cetera). It goes without saying that the matching of training needs and new supplies, be it in formal or non-formal settings, promotes access to new and highly needed forms of flexible and lifelong learning.

- Macro policy should also be directed toward broadening the scope of the existing educational delivery systems to enrich the content of their courses and to offer new experimental courses. Course innovation involves a strong element of financial risk which should, at least partly, be borne by national or regional governments. If schools and training institutes are allowed to mind their own businesses without some financial risk insurance they will never be able to meet new but unpredictable demands.

- Last, macro policy could use its influence and financial possibilities to improve the image of and stimulate access to existing and new forms of rural education. It is necessary to make a well-balanced choice for promotional tools but the strong impact of mass media should be emphasized in this respect.

Principle 9: Importance of physical infrastructure

For many people, especially for those who have had rather bad experiences with formal education, learning is strongly related to schooling. It is important that those who will have to find employment in rural areas in the near future realize that continuous learning is essential. This process of lifelong learning demands a proper physical infrastructure. School buildings could well serve this need if it were possible to change the negative image of school buildings from rather restricted areas for formal learning into open meeting places for those who seek to communicate with co-learners. Here lies a tremendous and concerted task for national and local policy making.

In addition, learning is not exclusively tied to classrooms or laboratories but can take place in any community oriented buildings such as community halls, churches, the town hall or library. Macro educational policies could enhance multi-functional use of physical community buildings through the provision of simple audio-visual media or by making these localities otherwise more accessible and attractive for small learning groups.

In less densely populated areas, deserted farm buildings could even be turned into learning centres. A farmer who has to disengage but who wants to turn his physical infrastructure into an adequate learning place should receive technical and financial assistance.

The availability of an attractive physical infrastructure could enhance a 'value-added partnership' between the owner of the former farm, those who feel that they have to offer essential learning contents and those who need (re-)training.

Principle 10: Support new rural initiatives

The consequence of this principle is that new rural initiatives should be carefully registered by macro educational policy makers in order to assess the educational and training aspects thereof. This monitoring process is conditional for the promotion of new forms of social learning, as we have indicated under principle 8. As was discussed earlier, however, new rural initiatives can also include new rural learning initiatives. Throughout this chapter we have emphasized the necessity of government support to enable risk taking by formal institutes of agricultural education and training.

What is also needed, however, is keen government interest for the emergence of community based 'social learning' whereby the initiative and the actual realization of learning is in the hands of the learners themselves. If a group of disengagers feel that they have discovered a 'niche' in the local or regional labour market and if they stipulate that there is a need for specific re-training, macro educational policy should provide financial and technical assistance without taking over the initial community initiative. This demands a rather fundamental re-orientation of macro policy making in the field of rural education and training.

6.4 Some contradictions

The previous discussion of macro educational policies has shown that there are distinct possibilities to guide the re-structuring of rural communication processes. However, there are a number of apparent contradictions as well, which challenge this process of guided restructuring. In order to come to grips with these contradictions, it is necessary to analyze them in more detail. What follows is not an attempt to solve the problems emanating from these contradictory developments but to start a process of in-depth discussion among all participants concerned.

Growing user influence and disintegrating user constituencies

At several places we have advocated the need for more user participation in the process of rethinking and restructuring rural communication. But who are those users? And which user groups will capture the field of negotiation? These questions need to be answered in the first place. The increase of user involvement subsequently demands the enforcement of the organization of user groups. Both users and regional and national governments will benefit from strong user organizations which have bargaining power and which are capable of speaking for and are supported by a broad and well defined constituency. These constituencies are disintegrating, however, due to the more general consequences of the restructuring process itself as well as to the negative side-effects of the policy of remote governance.

As we have seen, one of the main characteristics of rural (and agricultural) restructuring is diversification of rural economic activities. The number of primary production farmers decreases and the number of those who look for alternative rural employment increases.

These different groups have varying and sometimes opposite interests, economically but also in the domain of education and training. This may result in weakening the possibilities to exercise their user influence at the macro educational level.

Remote governance may enhance user influence at first sight but we have seen that it results in growing competition between education and training institutions as well. This relates to the fact that each institution is inclined to survive. Hence, market orientation is paramount, but this market orientation is quite different from constructing a tangible and lasting demand, especially on the short run (see Grooters and Van den Bor, 1995). Instead of cooperating in favour of more user influence at the regional or national level, educational institutions will tend to withdraw to protect their particular market share. This will enable national governments to divide and rule, to put it negatively or, formulating it more positively, make it extremely difficult to organize genuine user influence.

Increased financial independence and risk avoidance

Another but related contradiction has to do with the need to create a network of formal and indigenous educational institutions that are willing and capable of taking initiatives and providing new and interesting educational provisions. At first sight, increased financial independence through remote governance would make it easier for schools and other educational and training institutes to serve the local and regional constituency. However, the formal institutions are very much pre-occupied with enrolment numbers as their financing is ultimately output related. This means that new and innovative educational activities are always judged by the question: how many students will we get? If that question cannot be answered satisfactorily and if the educational institution does not have sufficient financial reserves, these initiatives will most probably be avoided as they are too risky.

This means that there is a tendency to evaluate educational innovations by their financial consequences in two ways. First they will be related to the potential number of new regular students they may attract and secondly they will be judged by their commercial value for irregular external groups of 'customers'. Hence, increased financial independence of educational and training institutes may in theory enhance the possibility to serve new clients but induces at the same time the commoditization of education and training, resulting in risk avoidance and narrow economic management of educational innovations.

Vertical intra-sectoral integration and horizontal inter-sectoral networking

In the beginning of this chapter we mentioned the importance of value-added partnerships of actors or actor groups serving different chains in a production process. Each partner should acquire a specific combination of general 'chain' information and specific 'link' knowledge and skills. At first sight this would call for rather specialized training in which substantial attention is paid to the problems of vertical intra-sectoral (agriculture being the sector) integration. We have also argued, however, that the idea of separate delivery systems or streams to support a narrow group of farm holders is increasingly insupportable. Instead, professionals are needed who are able to conceptualize the rural labour market as a broad and multi-faceted domain. The new generation of rural professionals should be able to participate in horizontal inter-sectoral networks.

This contradiction calls for more detailed discussion at the level of institutional management and curriculum development. Institutions for agricultural education and training will probably be forced to make choices as concerns their professional domain and their target groups. Will they continue training farm holders at an even higher level of specialization within well-defined sub-sectors or even chains of production within these sub-sectors or will they opt for a more general type of training? Eventually this may lead to a distinct dichotomization in specialized training institutes and general rural business centres, as we have discussed elsewhere (Van den Bor, 1993 and 1997).

It may well be that existing institutes for education and training will try to reconcile these different options by offering general basic training followed by specialized streams. This will make high demands upon the size of the institution, the professionalization of its staff, and the flexibility of its organization.

In any case, a serious reconsideration and restructuring of existing curricula and programmes is necessary. This can only be accomplished if macro policy enables these institutions to put more emphasis on retraining staff to contract external support and to take calculated financial risks. This brings us to the last but not the least difficult contradiction.

Remote governance and macro policy initiatives

Throughout this chapter we have listed the advantages of remote governance: increased user control; less bureaucracy; better chances for regional targeting; imaginative institutional financial policies; better chances for local or regional networking etc. It has become equally clear, however, that the rapid restructuring of rural areas calls for concerted efforts at the national level to cater for financial risks, to initiate labour market surveying, to disseminate information about educational innovations, to stimulate internationalisation, to guard the quality of education and training and to fight the negative consequences of commercialization and commoditization of rural communication processes in short, to provide the broad conditional framework for local and regional initiatives.

This means that remote governance cannot be put on the same footing as 'laissez-faire' educational policy. Remote governance should intensify certain functions at the central level such as initiating research, creating a platform for discussion, conceptualizing and monitoring the quality of education and training, tapping new sources of (international) financial resources, providing programmes for re-training at the national level, guiding curriculum reform and creating new structures of qualification and carrying out constructive but critical evaluations. As a consequence, the tendency to 'streamline' government departments and cut budgets in the area of rural communication should be seriously criticised. What we do not need is an indolent, pedantic and distant type of ill-financed macro educational policy. What is definitely needed are participative, expert and imaginative government officials who are backed by a well-stocked budget and who are willing to participate in discussions at the local level. Their financial power should not be used in the first place to correct, but to stimulate and to insure the risks that surpass local financial strength. In short, the state needs to re-tool itself to allow rural areas to embark on processes of self-development.

6.5 Conclusions

In this chapter we have reconsidered macro educational policies for agricultural and rural development. We have indicated that macro objectives have changed considerably since the second World War from being oriented toward food production to being oriented toward export markets and from agricultural- sector oriented to rural-business oriented. In the near future they will probably change further from multi-product family farming to chain-related partnerships.

These shifting macro educational objectives have to be met in a rural environment in which old conceps of education and training no longer suffice. Obsolete definitions and ideas about formal education and extension will have to be replaced by new didactic arrangements and institutional frameworks. The well-worn idea of separate delivery systems to sustain agricultural production has to give way to integrated institutional networks encompassing formal institutions and indigenous initiatives. Knowledge transfer is replaced by communication processes in which user control and, consequently, negotiation replace the old notions of 'social engineering'.

Also, there is a clear differentiation of target groups. These 'waves' of target differentiation have resulted successively in new subjects in old programmes of agricultural schools and in diversification to include completely new programmes within the existing institutional context, and will, ultimately, result in the crossing of existing institutional boundaries.

The change from directive public policy making to remote governance in the field of agricultural education and training will offer both advantages and threats. Increased user control, institutional flexibility and regional networking will be counter-balanced by the overlapping of curricula and the neglecting of general socialization objectives and of normative and ethical questions.

We have initiated an inventory of the consequences for rural communication processes of a number of guiding principles, formulated by the European Commission in response to agricultural and rural restructuring. We have discovered that these principles do have serious consequences for the shaping of macro educational and training policies. It has become quite clear that a simple withdrawal of macro policy making would have a disastrous effect on the many positive but rather ill-monitored and weakly supported processes of educational innovation at local and regional levels.

These potential negative consequences are illustrated in more detail in a discussion of the contradictions that bedevil recent macro policy making in the field at issue. We have seen that the growth of user influence goes hand in hand with a disintegrating user constituency. Increased financial independence may at the same time evoke risk avoidance and the need for vertical intra-sectoral integration has to be reconciled with the necessity to promote inter-sectoral networking. These contradictions are all in some way related to the overall built-in contradiction between the consequences of remote governance and the need for specific initiatives at the macro policy level.

The final conclusion should be that national policy making in the field of rural communication needs serious re-consideration. This does not imply that government at different levels should withdraw in perfect innocence. Rather, remote governance should be

re-defined within the context of highly needed localization and regionalization of rural communication policies. This implies professional re-orientation of government officials and realistic financial planning at the national level. It also means that relevant and comparative educational research should be stimulated to provide a better empirical basis for adequate government policy.

CHAPTER 7

RURAL COMMUNICATION AND RENEWED INSTITUTIONAL MANAGEMENT

7.1 Introduction

The changing demands for rural education, training and information have strong repercussions for the old institutional set-up of agricultural research, extension and education. Not only will the existing institutions have to cope with a changing demand and, hence, the necessity to re-think the character and content of their services, they will also have to adjust to a fundamental change in the division of tasks between them. In the preceding chapter we touched upon a number of institutional consequences but they were dealt with from a macro policy point of view. In this chapter we will look at institutional change from within the institutions themselves.

While doing so we have to realize that institutions for rural communication are to a certain extent mere abstractions. They are but organizational skeletons which derive their meaning form the actions of different groups of interest: students, trainees, teachers, trainers, directors and governors. Consequently, our discussions about the institutional consequences of rural restructuring should be placed within the context of different actor groups who give meaning in a process of cooperation and negotiation. A rather formal and technocratic treatise on functionality and efficiency within an input-throughput-output model would certainly miss the point. Educational institutions are social communities in which the economic laws of production and production functions can hardly be used. This makes it difficult to generalize about their present and future dynamics.

Keeping this in mind we would like to address a number of problem areas in institutional re-orientation. As discussed earlier, the rapidly changing rural labour market requires drastic re-thinking of institutional objectives. The process of goal-setting presupposes a clear insight in professional needs and changing demands. Are individual institutions equipped to assess these needs and to transform them into occupational profiles and, subsequently, into concrete curricula and courses or programmes? Is it possible to assess professional needs in view of the uncertainties of the ever changing labour market? More than ever, management of institutions for agricultural education and training is confronted with the need to make choices with regard to content of communication, didactical orientation and the organization of the process of choice making itself. This prioritizing process is heavily influenced by the ever increasing claims put upon educational organizations. We will discuss different sets of claims and relate these external and internal claims to institutional goal setting.

The confrontation of claims and aims will eventually lead to a new approach to curriculum restructuring. Recently, approaches to curriculum development have changed from a more linear, top-down approach to a more interactive way of planning. We will explore this changing paradigm and will also mention some other important aspects that constitute new approaches to curricular innovation. This will lead to the formulation of a set of important principles underlying the re-thinking of curricula of institutions for rural

communication. The analysis in this chapter is predominantly related to the situation in Western Europe and examples are drawn from the experience of the Netherlands.

A substantial part of this chapter is devoted to a discussion of the requirements and realities in institutional management. We will look subsequently at modes of delivery, subject matter characteristics, network positioning, professionalization and material conditions. In our concluding session we give some indications as to what type of educational organization will be needed in a rapidly changing rural arena. Peter Senge's notion of the 'learning organization' will prove to be a helpful paradigm in this respect (Senge, 1993).

7.2 Changing demands and new institutional objectives

In Chapter 6 we discussed the differentiation of target groups and related objectives. In this section we address the question of how institutions could arrive at a set of new institutional objectives within the context of changing rural conditions. This process of decision making is based on needs assessment and prioritizing. Setting priorities implies the making of clear choices through a well-defined procedure.

If an existing institute for agricultural education or training takes the challenges of a changing rural environment seriously, it needs to gather as much concrete information about the character of change as possible. This calls for participatory approaches to needs assessment and 'market' surveying. The exploration of manpower demand and social demand can be organized in a formal and/or in a non-formal way. Most probably the institution will not be able to organize a systematic needs assessment itself, simply because such an assessment requires rather specialized expertise. Consequently, the process of needs assessment could be concentrated in a special unit, nationally or internationally. As we do not support the idea of institutional separation, we feel that special units of this kind should be integrated in wider institutional frameworks. Such a unit should have a keen eye for regional differentiation of needs. The question is how such a unit will be financed; government support is indispensable in this respect.

There are different informal possibilities, however, for collecting information or organizing a network through which the institution is 'fed' with the necessary information. Staff members have their regular contacts with practice, as they are involved in supervising students who do practical work on farms, in agricultural industries and in all kinds of rural institutions. Informal links with 'agents' of the rural system are low cost to maintain over time. Directors and principals have their external contacts as well. A very important source of information are students, especially those who come from a farming background or whose families are involved in (restructured) rural activities of some kind. Also, agricultural unions exert their influence (in)formally through their participation in committees, schoolboards and other (informal) fora. These different informal sources of intra-institutional information have to be organized and systematically tapped. This is a distinct task of the management of the institution concerned. Later we will see that external networking is an essential aspect of this process of needs assessment. In Chapter 8 we will discuss the development of 'platforms' and we will see that the conceptualization of this type of social networking is still poorly developed.

The collection of information will, eventually, lead to a more or less clear idea about external demand. It is important to keep in mind that there are different sorts of demands, however, related to different interests of varying (groups of) stakeholders. The next step is to manage a process of choice making within the institution. This process has at least three sides. First it should be content directed, second it has to do with the educational and especially the didactical orientation of the institution and third, it relates to the organization of the process of choice making.

As far as *content* is concerned, we feel that institutions should first address the normative and ethical side of goal setting. It makes a big difference whether an institution wishes to follow rather autonomous economic developments in the region or formulates a sort of statement of principle. For example: an agricultural school situated in an area where pig husbandry on a large agro-industrial scale is introduced could argue that it should try to meet the demand for managers for these industrial units. Such a school could also argue, however, that such a development is an enormous threat for the existing agricultural and rural environment through overproduction of manure, a serious monopolization of landownership and a threat to environmental quality and animal health (classical swine fever!). It could also take a holistic view and argue that alongside the training of managers there is a parallel educational need for those who are monitoring the environment, raising public awareness and conducting environment impact studies. The school could then decide to value this development and translate this decision within its institutional objectives. If the school cannot afford, for whatever reason, to make this choice, it could at least try to train students to look critically at these specific local and regional developments.

A second *content* related choice concerns the width of the professional area to be served and, consequently, the width of institutional goal setting. Does the institution make the choice for training professionals in the agricultural sector in the narrow sense or is the institution convinced of the necessity to contribute also to the professional preparation of those who will try to find meaningful employment in new professional fields of rural activity? If the second choice can be made by the educational institution, the question arises of how this new professional field can be translated into institutional goal setting.

A third and very practical *content* related choice in the process of goal setting has to do with the available expertise within the institution. The institution can depart from the assumption that a certain amount of expertise is available and that overall goal setting has to be tuned to what does exist in terms of staff qualifications. Another approach would be to make an inventory of the kind of human expertise that would be needed as a consequence of the first two choices in order to see how existing qualifications could be updated through retraining or how new expertise could be contracted. The latter choice has serious financial implications; some institutions seek to cover these implications by embarking on commercial activities which often have, in turn, ethical consequences.

A last *content* related choice of institutional goal setting relates to how new external demands will be integrated in the existing programme of the institution. Will it be a question of slightly adapting the existing curriculum, is the institution prepared and allowed to overhaul the existing programme substantially or is the institution even prepared to start discussions with other institutions to arrive at proper inter-institutional programmes in order to

meet the external demand optimally? This choice does concern the possibility and willingness of the institution to review critically its own programmatical strengths and weaknesses.

Prioritising is closely related to the *educational and in particular the didactic orientation* of the educational or training institution. Agricultural schools used to be preoccupied with a rather traditional educational organization, characterised by the year group system, separated disciplines, a discipline oriented curriculum, rigid exam requirements and detailed qualification requirements for teaching staff. Didactic approaches were very much oriented to the cognitive domain, teacher centred and, again, discipline oriented. Teaching staff were evaluated in the first place by looking at the level of mastery of the subject matter and creative didactic initiatives were not very highly valued. The organization of teaching and learning, in sum, was oriented towards a rather well defined set of occupational qualifications within the agricultural sector. There are interesting attempts to reorganize this educational set-up, e.g. in the Netherlands, but it is too early to decide whether these curricular innovations have been generally and intrinsically accepted by the institutions.

Over recent decades, educational science has challenged this conception of formal schooling. Increasingly, researchers and educational support institutions have pointed to the need to critically evaluate current subject matter, to the desirability of seeing learning as a self-regulating learner-centred process and to the necessity of paying more attention to the personal and social development of learners (Fullan, 1992; Boekaerts and Simons, 1993; Beijaard, 1993; De Jong, 1995 and De Jong and Volet, 1995). It goes without saying that the latter conception of the essence of education and training demands a drastic rethinking of didactic arrangements. Later we will discuss this issue in more detail.

Prioritising in institutional goal setting has an *organisational side* as well. As we said earlier, educational institutes are social communities. Such a community can only be truly functional if all actors concerned (directors, staff, students and their parents and users) are involved in processes of strategic planning. Prioritizing institutional objectives is one of the first steps in strategic planning. Hence, institutional goal setting should be organized continuously in a participative and open atmosphere. Moreover, as we will discuss later, the motivation of students and staff is very much dependent upon a sense of ownership of the institutional mission.

Before discussing the different aspects of transferring general institutional goals into a programme or curriculum, it is necessary to analyze the recent external and internal claims laid by both society at large and users on the (management of) formal institutions for rural education and training.

7.3 Claims and aims

Management of institutions for agricultural education and training can be approached from the point of view of general institutional aims but can also be discussed by looking at the different claims made on such institutions. These claims have increased substantially over the last few years.

Claims are formulated by different actors and vary in nature. Macro educational policy makers, the 'general public', future employers and parents, all are putting pressure on (the

management of) formal institutions of agricultural education and training. The question is whether these institutions are not overloaded and overcharged by these varied and growing demands. Also, traditional agricultural schools and colleges seem to be ill-equipped to deal with these claims because of their hierarchical management styles. It is evident that prioritizing is closely related to this eruption of claims. Consequently, we have to explore them in more detail.

The *first category of claims* has to do with the *content of the subject matter* and, hence, with the restructuring of the traditional curricula. Van den Bor (1993) explores a number of these claims for a restructured system of secondary agricultural education in the Netherlands. Within a diversified system of agricultural activities as described in the previous chapter, he distinguishes on the one side a decreasing number of capital intensive, bigger holdings in the field of dairy farming and animal production, horticulture under glass and, on the other, an increasing number of labour-centred, entrepreneurial rural businesses of a pluriactive nature. Both types of rural entrepreneurship will put different and rather new claims on agricultural education and training.

The first type of rural professionals will need a sound training in farm management, tuned to a commercially oriented, capital-intensive kind of adaptive entrepreneurship. These farm holders or agro-industrialists need a strong international orientation and they will even need information to be able to consider the pros and cons of temporary emigration if a favourable mix of production factors would indicate this. Knowledge at a high level of technological attainment is required. 'Chain' knowledge and 'link' information are both important, as we have seen. The understanding of interaction between production and environment and of social claims on agriculture and land use are important as well.

The second type of rural entrepreneurs will need a broad 'package' of knowledge and skills at a rather general level. They will have to be 'jacks of all trades'; adaptability is a keyword. The needed technological know how will have to be directed towards making these entrepreneurs more selfsufficient within their relatively small enterprise. The members of a pluriactive farm household will need multifunctional technological information: they will have to know something about, for example, applied knowledge in the field of poultry farming, the construction of horse stables and the marketing of rural services. Knowledge of local and regional markets, insight in local laws and regulations and knowledge about local resources, both financial and human, is of utmost importance. It is clear that this category of claims can be broadened by looking carefully at the different ramifications of the EU Commission principles, as described and discussed in Chapter 6.

Apart from qualifications in the cognitive domain, both categories will need specific skills training and will have to cope with changing attitudinal demands and normative and ethical standards. The role of state as the sole regulating and norm-setting power has come to an end (Fullan, 1992). Priority is increasingly placed on building individual and institutional capacity to cope with these changing demands.

A *second category of claims* has to do with the *character of the subject matter*. This relates to the functionality of what is taught or what is otherwise offered in formal and non formal education and training. The societal relevance of the subject matter is at stake in two different ways in this respect. First, consumers of education and training will increasingly become very critical about the professional applicability of the subject matter. The question

will be: how does the subject matter relate to my occupational intentions? Second, societal relevance has to do with the relationship between what is taught and what consumers or consumer groups see as essential present and future societal developments.

Increasingly, it is realised that a specific body of knowledge tends to loose its relevance and topicality with an ever growing speed. Consequently it becomes questionable whether the individual acquisition of cognitive information through formal schooling or training is the best way of preparing young people for the world of work. This brings us to a third claim which has to do with the growing necessity of 'learning to learn'. Self-regulative learning implies that the learner does not try to stock his mind with a specific amount of knowledge, which will sometimes prove to be obsolete once he has mastered it, but instead will acquire learning skills which will enable him to design strategies to collect and combine adequate information to handle time and space specific problems. The role of new information and communication technology is very important in this respect (De Jong, 1995; De Jong and Volet, 1995; Bereiter with Scardamalia, 1994; Blom, 1997).

A *third category of claims* has to do with the *personal, moral and social development of learners*. Society at large, but also parents and learners themselves have high expectations of the pedagogical task of vocational training, especially in formal agricultural schools. Not only is it considered to be important to learn a 'trade' but also to become a responsible member of society, a 'world citizen', a conscientious steward of the natural environment, and so on. The debate about the division of responsibilities between the school and other social institutions, such as the family and the church, is already old and will probably never be completed satisfactorily. There is a broad consensus, though, that formal education and training should not and cannot be restricted to 'objective' transfer of information.

This list of claims is by no means complete. One could think of the desirability for educational institutions to organize re-training and in-service training of different sorts, to act as a change agent within a developing social and cultural context, to organize remedial teaching programmes for individual learners, to provide more possibilities for the integration of theory and practice, to cater for the emotional implications of agricultural disengagement, to integrate gender issues in the curriculum and to provide adaptive learning programmes for new groups of learners, such as early retirees.

In sum, formal institutions of agricultural education and training are considered by many as places where a conglomerate of personal and societal claims can be dropped. At the same time, as was stated rightly in a report from the Dutch Education Advisory Council, prioritising in formal education and training is based on tradition rather than on prognosis. Consequently, there is not so much space for the operationalization of ill-defined but potentially important new societal claims. And even if new claims are taken into account, it proves to be extremely difficult to 'translate' them into specific programmes (Adolfse & De Koning, 1994).

If institutional goal setting is practiced, as advocated in section 2 of this chapter, it is likely and probably even unavoidable that aims and claims will clash as a consequence of a complex set of internal institutional factors and external demands. However, one could also try to see this confrontation of aims and claims as a fertile substratum for educational innovations. In this view, educational restructuring is the outcome of a spiral and ongoing process of the confrontation of institutional possibilities, responsibilities and choice making on the

one side and external and internal claims on the other. In order to manage this creative process, it is necessary to investigate the configuration of institutional realities and constraints. Before doing so, however, it is necessary to pay more attention to the process of curriculum restructuring, being an important responsibility of institutional management.

7.4 Towards an alternative approach of curriculum restructuring

Ultimately, the confrontation of institutional aims and priorities and external claims should lead to the restructuring of the curriculum. The question is, how this restructuring process could be realized. The curriculum gives more or less clear indications about the objectives, the selected and sequenced subject matter, the modes of delivery, the learning materials used and the process of formative and summative evaluation.

Basically, curriculum development is a planning process involving different actors. This process of planning can be realized in a strongly linear, top-down and rational way but can also be organized in a more interactive way (Adams, 1988). Apart from taking a decision about the planning approach, curriculum developers have to think about the internal and external consistency of the curriculum as well (Kessels, 1993). First we will look at different approaches and then we will discuss the issue of consistency.

According to Adams, 'rational' *models of planning* are characterized by:

- rational decision making and technical reason;
- predetermined, structured, sequential and logically associated procedures;
- the assumption that there is agreement on goals;
- the assumption that change can be managed by professionals and experts having sufficient technical knowledge to control the process;
- the assumption that techniques or technology is available to translate targets into programmes of action;
- an 'objectivist paradigm'.

By contrast, interactive models of planning are characterized by:

- the recognition of the importance of individual perception, the inconsistency of human behaviour and the crucial but variant nature of social context;
- less emphasis on predetermined structured procedures;
- conceptualization of planning as a revolving process of interaction-interpretation-decision to mediate between knowledge and action within the context of an uncertain future and incomplete understanding of the present;
- consensual norms as prerequisite to decision making, grounded in the interpretative activity of those involved and developed through common expectations and obligations;
- emphasis on the importance of interpretation of practice, the meaning of information exchange, and the dynamic nature of the interaction of individuals and systems with their environment;

- a 'subjectivist paradigm'.

Kessels (1993) formulates these different approaches to planning, and thus to curriculum planning, in a slightly different but related way. He distinguishes the systematic approach and the relational approach to curriculum design. The systematic approach "...implies the logical design sequence of orientation, design, development, implementation and evaluation". This approach makes use of needs assessment techniques, instructional objectives, learning strategies, training materials, guidelines for trainers and teachers and evaluation instruments. The relational approach "...provides activities that challenge actors to become involved in the design and implementation process, and that reveal their perceptions of the ideal curriculum". Mutual perceptions have to be made explicit, and can then be modified and made compatible. The relational approach stimulates different actors to partake in the process of curriculum restructuring (Kessels, 1993: 5-6).

Another way of looking at the process side of curriculum development has been emphasized by Macdonald (1975) who distinguishes three 'ideal' types of curriculum construction: the linear-expert model characterized by control of the process by those who plan, the circular-consensus model underlining consensus between the different actors in the process and the dialogical models in which dialogue between planners and students is paramount.

As far as *consistency of curricula* is concerned we can make a distinction between internal and external consistency. The internal consistency of a curriculum refers to the requirement that curricula should be consistent in itself, meaning that the proposed subject matter is based on a clear perception of objectives and that those who have completed the proposed programme are indeed capable of performing properly in the perceived working environment. External consistency means that there is a communis opinion between the different groups of interest (teachers, parents, employers, learners) about the learning content and the didactical principles included in the curriculum (Kessels, 1993).

Another aspect of curriculum restructuring which we need to mention here is the influence of indigenous variables that have to be considered in curriculum development. Lillis (1985) stresses the need to look very carefully at the indigenous modes of learning and cognition when realizing new curricula. Some learning processes are common across cultures, others are unique to a particular culture. Hence, straightforward rational curriculum planning cannot be applied cross-culturally.

A last notion has to do with the involvement of different participants in the curriculum planning process. Curriculum innovation demands a 'moral commitment' by lecturers and other actors in the planning process, expressed in a sense of ownership and mastery of commonly accepted concepts (Lillis, 1985). This holds in particular for the teaching staff, as Montero-Sieburth (1992) has pointed out. Apart from the more specific involvement of teachers in curriculum planning, there are all kind of relationships between curriculum and society, curriculum and the individual, curriculum and value systems and curriculum and scientific and/or philosophical criteria.

After this brief theoretical excursion we arrive at the key question: what kind of curriculum approach is, ideally, preferable for restructuring curricula of agricultural education and training institutions in the context of a rapidly restructuring rural arena. In view of our

previous analysis of the confrontation of aims and claims and taking into account the conclusions of Chapter 6, we feel that the re-thinking of curricula should be guided by the following principles.

- Curriculum reform should be looked upon in the first place as an interactive process of planning as the social context is very important, the future of the rural sub-society is uncertain, the present rural restructuring is not yet well understood and, thus, the need for genuine participation of all actors involved is unquestionable.

- A systematic approach to curriculum reform is also important but should follow instead of precede the application of relational or interactive design standards.

- External consistency could be a logical outcome of interactive curriculum planning. It would be unrealistic, however, to expect external consistency if the interests of different actor groups vary widely. Hence, external consistency should provide a sense of direction rather than being considered as an absolute pre-condition.

- Once interactive planning has resulted in common views about the main aspects of the curriculum, internal consistency is a leading principle for those who develop the actual curriculum.

- Curriculum reform should be realized within the context of regional needs, indigenous cultural learning patterns and should take account of local initiatives to promote rural communication.

- As a consequence of the need to plan the curriculum in an interactive, dialogical way the voice of different groups of interest should be heard. It is very important to stimulate the different actors to actually take part in this discussion. This holds in particular for the teaching staff of the institution who will have the ultimate responsibility to organize the teaching-learning process through which the new curriculum has to be realized (see also White and Van den Bor, 1996).

This alternative approach to curriculum development will certainly meet with opposition. It will also provide possibilities, however, to tune formal agricultural education and extension to the new realities of rural life and to integrate new ways of informal learning into existing patterns of rural communication. Institutional goal setting, the critical but open minded consideration of external claims and the different approaches to the restructuring of curricula will put high demands upon the management of existing institutions. We will explore these demands in more detail by looking at requirements and realities of present-day institutions for rural communication.

7.5 Requirements and realities in institutional management

As we have seen, institutional management of formal institutions for agricultural education and training is increasingly challenged by external claims. These external claims change continuously and 'clash' with traditional institutional goals and curricula. Institutions that want to be more than distant followers of rural developments and their societal implications have to react promptly and adequately to these developments by re-setting their goals, restructuring their curricula and by creating new 'platforms' of agency (see Chapter 8). In doing so they might even create possibilities to anticipate societal developments by training people who are either able to carve out a special 'niche' in the rural labour market or to enter the rapidly changing labour market in a flexible way. The need to change institutional policies has to be operationalized by institutional management in terms of new requirements. This management of change will be confronted with existing realities and problems. We will now explore these requirements and realities in the field of: modes of delivery, subject matter characteristics, network positioning, professionalization and material conditions. In doing so we would also advocate the promotion of research and development projects (research and outreach) in a collaborative mode. In this R&D projects the 'clients' should be involved. This type of research should become part of restructuring and networking processes in the rural arena. The question is how this should be managed at the institutional level. Institutions at the higher agricultural education level should involve their colleagues at the 'lower' levels. But we should stimulate teachers and trainers to become researchers themselves, not in an abstract academic sense but in a more practical and applied manner. This has serious consequences for the professionalization of teachers at the institutional level.

Modes of delivery

As the educational needs of present and future learners are more differentiated and tuned to individual circumstances than ever, teaching and training methods will need to be much more learner centred. This calls for an interactive way of teaching, preferably in small groups or via computer assisted interactive learning, so that teachers can spend more time on the individual needs of learners. This holds for both more specialized agricultural schools and for general rural business centres. More emphasis should be given to the specific individual learning styles of learners as the development of such a personal learning style will help learners to shape their professional life according to their specific personal talents. In view of the growing possibilities of ITC, different modes of 'virtual learning' will undoubtedly become of importance as well. The Internet is an important tool for virtual learning. The reality of present-day teaching is quite different. Teaching still tends to be teacher centred and top-down lecturing directed toward the capabilities of the 'average' learner.

Discovery learning is increasingly important as future professionals in rural settings will have to find meaningful work through a process of exploration and discovery of existing and developing possibilities within a changing labour market. Instead, traditional teaching in agricultural schools is based on consumption, repetition and memorization of a rather well-defined body of knowledge, presented by the teacher, trainer or extensionist. Consumer learning tends to weaken the motivation of the learner to bring in his own expertise and ideas

and does not stimulate the ongoing actualisation of teaching methods and contents as learners are less critical of the professional quality of their teachers.

New modes of delivery for rural communication need to be much more dualistic in terms of the practice-theory ratio. This means that several shorter periods of practical orientation and learning should be included in the curriculum instead of only one longer period. A continuous practical orientation will help the learner to better shape his own ideas about present learning needs and his prospective professional outlook. Moreover, it improves the professional quality of teachers, both concerning content and didactical proficiency, as teachers and trainers have to keep themselves abreast of the most recent developments in rural practice. If they fail to do so, their performance will be harshly evaluated by their students who are well aware of problems and realities in rural practice. Hence, properly programmed alternation between supervised practical periods and institution-based teaching does promote the quality of both teaching and learning.

Increasingly, modes of delivery will have to be flexible and problem-oriented. As a consequence of very rapid and ongoing changes in the labour market, training for well-defined 'jobs' will most probably become less important. To be able to find a meaningful place in rural life, rural workers will need to be trained in such a way that they can distinguish, define and handle problems and exploit possibilities in a flexible and creative manner. This necessitates a teaching-learning approach in which problem solving techniques, and thus interdisciplinary approaches, are important. Traditional teaching in agricultural schools is rather discipline oriented, inflexible and not in the first place problem oriented as a consequence of the rigid division between different subjects. Recently, the Dutch government has taken initiatives to innovate the national agricultural education sector, in particular secondary agricultural education, along these lines but it is questionable whether the implementation was sufficiently participatory in character (Van der Klink, 1993).

Earlier we mentioned the need for self-regulative learning. Self-regulative learning has different sides. First it is considered as the mastering of certain learning techniques. In this sense, self-regulation is identical to 'learning to learn'. Selfregulative learning can also be considered as 'learning to become the architect of ones own (professional) life'. Both types of self-regulative learning are increasingly important in an era in which knowledge and information becomes obsolete with an ever increasing speed and in which it is necessary for learners to learn to reflect on their personal professional career (De Jong, 1995; De Jong and Volet, 1995). Self-regulative learning in the latter sense is more or less pre-conditioned by a proper choice of individual learning techniques and the mastering of general professional skills and attitudes. Self-regulative learning as a conceptual tool within modes of delivery is in its infancy as most didactical arrangements in formal education and training in Western Europe are geared towards the accumulation of a rigid and disciplinary oriented body of knowledge.

Modes of delivery will change further through the growing need to tap external sources of knowledge and expertise, especially by inviting 'outsiders' to participate in the teaching-learning process. This could be done in different ways. External professionals could be asked to teach modules, (parts of) courses, act as resource persons, participate in discussions, co-supervise students in practical situations. Also, one could go further and decide that students could follow informal courses or workshops outside the institution to earn credits within their

individual teaching programmes. At present, such possibilities are not exploited very widely as education and training institutes used to be tied to formal qualification criteria established at the level of macro policy. Also, formal institutions are reluctant to stimulate significant external input as their teaching staff are not always prepared or qualified to adapt their own way of teaching to the content and character of external inputs or needs.

Modes of delivery should be adapted in such a way that high level learning objectives could be realized. Presently, teaching methods generally cater for knowledge accumulation and some understanding. Realizing higher levels of cognitive learning, such as application, analysis, synthesis and evaluation, presupposes more interactive and student-centred teaching methods next to direct acquaintance with the subject matter. Increasingly, open and (international) distance education will play an important role in the diversification of modes of delivery.

In sum, as a consequence of the new demands put upon formal education and training for rural professional life, the organization of teaching and learning need to change in at least the following ways:

FROM TEACHER CENTRED	TO	LEARNER CENTRED
FROM CONSUMPTIVE LEARNING	TO	DISCOVERY LEARNING
FROM THEORY DOMINATED LEARNING	TO	DUAL LEARNING
FROM KNOWLEDGE ACCUMULATION	TO	PROBLEM ORIENTATION
FROM CONTENT ORIENTED LEARNING	TO	SELF-REGULATIVE LEARNING
FROM INSTITUTIONAL STAFF BASED	TO	EXTERNAL HUMAN RESOURCE LEARNING INPUT
FROM LOW LEVEL COGNITIVE LEARNING	TO	HIGH LEVEL COGNITIVE LEARNING

Subject matter characteristics

As was mentioned earlier, restructuring of traditional curricula should result in a more flexible package of subject matter. In view of the very rapid changes, both in primary agriculture and in the wider rural arena, formal institutions have to re-think the ratio between core subject matter and options. Modularization of the curriculum will usually provide more possibilities to replace certain subject matter units (modules or combinations of modules) than the traditional discipline and subject related learning programmes. When the traditional curriculum looks like a house made of concrete with fixed inner walls, the new and flexible curriculum could be looked upon as a house built of easily replaceable blocks of stone with movable inner walls.

In the previous section we have argued that external human resource input could be very valuable. This means that the curriculum must be constructed in such a way that there is room for the (temporary) integration of externally produced subject matter. Also the curriculum should not only allow for external subject matter input but should also cater for the possibility that learners follow external modules or courses that replace the optionals, or in some cases, even parts of the core programme of the institutional curriculum.

As stated in the previous section, modes of delivery should be tuned to problem orientation instead of promoting mere knowledge accumulation. This problem orientation can

only be realized if the curriculum is not too rigidly constructed in terms of discipline oriented subjects. As mentioned, such a curriculum should have a relatively modest core programme with the possibility for learner groups to make a thematic choice of options. Also, the curriculum should not be formulated in a rigid way as concerns the sequence of subjects and themes to be taught and the time to be spent on each theme or subject. It is important that (groups of) learners, together with their supervisors or tutors can make rather specific decisions at the beginning of a learning period as to which theme they want to explore or study. This calls for a flexible and rather open curriculum (White and Van den Bor, 1996).

As we have seen, the mastering of technical and social skills and the discourse on attitudes is increasingly important in the preparation of rural professionals. Skills training refers to specific skills that are subject matter related, such as public relations for rural leisure management, but they also have a wider scope, such as information retrieval in order to find potential sources of EU funding for specific rural activities. This is closely related to attitudinal change. Rural professionals will increasingly need to be able to formulate opinions, to handle their personal emotions, to cope with disappointing situations, to formulate their personal ethical points of view and to express and communicate these opinions, emotions and convictions. The reality of traditional formal agricultural education is, that very little attention is paid to the affective domain of the teaching-learning process. Teachers and trainers are not sufficiently trained to develop this side of their professional tasks, students and trainees are not challenged or motivated to consider their attitudinal development as being essential for their future professional life. Hence, both parties were and still are inclined to think about education and training in terms of pure cognitive development.

A last subject matter requirement to be mentioned here has to do with the internationalization of subject matter content. The future of rural development in Western Europe will be heavily based on the positive exploitation of regional and local assets, but always within the context of international development. Especially in the primary agricultural sector, the international division of chain-related tasks will induce a growing differentiation in the division of rural labour across borders. Future rural professionals in this category will have to ask themselves: are my short term plans to embark on promising regional or local activities also promising in a longer term international perspective? Internationalization of curricula is not only important to explore new markets but aims at promoting a more general worldview as well. This calls for a curriculum in which subject matter choices are internationalized. Traditional formal agricultural education and training does have an international outlook, at least in some cases, but this orientation is often rather static and rendered out of date by the latest international developments.

In sum, the consequences of rural restructuring for the character and content of the subject matter can be formulated as follows:

FROM RIGID SCHEDULING	TO	A FLEXIBLE PACKAGE
FROM 'HOME MADE' SUBJECT MATTER	TO	USE OF EXTERNAL SUBJECT MATTER
FROM DISCIPLINE ORIENTED	TO	THEME & PROBLEM ORIENTED
FROM COGNITION ORIENTED	TO	MULTI-DOMAIN ORIENTED

Network positioning

Network positioning has to do with institutional choices as concerns the character and place of a particular institution within wider vertical and horizontal networks of formal, non-formal and, indeed, informal institutions and groups.

First, institutions have to realize that the time is past in which the institution could regard itself as a relatively independent and sometimes even isolated educational stronghold in a particular national educational context. Increasingly formal institutions have to form 'strategic' alliances with other institutions within a national but especially in a regional context. This could be done on the basis of a functional division of tasks between these institutions. Network positioning is essential, not only for reasons of efficiency and cost-effectiveness, but also because of the need to integrate indigenous knowledge, developed by individuals or informal study groups into new study programmes. If a secondary agricultural school wants to pay attention to, for example, the cultural heritage of a certain rural area in order to integrate this knowledge into the curriculum, it is necessary to work together with local individuals and groups who are knowledgable about this issue. It might even be better for such an institution to build a bridge between the institutional programme and the activities of existing study groups instead of trying to integrate informal activities directly into the institutional programme. Quite another and more commercial reason for networking is the need to be able to offer inter-institutional consultancy services which might combine different sorts of expertise and which would give such a combination a headstart in the increasingly competitive rural consultancy market.

Another important reason for network positioning is the need for internationalization. Rural restructuring has different characteristics in different parts of Western Europe but there are also similarities and common drivers (see Chapter 5) which could be used to promote international inter-institutional curriculum reform, and didactical innovations. But there is a pragmatic reason for international networking as well. Future rural professionals need an international outlook, as we have advocated earlier. International student and staff exchange is important to promote international understanding and to explore possibilities for graduates in foreign labour markets. Networking is hampered in cases where institutions do have to position themselves commercially in such a way that there first concern is to attract as many regular students as possible and to promote commoditization of their teaching programme. Unfortunately, this is the case in some Western European countries, especially in England and the Netherlands. We have stipulated that this is one of the implicit contradictions of the macro-policy principle of remote governance.

A third aspect of network positioning is the requirement for formal institutions of agricultural education and training to develop contacts with institutions within other sectors. We mentioned that it might be advantageous for institutions who are increasingly involved in training rural professionals in e.g. leisure management to develop contacts with vocational training institutes across the boundaries of the own sector. In some cases this can become rather difficult, especially when different sorts of sectoral vocational training have strong ties with different ministries at the national level, as is the case in most countries. Sometimes these intersectoral bonds are promoted at the institutional level, simply because the insti-

tutional management sees the practical need to do so but the initiatives are not always supported at a higher policy level, because of inter-ministerial animosities.

In short, network positioning is a viable and necessary requirement for institutional management in order to cope with the changing rural professional demands. Consequently, network positioning should change in at least the following ways:

FROM INSTITUTIONAL ISOLATION	TO	LOCAL/REGIONAL NETWORKING
FROM NATIONAL POSITIONING	TO	INTERNATIONAL NETWORKING
FROM INTRA-SECTORAL POSITIONING	TO	INTER-SECTORAL NETWORKING

Professionalisation

The whole institutional analysis to this point leads us to the conclusion that institutions need to be professionalized in different ways and at different levels. In Chapter 8 we will say more about the professionalization requirements at the individual level but we have to make a few remarks here concerning the institutional requirements and realities in this respect.

Professionalisation has to do with learning, teaching and institutional management. In order to become better learners, students need to acquire 'learning strategies' as we explained when we discussed self-regulative learning. Learning strategies have to be learned as well. Ideally, the mastering of adequate learning strategies is a function of the reflective capacity of teachers within the context of good teaching practice (Beijaard, 1990). It is doubtful, however, whether teachers know how to help their students to adopt proper learning strategies especially in a situation where these strategies have to be adapted to a rapidly changing learning context. The reality is that students or trainees are not properly taught how to learn because teachers have never acquired the expertise to integrate this type of didactic counselling in their own professional performance. The same holds for those who set up informal learning situations, such as study groups, workshops and the like. It is too easily taken for granted that those who know can teach and, more specifically, that those who know can teach others how to learn (Boekaerts and Simons, 1993).

Another requirement of professionalisation has to do with the professional quality of teachers. In order to conceptualize this professional quality one has to explore the professional profile of teachers, or better, of the organizers of rural communication, in its specific conditional context. We will make an attempt to do so in the following chapter. At this point we would like to state that professionalization of teaching staff has to do with, at least, three clusters of factors. First it relates to the mastery of the subject matter to be taught or, in other words, the topicality of the rural information to be communicated. Second, professionalisation of teachers concerns the didactic expertise of teaching staff. And last, professionalisation is very much enhanced by the teacher's understanding of the character and configuration of the different factors that condition the context in which teaching and learning takes place. In view of the rapidly changing circumstances and the different claims put upon the content and methodology of rural communication processes, it is to be expected that the need for professionalisation of teaching and training is substantial. This growing need is also illustrated in our previous discussion of the requirements and realities pertaining different modes of delivery.

Professionalisation also refers to the management of the institution, as has become clear throughout this chapter. In our concluding section we will say more about the overall managerial qualities. Suffice it to say here that managers of formal institutions in a new restructured rural context will be confronted with a number of important questions, such as: how should my institution be positioned in a broader institutional network, what can I do to improve the professionalization and motivation of the staff, how do I organize the necessary process of intra-institutional communication, how do I collect and disseminate the necessary information for my institution, how can I improve the material base of my institution. This calls for managers who think dynamically instead of statically, who think democratically instead of hierarchically and who are pro-active instead of reactive. Such managers are not born, they grow through a good mixture of personal motivation, practical experience but also by means of a well-designed professionalization strategy involving processes of intervision and/or externally provided training.

The whole professionalisation issue in terms of better teaching and improved institutional management can be summarized as follows:

FROM KNOWLEDGE TRANSFER	TO	DIDACTIC COUNSELLING
FROM STATIC, HIERARCHIC, RE-ACTIVE MANAGEMENT	TO	DYNAMIC, DEMOCRATIC, PRO-ACTIVE MANAGEMENT

Material conditions

As we have seen in Chapter 6, the financial and material conditions that regulated traditional agricultural education and training are in a state of flux. In this section we would like to pay attention to the financial resource base of these changing institutions, the physical infrastructure, the learning materials and the reward system for the professionals working in these institutions.

In most Western European countries, the traditional institutions for formal and non-formal agricultural education and training were predominantly financed by government. This is changing very rapidly. In the Netherlands, the national extension service is partly privatized and the financing of formal agricultural schools is increasingly decentralized. Educational innovations have to be financed from other sources and this stimulates market orientation, commoditization of services and the growth of a commercial attitude among institutional management. Earlier we have already discussed the immanent contradictions of this policy. Institutional management has to sail between the Scylla of innovative restrictions due to lack of money and the Charybdis of undue commercialization and private influence as a result of private funding. Again, this forces institutional managers to formulate the educational mission of the institution rather strictly without frightening off potential external donors. So, the institutional management has to adapt its 'financial security' attitude to a 'priority - resource base balance' approach. Risk assessment and risk management becomes of vital importance in this respect.

The use of the physical infrastructure of existing institutions can play a role in this changing attitude. The present accommodation of schools and training institutes could be used more pluri-functional and frequent. This has consequences for the running costs, including the writing off, warding, cleaning and maintenance of these buildings. In principle,

these extra costs have to be borne by the new users of the physical infrastructure. These new user groups will most probably be short of financial means. This is a potential problem which has to be solved by management in good cooperation with user groups. Extra government financing, especially in the initial phase of multi-functional use will be necessary. Input of additional voluntary assistance might solve this problem, at least partly. Institutional management will have to change from traditional 'shop minding' to creative stewardship of physical infrastructure.

In this chapter we explored the possible changes in the curricula of institutions for rural communication. Curricula will become more flexible, open and adaptive. As a consequence, existing learning materials such as textbooks, manuals and other written materials will become obsolete or will have to be adapted to new learning needs and objectives. These changing requirements will be locally or regionally defined which implies that commercial production of these materials at a wider scale will become increasingly problematic. Institutions will have to produce their own materials that fit the specific needs of the educational demand or use modules that have been produced by others (trading of modules). Apart from the question whether staff is adequately equipped to produce these materials, institutional management will also have to deal with the financial and material consequences of the need for these 'tailor made' materials, such as funding, printing and marketing. This will most probably urge institutions to merge or explore strategic alliances with other institutions so as to broaden the resource base for the production of these materials. The very rapid development of printing technology (e.g. desk top publishing) should be explored and applied. Increasingly, course-ware production becomes important. Recent research has shown that the production of course-ware for agricultural education and training is rather chaotic and that the use of computers and course-ware is disappointing (Blom, 1997).

At different places in this book we voiced the expectation that traditional institutions will have to develop into open, flexible learning environments with different roles for the existing staff and an increasing input from external human resources. This might have rather serious consequences for the reward system of these new types of educational workers. Salaries of existing staff will probably no longer be based on the number of hours taught. External staff input has to be financed as well and internal staff will, in some cases, be challenged or stimulated to work externally, e.g. through consultancies or by rendering services to other institutions. This demands a complicated but necessary review of the existing reward system, based on fundamental discussions with staff members and their unions. These discussions will partly be held at the national level but the institutional management, through the policy of remote governance, will increasingly have to deal with these financial and legislative working conditions.

In sum, the changing internal and external material conditions of institutions for rural communication will force institutional management to change its policy in different ways:

FROM FINANCIAL SECURITY MANAGEMENT	TO	BALANCING PRIORITIES AND RESOURCES
FROM TRADITIONAL 'SHOP MINDING'	TO	CREATIVE STEWARDSHIP OF PHYSICAL INFRASTRUCTURE

FROM 'OFF THE PEG' LEARNING MATERIALS	TO	'TAILOR MADE' LEARNING AIDS
FROM SALARY ADMINISTRATION	TO	REWARD SYSTEM MANAGEMENT

7.6 Conclusions

In this chapter we have explored the consequences of rapid rural restructuring for the existing institutions for agricultural education and training. We have seen that it is absolutely essential for these institutions to make fundamental choices. This process of priority setting is not only based on a continuous survey of the labour market but also on what these institutions themselves consider as a challenging area of activities.

This process of choice making is hampered by the enormous amount of internal and external claims put upon the organization. These claims should be balanced with the strategic goals of the institution in an ongoing spiral process. This is the only way to create a sound fundament for curriculum reform via interactive and democratic procedures.

The implementation of an innovated curriculum presupposes a distinct set of requirements as concerns modes of delivery, subject matter characteristics, network positioning, professionalization of staff and management, and material conditions. We have indicated that these new and changing requirements cannot always be met as the realities of present institutional characteristics cannot be changed overnight. Consequently, institutional management is confronted with the difficult question: how can we create an atmosphere of creative dynamism in our school or training centre?

It would certainly go beyond the aim of this book to analyze the hectic discussions about institutional management under rapidly and continuously changing external conditions. We feel, however, that Peter Senge (1993) in his book on what he calls the 'learning organization' has mentioned a number of essential managerial disciplines which could promote the needed institutional change. He mentions five vital disciplines of a learning organization.

Systems thinking. Managers should not focus on isolated parts of their institutional system. They should try to see the institution as an invisible fabric of interrelated actions of which they themselves are part as well. By viewing their organization in a holistic way they avoid actions that promote isolated change on the short term without inducing an overall institutional change on the long run.

Personal mastery. This encompasses the discipline of developing, deepening and intensifying one's personal vision, of focusing one's energies, of trying to develop patience and seeing reality as objectively as possible. It is what Senge calls the 'spiritual foundation' of the organization. An organization can only grow and develop if the different individuals that constitute the organization are convinced of the importance of continuous personal learning.

Mental models. Our assumptions, generalizations, pictures and images of the world around us determine how we react to and act in this world. Very often these mental models are subconscious and, consequently, not available for well-intentioned reflection or change. Therefore, we should try to make them conscious through a process of dialogue with

colleagues in the organization. It is important for institutional managers, not only to assist others in discovering their hidden mental modes but also to try and unearth their own implicit modes of thinking.

Building shared vision. For institutions to survive and develop, institutional management need to be based on a commonly shared notion of identity and sense of destiny. This can only be accomplished if individual workers are willing and able to discover their personal ideas about the future of their personal involvement and of their possibilities to contribute to a shared vision of the institutional mission.

Team learning. Team learning is heavily based on dialogue. The discipline of dialogue involves learning how to recognize patterns of interaction and patterns of defensiveness which may undermine individual and common learning. Creative surfacing of these patterns of interaction and of their underlying reasons is absolutely essential for building a shared vision.

In developing these disciplines, Senge contributes to recent discussions about soft systems thinking (Checkland, 1989) and the re-thinking of management strategies (Mintzberg, 1989). The importance of this new 'school' of management thinkers lies in their creative way of bending our minds towards new ways of human communication in institutional contexts (see also Röling, 1994; Pretty, 1994). The question is, however, how we can 'translate' these valuable notions into concrete actions for institutional management in the realm of rural communication. One possible way of coming closer to concrete sets of action for change is to look at how different actors or actor groups (staff, students, parents, young farmers) perceive their present and future role in a restructured rural arena in general and in the process of communication for rural action in particular. This human factor in rural communication will be discussed in the next chapter.

CHAPTER 8

THE HUMAN FACTOR IN RURAL COMMUNICATION

8.1 Introduction

In the two preceding chapters we have discussed the consequences of rural restructuring for educational policy making and institutional management respectively. At different places it has been concluded that re-organizing training and education for agriculture and rural development is very much a process of motivation, communication between individuals, professionalization at actor level and re-thinking of relationships between individuals and groups of individuals. It is necessary, ultimately, to give ample attention to the human factor in processes of communication for rural development (UN & FAO, 1995).

We would like to stress once more that policy networks and institutional arrangements are abstractions. Individual actors and actor groups are the fabric which turns these abstractions into meaningful and inspired social entities. Revised policy measures or re-considered institutional goal-setting can only be successful if loyally implemented by the direct partners in communication.

Throughout this book we have argued that we should no longer try to think in terms of supply and demand in rural communication processes. Instead, global change and related rural restructuring can only be understood if we try to reason in terms of partnerships between those who actually deal with innovative information. Former teachers and trainers become learners and traditional learners turn into resource persons. Having said this, we also realize that in analyzing changing societal needs and objectives we are bound to start by using the traditional concepts of suppliers and users, simply because a new conceptual framework is not yet in place. So, if we speak in this chapter of the demand side and the supply side, we do this for analytical reasons.

First, an inventory will be made of those actors and actor groups who are involved, in some way or the other. This inventory is only a sample because it is realized that specific profiles of actors do change over time and in space and so do their specific social realities and problems.

Some other important consequences of increased rural diversity will then be discussed, both for those who form the traditional clientele of agricultural education and training and those who have always supplied information in whatever form or content. After having identified these consequences, we will explore possibilities for improvement of communication for rural development, both from a methodological and from an organizational point of view.

In the last section of this chapter we will draw a number of conclusions and will discuss possible consequences for policy making and institutional management. The ultimate question of 'who takes the lead' will be addressed but probably not satisfactorily answered.

8.2 Actors in profile

In Chapter 6 we mentioned five categories of actor groups or groups of stakeholders who are involved in the process of rural communication: creators, providers, users, facilitators and supporters of users. In this section we will draw a more detailed profile of these different actor groups and we will try to focus on the individual actors on the 'work floor' so to speak, within each of the groups.

Creators of rural management information are actors who generate knowledge and information through fundamental and applied scientific research and practical experimentation. They carry out their work within universities, research institutes and on experimental farms. Many of them are traditional discipline oriented researchers who have been trained in a time when specialists were highly valued. Academic researchers in university departments and in specialised agricultural research institutes are mostly organised in discipline oriented professional organizations. Their performance is measured by the number of publications in discipline oriented scientific journals. Only very recently, have they sought to organize themselves in broader, interdisciplinary research groups or schools. This is, at least partly, induced by the abandonment of diffusionist ideas resulting in the awareness of the importance of social scientific issues and indigenous knowledge input (Scoones and Thompson, 1994; Chambers, 1994). We have become to realize that scientists are not alone in deciding upon research agendas and outcomes. This tendency to inter- or multi-disciplinarity and problem orientedness is still in its infancy and, more than occasionally, these new forms of scientific cross-fertilization have been induced by macro-policy and institutional management rather than by a genuine cooperative attitude from the side of individual researchers themselves (for a positive example of joint multi-disciplinary research, see Van den Bor, Shute and Moore, 1989).

Actors who generate knowledge on experimental farms are generally more problem oriented. However, experimental farms focus on specific subsectors of agricultural production. As a consequence their mandates are, again, rather narrowly defined, e.g. towards dairy production, horticulture or aquaculture. Here, specialization is not organized by discipline but oriented towards a well-defined profession or type of production.

Increasingly, it is realized that practitioners themselves, such as farmers and workers in agro-industry, are important sources of knowledge and information. Direct feedback from practitioners does play a role in experimental farm policy but is hardly used by academic researchers. Indirect feedback from practitioners is of growing importance and is channelled through intermediary organizations, such as agricultural knowledge and information centres, the extension service or via different forms of adult education and in-service training. However, the institutionalization of the feedback of practical or indigenous knowledge and information is haphazard and poorly developed.

Providers of information for rural communication have an intermediary role between creators and users. The delivery of information is organized through formal education and non-formal education at different levels, through public and private extension services, data-banks, financial institutions, information and knowledge centres, broadcasting corporations and the professional press.

Individual actors form a colourful spectrum of academic staff, teachers, adult educators, extensionists, journalists, consultants and, indeed, farm holders and rural workers themselves.

Those who work in well-established institutions, such as agricultural schools and in publicly financed extension services have always had a well-defined role. Extensionists generally have had closer contacts with farmers and 'the market' than teachers.

Over the past decade the professional roles of these different categories of providers have been seriously challenged. It is important to note here that the institutional changes as described in Chapter 7 have not only had drastic consequences for the content and scope of their respective professional activities but also for the division of labour between these different groups of providers. This has created animosity and strong feelings of uncertainty and insecurity, which is typical of the restructuring experience, as was indicated in Chapter's 1 and 2.

The role of farm holders and rural entrepreneurs in providing and disseminating practical knowledge is undervalued and deserves more attention. Now, they share views and experiences with colleagues in professional discussion groups but it is important to explore possibilities for them to be involved in broader networks of knowledge sharing.

Users of rural management information were traditionally defined as farm holders and those who find employment on farms and in the different work units that make up the agrarian production chain. Users were traditionally placed at the receiving end of the communication channel and only recently has it been realized that user knowledge is of the utmost importance in the make-up of agricultural knowledge and information systems. The development of theory about the role of indigenous farmer knowledge in developing countries has undoubtedly stimulated thought in Northern societies in this respect. A good example is the denial in Europe of pluriactivity as a valid concept and a reality by policy-makers and academics. Yet people develop the knowledge to work in a pluriactive way themselves and now the academics and policy-makers learn from them (De Vries, 1995).

Another issue worth mentioning is that we have increasingly come to realize that the category of users does not apply to the extremes of the chain of stakeholders: farmers as users on the one hand and researchers as users on the other. Also, it is understood that providers of rural management information but also facilitators and user supporters have to be considered as users of rural management information. There is a continuous flow of information between the different actors and actor groups in an ongoing and spiral process of rural management innovation. Different groups of stakeholders are thus entangled in a network characterised by common or supplementary information needs.

Having said this, we realize that not all actor groups will already look upon themselves as users of some sort and at a specific time. Traditional mandates, even if considered obsolete by others, may prove to be tenacious. Status notions may be deeply rooted and, ultimately, be guarded and protected by individual actors and (small) actor groups who fear that their intellectual, professional and material interests are at stake.

As a consequence of the growing diversification of agrarian activities and of rural life in general a number of new user groups will emerge. Disengagers and new groups of rural professionals will try to find a meaningful and income-generating 'niche' in rural areas. By contrast, traditional user groups, such as commercial farm holders, will take on new professional activities for which they need specific information. New categories of providers

of information will emerge. Traditional providers of information will discover that their 'supply' does not fit the 'demand' anymore. Consequently they will be forced to update, renew or create the needed information and in doing so they will become new user categories themselves as they are dependent on other (new) groups of providers.

Facilitators of rural management information provide the personnel, the material and the financial means to generate and disseminate knowledge and information. Historically, government has been very important through its financing of public formal agricultural education, its interest in national agricultural research services and its involvement in publicly financed agricultural extension systems. The role of government as a financer of research, education and extension is increasingly internationalized in the European context.

Next to the (inter)national governments there is an array of facilitators at different levels and from different backgrounds, such as agro-industry, local and regional non-governmental organizations, professional organizations and unions, religious denominations and groups, cooperatives or semi-cooperative organizations and scientific foundations.

These facilitators, in one way or the other, control the whole process of information generation and dissemination through their financial power. This implies that they can establish the content and character of research (fundamental, applied, or strategic) and of knowledge dissemination (e.g. through their influence on curriculum content of formal agricultural education). Commercial facilitators will very often use this power, for example, in prescribing how universities or research institutes should deal with the results of the contracted research projects or programmes. This may lead to serious dilemmas, as we have explained earlier.

Fortunately, not all facilitators use their potential financial power to dictate what creators and providers of rural management information should do. Non-profit organizations especially, public and private, increasingly realize that the generation and dissemination of rural management information cannot be adequately organized without genuine and substantial input of creators, providers and users themselves. This growing awareness calls for ways to conscientisize, motivate and mobilize user groups, in short to engage in developing new policies of empowerment (Friedmann, 1992).

User supporters have recently increased in both number and importance. Traditionally, extensionists played this role, but diversification in rural activities has resulted in the growth of a new group of user support professionals who assist individuals and groups in the preparing for and making specific professional decisions. Not only do they offer their services in developing new professional possibilities for rural entrepreneurs, they also claim to be able to monitor new professional identities and lines of work.

The number of decision making and monitoring supporters, professional counsellors and rural consultants grows so rapidly that rural entrepreneurs might need external advice in order to make an informed choice for convenient user support! This may sound a bit exaggerated, yet it is true that many farm holders and other rural entrepreneurs who seek to diversify their businesses find it extremely difficult to select appropriate decision making and monitoring support.

European rural communities are increasingly characterized by a growing number of disengaging farm holders. The tragedy of the growth of professional user support systems is, however, that the support of those who disengage, voluntary or by force, is very weakly

developed. Remarkably, religious organizations have taken quite a few initiatives in this respect (The Samaritans, 1992; Van Zwieten, 1994). The emotional and existential consequences of disengagement are seriously underestimated and require more attention from policy makers but also from those who, in whatever way, remain to be engaged in rural professional life.

8.3 Consequences of increasing rural diversity; the demand side

As indicated in the introduction to this chapter, the distinction between demand and supply in terms of rural management information is becoming obsolete. The term might be used, however, as long as we realize that traditional suppliers of knowledge and information should also be seen as users and vice versa.

In this section we would like to look more carefully at the consequences of increasing rural diversity for those who are in need of up-to-date information in order to find a meaningful professional place in rural areas. First of all we address the necessity to clarify the concept of rural information needs and the process of needs assessment. Then we will turn to the character of rural information from the point of view of the individual actor or specific actor group. Also we will look at the accessibility for individual actors of formal and non-formal agencies providing the necessary information. Last, we will look at the need for organization and empowerment among individual actors, leading to better access to agencies or networks and to the improvement of the quality of information and support offered by these agencies and networks.

Clarification and assessment of needs

One thing has become very clear throughout our discussions in this book: we all know that old patterns of information supply through formal and non-formal delivery agencies no longer suffice to meet the rapidly changing needs of a restructured rural environment. It has become equally evident, however, that we are far from being able to define in any detail the content and character of new and adapted packages of information. It is impossible to say how the curriculum for a specific secondary agricultural school should look ten years from now. This is so because we cannot predict the very concrete changes in demand for subject matter content. This is the consequence of the complexity and dynamism in rural restructuring and rural change, globally, nationally and in regions. We can and probably should change our line of reasoning, however, precisely because of the character of present rural change. Instead of forcefully trying to keep the content of curricula of agricultural schools in line with what 'the sector demands', we should accept the impossibility of defining 'up-to-date' curricula or extension programmes as a hard fact and even as a positive circumstance. Accepting the inevitability of an unpredictable and ever changing demand for rural management information opens our mind to new ways of needs clarification and assessment.

As far as needs clarification is concerned, communication with actors on the demand side should not be concentrated in the first place on the question: what should one know in order to be a successful pluri-active rural entrepreneur? Instead, the question should be: what kind of information is needed for a specific problem area and where and in what way can this

information be collected? The first question leads easily to a rather rigid curriculum approach resulting in a specific, learnable 'body of knowledge'. The second question demands access to specific and personal knowledge networks and requires individual searching and retrieval skills to use these networks optimally. Schools, extension agencies and other delivery systems may be included in knowledge networks of the individual learner but may not be his sole repository of wisdom within a restricted period of time. The concept of life long learning needs re-thinking in this respect, especially in relationship with individual learning paths and learning styles (which also may change over time).

Procedures of needs assessment will have to change accordingly. They should not be directed in the first place towards building up a fixed curriculum for, say, five years. Instead needs assessment procedures should necessarily result in a description of problem areas and skills training. In this way needs assessment does not result in a rigid teaching programme but in a programme for upgrading and re-training resource persons within the institution. New ways of needs assessment do not start from the assumption that teachers, trainers and extensionists know their facts and can 'deliver'. Instead, new procedures of needs assessment are directed towards identifying blank spots in the capacities of institutions and their staff members in order to organize proper ways of re-training, in close cooperation with those who are on the demand side.

Character of rural information

After our discussion of needs clarification and assessment we may conclude that there is a growing need for flexible programmes in which problems in rural life are approached from a holistic point of view. Participation in these programmes is not concentrated in a limited period of time; instead 'learners' will make use of the offer when and where they need specific information to adapt their social and economic circumstances to the ever changing conditions. This might be over a large period of time.

Obviously, this is a rather vague statement. Can we say more about the character of rural information to be delivered in the near future? In Chapter 7 we mentioned a number of subject matter characteristics. In a fairly recent report on rural development in Ireland, a number of important rural training needs were identified:

- training in multi-skills and new competencies for both new entrants to the workforce and persons at work;
- greater emphasis on promoting an enterprise ethic in rural areas;
- training for professional and voluntary roles in community development including the animation of development;
- training for the pre-development phase of enterprise and rural project development;
- more formal mechanisms for the coordination of effort among providers (Strategy for Rural Development Training, 1993).

A rural entrepreneur who thinks about his future will inevitably be confronted with questions, such as:

- What kinds of skills and information do I need to find out which kinds of new activities are promising for me?
- Who can help me to define this package of skills and information?
- Who can help me to find the sources for this package of skills and information?
- How can I access these sources of skills and information?
- If these sources are non-existent, how can I stimulate others to compile these packages for me?
- Who do I need, in my immediate surroundings, to help me organize these sources of information?
- How can I organize my personal network to help me collect the necessary information; can I use existing contacts?
- Who can help me to make a good estimate of the risks of starting new activities?
- What kinds of risks am I likely to take, economically, socially, environmentally, emotionally?
- How do my new professional plans relate to what I find important in life, socially, religiously, environmentally, ethically?
- With whom can I communicate about these broader, existential questions?
- What will and can I do if my new activities prove to be without perspective and how can I organize my personal safety net?
- What is my second and third option if the first one cannot be accomplished?
- How can I 'use' the community in which I live to help me realize my professional goals and how can I support that community with my own experiences and skills?
- How do my personal plans relate to those of my partner and my children?
- In what way can I organize or improve communication about our common professional future within my family?
- What does my profession mean to me?

- What would happen to me if I would have to stop with my present profession, socially, economically, emotionally?

- Do I feel confident enough to accept that my future is uncertain and that many, unpleasant, things can happen to me and my family?

- If I do not feel confident, who can help me to clarify what I actually want in my professional life?

This list of life and profession oriented questions is by no means complete. We also have to realize that these questions are important for anyone who is confronted with an insecure professional future. The scope and intensity of change in rural areas are such, as we have tried to indicate in this book, that these questions force themselves on rural dwellers in particular. Two important issues deserve closer attention in this respect. First we need to look at the problem of accessibility of sources of information and second we have to address the need to organize ones personal life through processes of empowerment. We will see that accessibility of sources of skills and information have much to do with personal empowerment and the organization of individual rural entrepreneurs.

Accessibility of sources

Research in the Netherlands has shown that there are very large differences in the way in which farmers participate in different kinds of adult oriented learning activities. Most of the older people are seriously motivated to learn about new developments in agriculture. They do not take part in courses, however, as they consider these courses to be meant for younger people.

Another conclusion was that those who feel a strong actual motivation to learn in general do find their way in the large supply of learning activities. Their learning needs are oriented towards farm enlargement or improvement. Other learning orientations, such as intrinsic ones (learning for learning) and conditional ones (social learning) were not given much emphasis by providers.

This research pointed to a number of relevant thresholds hampering participation in adult training courses:

- unfamiliarity with the content and supply of courses;
- unaquaintedness with agricultural schools (in which the courses take place);
- specific image of agricultural courses ('only for young people', 'too theoretical');
- feeling of an inadequate supply of courses tuned to the need of a highly specialized farm holding;
- the fact that the courses are organized at inconvenient times of the day (Bijlmakers and Meijers, 1989, 148-149).

From this research we may conclude once more that highly specialized, 'modern' farm holders will find their way if it comes to the selection of valuable sources for training. The

question is, however, whether these sources can keep up with the ever changing needs for specialised information of this relatively small group of rural entrepreneurs.

Those who have to re-orient themselves professionally or who want to start something entirely new in terms of rural activities will find it difficult to find *adequate* sources providing the necessary skills and information. They could, in theory, approach existing institutions and agencies. The problem is, however, that they tend to see these agencies, correctly or not, as representatives of the old sector oriented knowledge infrastructure. Hence, the accessibility of existing agencies is hampered, first by the character of the training offered and second by the image they have among those who seek alternative employment. The image problem is a major stumbling block for existing agencies in gaining the confidence of new categories of rural professionals. The only solution is to involve potential user groups in the processes of curricular change and re-orientation of institutional image. This calls for the organization of potential learner groups through participation and empowerment. These are bold steps, but the nature of the problems facing agricultural education institutions requires it.

From exclusion to empowerment

Recent rural restructuring in Europe may lead to a more efficient agricultural sector in economic terms, it also leads to the redundancy and exclusion of many people who used to consider farming as fundamental to their lives and to the lives of their children. (Post)modern capitalism seems to accept that we can do without those who cannot cope with the requirements of the unprecedented technological developments but fails to see that people are three-dimensional human beings who, from birth, stand in dynamic interaction with others, as Friedmann (1992) rightly argues (see also Alblas, Van den Bor and Wals, 1995).

Through this interactive capacity, individuals are organized in households which are more than consuming units. They collectively produce and reproduce their own lives and livelihood: they are productive and pro-active units who preside over social, political and psychological power (Friedmann, 1992). They have access to information, they participate in social organizations, they have the power of voice and collective action and they have an individual sense of potency.

The tacit acceptance of the continuing growth of the army of redundant and excluded rural professionals is not only morally wrong but also an implicit denial of a vast reservoir of productive and creative human energy. The release of this energy in a positive way is one of the greatest tasks of modern rural communication management in its broadest sense.

Friedmann explores possibilities to empower households through the concept of 'alternative development' which has a point of departure outside the mainstream of economics. In his perception

"• alternative development recognizes the interdependences which exist between the rationality of economic reasoning and the moral relations that tie people's fates to each other at the intimate scale of kinship, friendship, and neighbourly community;
• alternative development signals the importance of people's life spaces in the production of their livelihood as well as their deep interest in bettering their conditions of life, including the quality of their immediate physical environment;

- alternative development emphasizes the need to articulate the social valuations reflective of each community's life world with the abstract valuations of the market;
- alternative development acknowledges the need to honour the claims of future generations in present decisions as a legitimate expression of household's desire for intergenerational continuity" (Friedmann, 1992, 53).

Access to social power is the key to empowerment and thus to the inclusion of excluded rural households in meaningful social and economic life. Social power is defined by Friedmann as the principle means available to a household economy in the production of its life and livelihood and consists of: defensible life space, surplus time, knowledge and skills, appropriate information, social organization, social networks, instruments of work and livelihood and financial resources.

The question is how creatively rural information management can contribute to this process of social empowerment, taking the rigidity of the existing structure of knowledge and information systems into account. This brings us to the analysis of the human factor on the supply side of our rural information infrastructure.

8.4 Consequences of rural diversification: the supply side

Rural diversification, and also the changing professional profiles within primary agricultural production, necessitate a drastic reorientation at the supply side of information for rural development. Creators, providers and supporters are directly confronted with this reorientation, not only because subject matter requirements are likely to change but also because their renewed professional roles as communication professionals force them to look very critically at how they can serve new or changed categories of users.

As we have seen, the reorientation of user groups has to do with rapid developments in the domain of sustainable natural resource management. The issue of natural resource management affects those who continue to be farm holders but implicates other groups of rural entrepreneurs as well. It is probably even better to speak of sustainable *rural* resource management in this respect as the restriction to 'natural' resources tends to limit our view to bio-physical resources, such as soil, water and biomass.

The question of finding meaningful employment in rural areas in the context of a diversified professional life can no longer be studied in the context of the existing institutional framework (Röling, 1997). Rural resources are scarce and are subject to competitive use by many different actors or actor groups. Hence, sustainable resource use management at different levels of aggregation (farm, spatial areas, professional domains) is more important than ever. New categories of rural resource users constitute a kaleidoscopic patchwork of social groups which no longer match the traditional constituencies of the existing educational infrastructure. The current institutions for knowledge generation, transformation and transfer cannot keep pace with the rapid changes in professional orientation. Consequently, rural resource negotiation will be practiced in new, informal and loosely knit communication 'frameworks' or platforms (Röling, 1994).

If a farmer wants to start a new activity, say snail farming, he will have to construct his own platform at the farm level to find out where he can collect the necessary technical information, where to get information about markets, where to find opportunities to work together with other snail farmers. At a higher level of aggregation, e.g. the level of educational infrastructure, an agricultural school will have to construct its own platform to establish and to negotiate its own role as a provider of a course on snail farming. These existing institutions may be part of these platforms as partners in communication and negotiation next to other partners or actors who are not (yet) embedded in a formal institutional structure. We are still at the beginning of getting some understanding of the dynamics of resource negotiation at the level of informal platforms. Questions such as: who does the platform represent and, to whom is it accountable need further reconsideration.

The problem is that rural resource negotiation is not only a question of finding the right partners on a platform of communication but also of achieving voluntary change amongst the actors who participate in platform discussions (Röling, 1994). This voluntary change brings us to the human factor, to issues of the behaviourial change of those who are traditionally classified as users, suppliers and managers of rural information.

The need for voluntary change is based on the belief that 'truth' or 'reality' is constructed in social interaction. This implies that there are as many realities as social actors. The assumption of multiple realities means that actors participating in discussions at platform level have to negotiate, accommodate, learn and should be able to reconstruct someone else's reality (Röling, 1994). The reality of social actors who, at the platform level, act intentionally, exert 'agency', i.e. make a difference in their own domain of existence and construct their individual realities, enables us to formulate a number of interesting questions:

- how do social actors learn to exert agency at higher levels of social aggregation and how do they overcome social dilemmas in doing so?
- how do the individual 'projects' of actors clash and lead to conflict?
- what kind of strategy do actors use to realize their 'projects'?
- how do actors come to agreement over conflicting intentions through negotiation and accommodation?
- what is the role of traditional institution based providers and user supporters in this process of negotiation and accommodation?
- what are the implications of the changing roles of providers and supporters for their personal professionalization?
- how does their changing professional role affect their traditional institutional tasks?
- how does their changing professional role affect the relationship with colleagues who are not (yet) involved in the process of facilitating platform activities?

In what follows we will discuss some of the issues related to the changing role of providers of rural information. We will focus our discussion on professionalization, communication between colleagues within the same traditional institution, and the consequences for internal human relationships of the growing competition between traditional institutions who try to participate in platform negotiation. To avoid unnecessary abstraction we will do this by using a concrete example from the Netherlands.

Towards institutional re-orientation: a case from The Netherlands

Secondary agricultural education in the Netherlands is organized in 20 agricultural education centres. One of these centres is located in the province of Brabant. It consists of seven former secondary agricultural schools, located in different towns and managed by a central management team. This education centre enrols 3,400 full-time and part-time students and 2,500 adult learners who take short professional courses. The education centre caters for a wide range of curricular programmes, such as crop production, floriculture, dairy farming, food technology, environmental technology, animal care, horse-breeding and equitation.

The centre is managed by a highly innovative board of directors. The directorate is continuously looking for new and challenging lines of employment in the region. Once they have detected promising employment possibilities they try to organize interesting courses and programmes providing information for those who might be interested. This education centre is rather heavily subsidized by the Ministry of Agriculture but has to find alternative funding as well, especially for new centre-based initiatives.

Apart from being active in identifying new information needs in the primary agricultural sector, this centre recognizes the necessity to define information needs for rural entrepreneurship in a much wider sense (see also Van den Bor, 1997). The directorate has developed initiatives to explore possibilities of playing a substantial role in the creation of what they call a 'rural business centre'. They define such a centre not as a formal institution but as a knowledge network for the collection and generation of information on behalf of rural development in its widest sense. A rural business centre is conceptualized as an intermediary to sustain the development of rural activities in their widest sense. The agricultural education centre will participate in the rural business centre as one of many partners. Together with other formal institutions and actor groups it will cooperate in identifying new and meaningful income generating activities in the region, explore knowledge and information needs of those who want to carry out these activities and cater for at least part of these needs.

In order to put these ideas into practice, the directorate has taken the initiative to establish a 'focus group' of professionals who come from formal institutions (university, extension service, farmers organization, etc.) but who are not acting on their personal account. At the same time the directorate has taken the initiative to liaise with a number of local and regional groups (formal and nonformal) to identify what they call promising potential projects. These groups are: a regional tourist information board, the organization of 'nature friends', agricultural schools, environmental cooperatives, and farmers' organizations.

A number of projects have been identified by this network or platform, such as developing nature trails in the region, the maintenance of interesting landscape features, the development of biological crop production, professionalising the host role of rural recreational entrepreneurs, professionalising environmental cooperatives, extensive grazing in nature conservation areas, bird management in restricted nature conservation areas. These projects are put forward by local groups and organizations and are likely to be subsidized in the framework of (sub)national financial schemes.

Although the need to start these and other projects has existed for some time, it is due to the initiative of the agricultural education centre that they are now being promoted in the context of the rural business centre. Meanwhile the agricultural education centre seeks to

shape its vested interest in the rural business centre by creating courses and programmes for the respective project workers. It is quite promising that this institutional initiative has now developed into a much bigger, national platform through which several institutions for rural education and training discuss and coordinate their innovative actions. What does this mean for those who work as teachers, instructors and managers in this particular type of agricultural education centre?

Professionalising rural information managers

Professionalisation refers to learning, teaching and institutional management. As we indicated earlier, students need to acquire 'learning strategies'. For teachers to become better learning facilitators and to play a rewarding and positive role they will need to be intrinsically motivated, adequately rewarded and continuously retrained. This will require a number of specific conditions for which action at the management level is needed. In Chapter 7 it was suggested that new professionalisation requirements have to do with at least three clusters of factors: mastery of subject matter, didactical expertise and being knowledgeable about the contextual conditions in which teaching and learning take place. In the preceding chapter we made some remarks about subject matter mastery and didactical expertise. Again we underline the necessity for continuously updating ones' personal mastery of subject matter knowledge and skills. Also we pointed to the absolute requirement for teachers to handle different learning styles and to promote the self-regulative learning of students.

The third cluster of factors, being knowledgeable about the contextual conditions, can be defined a bit more sharper now. First teachers have to learn and accept that the educational or training context has to be reformulated. Their professional arena is no longer restricted to the classroom, the school building or the occasional farm visit. Increasingly, teachers will have to participate in discussions at the platform level. The concept of 'school' not only loses its limited physical connotation (a building where students are taught) but also its restricted professional character (an institution for initial training of young people). Agricultural vocational schools will have to transcend their physical and professional boundaries and will develop into open arenas where teaching and learning alternates and where actors of different ages and backgrounds are welcome.

This is exactly what the agricultural education centre in Brabant tries to be. The question is whether the teaching staff is adequately qualified to be instrumental in this new type of 'school'. The answer is closely related to the communicative requirements put upon 'traditional' agricultural school teachers and trainers.

Individual communication requirements

Traditionally, professional agricultural education was carried out by teachers who were well trained in a rather narrowly defined (sub)discipline, such as soil science, crop protection, animal breeding or agricultural engineering. Every teacher had his or her own professional domain and even the physical lay-out of schools was and still is set up according to this professional approach: there are classrooms for soil science, agricultural engineering, and so on.

First, teachers of agricultural science in a centre like the one we described in Brabant have to communicate with representatives of other disciplines taught in the centre as problem

orientation is the leading principle. This puts high demands upon the willingness of those educators not only to admit that their specialization is not necessarily the most important one but also to accept interdisciplinarity and thus professional discourse with their colleagues in the centre as a necessity.

Second, these educators have to accept that changing patterns of communication have to do with external information inputs. Traditionally they 'refuelled' themselves by reading their professional magazines and by attending discipline-oriented courses or seminars. In the new concept of the rural business centre they will be fed information by outsiders, such as rural entrepreneurs, non-formal institutions and other platform partners. This information needs to be disseminated through internal communication within their own institution. If this is not done, they will never be able to communicate effectively with their colleagues at the problem area level. Instead of keeping externally collected information for themselves or for the colleagues teaching the same (sub)discipline, they now have to find ways of sharing their newly acquired information.

Third, they have to learn to cope with the issue of flexibility. They will have to accept that curricula will have to be adapted continuously. This implies that they will have to communicate with their colleagues about what is taught and how it will be taught. Curriculum restructuring is a complicated matter, requiring creativity, openmindedness, patience and respect for inputs from external resource persons and groups. Problem oriented teaching and learning prevents individual teachers from escapism with regard to curriculum development; it is no longer possible for individual teachers to sit on the fence and wait until a small group of colleagues comes up with proposals for a new curriculum. Participative communication is unavoidable in this respect.

Fourth, teachers at agricultural schools have to learn to communicate about the moral dimensions of their subject area. This does not apply only to those who are involved in teaching environmental implications of agriculture but to all who approach agricultural and rural development in a problem oriented and interdisciplinary way. The moral dimension encompasses questions such as what is the impact of agricultural production on environment in the widest sense, how does agriculture relate to rural development, what does it mean to be a manager of rural space (public or private), what are the implications of disengagement, et cetera. These questions have to do with values, norms and ethical perspectives and are translated into attitude formation. Individual teachers will never come to grips with these very complicated questions if they are not given the opportunity to intensively discuss them with colleagues in the centre or school.

Last, individual teachers will be forced to partake in reflective communication at the meta level. Time and again they will have to embark on discussions about the adequacy of the general policy of their education centre and of the consequences of that policy for their curricula, didactic approaches and, indeed, for the internal communication between different stakeholders in the centre. Closer contacts between the centre and the world of work implies the participation of all workers in the centre, hence a 'flatter' management structure, and therefore the need for all to reflect on and communicate about broader institutional policies.

The question arises whether these communicative requirements do not ask too much from individuals who have been trained to teach soil science or about animal diseases. Also,

it is important to look at the consequences of these growing demands for internal personal relationships.

Professional demands and human limitations

Educational innovation is a human activity. It is initiated, designed, managed and carried out by those who work in schools, training centres and supporting institutions. Teachers in particular have a substantial role to play; they can make or break an innovation. Therefore we have to take their specific skills and conditions into account.

Most teachers in agricultural education and agricultural extensionists were initially trained in an era of unprecedented agro-technological growth. Curricula of agricultural colleges and universities mirrored these rather narrow economic developments and paradigms. Discussions about agricultural development within a wider rural context, about sustainablity and about the need to react to global and regional processes of restructuring, are of a recent date. Consequently, teachers and extensionists have to approach new and drastic changes with an inadequate professional and mental 'toolkit'. This holds both for their methodological expertise and for their mastery of the subject matter.

Quite a number of teachers and extensionists find it extremely difficult to get a proper general overview of the issues discussed in this book. They find it difficult to place their specific professional tasks in the wider context of rural communication management. This is not their 'fault' but rather a logical consequence of the speed with which societal developments take place. It is understandable that professionals tend to rely on and lapse into their personal, yet increasingly, professional practice.

The specific relationships between teachers of agricultural education and their students and between extensionists and their clients has to be taken into account as well. Teachers and extensionists do not simply supply value-free knowledge and information. Increasingly, they have to deliver messages which are 'hard to swallow'. They have to point to the negative and dangerous consequences of farming practice and they have to address the societal responsibilities of those who are professionally involved in agricultural and rural development. In doing so they will meet resistance and they will have to deal with emotions, values and even with aggression and hostility. They are forced to answer the question: whose side are you on? This relates to their personal conscience and adds to the emotional burden of their work.

Then there is the issue of internal relationships within agricultural schools and other institutions for rural communication management. The fact that the content of teaching and extension work is diversifying so rapidly means that internal communication between professional workers of these institutions is of utmost importance. So, apart from being forced to replenish and renew their individual 'toolkit', these workers have to spend more time communicating, not only with their colleagues and the management of the institution, but also with the outside world. Again, the need for intensified personal networking adds to their workload and requires qualities they might or might not have.

In addition to all these demands, professionals in formal institutions for rural communication management are faced with job insecurities. Processes of privatization and commercialization result in a more competitive work environment for teachers and other educationists. What will happen to them if they cannot cope or comply with the rapid changes

in their professional domain? These insecurities haunt many professional educationists, especially those who already feel insecure because of their age, their inadequate initial training or their relative inability to live up to the ever increasing professional expectations.

In sum, educational workers in agriculture are overburdened and do have feelings of professional insecurity. This circumstance has severe consequences for the innovative capacity of educational institutions and for the atmosphere at the workfloor. It also implies that the undeniable need for educational innovation should be discussed and addressed in the context of human limitations and capacities. It is to be feared, however, that this circumstance is unjustly neglected in our discussions about rural communication in a time of unprecedented rural dynamism.

8.5 Conclusions

In the discussions about the relationship between rural restructuring and rural communication management we easily undervalue the human factor. Reviewing what we have discussed so far, we can now formulate the following conclusions.

- Old role orientations of stakeholders in institutions for rural communication are changing rapidly. Stakeholders' roles are increasingly exchanged, complemented and challenged. New models or paradigms to delineate new roles of stakeholders are not yet in place.

- The inevitability of an unpredictable and ever changing demand for rural management communication and information opens new vistas for needs clarification and assessment. The concept of life-long learning and recurrent education needs reconsideration. Needs assessment has to be re-directed towards new approaches of human resource development at the 'supply' side.

- The scope and intensity of change in rural areas are such that we have to find answers to life and profession oriented questions of individual stakeholders.

- Accessibility of sources of knowledge and information is a serious problem. Accessibility is hampered by the character of training offered and by the image of delivering agencies. This calls for the involvement of user groups in processes of curriculum change and re-orientation of institutional image. Participation of user groups and the enhancement of empowerment of stakeholders are essential in this respect.

- The continuing growth of the army of 'redundant' and excluded rural workers further exacerbates the lack of actor influence and increases the need for empowerment. Rural communication management can and should contribute to this process of social empowerment.

- Rural diversification calls for renewed attention for sustainable rural resource management at different levels of aggregation. Sustainable rural resource management cannot be sufficiently organized within the existing institutional infrastructure but necessitates the strengthening of negotiation skills and the promotion of voluntary change. This could probably be realized via new, but as yet rather poorly conceptualized, informal networks or platforms. The social actor approach is a promising theoretical paradigm to study these processes of social organization and empowerment.

- The development of these new types of loosely-knit platforms is, amongst other things, conditioned by the level of professionalization of educational workers, especially by their individual communicative capacities.

- Professional demands put upon educational workers are seriously hampered by human limitations and working conditions, such as lack of professional expertise and a proper general overview of the problem area at issue, the fact that they have to deal with values, norms, ethical standards and emotions, internal communication problems within existing institutions and job insecurities.

From this we can learn that the human factor in rural communication management demands more attention at different levels of aggregation. At the national and regional levels more attention is needed for the creation of better (working) conditions and contexts in which social empowerment through participation can germinate and blossom. This means, in more concrete terms, that government institutions and regulations should allow for alternative, non-institutional networking and decision making procedures, as indicated in this chapter. This is not identical to a 'laissez-faire' policy. National and regional policy makers are partners in new platforms and networks. It is not a question of excluding existing formal institutions but rather of involving them in new and flexible 'structures' for planning and decision making. In many cases this will require a drastic change of attitudes and roles.

At the end of Chapter 7 we mentioned a number of requirements for institutional management needed to turn institutions into learning organizations. We may now add that at least three aspects are of eminent importance: the provision of information, stimulating communication and specific attention for human limitations. Individual teachers, lecturers or extensionists will never be motivated to participate in internal and external communication networks, formal or non-formal, if they do not have proper information and if they feel that undue attention is paid to personal difficulties and preferences and if they feel that human limitations are not taken into account. Attention for human limitations in particular is often overlooked by institutional managers.

At the end of this chapter we are still confronted with the question: who takes the lead in processes of institutional innovation, including motivation and re-orientation of actors and actor groups. This question is very difficult to answer. There is a continuous danger that stakeholders wait for each other and, indeed, blame each other for not taking initiatives. Waiting for general blue-prints, macro-strategic plans or national scenarios will only widen the gap between 'autonomous' processes of economic restructuring and the development of

proper rural communication patterns and contents. At this moment it is probably wiser and more fruitful to take a deep breath and to embark on local initiatives, like the one we described in Brabant, and to learn from doing. We will witness a period of increasing local and institutional initiatives of this kind. There will be overlap, duplication of efforts and trial and error. At the national and regional level, existing institutions and governments could try to disseminate information about what is going on at the 'work floor'. Also they could try to provide fertile conditions and contexts. Lastly, it is important that academic institutions re-direct their research efforts to study these developments through action-research and outreach programmes.

CHAPTER 9

ADDRESSING THE NEEDS: A CONCLUDING SYNTHESIS

It is our intention in this summary chapter to offer a synthesis of the material presented in the first eight chapters. This is a selective task as there is much that we have described which is both complex and variable. The fact that globalisation is ongoing and that it creates a dynamic element in the evolution of rural areas also makes synthesis a difficult task. It is important nevertheless to identify those features of the rural question that we feel are of the greatest significance, especially in regard to the planning of education and research services in western, post-industrial societies.

9.1 Rural areas under pressure

Rural areas are under pressure. This pressure, from global restructuring and from internal change, may be summarised in three ways: rural vulnerability, rural variability, and the new rural dynamic.

Rural vulnerability

From the foregoing, it is evident that rural areas and people are more often dependent on those sectors and activities that are more vulnerable to the forces of globalisation: primary production, primary processing, low-skilled services, and manufacturing. Equally, sectors and activities that gain most from globalisation are poorly represented in rural areas: financial and business services, knowledge-based services, broadcasting and media industries. In general, therefore, globalisation and the forces of restructuring often have more profound effects on rural areas and hence stronger implications for rural development, education and training than they do for urban.

The empirical evidence of farm household and local adjustments in rural areas of Europe, presented in Chapters 3 and 4, emphasises the increasing vulnerability of households and communities in some rural areas (MacKinnon and Fuller, 1991). The long-standing problems of succession, loss of rural youth and reproduction of farm families remain in those areas more highly dependent on agriculture, while in others de-industrialisation continues to undermine the structure of the labour market. Vulnerability has many forms and will continue as restructuring has been shown to exist in all scales and sectors of the economy. As a result, rural institutions such as the church, the Red Cross, and farm unions, for example, are themselves restructuring and often have fewer resources to address the changes going on around them. The verbatim remarks of members of farm households reported in Chapter 4 provide evidence of reaction (alienation to stoicism) among members of the farm community. They also suggest the changing nature of people's view: where farming was once encouraged as an honourable profession, some parents now advocate that it be avoided. Such attitude shifts reflect the vulnerability and associated stresses of farm and rural life in many rural regions (Bel *et al.*, 1995). There are fewer examples of stress in the agro-business world,

although there is much evidence of high levels of competition and rapidly shifting business ethics. The shrinking of job and enterprise opportunities in agriculturally related industries reflects the comprehensive squeezing of the entire agricultural sector. In general, rural vulnerability reflects some of the old issues and problems facing agricultural and structural renewal, but with the new imperatives of increased globalisation (competition), environmentalism (industrial farming) and community restructuring. Added to this are the new vulnerabilities generated by direct consumption of the countryside. The former are Short-Distance and Industrial Society issues which persist into the present era, while the latter are Open Society problems. In many rural areas these problems are layered one on top of the other, making vulnerability a multi-faceted and complex issue. The image of agriculture as a primary production sector has been diminished over the past ten years. The image problems of the agriculture and rural sector require concerted efforts of all support institutions, including those for education and research. The dilemma is, that due to this very image problem, formal agricultural and rural education has lost its attractiveness for many young people. Declining enrolment has had and still has severe consequences for public financing of these types of education and training which has forced institutional management to take austerity measures, hence in a time where a strong system of agricultural and rural education is desperately needed, this system finds itself in a very vulnerable position.

Another consequence of rural restructuring is the growing army of disengagers. Agriculture and rural education and training are not at all tuned to preparing young people (and elderly) to cope with a situation of disengagement. Instead of preparing disengagers for alternative rural employment, formal educational institutions leave them empty-handed. In doing so, they increase the vulnerability of those who are strongly motivated for rural employment but who are not offered material changes. Rural education and training should not 'write-off' this growing number of disengagers but, instead, use this reservoir of human potential as a source of information and ideas for new and flexible curricula and for strengthening linkages with the rural world.

Rural variability

We have repeatedly emphasised the great diversity of rural areas in Western Europe, which means that the effects of rural restructuring are not equal in all areas and that some areas and people have prospered while others have suffered from the forces of globalisation. Areas suited to productivist farming and niche products have captured some of the benefits of trade and policy liberalisation, while others have engaged in various forms of flexible specialisation with varied levels of success. For the most part, however, rural areas have lost economic production and labour market vitality as industries and jobs have been downsized, closed, or relocated. The decline of the fisheries in Northern France and the drift of industries from Bavaria and Austria to the Czech Republic are some examples.

The policy response generally to the problem of rural vulnerability is to ignore rural variability and to treat all rural areas as the same by designing and implementing common policies and programmes. The benefits of such programmes, although espoused to be egalitarian, tend to be captured by areas that are better off and by people who are well informed in vulnerable areas. The relationship between rural vulnerability and variability is therefore a crucial one.

Just as policy makers prefer the universal approach to program design, education and research planners prefer single programs based on universal applications and standards. Designing programs that are regionally specific while maintaining standards that are universally acceptable is a serious challenge, but one that must be met if the fact of rural variability is to be accommodated and taken advantage of. In Chapters 6, 7, and 8 we have provided some ideas and mechanisms for achieving a more regional approach to educational provision in agriculture and rural development and it is evident that experimentation and risk should be accepted as part of the planning paradigm in our education and research institutions.

At the macro-policy level this regional approach calls for region-specific policies with regard to the dispersion of schools and faculties. Instead, we witness the policy of institutional concentration and the merging of smaller schools and colleges into very big centres for agricultural education and training. This again is understandable in the light of the growing need for efficiency and the ever-increasing financial problems of educational institutions. More energy should be invested, however, both at macro-policy level and at the institutional level to enhance efficiency and sound financial management of bigger organisational clusters of schools and institutions without losing the chance to serve regional needs for training and schooling in support of an increasingly varied and diversified rural setting.

Rural dynamics

The third characteristic that emerges in regard to rural Europe is the new dynamic of mobility and change which both characterises and differentiates rural areas across space. Some areas have responded positively to the forces of restructuring and have adopted increased specialisation of production or niche products to sustain a share of the market. Others have consciously diversified their economies, while many have remained the same. The point is that the variegated picture will go on changing as some areas will change and others will not. Clearly, the forces of globalisation will also go on changing, building pressure to adjust on those economies vulnerable to new forces of restructuring. It is this constant dynamic that is the third and most challenging aspect of the new rural condition. It is also one of the reasons why planning of new forms and contents of rural education and training is extremely complicated, especially when planning continues to be based on conventional ideas about education and training being rather reactive than pro-active with regard to future changes in the labour market. If, however, educational planning is being regarded as an integral component of the processes of change itself, educational planners at different levels will increasingly see themselves as participants in and contributors to the dynamics of change.

9.2 Towards the flexibilisation of education and research

As discussed in Chapter 7, the rigidities in the education system are hard to change, certainly on a short time frame, and under present circumstances they are unlikely to respond well to the new rural conditions. They are even less likely to adjust on a continuous basis. How to introduce and maintain flexibility is thus a major challenge and is especially pertinent in the domains of research and education. If flexibilisation is common in the rural world, then

flexibilisation should be considered an option for organising responses in the educational and research institutions, at the macro-policy, the meso-institutional, and the micro-actor level.

Challenges for education and research

From the preceding discourse in eight chapters, the context of rural and educational change becomes clear. On the one hand, change is constant but is relatively unpredictable in its effects on rural areas. On the other hand, many rural people and institutions find it hard to adjust to change and, because it is often a surprise or unwelcome, it tends to be resisted. Global restructuring and the new rural conditions are therefore likely to have negative images among many in rural communities. This 'image problem' has implications for educational planning and research design. It suggests that dealing with change such that communities and households are strengthened, not divided, is an important task in itself and puts an emphasis on 'process' as well as on the subject matter of agriculture and rural development (Van den Bor, 1997). Graduates of agricultural schools, training centres, colleges and universities increasingly must know about how change occurs and how to cope with it, as well as about the subject matter entailed by the new conditions (economic, social, and environmental). Generalists with process skills will increasingly be needed in the early part of the twenty-first century.

A second point that emerges is that flexibility and diversity increasingly characterise the economic activity of regions, communities, and households in rural Europe. Flexible specialisation and specialisation for mass production are different modes of organisation, but they both include diversity at the spatial level. As we have seen, this will take different forms over space and will produce an even greater variety of mixed economies (with specialised components) than ever before. Creating and maintaining institutional support for these diverse and specialised structures, for example business services, is a major task for lowly populated rural areas and the impact will be uneven and difficult to predict. Planning business management support for such new conditions will be a vital challenge. To the generalist, we need now to add the dimension of flexibility to produce a flexible generalist. Just how suited our education institutions are to respond to this need while maintaining a supply of subject matter specialists, achieving a useful balance, has been discussed in some detail in Chapter 8. The problem is that we still tend to discuss the generalist-specialist dilemma in traditional disciplinary terms. What is needed first is a reconceptualisation of disciplines or thematic fields before we can indicate in more detail what kind of generalists and, particularly, specialists are needed.

From the general context of global and rural restructuring and from the evidence of local and household change in the past decade, we can assert that educational and research systems in general will require greater flexibility to be adaptable, greater tolerance to cross and merge between disciplines, and greater responsiveness to listen more to clients and business as well as to formal builders of curricula. If successful, these objectives will enable research and education institutions to achieve greater relevance to serve the needs of changing rural society. Given the monolithic nature of many of our training, education, and research institutions, however, it will take much imagination, or fear, to bring about an operating climate that can address these needs effectively.

The consideration of such changes in the 'climate' of rural education raises a series of second-order questions that would need also to be addressed, a challenge that would be healthy for the institutions involved, whatever the motives. The question of relevance raises many sub-issues, not the least of which is that of ethics. If education and research is to be driven more by the needs of rural society and by regional situations in particular, and if research funding will increasingly be from the private sector, how then do researchers and educators ensure that they are serving the public good as opposed to corporate or individual interests? We have often touched on this issue and suggest that more needs to be done to ensure that responsiveness is increased but not at the expense of academic integrity. Nor should the raising of such issues lead to the avoidance of the problem altogether. The implications of increased responsiveness are many. For example, institutions that undertake more contract research and train students in the field will need to devise new reward systems for faculty to reflect such performance. Innovative and imaginative teaching and research should be rewarded, not punished. For this to occur, major shifts in the criteria for good performance need to be developed. In a rapidly changing world, such criteria may also need to be dynamic as well as flexible. In addition, the term 'academic integrity' should be scrutinized as well as the old ideas about what constitutes 'academic' work and 'integrity' of workers in the domain of higher education.

In order to take advantage of restructuring and to establish new ethical standards, education managers need to devise partnerships with learners and research clients, be they business, institutions, local organisations, individuals, or groups, such that joint control and responsibility for the process becomes possible. New forms of partnerships, community-wide committees, liaison groups, round tables, and advisory groups could be established based on the principles of co-responsibility, flexibility, diversity, and responsiveness to needs which arise from the new rural conditions. Such horizontal groupings in education, training, and research will provide opportunities to create the 'knowledge platforms' discussed in Chapter 8. They would also help to break down the elitism surrounding the creation and ownership of knowledge that has tended to form in the past.

The concept of 'knowledge platforms' is not without problems, however. In organising these platforms, many questions come to mine, such as: 'who takes the lead', how to 'maintain' a platform in an organized way without institutionalising it, what is the relationship between these platforms and existing formal institutions, how to keep 'momentum' in the platform discussions, how to provide ongoing leadership to platform discussions, what are the possibilities and limitations of platforms, how to organise flexible participation in platforms, etc. These and other questions need to be explored and critically evaluated through participative action research (Bawden and Macadam, 1991).

9.3 Information

There is one clear theme that arises from the connections between global change, the new rural conditions, rural policy developments, and farm household strategies: the increasing importance of new information. As restructuring continues, from top down or from the ground up, the new conditions that emerge are sufficiently different that a whole new body of subject

matter information with which to describe and analyze the new situations is required. Such information is needed at all levels, but is particularly important to the community as it concerns, for example, small-scale economies, adjustment processes, mechanisms for multi-level co-operation, and how to form, manage, and evaluate new semi-autonomous linkages to mainstream systems. We are speaking, therefore, not only of new subject matter information, but of how such information is packaged and made available, and to which publics.

It is our strong belief that those with new information needs must be involved in identifying and solving their problem and that information should be derived from, with, and for the clients and subjects of education and research programs. Knowledge generation, therefore, becomes the focus of this synthesis and the need for new and innovative information a main finding in the analysis of rural issues in Western Europe.

There is little doubt that secondary sources of information will continue to be essential for basic analyses of European issues, but most published statistics are sorely pressed to provide useful profiles of rural or community issues where the scale of disaggregation often makes statistical analysis meaningless. This reflects the importance of the farm household and twenty-four study area data base for 1987 to 1991 held by the European Community and the Arkleton Trust, as it is one of the few detailed, longitudinal studies at the EC level. However, like all data systems, it is stronger on descriptive statistics than on measures of process, which in turn explains why there is a growing interest in new indicators of change and development — for example, the OECD Rural Indicators project. Such work is especially strong in the ecological and socio-behavioural fields.

Data, then, may not be information. Only when data are adequate to perform an analysis that can provide an interpretation of the issue or situation can they be deemed useful in developmental terms. Clearly, we need to think about information as knowledge, not only as data. Extending our knowledge-generation systems from basic data gathering to information provision is a central task of the post-modern research and education system.

Information technology

The way in which new knowledge platforms are formed and information transferred involves the vital debate on information technology and its application to the betterment of rural areas. It is begging the question to ask how much of the new information can be generated by local knowledge platforms which involve local people, regional officials, and central agencies. The role of the state in these regulatory matters is a key factor in ensuring that rural interests are served with access to information highways, education and training support for rural groups, and access-cost subsidisation where necessary. It is essential that education services for the use of information technology are provided to serve rural needs explicitly and not simply those of the centre. Information technology is a new form of literacy and should be available to all.

Imagining what needs to be known and how to measure and analyze rapidly evolving new conditions and dynamic situations is an important task ahead of the rural research community. It certainly should be undertaken only with full inclusion of those who will be affected, as their understanding of the problem or solution is part of the knowledge base. What we suggest is a complete revamping of the way research is designed so that it is less elitist

(expert-driven), is undertaken with community agents, and its results are made available to rural groups as practical outcomes as well as in the form of generalisable principles for teaching purposes. For example, qualitative techniques need to be matured to reflect intuitive feelings about "rurality" if the lifestyle impulses which drive so much urban-to-rural migration are to be understood and employed effectively in rural development planning.

9.4 Implications for education and research

If information and knowledge systems become the principle outcomes of this discourse on rethinking rural education, then the implications for the education and research establishment are many. We have selected three to reflect our thinking in this area. If new information means investing in new knowledge systems then, as we have demonstrated in Chapters 6, 7, and 8, there are a variety of options for improved organisational and information management. In terms of research a whole new window of opportunity opens on information requirements, whether for policy intelligence or for community economic development. It is becoming clear that perceptions are important in rural development, of rural residents, potential migrants, rural planners, and business people, yet we are singularly unable to measure these effectively or to use them in an integrated approach to rural development. Similarly, although networks have become very important as an information-sharing mechanism in the new rural reality, there is little methodology in social science or business management that is community oriented and effective. In both cases, modern methods would prescribe mathematical models, but they are expensive, data-hungry, and often difficult for rural users to interpret. Decision-making models that assume economic rationality do not serve well in ecological and social environments where non-economic imperatives are paramount. Network analysis that mathematically measures the links between nodes also lacks practical utility. Melding together the social, economic, and ecological choices facing rural communities with different constraints and costs will potentially produce new methods, new information, and new models that can be transferred and adapted among rural communities in general. As Bawden and Macadam (1991) rightly state: "We submit that logical positivism, as the prevailing epistemological stance of agricultural scientists, is inhibiting the exploration of complex phenomena typical of agricultural and rural development; and this includes inquiry into novel ways of inquiry!" They develop a new, systemic epistemology, which cannot be explained in detail here, and suggest ways by which "action researching systems" can be conceptualized and used to inform practice (see also Pretty, 1994).

A second point to stem from the information and knowledge system need for adjustment is to rethink how new knowledge-generating systems can be developed and sustained in education and training. This implies a revision of the organisational support system at schools, colleges, universities, and research institutes that deal with rural and agricultural matters. Much has already been said of this matter (Chapter 7 and 8) and suffice it to say here that answering contemporary post-modern problems with industrial society solutions has severe limitations. For example, we detect that the disciplinary structure of knowledge systems often has crippling limitations for appropriate (i.e. relevant) information generation. In pursuing this idea further, it is not difficult to point out the restrictive nature of disciplinary boundaries for

problem-solving in rural development, and although most educational institutions claim to be offering interdisciplinary studies, very few actually achieve integrated or practical results. In agricultural colleges and universities it is understandable that a century of investment in agricultural sciences that has served society so handsomely cannot be dismantled overnight or integrated with other units very easily. Attempts to achieve effective flows of staff or information between units has largely failed, and it has been left to individual students to 'synthesise' the disciplinary or basic material that they are offered. Who integrates, where and when, and at what point in a research or learning program are questions that have remained with us for some time (van Dusseldorp, 1995) and are unlikely to be solved in a period of institutional downsizing which produces 'central tendencies' in academic departments rather than a genuine reaching out for new knowledge generation through integration and collaboration. Although some of these arguments are well known (Fuller and Waldron, 1989), the current period of rural restructuring makes them even more pertinent.

9.5 Restructuring research and education institutions

Restructuring institutions and programmes of rural and agricultural education is one response to the plethora of changes taking place in rural Europe. Some institutions are already restructuring in their own right, but more in response to financial problems than to changes in the agricultural industry or to opportunities in the rural milieu.

As with the overwhelming success of the agricultural production paradigm and the difficulties of adjusting to incorporate an ecological or rural paradigm at the level of policy and public administration, so too with the universities and colleges, training centres and schools facing major challenges for reorganising their programs. The rigidities and vested interests in the research and education system may be even more immovable than those in industry, as much store is placed on basic education and scientific principles and on traditional modes of delivery. Agriculture has been a successful theme around which to organise knowledge generation and education, providing for upstream and downstream food manufacturing industries and professions as well as for farming itself. However, the dichotomisation of the farming system into those who produce the main commodities (20 per cent) and those who occupy land but do less intensive farming (80 per cent) poses serious challenges to the education community, and to the notion of organising whole institutions around productivist agriculture. Alternative organising principles that are emerging include food sustainability and environmentalism. Clearly the latter, because of its broader scope, represents an opportunity that has already been adopted in some institutions where environmental sciences can be applied to food production, farming, and sustainability in rural communities. The tendency is to add institutes to major universities; these are supposed to utilise staff across different disciplines, but staff are often underfunded, poorly rewarded in the tenure system, and unconnected to the mainstream of educational practice. For many administrators, such add-on institutes can be deleted when the 'fad' passes. This tokenism suggests that many continue to believe that everything will return to 'normal' when the current crisis, however defined, is over. This position is utterly unsupported by the evidence of

continued globalisation and rural restructuring and the examples of permanent change provided in Chapters 3, 4, and 5.

If major institutions such as colleges and universities are unlikely to change very much, then what prospects are there for innovation and leadership from completely different conceptions of education and research? One of these concerns the challenge of decentralisation, which is particularly relevant for rural education, which has always been somewhat anomalous as, most often, agricultural universities are located in cities. As the regionalisation of Europe continues with local initiatives and the restructuring of niche markets in diversifying economies, then arguments for regionally based research and education centres are strengthened. Given the costs of maintaining formal centres of learning, such as the campus, and the intransigence that tends to follow successful periods of programming, it is also theoretically possible to consider 'mobile' forms of education, where no formal centre exists and rural areas themselves become the focus and the locus of educational and research activity. An example of this approach, at least in conceptual terms, is the proposed University for the Highlands and Islands (UHI), in Scotland.

The UHI is conceived as a decentralised campus, based on the existing FE colleges scattered around the North of Scotland, offering degree level courses predominantly by multi-media distance education, making full use of modern information and communications technology, and using college staff and campuses to provide local support.

Another example of innovative change in higher education is that of the Hawkesbury Experiment at the University of Western Sydney, in Australia. For more than 12 years, a group of academics at Hawkesbury has been studying problems and issues of rural and agricultural development by concentrating to 'new ways of learning'. This systemic approach to learning resulted in a totally new way of curriculum restructuring. The shared learning of a curriculum design group led to three vital outcomes as reconstructions of (i) agricultural development; (ii) education; and (iii) the praxis of the agriculturalist. The key question for each of these three facets were the following:

- who decides what constitutes an improvement in a problematic situation in agriculture, and on what grounds?

- What processes are used in the elaboration of what constitutes an improvement, and who participates in the selection and resolution of the issue?

- What competencies does the professional agricultural scientist need in order to facilitate the way the other people learn their way through problematic situations, and learn how to do this better?

They discovered that the systems agriculturalist was not an observer or analyst trying to change the performance of an objective system. 'Rather, the systems agriculturalist was a participant in a system that was trying to learn how to deal with a problematic issue of agricultural development with a view to improvements. This was as true for the members of the curriculum group itself as it was for others in the Faculty attempting to help farmers learn to collaborate and deal with shared problems of acidified, salinized and/or eroded soils'

(Bawden, 1990, 165-166). It goes without saying that such an approach leads to a completely different process of curriculum restructuring than the linear and top-down curriculum planning we have been for so long subject to in most of our institutions for higher agricultural learning.

The Ontario Agricultural College at the University of Guelph in Ontario, Canada undertook a similar exercise in 1993, by declaring that all courses in the Bachelor of Science Agriculture program would be suspended by 1995, and that new courses had to be designed that would limit the amount of subject matter and put more emphasis on process skills formulated under twelve learning objectives. These included international awareness, practical/community applications, ethics, and language skills. Such attempts reflect the realization that the rural world has changed and that graduates at whatever level need self-directed learning attitudes as well as process skills in order to make an effective contribution to the new labour markets of post-industrial society, whether rural or urban, or in the Arena Society.

This raises the question of how information, when generated and digested through appropriate knowledge systems, can be shared with potential rural users, either as development support and training or as learning material in formal education. One might also ask about the prospects for distance education, which currently decentralises but also fragments the learning process, and for life-long learning, which suggests that all people wherever they are should have the opportunity to acquire more or different knowledge and useful information. Perhaps in the future we should see more decentralised programmes which de-emphasize assimilated problems and which focus more on real-life learning that utilises real farms rather than demonstration farms, for example, and which focuses learning on the environment and reality of the individual or the client groups. Without denying people the opportunity for broad career development, greater emphasis might be placed on regional problems, needs, and skills and less on those professions that will force young people away from rural areas. This is not to suggest closing or parochialising the regional university college or school, but heightening the appreciation of local assets and problems through comparison with other areas as well as through focussing on local issues and making use of local resources, people, and language. In this way, the regional research and education institutions could contribute to the rich cultural identities of European rural regions, as well as to the basic education and training standards of the European Union.

In terms of research, this book is replete with potential research projects, given the vast array of questions that arise from globalisation and local development in rural areas. Chapters 3 and 4 are especially rich in this regard. Policy research that not only imagines the possible trends of economic change, but which examines parallel (and comparative) structures of federal, national, and local relations in new structures of public administration that would enable rural policy to have effect, would be most valuable. True-cost accounting, including environmental and social costs of development and decline, is needed, as are measures of the comparative advantages held by rural areas in tourism, recreation, and retirement, for example.

These brief examples illustrate the topics that emerge immediately from our discourse and that require multi-disciplinary approaches to provide information and answers. Importantly, they would require extending the boundaries of conventional research, which

reflects the overall need to restructure and liberalise our education, training, and research institutions not only to permit, but to encourage, new, responsive forms of knowledge-generation which will benefit the development and sustainability of rural Europe.

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