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RURAL AMENITY IN AUSTRIA

A Case Study of Cultural Landscape

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INTRODUCTION

Natural and cultural/historical features -- ranging from pristine wilderness and mountains to cultural landscape and historical monuments -- are one of the main comparative advantages of rural areas, given the growing demand for access to these amenities, not only by local populations but also by urban dwellers. Yet using these assets to stimulate the economy and create employment raises important policy issues about sustainable resource management and the valuation of intangible goods.

It is often assumed that preservation of natural and cultural assets and economic development are difficult to reconcile. But without economic development, many environmental goals are impossible to achieve. The two are somehow complementary. Preservation of man-made features involves constant maintenance, which in turn requires economic development to maintain people in the area. Paradoxically, economic decline, leading to out-migration and reduced local revenues can put preservation at even greater risk.

The issue for policymakers is to find a way of valuing these natural assets and implementing structures that will allow the local economy to benefit more directly from them and thereby ensure their maintenance. It is a particularly complicated issue given that, for example, rare species, scenic landscapes or historic monuments are valued even by people who never actually visit them or spend money in the area but who nonetheless consider these amenities to be part of the world's natural or cultural heritage.

In the OECD's Rural and Regional Development Programme, work on rural amenities has always ranked high on the agenda. The Programme has made contributions to the international debate on the conceptualisation of rural amenities in economic terms, the appropriate institutional settings for amenity provision and protection, and the economic instruments for amenity management.

After the publication of two theoretical reports on rural amenities by the OECD Secretariat, Member countries volunteered to prepare national reports describing typical examples of rural amenity policy in their respective countries. The aim was to confront theoretical concepts with practical experiences. The set of country studies will help identify typical problems as well as successful solutions. By means of communication, comparison and co-operation on these issues, OECD Member countries may improve their capacity to manage rural amenities in an efficient manner, thereby encouraging rural development.

Austria has always taken a keen interest in the OECD's work on rural development, and it was among the first to volunteer to present a rural amenities study. The study focuses on the Austrian policy for mountain areas, which contain a host of different rural amenities. This policy has a long tradition and has undergone many evolutions and refinements over the years.

Two international experts were asked to address specific rural amenity management issues that were considered of particular importance in the context of the report prepared by the Austrian authorities. They had the opportunity to visit several rural areas in Austria, to see various types of amenity project and discuss their implementation and results with practitioners.

This document contains the national report “The Cultural Landscape in the Mountain Area of Austria” prepared by Mr. Gerhard Hovorka, Federal Institute for Less-Favoured and Mountainous Areas in Vienna, as well as the expert papers on “Amenity Policy, Sustainability and the Maintenance of the Cultural Landscape” prepared by Ian Hodge, University of Cambridge, United Kingdom and “Amenity Based Rural Development”, by Heino von Meyer, PRO RURAL EUROPE, Hamburg, Germany.

Similar publications will be prepared for other case studies.

I. THE CULTURAL LANDSCAPE IN THE MOUNTAIN AREA OF AUSTRIA[1]

-- Policies for the Environment and Rural Development --

1. Introduction

Cultural landscapes are important elements of social identity and contribute to political cohesion. Their diversity is an important part of the European cultural heritage. Their development calls for prudent methods (sustainable management and care) and an integrated approach.

In Austrian research into the cultural landscape, the following definition has been established: "The cultural landscape is a perceived unity of the spatially effective fabric of natural conditions and human influences. Cultural landscapes develop and change over time as a result of the interplay of socio-economic, cultural and natural factors" (Bundesministerium für Wissenschaft, Forschung und Kunst, 1995, p. 37). The cultural landscape can thus in no way be conceived of as a static entity, but rather as an expression of ecological, cultural and socio-economic development and change in living and working space. In contrast to the finished products of consumer goods production, the cultural landscape is constantly changing, and can thus only be understood as a process. The living fabric of a cultural landscape, because of its internal interactions, is more than the sum of its parts (c.f. Broggi, Kußtatscher, Sutter 1997, p. 51f.).

The rural cultural landscapes of central Europe -- and precisely those in the mountain regions -- are still very much the products of agriculture. They are made up of a multitude of elements such as settlements, villages, farm buildings and farmhouses, meadows, pastures, arable land, permanent crops (orchards and vineyards), woodland areas, solitary trees and groups of trees, field boundaries, paths and tracks, terraces, grazing animals and alpine pastures, as well as wild animals and plants, waters etc. In mountain agriculture above all, they are shaped by site-specific farming, i.e., through a sustainable development that is naturally and socially compatible and which ensure the creation and long-term maintainance of the fundamentals of life for future generations as well. This cultural landscape with its socio-economic, cultural and natural dimension has considerable rural amenity characteristics and is the most important basis for tourism in Austria which is an essential element of national economic development. The concern for the preservation and promotion of the cultural landscape is also shared by a large majority of the Austrian population.

1. This study has been commissioned by the Austrian Federal Chancellery, Vienna, for the Federal Institute for Less-Favoured and Mountainous Areas. It has been prepared by Mr. Gerhard Hovorka, Federal Institute for Less-Favoured and Mountainous Areas, Vienna.

In Austria, three primary functions of the mountain area should be distinguished:

- The mountain area is the living space for the local population.

- The mountain area (in particular the Alps) is the supplementary space for the population of Austria living outside the mountain area, and for that of a large part of Europe.

- The sensitive alpine eco-system should be maintained in a state that is disturbed as little as possible and the natural resources should be sustainably managed.

In its context as a living space for the local population, the mountain area fulfils its functions as to living, working, business, provisions, education, culture, recreation and transport. The supplementary function of the mountain area for the external population consists primarily in recreation, transport and provisions. In its entirety, the mountain area is, as always, a major recreational area of European significance. Solutions entailing the lowest possible pressure on the environment need to be found if the transit-traffic function of the Alps is to be fulfilled. The provision's function arises from the production of high-value foodstuffs by the agriculture of the mountain area, from the extensive timber production, from the energy potential of the continually renewable hydro-power, from the drinking-water reserves and a wide range of mineral reserves.

The sustainable availability of the natural resources also forms the prerequisite for the fulfilment of the other functions. A reduction in the quantity and quality of natural resources has a negative effect on the functions of the mountain area, as the living and working space of the local people as well as in its function as a recreation and provisioning area for the population outside the mountain area.

The natural basis for this living and working space is formed by a sensitive eco-system, the visible manifestation of which is the cultural landscape. Mountain farming plays a key role in safeguarding this eco-system, and with it the entire living and working space. In the mountain area, the living and economic areas as a whole are especially dependent on its preservation. The dependencies here extend from defence against natural hazards (avalanches, mud slides, rock slides, floods, erosion), to tourist resources (for tourists the amenities of the cultural landscape are the main reason for spending a vacation in Austria) .

The unfavourable natural situation of mountain farming enterprises is expressed primarily in the steep gradients of the farmed areas, the shorter growing season, the relatively high precipitation, the extreme weather conditions and an absence of alternative production possibilities. The often poor transport conditions and an inadequate and expensive infrastructure may also be added to this. State aid is thus necessary for the maintenance of mountain farms and thus of the cultural landscape which their activities help to shape.

In view of the more difficult conditions under which agriculture takes place in the mountain areas, the reduction of the agricultural population, which has long been generally observed in connection with the structural economic changes, brings with it the danger that it will no longer be possible to fulfil basic ecological functions.

The Austrian mountain area, however, has long been more than just an agricultural region. Rather it is a fully integrated living and working space, whose geographical specifics do not lead to separation in a structural economic sense. They express themselves much more in the limited space available for settlement and industry, the handicaps on agriculture and forestry, in an expensive infrastructure and a particularly sensitive landscape.

However, the various component areas display great differences in structure and development, sometimes within a very limited area. An essential characteristic of the mountain areas is the restricted living and working space. In this connection, the federal structure is not accidental. It allows a relatively large degree of independence for the regional (provincial) and local (communal) area authorities, which represent an essential determining factor in the formation of regional policy in Austria and in the mountain area in particular.

Policies to safeguard environmental and cultural amenities, as well as rural development in the mountain area in Austria, can thus only be effective in the long term if complex demands are tackled not only by sector-oriented policies, but also by the embedding of spatially oriented sectoral policies in integrated regional development strategies.

This case study presents and evaluates two approaches corresponding to the demands of an integrated policy for rural areas and the mountain area in particular, for which there is broad political consensus in Austria regarding their necessity and success. These are:

- the Austrian mountain-farm aid, with the focus on the spatially-oriented sectoral programme "Mountain Farmers Special Programme" as one of the most important means for preserving and promoting rural amenities in Austria

- an integrated regional policy approach aimed at strengthening endogenous regional development.

In order to provide a better understanding of Austrian conditions, the following chapter gives a description of the Austrian mountain area and its most important developments and problems. In subsequent chapters, the most important approaches of mountain-area policy in Austria are analysed (the policy of strengthening endogenous regional development and the Austrian mountain-farm aid with its "Mountain Farmers Special Programme"), and an assessment of its contribution to safeguarding environmental and cultural amenities and rural development is undertaken. The Austrian mountain-area policy since accession to the EU (1995) is also briefly described and compared to the situation before membership. In a concluding chapter, the most important results are summarised and conclusions for important generalisable criteria for a successful mountain-area policy are drawn.

2. The Austrian Mountain Area

The Austrian mountain area forms part of two of Europe's mountain massifs, the Alps and the Bohemian massif. The latest area classification, carried out in the course of accession to the EU according to Art. 3, para. 3 of EU Reg. 75/268, is the clearest spatial backdrop in this context. As many analyses of spatial economics are only available for the Alpine area (= 89 per cent of the Austrian mountain area), the standardised data for this restricted area will be used in this chapter on the characterisation of economic development and significant problems in the Austrian mountain area. This shall be the basis for the assessment for policies addressing rural amenities of the cultural landscapes in Austria' s mountain areas. Illustrations showing the respective regional classifications and the socio-economic structure can be found in the Appendix.

2.1 Population and settlement development[2]

According to the Alpine Convention[3] the alpine area comprises almost 2/3 of Austrian territory. With a population of 3.8 million (1991), it is home to nearly half of the Austrian population. Four of Austria's six cities lie within or directly on the borders of the alpine area. Population density in 1991 was 58 inhabitants per km². The overall alpine population in Austria is increasing significantly, and at a faster rate than the non-alpine population but with big regional/local variation between areas. In general, population growth in the western provinces is faster than that in the East. In the West of the Austrian alpine area (including the greater part of Carinthia) very significant population growth was recorded from 1971 to 1991, in particular in the central areas. In contrast, primarily in the old mining and industrial areas in the eastern alpine area, there were population reductions -- in some cases quite considerable -- and also in areas on the regional periphery and in the alpine highlands.

The pressure on the alpine permanent-settlement space, which amounts only to some 22 per cent of the land registry area, has risen markedly with the growing number of inhabitants and households. In the western alpine area in particular, a strong population and economic dynamism confront a limited potential settlement area. Even though over three fifths of Austria's alpine population already lives in city areas, the Austrian Alps still retain a largely rural character.

In the areas with intensive tourism in particular, the resident population is swelled seasonally by a large number of visitors. During the high season, the number of inhabitants based on resident population is often doubled, and some areas experience a nine-fold increase. In the eastern alpine area, both the long-term resident population density and the density during the tourist season are essentially lower than in the western regions.

2.2 Socio-economic structure and development

The general development of business and employment in the alpine area is subject to the same tendency as in the "non-alpine area": the number employed in agriculture and forestry is falling, industry and manufacturing still account for a large share of total employment, despite in some cases considerable job losses, and the shift of jobs towards the tertiary economy is quite marked in the alpine area as well. In contrast with the eastern alpine area, the labour market in the western alpine area is developing dynamically. In the 70s and early 80s, the unemployment rate in the alpine area was very low, as it was in the rest of Austria. Subsequently there was a marked increase, reaching 6.3 per cent by 1995. Although the broad tendency of the development trend was similar, the unemployment level in the western alpine area was somewhat below the Austrian average throughout this period. In the eastern and southern alpine areas, however, it was noticeably above average.

Whereas the proportion of the working population engaged in agriculture was still almost 14 per cent in 1971, and in many areas still over 20 per cent, since then it has fallen sharply -- in the alpine area as a whole to barely 6 per cent. In the western provinces, Salzburg, Tyrol and Vorarlberg, the proportion

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2. The following Sections 2.1 to 2.4 are based on the contributions of the Austrian Institute for Regional Studies and Spatial Planning (ÖIR).

3. This presentation of the alpine mountain area does not take account of the mountain area of the Bohemian massif in the Mühlviertel (Upper Austria) and the Waldviertel (Lower Austria) identified according to EU law on the basis of the high altitude, climate and gradient. The share of this mountain area in the total land registry area of Austria's mountain area is 11 per cent.

engaged in agriculture has dropped to the low level of 2.7 per cent to 4.9 per cent, apart from which the proportion of farm owners aged over 55 is decidedly high. This is by no means true only of the heavily urbanised regions. In the side valleys with high densities of tourism, the proportion engaged in agriculture is also occasionally only 2 to 5 per cent, which means that the maintenance of farming, which is also in the interests of care of the landscape, is becoming ever more difficult.

Industry and manufacturing are traditionally of great importance in some parts of the Austrian alpine area. In 1991, 36 per cent (1981: 41 per cent) followed employment in this sector. Industrial concentrations in the Austrian alpine area are found primarily in the better-connected longitudinal and transverse valleys and in the environs of larger towns.

The mining and raw materials industries in the eastern alpine area, industries with a long tradition and considerable significance, have been subject to a permanent contraction process since the 70s. The Vorarlberg textile industry, concentrated in the Rhine valley, is also displaying considerable structural problems.

Tourism plays an important role in the Austrian economy. The foreign-exchange receipts from tourism amounted to ATS 147 billion in 1995; there were 117 million overnight stays (87 million of which were by foreign visitors) and the value-added share of tourism in the total GDP amounted to approximately 8 per cent, almost 15 per cent of GDP when economic activities that profit indirectly from tourism are included. Tourism is an essential element of the service sector in the Austrian alpine area, in particular in its western half. The alpine area accounts for around 85 per cent of overnight tourist stays and the economic activities associated with them in Austria. Here, however, tourism displays great variations in intensity. Whereas in almost all of the western half it is an essential or even dominant element of the economic structure, this branch of the economy is only worthy of mention in a few small areas of the eastern half. Tourism in Austria is based on the generally high quality of the cultural landscape as rural amenity. The Austrian tourist industry is characterised by a predominantly small-business structure. Its development in its time was consciously promoted through the widest possible distribution of tourist income in economically disadvantaged areas and the maintenance of the economic independence of the resident population, particularly in the interests of keeping the population and agriculture in peripheral areas of the alpine mountain regions.

The renting of private rooms, holiday apartments or houses is also of major significance in the context of supplementary, home-based jobs -- also in a large number of mountain farmhouses -- comprising around a third of the total accommodation offered, and playing an essential role above all in western Austria.

2.3 Ecological development and transport problems

The proportion of woodland in the mountain areas of Austria amounts to 70 per cent or more. An essential part of this area, around 1.3 million ha., fulfils indispensable protective functions which are preconditions for the maintenance of the settlement of the alpine valleys and the economic activities connected with it. Because of this significance, the protection of woodland and the subsidy of forestry are regulated by their own federal law.

In total, the main valley zones in particular, and the intensive tourist areas situated outside, are characterised by progressive growth in the intensity of exploitation. The very heavy building activity of recent decades has brought increasing settlement in these zones and -- also as a result of the growing traffic density -- has led to noticeable and many-sided deterioration in the quality of the environment. In

various matters, however, intensive rehabilitation efforts have long been underway, which have already led to considerable, or at least to visible results (e.g., in alpine rivers, streams and lakes). Special mention should be made of the planned and already established national parks (Hohe Tauern, Nockberge, Kalkalpen) in the mountain areas. But the unique nature conservation values of the alpine mountain areas go far beyond the classified national parks and can be shown through the example of the relevance of the alpine pastures as well (20 per cent of land registry area). Due to their ecologically sensitivity limitations to changes in production methods have to be respected.

Nearly half of the total trans-alpine freight traffic is routed through the Austrian alpine roads. In recent years there has been a marked increase. At around 30 million tonnes (1994), the freight transit traffic accounts for almost half of total road haulage traffic. During the high season there are very high traffic loads on the transit routes through the alpine holiday regions as a result of the overlapping of through traffic and regional traffic. In all, the high traffic load, in particular in the main valleys and the holiday areas, is leading to very great strains, with management of the flood of traffic being one of the main problems.

2.4 A brief summary of developments in the alpine area

The alpine area is an independent living and working space with specific conditions and problems, and corresponding interests. It is directly affected by sectoral policies at national and EU level, above all competition, agricultural, transport, energy and environmental policy. Austria, as the state with the greatest share of the Alps, is under a particular obligation with regard to the interests of the alpine area.

Population growth and economic development in the last 20 years have led on the one hand to an increase in the importance of the alpine area and, on the other, to a sharpening of disparities, also within the alpine area:

- The alpine area displays the sharpest rate of population growth, the greatest demand for accommodation and the greatest economic dynamism. With thoroughly urban population densities in some places (more than 1 000 inhabitants/km² permanent settlement), particularly acute forms of utilisation conflicts and related problems inevitably arise.

- Rural areas in western Austria with good conditions for winter tourism have a remarkable level of economic development, but have also reached resource-threatening utilisation densities.

- In contrast, alpine regions without such conditions show less economic dynamism. This applies in particular to structurally weak old industrial regions (many of which are situated within or on the margins of the alpine area in Austria), which have formed a focus of regional policy since the 80s at the latest.

- Areas threatened by population exodus, on the regional periphery or in the alpine highlands, stand in sharp contrast to the spatial concentration problem of the major urban centres.

- The strain on the ecology resulting from the spatial concentration of numerous claims on space (e.g., through-traffic, tourist demand, population growth and settlement-area demand) is increasing dramatically in the alpine valleys.

2.5 The significance of mountain farmers for the cultural landscape

Agriculture and forestry contribute barely 3 per cent of Austria's GDP, but its share in the total land area amounts to 86 per cent. The production conditions are essentially determined by natural conditions. In the wider context within Austria, the Austrian part of the Bohemian massif (Mühlviertel and Waldviertel) and the lowland and hill country in the northern and eastern foothills of the alpine area also represent further spatial types alongside the alpine area.

In Austria, 36 per cent of all agricultural and forestry holdings (excluding those owned by legal entities) are categorised as mountain-farmer holdings[4]. They manage 44 per cent of the agricultural area and over 50 per cent of the woodland. The major significance of animal husbandry is expressed in the high proportion of managed grassland (area ratio 70 per cent). Mountain farmer holdings keep 62 per cent of the dairy cows, 59 per cent of all cattle, 51 per cent of all horses and 68 per cent of sheep (c.f. Dax 1993, p. 8). Owing to the unsuitable production conditions, the widespread market production and the general mechanisation and specialisation tendency, arable farming is of only secondary importance, with a 20 per cent share of the total arable land, although it makes an important contribution to the self-sufficiency of the households. The main function of arable land for the mountain farms is for feed cropping.

As can be seen from these figures, a production distribution with strong regional characteristics has emerged in connection with the different local conditions in Austria. The emphasis of agricultural production in the alpine region is now on grassland farming (cattle raising, milk production). Austrian agricultural holdings are overwhelmingly family owned and operated by family labour input. Historical development and the natural farming difficulties mean that mountain farming in Austria is characterised by a small-farming structure: the average farm size of mountain farms is only 12.8 ha utilised agricultural area and 9.5 ha woodland. Mountain farm holdings with cows have an average stock of 7.7 units and only 2.7 per cent of farms keep more than 20 cows. Only 37 per cent of mountain farms are still operated on a full-time basis.

Farms in the alpine area are of considerable importance for forest protection. Around two thirds of the forest area is in the alpine area. Forestry in Austria, not least because of its special ecological significance, is subject to strict control by the authorities, with its own forestry law which regulates forest management on the basis of legally binding plans. The forestry authorities are also responsible for the planning of hazard zones, which determine the technical measures for avalanche -- and torrent-regulation.

The alpine pasture areas account for some 20 per cent of the Austrian land registry area. The management of these extremely sensitive eco-systems through mountain farmers therefore is of great importance not only for tourism, but also from the point of view of society as a whole (protection against natural hazards such as avalanches and mud-slides, keeping the landscape open). Therefore alpine pasture grazing represents an important area for a large section of the Austrian mountain farmers.

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4. In addition to the almost 100 000 mountain farms, there are approximately 42 000 other farms within the mountain area, which, owing to the lesser degree of difficulty they face, are not classified in any of the four zones of difficulty of the mountain farms but in the base category. They are therefore not classified as mountain farms according to Austrian criteria.

Whereas its food-provision function was previously the main demand on agriculture, farming in the mountain areas today fulfils a wide range of functions:

- secure provision of high-quality, fresh foodstuffs at favourable prices;
- ensuring the natural fundamentals of life -- soil, water, air, biodiversity (for the non-alpine population as well);
- shaping, maintenance and care of the cultural and recreational landscape (living and working space, as well as the main resource of the tourist industry);
- maintenance of the population settlements and the social and economic activities in the countryside;
- provision of raw materials and energy;
- use of ecologically appropriate forms of farming;
- maintenance of employment opportunities;
- provision of an impetus for the regional economy;
- protection against natural hazards (e.g., in the form of protective forests).

The maintenance of the living and working space in the mountain areas is inconceivable without farming. Productivity in the alpine area is almost 25 per cent less that in the non-alpine areas, the income from agriculture is almost 20 per cent lower. For mountain farms facing particular difficulties, income from agriculture and forestry is only 60 per cent of the income in the non-mountain farms. The annual report by the Ministry of Agriculture and Forestry to the national parliament (Green Report) therefore makes special mention of the task of agricultural and subsidy policy in creating the appropriate general conditions for farms in less-favoured areas, taking into account the spatial economic objectives (settlement density) and ecological requirements (soil conservation, reduction of outlays on yield-enhancing farming materials) as well as the creation of the social conditions for smaller farming holdings and direct aid for less-favoured areas. As it soon became clear that separate economic development of favoured and less-favoured areas could no longer be counteracted by agricultural pricing policy, the government introduced its own Mountain Farmers Special Programme in the early 70s with a strong regional emphasis, in which there was already a role for production-neutral direct payments to mountain farms, which were subsequently successively extended. The objective of Austrian mountain farming policy is to guarantee the sustainable existence of the mountain farms which is necessary to the maintenance of the population and farming suited to regional requirements as well as the maintenance of the cultural and recreational landscape taking into account the widespread amenities of cultural landscapes in mountain areas.

3. An overview of mountain area policy in Austria

3.1 Spatially integrated policies for the Austrian mountain area

3.1.1 Institutional frameworks of regional policy in Austria

The responsibility for spatial economics and regional policy in Austria does not lie with an individual state institution, but is rather spread over a multitude of federal, provincial and local authority levels. According to the Austrian constitution, the local authorities are responsible for local spatial planning. The federal government can make sectoral regulations of a spatial planning policy nature for those areas which fall within the scope of the national government (e.g., trade law, transport law, water and forest law, mountain law). The normative regulation of all other sovereign spatial planning aspects devolves upon the residual responsibilities of the provinces (regional governments). In Austria, central government and provincial planning are not limited to an integrated overall plan (as is the case for example in Switzerland).

Alongside the sovereign regional planning rights, there is a wide range of -- in Austria not or only partly sovereign -- state activities of major spatial and regional policy significance. Whereas infrastructure and services as a rule are assigned by legal norms to one of the levels of territorial authority, there is no such regulation for granting aid and information services in Austria. In this area, the various state institutions work sometimes in parallel, sometimes in political competition with one another, in many ways, however, through informal co-operation (c.f. Österreichische Raumordnungsskonferenz (ÖROK) 1996, p. 51). Since the 1980s, regional economic subsidies from the government and the provinces have been partially co-ordinated.

Since 1971, the federal government, provinces (*Länder*) and local authorities have promoted the Austrian Conference on Spatial Planning (ÖROK), a non-statutory body, as an important key element for the co-ordination of regionally relevant policies, within the framework of which a nation-wide basis for a co-ordinated spatial economics and regional policy is being developed. The ÖROK, as a common advisory platform in which the social partners are also represented (in an advisory role), had already formulated objectives for the development of the mountain areas in a recommendation in 1975. In an integral approach, this considered the mountain area as a living, recreational and working space and acknowledged the role of the mountain farms in the maintenance of the cultural landscape. The ÖROK's 1991 Austrian Spatial Planning Concept, containing the problems, objectives and measures for the most important spatially relevant issues, emphasises the maintenance of the cultural landscape as the basis for green-belt recreation and tourism, the prevention of erosion (water, soil and catastrophe protection) and the recreation and protective functions of forestry as important functions of a site-specific ecologically acceptable form of agriculture. The ÖROK was also a decisive factor in being able to prepare and introduce the EU's programme-planning based structural fund supports on schedule, despite the division of responsibilities and widely differentiated forms of aid.

Spatial economics and regional policy in Austria have a certain claim to belong together. The close connection is clear precisely on account of the spatial structure of the Austrian mountain regions. With a very spatially restricted but diverse economic structure and an area with a particularly sensitive landscape, planning and development policy tasks cannot be fully separated, either territorially or sectorally. The fragmented responsibility situation, however, stands in the way of a closer connection between spatial economics and regional policy. Additionally, the two areas are both cross-sectional in character and find themselves in a comparatively weak position when set against "strong" specialist areas with spatially effective tasks and responsibilities.

3.1.2 First approaches: building up the infrastructure and establishing new enterprises in rural areas

The economic prosperity of the 60s and early 70s made a massive input of public funds possible to close the gap faced by the rural areas in infrastructure amenities, through the construction of hospitals, schools and colleges of further-education in regional centres, roads and the telephone network. This made a decisive contribution to the reduction of regional disparities in living conditions.

The powerful investment drive in social and technical infrastructure, followed by successful industrial colonisation and the development of tourism in rural areas, encouraged the belief that the overcoming of regional disparities was generally achievable. The main emphasis of spatial planning until the 80s was correspondingly directed at providing the exogenous impetus (subsidies, industrial transfers) to promote regional growth in economically backward areas.

With the slowdown in economic growth since the mid-70s, however, it became clear that the regional disparities could, in reality, hardly be reduced. Indeed, in some respects they had even increased. The situation at the beginning of the 80s was characterised, under conditions of cyclical downturn, by sharpened polarisation between the centres and the peripheral less-developed regions, as well as what was then a new problem of structurally weak old industrial areas. The Waldviertel rural periphery (part of the mountain area outside the alpine area) and the structurally weak industrial region of Aichfeld-Murboden (in the eastern part of the Austrian alpine area) served as model areas for the government's regional policy initiatives.

As a direct result of criticism of this regional policy and its instruments, a philosophy of regional policy was developed which essentially characterises regional policy even today: it is based on the idea of mobilising the endogenous potential of the region, on the innovation-orientation of the support measures, and on embedding non-material investment in the aid.

3.1.3 Independent regional development and innovation-oriented regional policy[5]

a) Independent regional development

In the 1980s, in reaction to new theoretical approaches on the one side, and to criticism of the traditional regional policy and its instruments on the other, the regional policy paradigm in Austria underwent a change that can best be described as no longer seeing the "weak regions" as the objects of government regional policy "from above", but increasingly as bringing them into action "from below" as "self-driven" subjects. This new orientation experienced its formulation in the concept of "independent regional development": the standardisation of living spaces by the centre was called into question, the intrinsic value of non-urban structures was discovered and the importance of inter-regional potentials and resources for a sustainable, independent development was brought to the fore. The solution of the problem was no longer posed "for" but "with" the people of the region. The long-term target was stronger regionalisation of structural policy and a co-ordinated, target-oriented, integrated development of all relevant economic sectors and development areas in a region according to a regional development guideline (c.f. Bundeskanzleramt 1980).

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5 The following Chapters 3.1.3 to 3.1.5 are based on a contribution from the ÖAR Regionalberatung (Austrian Consultancy for Endogenous Regional Development).

In contrast, or complementary, to the sectorally and functionally oriented development strategies that resulted from the heterogeneous social structure and the compartmentalisation of the political-administrative system, this concept of "independent regional development" was strongly characterised by a territorial socio-political concept. Despite a comprehensive outlook that also included cultural, social and political aspects, the emphasis of independent regional development was put from the very beginning on the development of sustainable structurally improving, ecologically acceptable and economically viable regional projects. This concept was strongly supported by regional grass-roots initiatives in the rural areas.

In 1975, a group of farmers in the mountain areas of Salzburg and Upper Austria founded the Austrian Mountain Farmers' Association (ÖBV). This saw itself as a critical agricultural opposition, but also as the initiator of innovative agricultural projects.

In 1978, the ÖBV mountain farmers together with experts and other activists for independent regional development founded the Mountain Area Action Fund (BAF) in order to create an organisational basis for the activation of project initiatives. In so doing, they united all the forces -- going beyond the farming community -- which were in favour of a practical application of new development approaches in Austria's mountain regions. One of the main concerns of the Mountain Area Action Fund was the activation of potential project initiatives for which advice and consultation was also provided. This was made possible through the employment of the first regional consultants and through the establishment in the Federal Chancellery of the "special initiative for the strengthening of less-developed rural areas in the mountain regions of Austria".

In 1983, the ÖAR-Regionalberatung (Austrian Consultancy for Endogenous Regional Development) was founded as an alliance of the Mountain Area Action Fund and the so-called regional associations, which had closely co-operated and to some extent arisen with the help of the regional consultants of the Mountain Area Action Fund as a platform for the exchange of opinions and ideas and as vehicles for diverse socio-cultural activities. It took over from the Mountain Area Action Fund at the end of 1983 as the employment and training body for the regional consultants, and was employed by the Federal Chancellery to organise the development of consultancy and advisory work in Austria's regional aid areas.

b) Innovation-oriented regional policy and the concept of endogenous renewal

It became clear relatively quickly that the concept of independent regional development also displayed thoroughly development-inhibiting elements. Among these were: putting too much weight on autonomous orientation, the underestimation of the importance of external relations and integration into the national and international market-, information- and development-connections, the danger of overestimation of endogenous potential, and the inner-regional economic cycles. As a result, the more comprehensive regional development idea of "endogenous renewal" gained increasing importance at the beginning of the 80s. It involved a combination of "independent regional development" with a more heavily "innovation-oriented" strategy. This placed enterprise and technological innovations and adaptation strategies as the key factors for a successful business and regional development (c.f. ÖAR-Regionalberatung, 1994). Thus the rather restricted approach to independent regional development, aimed at partial autonomy and including social, cultural and political alongside economic measures, was complemented by a strategy aimed at boosting the economy. This market- and innovation-oriented regional policy set its objective as the improvement or recovery of regional competitiveness within the context of the international division of labour, as well as a regionally appropriate and optimised position in the "competition of the regions".

In the mid-80s, the "employment-oriented strategy" gained importance as a further element of endogenous renewal. Currently, successful regional development strategies employ elements of all three strategies on the basis of the respective regional profile (i.e., regionally appropriate).

c) Government aid instruments for the support of all-inclusive regional development initiatives

The discussion on a new orientation of regional policy forced by the proponents of independent regional development contributed essentially to the setting up in the Federal Chancellery in 1979 of the special initiative for the renewal of less developed rural areas in Austria's mountain area (Mountain Area Special Initiative). Following an extension of the aid area to problem areas outside the mountain region, it was renamed in 1985 as the "Aid Initiative for Independent Regional Development" (Förderungsaktion für eigenständige Regionalentwicklung, FER).

The objective of the aid initiative was the support of co-operative-business projects in all sectors which were to be put into effect in the economically problematic areas, which could contribute to independent development and which could be expected to have a highly positive effect on the regional economy. The subsidy was exclusively limited to community projects with a democratic internal structure. Aid from the Mountain Area Special Initiative could also be combined with other government and provincial forms of aid.

The training of regional consultants and of an "area-wide" regional consultancy represented an important supporting measure of the Mountain Area Special Initiative/FER. One prime objective was to "anchor" the aid initiative in the regions as quickly as possible and to support potential project participants in the development of applications for and implementation of the project. In 1990, the aid initiative of the Federal Chancellery was converted from investment aid to a consultancy subsidy. In the process, the emphasis was shifted further to regional innovation and know-how transfer.

In the course of a stronger market orientation, the Austrian Consultancy for Endogenous Regional Development (ÖAR) shifted its emphasis from regional consultancy to regional advisory activities. In 1990 it converted into a limited company (Ges.mbH), whose new emphasis was on the development of a range of services for the protagonists of independent regional development and which was now making contracts with a wide variety of large and small, local regional and national clients.

The provinces (*Länder*) also developed aid programmes to support regional development initiatives of major importance for economic development in mountain areas. Some selected examples:

- The "Styrian aid initiative for independent regional initiatives" (STEFREI) was agreed by the Styrian provincial government at the beginning of the 80s in recognition that many regional initiatives in the development of projects were in need of a kind of "first aid" for self help. This was intended to enable the population of less-developed regions to improve their economic, cultural and social living conditions under the aegis of self-help towards independent regional development. Particular results were achieved in the raising of regional awareness of the population and of awareness of traditional skills, as well as in co-operation, not only between the individual branches of industry but also between associations, communities and companies.

- In 1990, "Village and Regional Development" (ORE) was initiated as an aid initiative of the province of Carinthia, the aim of which is to improve local living conditions with a view to economic, social, cultural and spatial-planning or ecological aspects, and to create an understanding of common, all-embracing co-operation. The principles applied in this are "helping people to help themselves" and "local responsibility". In line with the integrated aid approach, complete schemes as well as projects which are part of measures are supported.

- In 1985, the province of Lower Austria was the first to agree on the so-called village renewal guidelines. Since then, practically all federal provinces have developed similar programmes. Village renewal is envisaged as a comprehensive, i.e., integrated, undertaking for the improvement of living conditions in the village. The initiatives of local working groups and associations, supported from provincial funds, range from the planting of trees and the establishment of biotopes, waste prevention and segregation, the building of solar receptors, the renovation of old buildings and their conversion to community centres, to the publication of village chronicles and the staging of village festivals.

- The province of Tyrol has had a "Spatial Planning Programme" (ROSP) since 1971, intended as a comprehensive instrument of spatial planning and regional policy in the framework of annually established determinants for the support of regionally significant projects. An essential, though not the only objective is the support of economically disadvantaged areas. A development programme was drawn up in close co-operation with the regions concerned and agreed by the Tyrolean provincial government in 1990. The objective is to improve living and working spaces through independent development measures while preserving and supporting the local identity and to ensure the quality of life of people above all in the rural and peripheral areas, while giving due consideration to the ecological sensitivity of the countryside (c.f. Österreichische Raumordnungsskonferenz (ÖROK), 1993, p. 205f.).

3.1.4 From regional economic incentives to a broad understanding of sustainable spatial development

Intensive house-building activity, an almost exclusively demand-led granting of planning permission on the part of the local authorities (autonomous as regards local spatial planning), and largely absent guidelines on the part of regional planning (the provinces), have allowed settlement development to run out of control.

The results of unchecked settlement development (land-use, traffic growth, land speculation), in some regions further driven by foreign demand for holiday homes, was already leading to a re-think in the direction of regulatory policy terms of reference in the alpine area in the early 90s. The revival of guidance measures in spatial planning (complementing the financial incentives to boost the economy) is clearly reflected in the 1991 Austrian regional planning policy.

An old problem appears in a new light: both land utilisation and regulation measures (spatial planning in the narrow sense) and spatially effective publicly funded infrastructure and investment incentives (traditionally the most important regional policy instruments), are spread over all levels of the political-administrative system, largely without any clear rules of co-ordination.

At the beginning of the 90s, however, the recognition had dawned that the regional policy effects of the traditional instruments in Austria (investment in infrastructure and investment incentives) had their limits. Put simply, both should be considered as necessary conditions, but not sufficient instruments for regional policy.

3.1.5 The latest policy approaches since EU membership

Contingent on the general conditions of the EU (competition law, structural funds) Austria's emphasis since membership of the EU has again been laid heavily on the incentive angle. In doing so, however, it has also been possible to maintain the link with the experience of earlier comprehensive, innovation-oriented regional policy approaches. The following groups of measures should be mentioned in particular.

In the Austrian target regions for EU structural supports in all federal provinces, so-called "regional management offices" are being established in some 25 sub-regions in co-operation between the Federal Chancellery, the provinces and the local authorities. In the Austrian understanding, regions in the mountain area are smaller spatial entities than in the other target areas.

Thirty-two small regions are taking part in the EU LEADER community initiative, in the framework of which particularly innovative, integrated regional development schemes and measures are supported. The majority of the "LEADER groups" are advised by a professional "LEADER manager". Both the groups and their managers are also part-funded by the provinces and local authorities as well as from the structural fund resources. Since Austria's accession to the EU, regional support structures for the development of the EU Objective areas have been created in Austria on a nation-wide basis and with support from below, in the mountain areas as well.

Since joining the EU, the "Aid Initiative for Independent Regional Development" has been used primarily to support independent conceptual and organisational adaptation and back-up measures for the most effective transformation of the EU co-funded programme measures in the framework of the regional Objectives 1, 2 and 5b of the structural fund, as well as of the EU community initiatives with regional policy objectives. The main support has been for external advisory activities.

3.2 Sectoral policy contributions to development in the mountain area

3.2.1 Trade and industry

As economic factors, trade and industry cannot be separated from the Austrian alpine area. They also have the same quantitative importance in the inner-alpine area as they do in the non-alpine regions of Austria (at 40 per cent, the same proportion of employment), although with a greatly varying spatial concentration. Industrial concentrations are found primarily in the better-connected main valleys and in the environs of the larger towns. The old industrial regions of the Alps whose location is not so much market as resource oriented, are now facing considerable economic difficulties.

In many alpine areas the industrial character of the region is often determined by a few major companies. The small and medium-sized business sector is not seldom underrepresented and its importance in regional development is underestimated. An important limiting factor is the frequent shortage of opportunities for expansion owing to the spatial restrictions of the valley situation, where

industry's claims on the land are in direct competition with the claims of the valleys' agriculture, residential areas and services.

The specific opportunities for industry and trade in the area lie precisely in the development of suitable technologies for the alpine area, in the necessary environmental rehabilitation measures and a regionally adapted improvement of energy recycling and, in general, in the conversion of production runs to environmentally friendly closed-cycles of materials. All (available) instrumental opportunities will have to be used in order to achieve a choice of location and plant design appropriate to the sensitive environmental conditions. These range from applying foresight in ensuring the location (for the few locations that are in any case still open to question), and project related spatial and environmental impact assessments, to stricter application of qualitative criteria (innovation, diversification, environmental compatibility) in the allocation of regional aid.

3.2.2 Tourism

The alpine area accounts for some 85 per cent of overnight tourist stays and the related economic activity in Austria. The dominant position of the alpine area is naturally even more clearly reflected in ski-sport oriented winter tourism (98 per cent of Austria's cable-car capacity is concentrated there). Tourism, however, is by no means evenly distributed throughout the alpine area, but is also concentrated in sub-regions and here again in specific intensive areas. The rural amenities of the cultural landscape that are provided by farming in the mountain area form the basis for the major part of tourism. Policies supportive of rural amenities thus also have positive effects on tourism.

The following three types of problem arise with regard to the conservation of the landscape for recreation and pleasure:

- alpine tourist areas with dynamic development of winter tourism;
- lakeland areas intensively used by tourism;
- main alpine valleys with a variety of uses and intensity of use where the potential for conflict is rising and thus reducing the suitability for tourism, in particular owing to settlement development and the growing amount of traffic.

From the point of view of economic dynamics, however, there is a contrary requirement for the development of unexploited tourist potentials, which nevertheless increasingly comes up against the saturation point of tourist development as a whole.

Tourism subsidies include a wide range of specific aid initiatives, thus concerning infrastructure investment, tourism marketing, quality improvements, extension of the season, young business-people, mountain shelter renovation and many more.

Spatial planning -- inasmuch as it has been applied at all -- has so far only been of limited effect as an instrument of guidance contingent on its content or execution. There is a real threat that the "high performing regions" will be "toppled" by an overload in such a way that they lose their image-enhancing high-paying regular visitors without other (less-developed) regions being able to capitalise on it (a "migration" abroad or to other forms of sport). In view of the limited elasticity of the tourist trade in the face of the loss of attractiveness of its "products", in certain areas the "destruction of resources through over-use" is thus to be feared not only in the ecological, but also in the economic sense.

In this situation, new strategies can be seen to be emerging through which far-reaching and sustainable effects can be achieved in the short term. For winter tourism, for example, measures under consideration include regional limitations on investment aid and on individual (tourist) motor traffic, regional quotas for bed numbers and local quotas for the number of skiers.

3.2.3 Environment and technology policy

With increasing popular sensitivity with regard to the conservation of the countryside, there has been a significant increase in landscape -- and nature-protection areas which reflect the growing interests in these amenities. In addition extensive, high nature value farming systems play a crucial role in maintaining valuable habitats and biotopes in mountain areas with greater difficulties. In many cases existing production methods can provide a high degree of biodiversity. But this high valuation and extension of nature conservation also leads to an increase in the conflicts with competing user interests (above all, agriculture and forestry, hunting and tourist developments). Several projects for proposed national parks are at the centre of public awareness and discussion. The responsibility for these projects in Austria rests with the provinces (nature-protection law). Because of the national significance of national parks, however, there is co-operation and co-ordination between the activities of the national government and the provinces.

The Austrian drinking water requirements are met practically in their entirety from ground-water reserves. They are made up to an equal extent of mountain spring water and interstitial ground water. By international comparisons the water quality is very good. In the last few decades, Austria has also made considerable efforts to improve the quality of its surface waters (lakes and rivers).

With the amendment of the Water Rights Act in 1990, the obligations on agriculture were stiffened. Above a specific livestock density or a specific level of fertiliser use, agriculture is subject to approval under water legislation. If specific thresholds in a ground-water area are exceeded then, according to the new water legislation, the authorities are obliged to introduce restoration measures. The objective of the new legislation is to conserve ground water at -- or return it to -- drinking-water quality. The polluted ground-water regions, however, do not lie within the mountain areas but primarily in the intensive arable areas of eastern Austria, in the alpine foothills and the Styrian basin.

Telecommunications technology has created the possibility of outsourcing qualified jobs and ensuring the basic services through a regional network, in low-population areas as well, and is -- given the appropriate general conditions -- thereby also creating new opportunities for the future in the mountain areas. The first beginnings, of tele-working centres for example, already exist in Austria (c.f. Lanner 1993, p. 12ff.).

4. The mountain farmers special programme as a central element of Austrian mountain area policy

4.1 Historical roots of agricultural policy for the Austrian mountain area

In the period of rebuilding after the Second World War, the fulfilment of the function as a food provider was foremost in the demands on agriculture and agricultural policy. At this time, agricultural aid (structural subsidies and market-related measures) made an important contribution to productivity development in agriculture. The production-raising aid policy was continued in the 50s, despite increasing self-sufficiency and the beginnings of surplus production in some product areas (milk and

beef), even though agro-policy measures to restrict production were gaining in importance. In 1958, the marketing order regulations were agreed and in 1960 the Agriculture Act, after years of preparation and negotiation between the governing parties and the social partners[6]. These laws, as well as the wine law of 1961, as the most important legal production-restriction and market-protection measures, were aimed at improving farming income, stabilising the market for basic foodstuffs, guaranteeing provision, being equipped for the international agricultural trade which was then beginning, and making Austrian farmers competitive and efficient for the Europe-wide economic dynamic (c.f. Poschacher 1984, p. 47). In the 60s, however, it was not possible to solve the problem of rising surpluses and the increasing market problems satisfactorily with the specific implementation of these laws.

Agricultural subsidies in connection with scientific-technological progress in the agricultural sector not only led to surplus production, but also to a pronounced separate development of farms in different regions. On the one side were farms that were able to improve their economic position by extension of production and by productivity increases. On the other side were farms whose survival was under threat, in particular in mountain areas and other unfavourable locations (c.f. Knöbl 1987b, p. 130f.). An important objective of Austrian agricultural policy at the end of the 60s (as in the European Community) was the improvement of the agricultural structure through support for increasing the size of farms. The individual farm support measures at this time were tailored to full-time farming, whereas the trend in agriculture was increasingly in the direction of part-time farming. Changes in the support policy became necessary, however, with the changed situation brought about by rising surpluses.

The mountain farmer and alpine pasturing subsidies already have a long tradition in Austria. The measures for the support of the alpine pasturing and grazing management (opening up paths, putting up buildings, rationalisation) make an important contribution to the maintenance of farming of alpine pastures and thus to protection against natural dangers and to keeping the countryside open. As early as 1929 a property consolidation initiative was introduced in view of the alarming negative developments in the mountain area, and subsequently adapted to changing conditions. Its intention was to support the agricultural holdings whose survival was under threat in the mountain farm region, on an individual farm basis through economic, technical, building and organisational measures, in such a way as to ensure their continued existence as a condition for the maintenance of sufficient population density and thus, too, the alpine cultural landscape (c.f. Leopold 1978, p. 16ff.). In the 50s, the conversion initiative (*Umstellungsaktion*) was created to provide support for backward but adaptable agricultural holdings to guarantee their survival in areas in need of renewal. The objectives and measures were similar to the property consolidation initiative (c.f. Bauer 1963, p. 25). These important measures for the mountain farm holdings were also taken further in the 60s in the framework of the Green Plan, and from 1970 were consolidated into an overall initiative within the framework of the regional agricultural aid.

The Chambers of Agriculture which are established as public legal bodies in all federal provinces are interest-group representatives of particular importance for Austrian agriculture and forestry. Alongside their role as interest-group representatives, they also fulfil support, advisory and educational roles. With their considerable political weight in agricultural policy, and their connections with the agricultural co-operatives, they exercise great influence in the development of the rural areas in general and the mountain area in particular. The Presidential Conference of Austrian Chambers of Agriculture, constituted as an association, acts as the umbrella organisation and central interest-group representative, which is also closely associated with the Austrian social partnership.

6. In ministerial draft of an agriculture law had already been presented for expert appraisal as early as 1952 (c.f. Kobsa, 1990, p. 18).

In 1952 the Working Group for Mountain Farmers was founded within the framework of the Presidential Conference of Austrian Chambers of Agriculture. Its main purpose lay in advising on the measures for the improvement of the living and working conditions of the mountain farmers, the implementation of appropriate surveys and research, and in international co-operation. In 1969, for example, the Working Group on Mountain Farmers drafted a "Mountain Farmer Basic Programme", which emphasised the services of mountain farmers in conserving the cultural and recreational landscape as a basis for tourism, and submitted proposals for targeted supports (c.f. Arbeitsgemeinschaft 1969).

In 1960, the Austrian Agriculture Act formed the legal basis for increased support for mountain farms, stating: "In the execution of this federal law, particular consideration is to be given to mountain farm holdings. Mountain farm holdings are to be understood in the terms of this federal law as those holdings in which aggravated living and production conditions exist owing to the climate, the external or internal transport situation or the gradient. The Ministry for Agriculture and Forestry may by Regulation, with the agreement of the central committee of the National Assembly, make allocation for mountain farmer holdings individually or according to local authority and parts of local authorities taken together." (Federal Law Gazette No. 155/1960).

It was established as early as the Agriculture Act of 1960 that the government was to present an annual "report on the economic situation of agriculture" to Parliament based on the report of the Minister for Agriculture and Forestry (Green Report). This report was also to contain the measures that the government regarded as necessary to achieve the objectives set out in the Agriculture Act. If the provision of federal funds is necessary for the pursuit of these objectives among others, the government is obliged under the Agriculture Act to incorporate this in the drafting of the respective federal finance law (Green Plan). This "Green Plan" forms the basis of a range of important aid measures. The aid measures in the Green Plan were divided into the following groups:

- improvement of the basis of production;
- improvement of enterprise structure;
- sales and marketing measures;
- research, testing and other measures;
- social-policy measures;
- credit-policy measures;
- Mountain Farmers Special Programme (from 1972).

With the introduction of the Green Plan in the 60s, a significant upturn in mountain farmer subsidies came into play (improvement of aid terms, drafting of aid limits, measures for the development of additional income, infrastructure measures, comprehensive investment aid above all in the context of conversion initiatives), which however were not able to close the gap on the income of farms in the favoured areas (c.f. Bacher 1987, p. 104f.). At the beginning of the 70s, Austria's aid to mountain farmers was significantly increased and carried through from 1972, in the framework of the Mountain Farmers Special Programme[7].

Between 1970 and 1990, federal aid funds of ATS 37.55 billion were allocated within the context of the Green Plan (see Table 4 in the Appendix: the aid measures of the Green Plan). The proportion reserved for the mountain area within the scope of the Mountain Farmers Special Programmes amounted to 41 per cent of the total plan. The second highest allocation, at 26.7 per cent, was for credit

7. The Green Plan's agricultural aid was also continued after 1990, but without special provision of funds in the framework of a Mountain Farmers Special Programme.

policy measures, which included special terms for mountain farm holdings and farms in other less-favoured areas.

The budget of the Green Plan was greatly increased over the course of time, but it also contained amounts transferred from what were previously "general subsidies" in the budget funds. The application of funds from the Green Plan also had a very positive effect on the development of the rural areas and the companies that established themselves there, as measures of the green Plan strengthened the performance of the farming holdings and thus effectively supported the patronage function of agriculture as a customer of important industrially produced farming materials (c.f. Poschacher 1984, p. 147f.)[8].

The Green Plan measures subsidised by the federal government were carried out under the "General Guidelines for the Granting of Aid from Federal Funds", which lay down the framework for government aid, and according to the "Special Guidelines" of the Ministry for Agriculture and Forestry, in which the individual subsidy measures were specified. Processing was carried out by the departments of the provincial governments, the Chambers of Agriculture and of Agricultural Workers, and by the Regional Cultural Fund of Tyrol[9]. The low-interest loans (in the case of credit policy measures) were paid out through the banks. Various government subsidies to agriculture were paid directly to the farmers (e.g., mountain farmers' allowance, suckling cow premium).

Agricultural problems, however, in the mountain areas in particular, cannot be solved by agricultural policy measures alone. There is a need for a conceptual integration of regional, structural and spatial planning policy measures, as well as a graduated application of production, market, price and aid policy (c.f. Poschacher 1984, p. 158). Educational and socio-political measures are also of great influence. Thus, for example, the development of the school system, the introduction of free schoolbooks and free public transport for school students, as well as free access to the universities in the 70s, all made an important contribution to equality of opportunity in education and further education for children in rural areas, in particular from the mountain farms.

With the introduction in 1972 of the Mountain Farmers Special Programme as a regional policy approach in support of the mountain farms, a decisive step was made towards a spatially oriented sectoral policy for agriculture.

4.2 Philosophy and general set-up of the Mountain Farmers Special Programme

In the period after the Second World War, the aid measures for the mountain areas were split between various different groups of measures. At the beginning of the 70s, with the introduction of the first Mountain Farmers Special Programme there was a fundamental shift in the concept and philosophy of aid (c.f. Poschacher 1984, p. 156f.). Traditional agricultural policy gave way to an objective-oriented and graduated agricultural policy giving particular consideration to regions with natural disadvantages and was replaced by a more heavily spatially oriented policy. What was new about the Mountain Farmers Special Programme was not only the payment of farm supports, but that the basic infrastructure and the

8. Alongside the Green Plan, market regulation expenditure was of rapidly increasing significance in the 80s, owing to domestic over-production of the main products: cereals, milk and meat. The market regulation expenditures in 1975 were ATS 3.7 billion (= 264 per cent of the Green Plan), in 1980 it was only ATS 3.4 billion (= 117 per cent of the Green Plan), and they rose to ATS 7.3 billion in 1990 (= 254 per cent of the Green Plan). They are contained in Chapter 602, and from 1989 Chapter 604 of the federal budget.

9. The provinces together spend some ATS 2 billion of aid for agriculture and forestry (excluding livestock marketing) for the same or similar measures as the federal government.

living conditions of the mountain farmers were also to be improved through additional measures. The programme was based on a systematic package of measures.

It was established in the 1971 government statement that the government's agricultural policy was based on the premise that the various different tasks of agriculture and forestry could not be fulfilled by one particular type of farm holding alone, but that the existing forms of full-time and part-time farms have their specific functions which should thus be given due recognition in agricultural policy. Alongside the expansion and development of full-time farms and the creation of additional non-farm jobs, the consolidation of farms in the areas where it was necessary for the maintainance of the cultural landscape was also envisaged (c.f. Poschacher 1984, p. 63f.). The new subsidy concept represented an active intervention in the problem of growing disparities between favoured and less-favoured agricultural areas, by means of direction of government aid in the less-favoured areas aimed at maintaining farms whose survival was under threat, with a parallel effect on the trend towards combined income from agricultural and non-agricultural jobs -- through equal treatment of full- and part-time farms (c.f. Knöbl 1987b, p. 131f.).

The 1971 government statement established the policy objectives for the mountain area and a systematic package of measures in the form of a Mountain Farmers Special Programme as the instrument for achieving these objectives: "The objective of the policy for the mountain regions is to preserve the viability of these areas. The required grants are to be provided through special measures, so that the economic health of the alpine area is ensured in the future. To this purpose, the government envisages a five-year Mountain Farmers Special Programme at the level of 1.5 billion Schilling." (Quoted in Knöbl 1987a, p. 17.)[10]. This government statement was realised through the adoption of special aid measures and funds reserved for the mountain farmers in the 1972 federal budget estimate (budget estimate 602, Green Plan -- Mountain Farmer Special Programme"). The federal funds for the Mountain Farmers Special Programme may only be employed in the mountain area defined by the Regulation of the Minister for Agriculture and Forestry (with the participation of the central committee of the National Assembly). It was thus clearly emphasised that, alongside the production function, the conservation and shaping of the cultural landscape, the maintenance of settlement density and the guaranteeing of agricultural areas as a production reserve in case of crisis, has to be a matter of concern for the whole of society (c.f. Bacher 1987, p. 142).

4.3 Instruments and measures of the Mountain Farmers Special Programme

4.3.1 Classification of mountain farms according to zone of difficulty

An important basis for targeted support of mountain farmers is the classification of site-specific farming difficulties. Austria already has a long experience in assessing the degrees of difficulty faced by the mountain farmers. A first mapping of the mountain farm area had already been made in the period before the Second World War. In the 50s, a farm land registry for individual holdings was finally established on an objective and scientifically recognised basis by the Ministry for Agriculture and Forestry together with the Working Group on Mountain Farmers, part of the Presidential Conference of the Austrian Chamber of Agriculture. The most accurate mapping and classification of mountain farm-holdings possible was thereby carried out. Special aid for mountain farms and their definition by means of a Regulation had already been legally established in the 1960 Austrian Agriculture Act. Such

10. The Mountain Farmers Special Programme was presented by the then Minister of Agriculture Oskar Weihs at the 11th Conference of the European Working Group on Economic and Social Problems of the Mountain Areas (in Krems, Austria) (c.f. Bundesministerium, 1975, p. 59).

regulations by the Ministry for Agriculture and Forestry were enacted between 1963 and 1965 with the agreement of the parliamentary central committee, i.e., with the participation of the federal legislature, for all federal provinces with the exception of Vienna[11]. The features taken as a basis for the mountain farm land registry served as the definition criteria at the time (internal and external transport situation, climate category, special circumstances). The level of economic difficulty of the respective holdings was expressed as a figure (land registry code in points). In the mid 70s the land registry was adjusted (farms that were not occupied and managed all year round and farms owned by legal entities were removed from the register) and each mountain farm was classified according to three categories of difficulty (described as zones of difficulty). The previous mountain farm land registry formed the basis for the new system of definition by division into zones of difficulty. In those cases where the mountain farm land registry criteria no longer fully corresponded to the natural and economic difficulties, additional criteria were taken as a basis for the classification. In 1985, an additional zone of difficulty 4 was introduced by removing the extreme mountain farms from zone 3, in order to provide particular support to holdings with a high proportion of land with extreme gradients.

The main criteria for the classification of a mountain farm in one of the four zones of difficulty is the "internal transport situation", i.e., the proportion of difficult areas in the self-farmed agricultural area of the holding that have a gradient of at least 25 per cent (no longer workable with a normal tractor) or of at least 50 per cent for the farms in zone 4. The additional criteria, "external transport situation" (no access to the farm for trucks) and "low agricultural hectarage", can produce an increase by one zone of difficulty at the maximum[12].

The mountain farm holdings in Austria are classified into one of four zones (categories) of difficulty:

Zone 1: minor difficulty.
Zone 2: medium difficulty.
Zone 3: major difficulty.
Zone 4: extreme difficulty.

As of April 1996, the current zoning lists of the Ministry for Agriculture and Forestry (Department II B6) show a total number of 99 309 mountain farms (in 1976 there had still been 122 180 mountain farms). The Ministry's zoning lists only contain farms that are occupied and farmed all year round[13]. The division of mountain farms according to zones of difficulty and federal province can be seen from Table 5 in the appendix.

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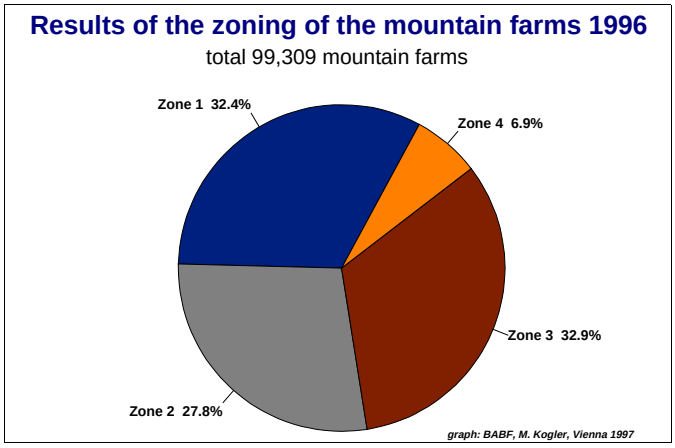
11. The latest Regulation of the Minister for Agriculture and Forestry which established the mountain farms at most recent level for each federal province, was issued in December 1994 with the agreement of the parliamentary central committee.

12. As the term "zone of difficulty" is not a definition according to spatial criteria, but an individual farm classification of the mountain farms according to characteristics of difficulty, since Austria's accession to the EU -- in order to avoid misunderstandings -- the terminology "category of difficulty" instead of "zone of difficulty" has been employed to describe the same circumstances.

13. The official establishment of "mountain farm" status in the zoning lists of the Ministry for Agriculture and Forestry does not completely correspond to the results of the agrarian statistics from the Austrian Central Statistical Office. The agrarian statistics show the number of mountain farms as being some percentage points lower.

Figure 1. **Distribution of mountain farms according to zone of difficulty**



Note: Situation in April 1996, according to the zoning list of the Ministry for Agriculture and Forestry, Dept. II B6.

Source: Ministry for Agriculture and Forestry, Dept II B6.

A government commission has been working on a new mountain farm land registry in Austria for quite some time. With the aid of the most modern recording methods (geo-information systems, digital mapping), remote aerial sensing and the use of automated data processing, all relevant difficulties for a mountain farm holding are being recorded. The three main criteria for classification are the internal transport situation (the land area is classified according to five gradient levels), the external transport situation (accessibility of the farm, distance of the farm from public transport and from the place of the responsible regional authority, special circumstances) and climate and soil conditions (climate category, altitude, yield index). For each farm, three separate codes and one overall code are established. In the new mountain farm land registry, Austria will in future (from 1999) have a modern mountain farm classification system for individual farms, which can serve as the objective basis for the allocation of mountain farm aid, though which can also be applied as a basis for regional and cultural landscape planning.

After Austria's accession to the EU, the mountain area was re-defined in accordance with EU criteria. Among the local authorities or parts of local authority areas which were included in the mountain area corresponding to the directory of less-favoured agricultural areas within the terms of Directive 75/268/EEC for Austria after EU membership, there are also holdings which, owing to their lesser difficulty of farming, are not classified as mountain farm holdings in Austrian terms. The total number of all farms in the mountain area according to EU definitions is thus larger than the total number of mountain-farm holdings in Austria established according to the Regulation of the Minister for Agriculture and Forestry. On the other hand, there are also mountain farms in Austria that do not come within the mountain area as defined according to EU Directive 75/268/EEC. The area demarcation corresponding to EU definitions is thus not identical to the total number of mountain farms of all four zones (categories) of difficulty. The mountain area according to the EU directive is established by area demarcation and thus does not correspond to the earlier system of zones of difficulty, which is not based on area demarcation but on individual farm classification. The division of mountain farms within the mountain area into four zones of difficulty, as an individual farm differentiation according to the difficulty

of conditions, has remained in place since accession to the EU. Additionally, on joining the EU, a fifth category of farm (base category) in the mountain area was established for the farms that had not previously been categorised as mountain farms.

4.3.2 The mountain farmers' allowance (Bergbauernzuschuß)

The historical development of the mountain farmers' allowance

The federal government's mountain farmers' allowance was introduced in 1972 on the basis of the first Mountain Farmers Special Programme as a new form of direct aid to mountain farms, funded exclusively from the federal budget[14]. Since then, the total amount of aid has been significantly increased and its circle of recipients has been extended. In the first few years, only farms with a high level of difficulty and a fictitious unit value[15] of up to ATS 300 000 received the allowance. From 1976, mountain farms in the highest zone of difficulty (zone 3) – according to the new definition system -- with a fictitious unit value of up to ATS 40 000 received a higher supplement than the farms with a fictitious unit value between ATS 40 000 and ATS 300 000. In this way greater consideration was given to the individual income situation of the farms (agricultural and non-agricultural income). From 1979, farms in zone 2 (medium difficulty) were incorporated in the aid system, graduation according to income remained unchanged. The aid to these mountain farms -- in accordance with the lower degree of difficulty -- was essentially lower than those for the farms in zone 3. From 1981, a further graduation of the level of aid according to income was carried out, and further graduated in subsequent years. From 1985, with the creation of zone of difficulty 4, developed for mountain farms with extremely difficult conditions which were previously in zone 3, these farms received a significantly higher level of aid -- also graduated according to fictitious unit value -- than farms with major or medium levels of difficulty. From 1990, mountain farms in zone 1 (minor difficulty) were integrated in the mountain farmers' allowance system with graduated aid payments according to fictitious unit value. The basis of aid for farms in zone of difficulty 1 was set significantly lower than that for farms facing more severe difficulty. Until 1990, mountain farmers' allowance was a basic premium exclusively dependent on the level of difficulty (zone) and the income situation of the farm.

With the expiry of the Mountain Farmers Special Programme in 1990, the federal government's mountain farmers' allowance was not only continued until accession to the EU, but even financially enhanced in view of its very positive effects on the social objectives in the mountain area. Changes in emphasis were, however, introduced. From 1991, in addition to the basic premium (*Grundbetrag*) an acreage allowance (*Flächenbeitrag*) was paid per hectare from the fourth to the tenth hectare of agriculturally utilised area. The acreage allowance was graduated according to zone of difficulty and independent of income. From 1993 the additional acreage allowance was extended to the third hectare, i.e., for a maximum of eight hectares of agriculturally utilised area. In 1994 the assessment basis for the mountain farmers' allowance basic premium was raised, and the acreage allowance extended to the twelfth hectare of agriculturally utilised area. The acreage allowance could thus be claimed for a maximum of 10 hectares.

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14. As early as the financial year 1970/71, all mountain farms received a one-off payment of ATS 300. This direct payment, not yet graduated according to difficulty criteria and income, can be regarded as the precursor of mountain farmers' allowance.

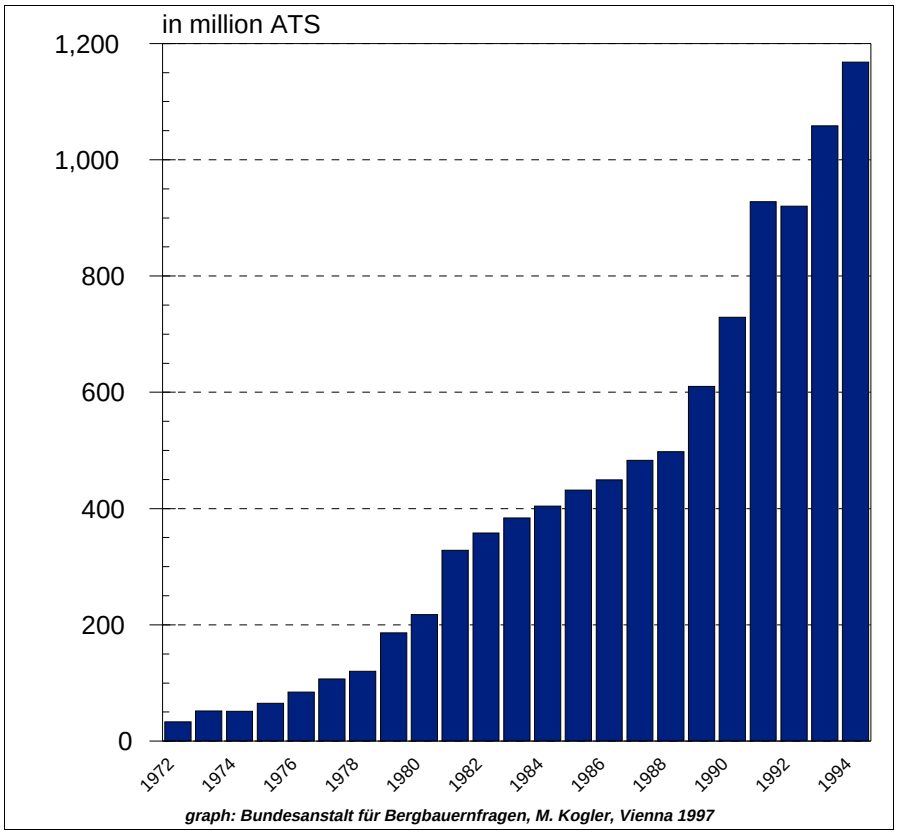
15. The fictitious unit value consists of the agricultural and forestry unit value of the farm together with any non-agricultural income of the manager and his spouse/ partner from employed or self-employed work.

In 1972, 16 513 farms received the allowance, in 1979 (incorporating zone of difficulty 2) it was already 57 008, and in 1990 (incorporating zone 1) it was 79 232 farms. The recipient base was further extended in 1991 through the introduction of the non-income-related acreage allowance. In 1993, 86 078 farms received mountain farmers' allowance. The average payment per farm increased nominal six-fold, from ATS 2 000 in 1972 to ATS 12 294 in 1993 (2.4 fold at constant prices). For farms with the highest level of difficulty (zone 4), the average payment per farm even rose nominal thirteen-fold to ATS 25 758 (fivefold at constant prices). The total payment in the same period rose from ATS 33 million in 1972 to ATS 1 058 million in 1993. The mountain farmers' allowance was raised to a total sum of ATS 1 168 million in 1994 and, after accession to the EU in 1995, was replaced by the EU compensatory allowance system (inclusive of maintenance regulation by national grant) with the simultaneous increase in the size of the subsidy.

Aid objectives and requirements of the mountain farmers' allowance

The Ministry of Agriculture and Forestry guidelines on the granting of mountain farmers' allowance also set out the subsidy objectives and the requirements for claiming the allowance. These objectives derived from the objectives of the Agriculture Act decided by the Austrian legislators in the National Assembly, in which special support for the mountain farm holdings, in particular by means of direct payments, is explicitly laid down.

Figure 2. **Long-term development of the mountain farmers' allowance**



Source: Ministry for Agriculture and Forestry, Dept. II B6, Hovorka 1994b.

The aim of the mountain farmers' allowance was to support the maintenance of the settlement and sustainable and prudent farming even under the unfavourable location conditions with particularly severe working difficulties in the mountain area. A further objective was formulated as improving the income of mountain farms facing particularly high-cost difficulties and low income, and to give due recognition to their public interest functions. As a support objective concerning the granting of mountain farmers' allowance it was, for example, established for 1990 that: "In all probability, the long-term survival of the number of agricultural holdings necessary to the required settlement density in the mountain region is not guaranteed solely by the exhaustion of all possibilities of price, market, structural and subsidy policy. An appropriate farm population is, however, a prerequisite not only for the continued existence of any community in these regions at all, but is also of great importance for the conservation of the cultural and recreational landscape, economically as well as for the popular welfare. The maintenance of settlement and sustainable and prudent farming, with which particularly high costs and working difficulties are associated owing to the unfavourable location conditions, can only be expected of the mountain farmers if they are allowed a corresponding improvement in income through supplementary measures. For these purposes, therefore, a production-neutral direct payment ("mountain farmers' allowance" -- c.f. § 2, Agriculture Act 1976, as amended) shall be granted to the mountain farm holdings in recognition of their public interest functions" (Ministry for Agriculture and Forestry, Department II B6).

A range of conditions had to be fulfilled in order to have an entitlement to mountain farmers' allowance:

- Mountain farm holding corresponding to the zoning list of the Ministry for Agriculture and Forestry;

- Year-round occupation and self-management of the mountain farm holding by the aid applicant (natural person);

- The existence and utilisation of independent residential and farm buildings with the appropriate machines and equipment;

- Self-management of an agricultural area of at least two hectares (exception regulations) and the keeping of animals (at least one livestock unit (LU), (exceptions possible);

- Natural, site-specific, prudent and sustainable farming of the agricultural crop area;

- The upper limit of the basis of assessment for the basic premium for the farm holding was ATS 400 000 fictitious unit value in 1993 (1994: ATS 444 444), there was no upper income limit for the acreage allowance.

Form and level of the mountain farmers' allowance

The mountain farmers' allowance has consisted, since 1991, of the basic premium and the acreage allowance. Farms that were entitled to claim but which had an agricultural area of less than three hectares, however, received only the basic premium. Farms with an assessment level of more than ATS 400 000 (1994: ATS 444 444) only received the acreage allowance.

The basic premium of the mountain farmers' allowance was an overall service remuneration taking special account of the income situation of the couple managing the farm and of the difficulty of the

conditions (4 zones). The income situation was accounted for in the basis of assessment on five levels. The basis of assessment consisted of the agricultural and forestry unit value of the farm plus any non-agricultural income of the farmer and his/her spouse or life partner (from employed or self-employed work) and was shown as a fictitious unit value[16].

Table 1. **The mountain farmers' allowance basic premium per farm, 1993**

Basis of assessment (fictitious unit value)	Zone of difficulty 4 (in ATS)	Zone of difficulty 3 (in ATS)	Zone of difficulty 2 (in ATS)	Zone of difficulty 1 (in ATS)
Up to 70 000	27 100	21 100	12 100	8 000
70 001 to 130 000	20 800	15 800	7 600	6 000
130 001 to 230 000	15 600	12 600	5 300	4 000
230 001 to 330 000	13 600	10 600	4 500	3 000
330 001 to 400 000	5 300	3 800	2 300	2 000

Source: Ministry for Agriculture and Forestry, Dept. II B6.

By taking income into account in the form of a fictitious unit value, the basic premium incorporated a strong social element. The lower the agricultural and non-agricultural income of the couple managing the farm, and the greater the difficulty of farming, the higher was the subsidy amount.

The acreage allowance was integrated into the system of the mountain farmers' allowance in 1991, and was intended as a special and graduated farming compensation taking special account of the difficulty of conditions. In 1993 it was paid from the third hectare of agricultural area up to the tenth (1994: the twelfth hectare), i.e., for a maximum of eight hectares (1994: 10 hectares). The acreage allowance was independent of the income situation of the farm and the subsidy level per hectare was only dependent on the zone of difficulty.

Table 2. **The mountain farm acreage allowance**

	Zone of difficulty 4 (in ATS)	Zone of difficulty 3 (in ATS)	Zone of difficulty 2 (in ATS)	Zone of difficulty 1 (in ATS)
Per ha. countable agricultural area 1993 (max. 8 ha. per farm)	1 800	1 000	600	400
Per ha. countable agricultural area 1994 (max. 10 ha. per farm)	2 000	1 100	650	450

Source: Ministry for Agriculture and Forestry, Dept. II B6.

16. The basis of assessment of the basic premium was raised by 11.1 per cent for each level in 1994 over 1993, so that the lowest level increased from ATS 70 000 to ATS 77 777 and the upper limit from ATS 400 000 to ATS 444 444. The aid figure itself, however has not been increased since 1990.

Processing of the mountain farmers' allowance

The chambers of agriculture were entrusted as allowance processing offices in the name of and on the account of the federal government, and were also responsible for checking the formal correctness of the applications. Payment was made by the Ministry for Agriculture and Forestry directly by post. The aid applicants were obliged to allow all auditing bodies or representatives of the Ministry for Agriculture and Forestry to examine the appropriate documents and to view all farm and storage premises in order to guarantee efficient controls.

The results of the mountain farmers' allowance in 1993 are presented and analysed in the appendix. Also described in the appendix are the other direct income supplements within the context of the Mountain Farmers Special Programme (suckling-cow keeping, livestock marketing subsidy, sheep raising allowance, freight cost allowance for forage straw, reimbursement of the general marketing subsidy contribution for milk for mountain farmers in zones of difficulty 3 and 4).

4.3.3 Improvement of the infrastructure in the mountain area

Infrastructure subsidy measures are understood as being those which are indispensable to the production function and the cultural-landscape functions of agricultural and forestry holdings, and which are necessary for further rationalisation and improvement of productivity. Although the relevant projects nearly always consist of several farms, they are defined on an individual farm basis, as this provides the immediate effects on the individual farms as well as direct co-financing. It is primarily concerned with the development of the road, telephone and electricity networks.

Road development (opening up the road network)

Secondary road development is a matter that is constitutionally the sole responsibility of the provinces, in which the federal government is free to participate within the context of its management of the private sector. The implementation of these subsidy measures, both administratively and technically, is in the hands of the responsible provincial departments. The federal government is involved as a "co-funder", in as far as the development of the rural road network simultaneously pursues and attains the objectives of the Agriculture Act. The provinces are obliged to adhere to the subsidy principles of the federal government. One such principle consists in giving prime consideration to farms that are occupied and cultivated on an all-year-round basis, in particular in mountainous and other depopulation-threatened areas. Funding is made with public funds from the federal government and provinces and from the contributions to be raised by the local authorities and interested parties. The federal government covers some 30 per cent of total building costs.

A modern road network (and modern transport infrastructure) forms the basis for the fulfilment of the economic, social and rural cultural tasks of the farm holdings. Suitable goods transport routes and farm access routes not only make possible the easy transport of farm produce and the delivery of necessary farming materials, but they are also a prerequisite for the satisfaction of human health and welfare requirements, i.e., improvement of quality of life and the maintenance of settlement in the rural area.

Infrastructure development (in particular goods transport routes) has underpinned the development of part-time farming in as much as, without routes passable to car traffic, the adoption of

non-agricultural work at the same time as continuing to run a farm is hardly possible, i.e., better transport routes open up the chance for many to follow a non-agricultural part-time job within daily commuting distance. A functioning rural road network thereby contributes essentially to ensuring the survival, to raising the quality of life and to improved accessibility of the whole rural space and makes an important contribution to countering rural depopulation.

In the framework of transport development from 1970 to 1990, a total of 23 136 km of roads was built and 39 557 farmhouses connected to the major road network. In the framework of the Mountain Farmers Special Programmes, support was provided for the construction of an access road passable by truck for 21 305 of these farms. Despite the efforts of the federal government and the provinces, at the end of 1990 there were still around 13 774 farms, 9 152 of them mountain farms, without sufficient access. Since 1972, mountain farm access roads have been subsidised to an increasing extent from the funds of the Mountain Farmers Special Programme, and since 1974, also with funds from the Border Areas Special Programme[17]. This concerns solely the subsidy for new construction of transport facilities. Not included is investment in road improvements (federal support only possible in the form of agricultural investment credit) and maintenance costs (no federal subsidy).

With the introduction of the Mountain Farmers Special Programme, the transport development subsidy measure has increasingly shifted from the Green Plan to the Mountain Farmers Special Programme, i.e., funds made available for subsidising transport improvements were mainly to the benefit of the mountain farms. Be that as it may, owing to the high development costs determined by natural conditions, the road building subsidies were increasingly to the benefit of the mountain farmers even beforehand. However, before the introduction of the Mountain Farmers Special Programme, the mountain farms were not advantaged right from outset in subsidy programme planning for road building, as the federal funds were not area-dedicated (c.f. Knöbl 1987b, p. 140). The remaining Green Plan funds for transport development were mainly employed in the border area aid schemes, i.e., also in the cause of graduated agricultural support. Despite the constantly increasing proportion of direct payments in the Mountain Farmers Special Programme, transport development remains of great significance for the mountain farms and was in second place in the 1990 budget. To a considerable extent, tourism, for which an easily accessible recreational landscape is an important prerequisite, is also a user of these infrastructure facilities. With an annual building programme worth some ATS 1.2 billion, transport development provided an important employment boost to the construction and transport trades in structurally weak areas.

Telephone and electricity networks

Electrification measures contributed considerably to the improvement of the infrastructure in the rural areas in earlier years. Owing to the fact that almost all mountain farms have been connected to the electricity grid in recent years, however, they have lost much of their significance. In order to reduce the costs of telephone connections for individual farms, the formation of a “Telephone Connection Association” was announced in the National Assembly as early as 1972. In the framework of the Mountain Farmers Special Programme, aid for the connection charge is graduated according to zone of difficulty. Mountain farms face high telephone connection charges because of the natural conditions in the mountain area. The fictitious unit value of an agricultural and forestry farm holding must not exceed ATS 350 000 in order to receive an allowance.

17. The areas of the Border Areas Special Programme and the Mountain Farmers Special Programme overlap to some extent.

4.3.4 Regional agricultural aid (investment aid)

Starting as early as 1970, important and well-proven individual initiatives for investment aid (property consolidation, conversion and alpine pasturing and grazing management) were consolidated into a combined initiative. The main consideration was to set regional and farm-related priorities in the granting of agricultural investment loans and grants. As prescribed in the then current guidelines, the aid plans were drawn up in the planning and co-ordination bodies at provincial level on the basis of the existing regional plans, priorities were established and harmonised with other measures, and finally submitted for approval by the Ministry for Agriculture and Forestry. The objective of regional agricultural aid is to support the agricultural holdings in mountain and border areas, as well as other isolated regional support areas, whose continued existence is of importance to the maintenance of sufficient population density and appropriate farming, through farming measures in such a way as to bring about an increase in total income, an improvement in the living conditions of the farming families, and thus a consolidation of the farms (safeguarding of livelihoods), thereby contributing to the economic stabilisation of the region concerned. A farm plan was to be drawn up for each farm covered. The farms had to be occupied and cultivated all-year round. Alpine pastures had to be farmed in accordance with the pasturing duration and pasture capacity usual for the area. Investment aid had an important effect on job security. The most important agricultural investment-aid measures concerned investments for rationalisation, modernisation and market adjustment of the farms, such as:

- measures for improvement of production structure, farm structure and infrastructure;
- construction measures (including energy-saving investment);
- measures for improving the household (including sanitary installations);
- measures supporting farm tourism (e.g., guest accommodation and catering);
- mechanisation and technology measures (in particular, mountain farm machinery, milk-hygiene measures, energy alternatives);
- measures for developing new production and sales routes (innovation measures);
- alternative production branches with opportunities for commercialisation and sales;
- forestry measures.

In order to concentrate the investment aid on those farms for which this funding can make an essential and long-lasting contribution to their survival, the individual farming investment grants for agricultural and forestry holdings were linked to an upper income limit (measured as a fictitious unit value). Further, farms with a lower fictitious unit value (up to ATS 110 000) and farmers taking over farms with unfavourable economic starting conditions were given greater consideration. Forms of aid comprised low-interest loans (agricultural investment credits), which however were not processed through the Mountain Farmers Special Programme but through the Green Plan, as well as grants. The coupling of low-interest loans and grants was possible. In 1990, 66 per cent of the Green Plan's agricultural regional aid went to farms in the mountain area via the Mountain Farmers Special Programme.

4.3.5 Miscellaneous forestry measures

For the forestry and timber industry, the conservation and improvement of the production power of the Austrian woodlands and forests is of great importance. For the population, the preservation of its protective function as well as the welfare and recreational effects is a central interest. In the 80s, the fight against damage to the forests became a primary aim of environmental policy. Forestry support measures and other legal measures play an important role alongside the reshaping of environmentally relevant federal laws in achieving improved air quality.

Forestry measures

Forestry measures are understood primarily as covering measures to improve the utilisation of the woodland in connection with strengthening the economic performance of farms. This also has the effect in many cases of achieving improvements in the protective and welfare roles of the forests. These measures primarily involve allowances for new afforestation and re-afforestation, improvements to existing stock, amelioration and maintenance work, as well as education, training and advisory work. From 1972 to 1990, subsidised forestry measures covered 135 448 ha. of farm-owned forest.

High-altitude afforestation and protective forest revitalisation

These measures are of particular significance for the mountain areas in Austria. The degree of afforestation in many areas prone to natural disasters is below average, and the condition of many protective forests is unsatisfactory and they can thus no longer provide full protection. Progressive ageing and a high proportion of gaps in thinning stocks, together with a reduction in natural rejuvenation ability and increased pressure from emissions and wild animals, mean that a disappearance of the protective function is to be feared in the long term (c.f. Bundesministerium für Land- und Forstwirtschaft, Agrarbilanz 1989, p. 105). For two decades, therefore, extensive efforts have been undertaken to renew these forests and to improve and extend the belt of protective forest, in order to be able to maintain settlement in the mountain valleys. A public subsidy of up to 90 per cent is possible (federal government 60 per cent, province 30 per cent). From 1972 until 1990, 6 349 ha. were subsidised.

Forest access improvement

The aim of this subsidy is the improvement of the effect of the forests through an appropriate forest development which is considerate of the landscape, through rationalisation of forestry work and the facilitation of an intensive, careful and natural cultivation of developed forest areas. The building of roads passable by trucks is subsidised with federal funds and agricultural investment credit. From 1972 to 1990, 12 925 km were surveyed within the context of the Green Plan. In 1990, of 516 km of forestry development routes, 301 km were subsidised within the framework of the Mountain Farmers Special Programme.

4.3.6 Agricultural terrain improvement and other measures

Terrain improvements (cultivation) pursue the primary aim of removing obstacles from agricultural areas, reducing causes of accidents and creating the structural ground conditions for the use of agricultural machinery. These initiatives are among the oldest aid measures. Increasing overproduction

and increasing ecological awareness have led to growing criticism of this form of aid, and the federal expenditure for this measure has fallen sharply. Agricultural terrain improvements were carried out over 25 337 ha. between 1972 and 1985 (eventually discontinued).

The structural policy activities of agricultural operations (consolidation of agricultural and forestry land and land consolidation; regulation of land rights and land use on common lands; dealing with forest- and pasture-use rights; protection of alpine pastures, granting of agricultural commercial rights) and the related measures of land reform are aimed at creating competitive farming enterprises through the removal of structural enterprise shortcomings. The agricultural operations aim to help create favourably structured and accessible sites with regulated water economy. From 1986, expenditure for the development of torrent run-off areas will also be included in these budget items.

4.4 Payments, achievements and specifics of the Mountain Farmers Special Programme

4.4.1 Payments and achievements of the Mountain Farmers Special Programme

Between 1972 and 1990, the total aid payments of the three Mountain Farmers Special Programmes were ATS 15.6 billion. The aid made available in the context of the Mountain Farmers Special Programmes was paid out exclusively as non-recoverable grants. The direct payments to the mountain farmers showed the greatest change, rising from 20 per cent under the first Mountain Farmers Special Programme, to 64.6 per cent in 1990. This rise is due, primarily, to the particular dynamic of the federal mountain farmers' allowance, the payments for which increased from ATS 33 million in 1972 to ATS 729 million in 1990.

The individual subsidy measures within the framework of the three Mountain Farmers Special Programmes can be summarised under the following main areas:

- ***Direct income supplements*** (in particular mountain farmers' allowance) for the improvement of the income situation of mountain farming enterprises. The objective was to provide compensation for the natural farming difficulties in the mountain areas (measure group A). Budget amount, 1972-1990: ATS 7.2 billion.

- ***Infrastructure improvement*** in the mountain areas – in particular the extension and strengthening of the road, telephone and electricity networks (measure group B). Budget amount, 1972-1990: ATS 4.7 billion.

- ***Regional agricultural aid***. This was overwhelmingly concerned with subsidy measures for the improvement of residential and farm buildings and for modernisation and rationalisation of farms (measure group C). Budget amount 1972-1990: ATS 2.4 billion.

- ***Improvement of the forest structure and the protective forests*** through high altitude afforestation, protective forest renewal afforestation of marginal agricultural land (measure group D). Budget amount 1972-1990: ATS 976 million.

- ***Miscellaneous measures*** such as agricultural terrain improvement, development of torrent run-off areas and other measures (measure group E). Budget amount 1972-1990: ATS 311 million.

The following table (Table 3) provides details (absolute and percentage) of payments, priority setting and shifts in priorities in the three Mountain Farmers Special Programmes. The share of the Mountain Farmers Special Programme over time in the agricultural supports of the Green Plan (absolute and percentage) is given in Table 6: Expenditure within the framework of the Green Plan (budget Chapter 602 and 603) in the Appendix[18].

The importance placed on aid to mountain farmers in this period is proved both by the growing share of the Mountain Farmers Special Programme in the agricultural aid of the Green Plan (1972: 26.9 per cent; 1990: 52.7 per cent), and also by the development of payments of the Mountain Farmers Special Programme (from ATS 260 million in 1972, to ATS 1 520.5 million in 1990; this means a nominal 5.8-fold increase, which represents a 2.8-fold increase in real terms (see Table 7 in the Appendix)). The federal mountain farmers' allowance was of particular importance. It developed in this period (though also in subsequent years) into the most important aid measure for low-income mountain farms facing extremely unfavourable natural conditions.

A comparison between market regulation expenditures and those of the Mountain Farmers Special Programme over the same period is also of interest. The market regulation expenditures for price compensation and export support from the federal budget (budget estimate 62 and, from 1989 budget estimate 604) amounted to ATS 23.9 billion during the period of the first Mountain Farmers Special Programme (nine times the expenditure of the Mountain Farmers Special Programme), during the second programme, ATS 19.9 billion (4.8 times as much) and during the third programme ATS 47 billion (5.3 times as much). These expenditures also include the contributions raised from the producers (1990: approx. 20 per cent). Although the market regulation expenditures increased greatly in the 1980s because of the increasing surpluses (c.f. Steger 1988, p. 45), it was nevertheless possible to continuously raise the level of support for mountain farmers (also in real terms).

With the aid of the budget funds of the three Mountain Farmers Special Programmes from 1972 to 1990, the following results could be produced:

In the course of transport development in rural areas, with the participation of the federal government, approximately 700 km of roads were built annually (13 152 in total), and an average of 1 300 mountain farms per year (21 305 mountain farms in total) were provided with an access road passable by truck.

- The establishment of 7 612 forest access roads was supported;

- Forestry measures (afforestation, stock development, amelioration) were aided in 135 448 ha. of farming forests;

- Supports for individual farm measures in the framework of regional agricultural aid benefited 73 220 farms in the mountain area in the first programme, 43 364 in the second programme, and 58 335 in the third programme;

18. In 1990, the proportion of Green Plan expenditure of the federal aid to agriculture and forestry (excluding personnel and material costs of the central administration and subsidiary departments as well as protective water construction and avalanche regulation) was 28.8 per cent, while the expenditure on export subsidies in the same year was as high as 47.7 per cent.

– The afforestation area in the framework of high-altitude afforestation and protective forest renewal came to 6 349 ha.

– Mountain farmers' allowances of ATS 5.6 billion was awarded in the form of direct payments.

Table 3. **Expenditure within the framework of the Mountain Farmers Special Programme, 1972-1990**

	Type of aid	1st Mountain Farmers Special Programme (1972-1978)		2nd Mountain Farmers Special Programme (1972-1978)		3rd Mountain Farmers Special Programme (1972-1978)		TOTALS (1972-1990)	
		in ATS m.	in %	in ATS m.	in %	in ATS m.	in %	in ATS m.	in %
A.	Direct income supplement and other allowances	524.0	19.9	1 753.7	33.3	2 165.6	24.6	4 540.8	29.1
B.	Road development	999.2	37.9	1 376.0	33.3	2 165.6	24.6	4 540.8	29.1
	Electrification and telephone connection aid	67.0	2.5	73.1	1.8	43.2	0.5	183.3	1.2
C.	Regional agricultural aid	740.9	28.1	641.2	15.5	982.6	11.2	2 364.7	15.2
D.	Forestry measures	102.9	3.9	124.5	3.0	180.7	2.1	408.2	2.6
	High-altitude afforestation and protective forest renewal	57.1	2.2	63.0	1.5	164.4	1.9	284.4	1.8
	Forest access improvement	79.9	3.0	75.9	1.8	128.0	1.5	283.9	1.8
E.	Agricultural terrain improvement and other measures	65.9	2.5	28.8	0.7	216.1	2.4	310.7	2.0
TOTALS		2 637.0	100.0	4 136.1	100.0	8 807.5	100.0	15 580.6	100.0

A. Mountain farmers' allowance, commercialisation allowance for cattle sales from mountain farms, suckling-cow-keeping subsidy, reimbursement of general marketing subsidy contribution for milk for farms in zone of difficulty 3 and 4, freight cost allowance for forage straw, etc.

B. Infrastructure improvement measures.

C. Regional agricultural aid (investment aid).

D. Miscellaneous forestry measures.

E. Agricultural terrain improvements, routing of torrent run-off areas from 1986, other measures.

Source: Calculated from Knöbl 1987a and various federal budget estimates. Years, results column, own calculations.

4.4.2 The shift in priorities over time

The first Mountain Farmers Special Programme was extended from the envisaged five years to seven years (1972-1978) and disbursed a total of ATS 2.6 billion. The Ministry for Agriculture and Forestry's Green Report for 1972 emphasised the aim of these comprehensive programmes in ensuring that an economically healthy, socially and culturally lively alpine area with a natural environment preserved in as intact a form as possible, could make its contribution to safeguarding the vital interests of the whole Austrian population. Thus, following a plan of several years, the aim was to have economically renewed whole areas and regions (c.f. Bundesministerium 1973, p. 78). The financial priorities of the first Mountain Farmers Special Programme were rural transport development, with ATS 999 million (37.9 per cent), rural investment aid (described as regional aid) with ATS 741 million (28.1 per cent) and, as a particular innovation, the production-neutral direct payment of the "federal mountain farmers' allowance" with ATS 514 million (19.5 per cent). With support or co-funding by the Mountain Farmers Special Programme, 7 950 mountain farms were made accessible by 4 350 km of goods transport routes. Further, 105 560 aid projects, of which 73 220 were individual farm projects (69.4 per cent) were carried out within the scope of regional agricultural aid. This involved, in particular, improvements to residential and farming buildings, farmhouse holidays, household improvements, measures to improve livestock production as well as aid initiatives for alpine pasture and pasture management.

In January 1978, the government agreed a second Mountain Farmers Special Programme for the period 1979 to 1983. This was to receive a significant increase in funding. Within the five-year period, the federal government made more than ATS 4.1 billion available. The graduation and regionalisation of agricultural aid through the Ministry for Agriculture and Forestry were continued. The further development of direct payments, in particular the federal mountain farmers' allowance (the inclusion of farms in zones of difficulty 2, and the increase of aid payments), should be emphasised in particular. The proportion of direct payments rose from 19.9 per cent in the first Mountain Farmers Special Programme to 42.4 per cent in the second. Of the ATS 1.75 billion for this part of the second programme, ATS 1.5 billion (85 per cent) went to the federal mountain farmers' allowance. The budget funds allocated to the mountain farmers' allowance in the second programme were tripled by comparison with the first. This production-neutral direct payment became the most significant financial measure of the Mountain Farmers Special Programme. The expenditure on transport development rose to ATS 377 million (+38 per cent) in the second programme, the share of expenditure for regional agricultural aid fell from 28.1 per cent of the first programme to 15.5 per cent of the second. Under infrastructure measures, 4 152 km of roads passable by truck were built for 6 580 farmhouses and, under regional agricultural aid, individual farm measures were implemented for 43 364 farms in the mountain area.

In January 1984, a third Mountain Farmers Special Programme was agreed for the period 1984 to 1988. In essence, this set out the continuation of the two previous programmes. However, it was agreed that there should be an increased concentration of funds on the mountain farms whose survival was most under threat. Taking farms facing extreme difficulties out of zone of difficulty 3, a fourth zone of difficulty (zone 4) was established in 1985, in order to provide special support to farms with a high ratio of acreage with extreme gradients (i.e., with great impediments to working with machines). The mountain farmers' allowance aid payments for these farms were sharply increased. From the financial year 1984/85, milk producers in the third and fourth zones of difficulty received refunds from the Mountain Farmers Special Programme for their payments of the marketing contribution for milk, which all milk producers were obliged to pay under the marketing regulation law.

The third Mountain Farmers Special Programme was also further extended, into 1989 and 1990, and thus ran for seven years. The funds made available, at ATS 8.8 billion, were nominal more than double the level of the preceding programme (1.7-fold increase in real terms). The overwhelming part of the additional funds was used for the development of the direct payments, which already had a 55.9 per cent share of the programme (first programme, 19.9 per cent; second programme 42.4 per cent). The further development and graduation of the mountain farmers' allowance (new zone of difficulty 4, increase in aid payments, extension of circle of recipients in 1990 to farms in zone 1) are also worthy of special mention. This accounted for ATS 3.6 billion, 40.7 per cent of the budget for the third programme. In 1990 it was ATS 717.8 million, already almost half (47.2 per cent) of the budget. In 1990, direct payments totalled 64.6 per cent of the Mountain Farmers Special Programme funds. The largest items in the infrastructure measures in 1990, as in the previous years, were the transport improvement area and agricultural investment aid (regional aid).

The structure of all three Mountain Farmers Special Programmes remained the same, but -- as indicated -- there was a shift in emphasis within the groups of measures. The significance of the direct payments (in particular mountain farmers' allowance) had greatly increased.

After 1990, the measures of the Mountain Farmers Special Programme were continued within the scope of the Green Plan, without, however, explicitly emphasising the special regional focus on the mountain area within the agricultural supports.

4.4.3 Specifics of the Mountain Farmers Special Programme

The special feature of the new mountain farm policy was the regional policy approach in agricultural policy, involving the concentration of a whole package of proven and new measures for the consolidation of mountain and border-area farms whose survival was under threat, taking account of agricultural and non-agricultural income as the criterion for aid entitlement (c.f. Krammer/Knöbl 1984, p. 99). One special innovation was the introduction of mountain farmers' allowance with the objective of a partial compensation for the more difficult conditions of production and the natural disadvantages of the location. The introduction of mountain farmers' allowance as direct income assistance was based on the recognition that, taken on their own, the price of agricultural products and the exhaustion of the possibilities for investment aid for the mountain farms are hardly sufficient to secure an appropriate income, above all in the higher settlement areas (c.f. Groier 1978, p. 34). This is, however, the precondition for their contribution to the maintainance and viability of the mountain regions, as expected and desired of the mountain farmers by society as whole. This, however, is not a matter of an intensification of production on mountain farms, which are in any case under increasing competitive pressure from agriculture in the more favoured areas, but above all a case of the creation of recreational values of the landscape and a prudent, sustainable and less intensive farming of the land (care of the cultural landscape), as well as the maintenance of the important infrastructure amenities and the communities of the mountain area. A certain minimum population is essential to the viability of an area. Therefore a sufficiently high number of mountain farms occupied and farmed on an all-year round basis is a precondition for the viability of the alpine cultural landscape as a humanly shaped living space with a high recreational value. Full- and part-time farms make an equal contribution to the conservation of population density and the associated necessary infrastructure. Their equal treatment in taking employment income into account, i.e., any non-agricultural income alongside agricultural income, in entitlement to aid, was the logical consequence. A further condition for aid was the all-year-round occupation and farming of the farm holding.

The special significance of direct income-compensatory allowances (mountain farmers' allowance) lay in the fact that they played the greatest role in the package of measures offered, both in the conceptual area (self-discovery and self-assertion processes of the mountain farming population) and in the important material function they fulfilled (c.f. Bacher 1987, p. 143). The introduction of the mountain farmers' allowance was described as the decisive change in the aid policy of the agriculture ministry in Austria at the beginning of the 70s (c.f. Haiden 1983, p. 6).

Further important aid areas for the mountain area within the framework of federal agricultural policy (agricultural investment credit aid, Border Areas Special Programme, torrent and avalanche regulation) are presented in the appendix.

4.4.4 Formation of the federal agricultural aid system from 1990

The agricultural and forestry aid system was reformed in 1989/90. In the interest of efficiency and the most effective use of funds, the attempt was made to conform to agricultural-economic, ecological, regional, social and farm specific requirements (c.f. Bundesministerium 1992, p. 136). The aim of working towards correspondence with EU aid instruments was already stated in the memorandum of understanding. The system of direct payments was further developed, in particular in the direction of compensation for functions relating to ecology and the cultural landscape. Particular attention was paid to the promotion of organic farming. From 1989, aid was provided to institutions (associations) supporting the development of organic farming. Organically farmed holdings in the conversion stage received a direct subsidy in 1990 for the first time. In 1991, all farms in the conversion stage received aid, which was extended to all organically cultivated farms in 1992. The costs of this individual farm aid for all organic farms were borne jointly by the federal government and the provinces.

For simple processing of the measures without essential alteration of the content, the numerous individual investment aid guidelines were consolidated without essential alteration into a "special guideline for the promotion of investment through federal funds" in an effort to summarise, tighten and provide a clearer presentation. The major parts of investment plans previously included in the regional aid and in the Border Areas Special Programme were in future to be funded from federal funds made available in the scope of the "farm maintenance measures".

"Innovation aid" financed by the federal government and the provinces had already been introduced in 1988 with the objective of creating new income possibilities for agricultural enterprises in crop and animal production, processing and marketing as well as in the service area (c.f. Bundesministerium 1990, p. 125). It was possible to provide investment allowances and agricultural investment credits, for farm buildings, machine and technical installations, for the farming materials necessary for start-up as well as temporary allowances for project advisers in the initial stage (e.g., the development of a regional management in southern Lower Austria).

Even if the special support for mountain farms was no longer laid down in its own special programme after the end of the third Mountain Farmers Special Programme in 1990, its special support, above all with direct income allowances, remained an important focus of agricultural policy. For farms in other disadvantaged areas, the system of direct income allowances was extended. In the four years between the end of the Mountain Farmers Special Programme and Austria's accession to the EU, the direct payments for mountain areas and other disadvantaged areas accounted for 62.8 per cent of the budget Chapter 602, with disbursements of some ATS 4.5 billion (see Table 7: Expenditure within the framework of the Green Plans 1991-1994 (Budget Chapters 602 and 603) and Table 8: Expenditure

within the framework of the Green Plan -- mountain farming areas and other disadvantaged areas (1991-1994) in the Appendix). Whereas the aid for individual farms through investment allowances continued to be concentrated on the mountain area and other disadvantaged areas, the aid for joint measures through investment aid was made possible for all eligible farms throughout federal territory. The share of aid for mountain farming areas and other disadvantaged areas in the total Green Plan aid (Budget Chapters 602 and 603), however, was lower in the period after 1990 than the share of funds of the Mountain Farmers Special Programme in the total Green Plan aid during the previous decade (see Tables 7 and 8 in Appendix). The market regulation expenditures for price compensation, export support and alternative production amounted to ATS 34.5 billion from the federal budget (budget estimate 604) from 1991 to 1994. This is 4.7 times the budget expenditures of ATS 7.3 billion for the mountain area and other less-favoured areas within the same period of time.

4.5 Important policy measures of the provinces for the mountain area

4.5.1 The provinces' mountain farming premiums

In the 70s, most federal provinces (Voralberg already from 1974) started to assist their mountain farms with direct payments in the form of farming premiums, in order to ensure the necessary level of farming in the mountain area and to provide compensation for the increased costs of working areas with steep gradients. In 1993, the mountain farms in all federal provinces with the exception of Burgenland were also supported by direct payments by the provinces. The guidelines for the mountain farming premiums were organised differently in accordance with the province-specific requirements. The objectives largely corresponded to those of the federal mountain farmers' allowance. Weighting, however, was less on the social component than on the service remuneration for the higher costs of care and maintenance of the cultural landscape. Thus the agricultural area was of greater importance in calculating the farming premium (exception: the mountain farmer assistance of the province of Voralberg). In the federal provinces of Upper Austria and Styria, income related criteria were taken into account in the assessment and in the limitation of the total support per farm.

In the provinces of Lower Austria and Upper Austria, the extent of difficulty used as the basis of the aid corresponded to the federal government's mountain farm zoning. In Carinthia, the federal government's mountain farm zoning applied for the compensation of general economic difficulty. Working of steep areas with a gradient of at least 50 per cent was additionally supported in Carinthia as compensation for special economic difficulty. In the other provinces, the mountain farmers were recorded according to province-specific definitions of the respective natural and economic difficulty.

The total amount of the provinces' farming premiums has been continually increased in recent years (with different developments in the individual provinces). In 1993, a total of some 79 500 farms received total aid of ATS 454.5 million. The highest average subsidy was paid in Tyrol in 1993, with ATS 13 694 per farm, followed by Vorarlberg with ATS 12 474. In third place by a long way was the province of Salzburg. Average aid per farm in this province was already less than half of that in Tyrol. The lowest average direct payment was received by the farms in Styria. The mountain farms aided by the provinces were mainly the same as those which benefited from the federal mountain farmers' allowance (see Table 9: The provinces' farming premiums in 1993, in the Appendix).

4.5.2 The provinces' alpine pasturing premiums

The alpine pasture areas (pasture, woodland and unproductive areas) are among the most sensitive eco-systems in Austria and take up some 20 per cent of the Austrian land registry. The alpine economy with around 12 000 alpine pastures is thus not only a commercial economic necessity for the large part of Austria's mountain farmers, but also of great significance for the national economy and from a general economic and social viewpoint (c.f. Groier, Michael, 1993, p. 8f.). These alpine pasture areas have frequently arisen only through a traditional, extensive seasonal pasturing. They are now the habitat of very specific plant communities only to be found in the alpine area. Both an intensification of farming and an end to pasturing would result in the disfigurement of the landscape, an increase in natural hazards (avalanches, landslips) and a reduction of genetic diversity (c.f. Bundesministerium 1996a, p. 28). Changed economic conditions in recent decades have led to considerable structural change in agriculture which, particularly in mountain farming, has led to decreasing farming of mountain meadows and even the abandonment of alpine pastures (c.f. Cernusca *et. al.* 1997, p. 20). The alpine pasturing premiums of the federal provinces are intended, in the form of premiums for driving animals up to pasture (direct payments dependent on the number of animals on the Alps), to ensure the continued farming of alpine grassland. With the promotion of prudent farming and stocking of the alpine pasture areas appropriate to the cropping capacity, an essential contribution was made to safeguarding this extremely sensitive natural habitat. These farming premiums, under different names in different federal provinces, were introduced first by Vorarlberg and Salzburg in 1972 and by the end of the 70s in all provinces with alpine pastures (i.e., all provinces except for Vienna and Burgenland) (c.f. Knöbl 1987a p. 233f.). The legal basis of these direct payments by the provinces was in the respective agricultural assistance laws. In addition, herding on the alpine pastures was also subsidised in some provinces in the form of a contribution to the social insurance costs of the alpine personnel. The budget expenditure on the alpine pasturing premium had risen sharply since they were first introduced, and totalled ATS 57 million for all provinces in 1993 and ATS 76 million in 1994 (c.f. Bundesministerium 1995, p. 233). The focus of the aid was in the high alpine western areas of Austria.

After accession to the EU, too, Alpine pasture farming was supported in a somewhat different form within the framework of the Austrian agri-environmental scheme (ÖPUL). With these direct payments, the animals driven up to pasture (standardised according to RLAU=raw-forage-consuming large animal units) are converted by a factor into hectares and subsidised by a hectare premium. Herding personnel is also supported in the form of a herding allowance. For 1995, ATS 261 million was disbursed for this form of aid in the framework of ÖPUL (EU, federal government and provinces jointly) (c.f. Bundesministerium 1996a, p. 28).

5. Evaluation of the results of the Austrian mountain area policy

The target area of the mountain area policy covers -- at 70 per cent -- the major part of Austria, which is impacted upon not only by the many measures of integrated programmes such as the Mountain Farmers Special Programme and the programmes for endogenous regional development, but also by other policies as well as the general economic, social and ecological developments over the course of time. The aims of the mountain area policy are not always formulated in such a way that the exact level of target attainment can be precisely quantified. Therefore an evaluation of mountain area policy in Austria according to strict economic criteria regarding effectiveness, efficiency and flexibility can only be carried out with great difficulty.

Nevertheless, the effects of the mountain area policy can be evaluated on the basis of its structure, budgeting and implementation under the existing general conditions (small-farming agricultural structure, high ratio of part-time farming combined with other employment, an extremely sensitive ecosystem in the mountain area, rural amenities as a prerequisite for tourism) with a view to its aims, such as the maintenance of settlement and the infrastructure, sustainable management of the cultural landscape, economic development and the acceptance of the programmes by the population. The structure and the budget expenditures of the Mountain Farmers Special Programme and the specific results achieved by it have already been covered in detail in the previous chapter.

5.1 Effects of regional policy approaches to strengthening endogenous development

Under the mountain area special initiative/aid initiative for independent regional development (FER), the federal government supported 148 projects with a total of ATS 85.2 million in the form of investment aid (from 1980 to 1989). Of these projects, agriculture/energy accounted for 47 per cent, tourism for 29 per cent and productive trades for 24 per cent. After conversion to advisory support, 185 subsidy cases totalling ATS 35.8 million were supported from 1990 to 1995[19].

The concept of independent regional development and the corresponding regional policy approaches of the federal government and the provinces without doubt had an essential influence on the further conceptual development of Austrian regional policy. Also connected with this was an essentially greater consideration in regional policy as a whole for the interests and problematic situation of the economically disadvantaged parts of the Austrian mountain area.

The promotion of ecologically and socially acceptable development, and of a market-niche strategy -- in particular in tourism and agriculture -- through financial subsidies and regional advisory facilities, led to the realisation of numerous innovative pilot projects in the mountain areas. These projects had a considerably wide effect through the “emulation effect” and so also contributed to a stabilisation of regional real net output outside areas with a high level of economic dynamism (c.f. Held, Schablitzki, Scheer 1984).

For agriculture, it was about organic farming projects, enhancing the value of agricultural products and the development of direct marketing. For agriculture/energy, the development of the first farming district heating plants on the basis of biomass became an impetus for their adoption throughout Austria. In energy, the support of do-it-yourself groups for the construction of solar installations led to the founding of the renewable energy co-operative, which has meanwhile developed into a successful promoter of an environmentally friendly energy policy in all Austrian provinces. In tourism, it was possible to raise the competitive profile in many mountain areas through concentration on the indigenous potential, undisturbed nature and regional culture, and the professional design and marketing of appropriate offers.

An important regional political development effect of these successful projects was to strengthen the readiness to co-operate in the regions, both within as well as between the relevant economic sectors. This helped create the basis for the implementation of integrated development programmes and a greater interweaving of the regional economic cycles – particularly through co-operation between tourism and agriculture. One example in this connection is the development programme in Carinthia’s Lesach valley,

19. The aid initiative for independent regional development was not only implemented in mountain areas but also in other economically backward regions. Owing to the data situation, a separate quantitative presentation is not possible.

which has achieved international recognition as a model region for independent sustainable development in an extreme mountain area.

The "rediscovery" of the regions and the successful development projects promoted by the concept of Independent Regional Development (ERE) led to the creation of a new self-confidence in many mountain areas, and also contributed to extending the heavily economically oriented development dialogue to the more comprehensive concept of the quality of life.

A supra-regional effect worth mentioning is that the successful realisation of innovative, ecologically and socially acceptable projects conferred a certain pioneering role on the mountain areas in ecology- and innovation-oriented economic development.

Despite these successes in the development of the mountain areas, it should be recognised that these policy approaches for economically backward parts of the mountain areas have not been sufficient to compensate for the disadvantages of their geographical location. In the best case -- when a certain regional dynamic arises from individual projects as a result of the multiplier effect and successor projects -- the regional policy has succeeded in exploiting new development potential and halting the downward spiral. As a whole, however, the concept and the promotion of independent regional development have contributed, in many mountain areas at least, to a stabilisation of economic and population development.

As a further shortcoming, there is no doubt that in many problem areas the entrepreneurial potential so necessary for the development of dynamic economic structures can also not be created to the desired extent by regional aid and regional advisory bodies.

A general difficulty lies in the fragmentation of responsibility. In Austria, spatial planning, regional policy and environmental protection are cross-sectional issues possessing comparatively limited powers of self-assertion in achieving their objectives. They are dependent on the co-operation of territorial authorities at all levels and the participation of the primarily sector -oriented ministries.

5.2 The effects of the Mountain Farmers Special Programme on the mountain area

5.2.1 Basic assessments of the effects of the Mountain Farmers Special Programme

The Green Plan's general aid funds from the agriculture budget have already made an important contribution to regional economic development. The infrastructure measures, such as transport development, agricultural operations, settlement, forest and water economics measures have had particularly positive effects. The same is true of aid for residential and farm buildings and the building of homes for agricultural workers, which has not only made a necessary contribution to the upgrading of rural living conditions, but has also contributed to maintaining the corresponding settlement density and further stimulated construction in rural areas. Above and beyond this, aid funds for infrastructure measures, in particular for improvement of the road network, safeguards jobs, for example by increasing the number of new enterprises, increases commuter mobility and eases the accessibility of educational, cultural and leisure facilities. In the process, the marketing of agricultural products, the purchase of farming materials, and human medical and veterinary provision is also improved. The creation of new jobs, and measures such as for example the employment of regional advisers (in the mountain action fund, BAF) are of great importance for development in rural areas. This is because an efficient aid policy, both regionally and structurally, is only possible in the form of an integrated regional policy in which labour market aid, agricultural aid and social policy are harmonised with each other. In the course of this, the

existing specific situation of a region and its development potential must be taken into account (c.f. Krammer/Scheer 1978, p. 197f.). It is also demanded of graduated agricultural and aid policy covering the whole federal territory that it pays particular attention to specific areas, of which, above all, the mountain area is one (c.f. Schmittner 1970, quoted in Poschacher 1984, p. 151).

In contrast to the aid funds of the annual Green Plan, which could be claimed by all farmers in accordance with the guidelines, funds from the Mountain Farmers Special Programme were reserved for the mountain area as defined under the Agriculture Act. "With the safeguarding of the mountain farmers through a targeted (family income-related) support for farms whose survival was under threat and farms in extreme locations, the Mountain Farmers Special Programme contributed to the fulfilment of a duty for the whole of society, namely the conservation of a mountain area shaped by human activity and of great recreational value" (Knöbl 1987a, p. 20). This corresponds to the priorities of a graduated, regionally oriented agricultural policy, as had already been formulated for the Mountain Farmers Special Programme in the Green Report for 1972 (p. 78): "The aim of policy for the mountain areas and the other areas threatened with depopulation is to conserve the viability of these areas." The measures in the Mountain Farmers Special Programme, as the report continues, ensure "that an economically healthy, socially and culturally lively alpine area with environmentally sound production methods preserving the natural environment, will be able to make its important contribution to safeguarding the vital interests of the whole population of Austria." The specific formulation of the Mountain Farmers Special Programme meant that it was to a large extent possible to fulfil this demand. The Mountain Farmers Special Programme linked spatial development and regional policy aims with sectoral policy objectives in a clearly defined mountain area, within which the aid was graduated according to further criteria (income and zones of difficulty).

5.2.2 Continuous evaluation through parliamentary reports

The special aid to mountain farms was already legally established in the 1960 Austrian Agriculture Act. The 1974 version of the Agriculture Act (Federal Law Gazette No. 809/1974) states as one of its objectives that agriculture is to be promoted in such a way that it is able to contribute to the maintainance of the cultural landscape. As the Agriculture Act was at that time a constitutional law, for which a two-thirds majority was necessary, this too revealed broad parliamentary agreement and support for the aim of promoting and maintaining the cultural landscape. In 1988, the granting of production-neutral direct income allowances (for example, mountain farmers' allowance) was added to the Agriculture Act as a particularly suitable form of support for mountain farms and farms in disadvantaged areas.

The annual ministerial survey of the economic situation in agriculture and forestry, established in the 1960 Agriculture Act, is, according to the Act, to be carried out in participation with a committee. The committee includes one representative of each political party in the National Assembly and of the four major economic interest groups (the Presidential Conference of the Austrian Chamber of Agriculture, the Austrian Chamber of Commerce, the Federal Chamber of Workers, and the Austrian Trade Union Federation). The chair is held by the Minister for Agriculture and Forestry. Experts, especially farmers, may be co-opted in a consultative role. Further, the committee may submit recommendations to the Minister for Agriculture and Forestry regarding the envisaged aid priorities.

The annual "Green Report" to the National Assembly is also to contain measures the government considers necessary for the achievement of the objectives of the Agriculture Act. If the provision of federal funds is necessary for the pursuit of these aims, the government is to incorporate this in the respective draft federal finance law (Green Plan). In this way a continuous evaluation of the aid

measures by the Austrian legislature (National Assembly) is provided for. The federal provinces have their own agriculture laws which also provide the legal basis for the agriculture expenditure and aid priorities and guidelines (e.g., mountain farming premiums).

5.2.3 High level of acceptance of aid to support the social function of mountain farms

There is a high level of acceptance and support among the Austrian population for providing public funds to agricultural and forestry enterprises -- mountain farms in particular -- in order enable them to fulfil the socially desirable functions of farming (e.g., protection against natural hazards, preservation of species diversity etc.). This is confirmed by opinion polls (e.g., IFES 1989 and 1995; Dr. Fessel & GFK 1993 and 1995). The contribution of Austrian agriculture to the care and conservation of an undisturbed cultural landscape is regarded by the community as indispensable, and a majority regards this function as being increasingly important. There is particular backing for direct payments in support of ecological forms of farming to improve the environment and provide protection against natural hazards, though also as compensation for more difficulty farming and living conditions. A great majority (84 per cent) is in favour of Austria pursuing the ecological orientation of agriculture with increased vigour.

Austrian mountain farming policy was also described as exemplary in an EC Commission Green Book in the mid 80s (c.f. Bundesministerium 1985, p. 19).

A study, according to the contingent valuation method, of the readiness of summer holiday-makers to pay for the landscape-care services of farming showed considerable readiness to pay (a mean value of ATS 9.2 per day's holiday), which, however, may not be sufficient to maintain farming in the mountain area (c.f. Pruckner 1995, p. 173ff.). The validity of such methodological approaches, however, is by no means undisputed.

A survey of farmers in two study regions of Austria within the framework of an international project in 1991, showed the particular importance attached to direct payments and the broad take-up of these measures among farmers. The farmers regarded the basic elements in the structure of direct payments as being the difficult natural conditions of production and the unfavourable income situation. The importance of care of the landscape and ecologically oriented farming methods were also seen as further important factors (c.f. Dax 1997, p. 4). Other surveys also show that farmers display a high level of awareness of their the important role in caring for the Austrian landscape (c.f. Market 1992, quoted in Pruckner 1994, p. 168).

5.2.4 The effects of mountain farmers' allowance

Ecological effects

The guideline prescribes a natural, site-appropriate, prudent and sustainable farming of agricultural areas as a condition for receipt of aid. The mountain farmers' allowance makes an important contribution to the maintenance of settlement, and to the maintenance and sustainable formation of the cultural landscape in particularly ecologically sensitive mountain areas. The mountain farmers' allowance contributes essentially to the adherence to an extensive form of farming in the mountain areas.

Regional effects

A condition of aid is the all-year-round occupation and self-management of the mountain farm. In many cases this measure has contributed to the continued farming and occupation of mountain farms in extreme locations. The income support from the federal government has made a valuable contribution to the maintenance of settlement in locations with severe conditions where there is a danger of depopulation. In some areas, without this support not only would the mountain farms, and thus the conservation and shaping of the cultural landscape, have been endangered, but it would no longer have been possible to maintain the economic activities (trades, retail activity, tourism) and the social activities (schools, churches, fire brigades). In many regions, the mountain farmers are the most important factor in economic and social relations. The cultural landscape, conserved and shaped by the mountain farmers, forms an important basis for tourism, which directly and indirectly contributes 15 per cent of Austrian GDP (c.f. Groier M. 1993, Puwein 1993).

Effects on the competitiveness of mountain farms

The great differences in natural and economic production difficulties are taken into account in the support by graduating the allowance according to zone of difficulty. The greater labour and production costs of the mountain farms, which cannot be recovered in the price of the product, can at least be partly compensated by this support. Farms facing a greater level of difficulty receive a higher level of aid than farms with less difficult conditions.

Effects on production

The basic premium is not dependent on the number of large animal units, the agricultural area or the production quantity. The acreage premium -- limited to eight hectares (1994: ten hectares) per farm -- is not production-promoting but in essence more like a basic premium. Organised in this way, it is not linked to intensification of production and there is no hardening of the farm and production structure. Thus there is the maximum possible freedom in regard to the adaptation of farm management to current circumstances. The effect of mountain farmers' allowance is thus production-neutral.

Effects on income

The level of the basic premium is household income related. Thus smaller farms with lower yields and those farm households with low off farm income receive a greater subsidy. Taking non-agricultural income into consideration, the total economic situation of the enterprise is taken as a basis. Farms which are worked on a full- or part-time basis are in principle treated equally, as they perform the same social function. Mountain farmers' allowance has had a very positive income-supporting influence and a strong social element, as a result of which it has had a positive effect on the maintenance of settlement and the conservation and shaping of the cultural landscape in the mountain area.

International position

According to its primary aims, mountain farmers' allowance can be classified as a direct payment to compensate for the more difficult living and production conditions in disadvantaged areas (intra-sectoral compensation), as well as a direct payment to compensate for the social functions of agriculture– in view of the market's failure to do so. As smaller farms with lower income and a higher level of farming difficulty are given preferential treatment by the mountain farmers' allowance, it also functions as a means of guaranteeing income for low-income agricultural enterprises. In the GATT system, mountain farmers' allowance is categorised as a green measure, as its effect is production -neutral.

5.2.5 Support for stabilisation of farms in the mountain area

In the four decades from 1951 to 1990, the number of agricultural and forestry enterprises in Austria fell by 155 000 to 278 000. The fall in agricultural jobs was even more dramatic. In the last 40 years, the number actively employed in agriculture fell by 715 000 to 217 000 (c.f. Hovorka 1994, p. 5ff.). In 1951, there were still 2.2 economically active persons per farm. In 1990, by contrast, this was only 0.8. The ratio of agriculture and forestry in the total economically active population fell in the same period from 28.9 per cent to 6.3 per cent. The survival of the mountain farms is particularly endangered by their natural and economic disadvantages. In the period from 1970 to 1990, the number of mountain farms dropped by significantly more (21 per cent) than non-mountain farms. In the last ten years in particular (1980-1990) the reduction in the numbers of mountain farms, at 13.4 per cent, was much higher than that of non-mountain farms, at 7.7 per cent. The reduction, however, was unevenly distributed in the different zones of difficulty. The mountain farms in zone 1 (least difficulty) have fallen by as much as 20 per cent in the last ten years, the mountain farms in zone 2, (medium difficulty), by 13 per cent. The number of mountain farms in zones 3 and 4, however, has fallen only by 8 per cent. The public subsidies, in particular the measures of the Mountain Farmers Special Programme, and especially the direct payments (federal mountain farmers' allowance, the provinces' mountain farming premiums) have made a positive contribution to this relatively modest reduction of mountain farms in areas of great difficulty of farming (farms in zone 1 did not receive mountain farmers' allowance at that time). In this way, the anticipated depopulation of the extreme mountain area has thus far been prevented. This development stands, for example, in sharp contrast to parts of the southern French Alps, where agriculture has practically collapsed throughout the area and has lead to the depopulation of whole valleys, in particular in Department Drôme (c.f. Bätzing 1996, p. 9). But there are also the same problems in other regions of the southern French Alps, for example the Alps of Haute-Provence, the mountain area in the Isère Departement (c.f. Broggi/Kusstatscher/Sutter 1997, p. 74f.). In the Italian Alps there are also massive problems (South Tyrol being an exception). In the favourable valley situations in the Italian Alps, however, alongside the mostly structurally weak farms there are also new, highly specialised farms (c.f. Schindegger 1997, p. 79f.). Switzerland, on the other hand, can be mentioned a positive example. The mountain area in Switzerland occupies a special position and mountain farming is provided with generous support, graduated according to altitude. This has led to widespread land utilisation even if full-time farming is experiencing a continuing decline, whereas the number of part-time farms occasionally even increases, dependent on the general economic situation (c.f. Rieder 1996, p. 136).

5.2.6 Promotion of the maintenance and shaping of the cultural landscape through the Mountain Farmers Special Programme

Appropriate goods transport and farmhouse access roads do not just enable the free despatch of farm produce and the delivery of the necessary farming materials. They are also the prerequisites for the satisfaction of human health and welfare needs, i.e., for the improvement of living conditions and the maintenance of settlement in the mountain areas. It is also the prerequisite for being able to take up a non-agricultural job while continuing to work the agricultural holding. Since a non-agricultural job is an existential necessity for many mountain farmers, the aid for transport development by the Mountain Farmers Special Programme was an important contribution to the economic survival of the enterprises. A developed road network (modern transport infrastructure), therefore forms a necessary basis for the fulfilment of the economic, social and rural cultural tasks of the mountain farms.

Agricultural investment aid has supported farming measures as a way of contributing to the raising of total income and improvement of the living conditions of farming families, and thus to an economic consolidation of the enterprises (safeguarding survival), and thus also to the stabilisation of the mountain area. A condition for receiving aid is that the farms are occupied and farmed all year round. The targeted and efficient application of funds was also conditioned by the fact that upper income limits were prescribed, so that the funds were concentrated on the farms in the mountain area where financial support for investment was most urgent.

The aid for forestry measures is of great importance for the avoidance of natural hazards (avalanches, mud slides), the upgrading of the function of protective forests, at high altitudes in particular, and thus the maintenance of settlement in mountain valleys, the conservation and improvement of production capabilities, and thus the improvement of mountain farm incomes.

Farms with the greatest level of difficulty and the lowest income were also especially supported by the mountain farmers' allowance in order to guarantee the continued cultivation of the mountain area as a condition of the conservation and shaping of the cultural landscape.

One indicator of the positive effect of the Mountain Farmers Special Programme and the complementary subsidies of the provinces (mountain farming premiums) is the fact that the mountain farmers' agricultural area fell by only 6.7 per cent in the period from 1980 to 1990. This is primarily attributable to the reduction in arable areas. In this period the mountain farmers were even able to extend their grassland area to some extent.

The "livestock density per hectare of forage area" measurement represents an indicator for a sustainable form of management of the cultural landscape. Livestock density in the Austrian mountain areas is relatively low and falls even further with the increasing difficulty of farming. In zone of difficulty 1, the average is 1.6 RLAU (raw-forage-consuming large animal unit) per hectare; in zone of difficulty 4 it is only 1.1 RLAU/hectare. This situation was taken into account in drawing up the mountain farmers' allowance.

5.2.7 Strengthening the economy of the mountain area

Measures to support agriculture and forestry make an important contribution to strengthening the economy of the rural area. The supports for the agricultural and forestry enterprises by the Mountain Farmers Special Programme have had a positive effect in many ways on the economy in the mountain

area: positive income effects through the direct payments to the mountain farms, stabilising effects on the local employment market, support for economic diversification of rural households, enabling continued farming on a part-time basis, providing services for tourism, etc.

In 1990, however, 55 per cent of all mountain farms in Austria were already run as part-time enterprises (in 1980 the figure was 50 per cent) and the tendency is increasing. The income situation of mountain farms is characterised by the fact that their average income from agriculture and forestry is only 80 per cent of that of non-mountain farms (for farms with extreme farming difficulties, 60 per cent), and, further, that the proportion of public funding in this income is already very high. This proportion in 1994 averaged 32 per cent of the income from agriculture and forestry; for farms in zone of difficulty four, however, it was 60 per cent. Non-agricultural income in 1994 was already on average 27 per cent of total income. These figures clearly demonstrate that the problems in the mountain areas cannot be solved by agricultural market and structural policy measures alone.

The agricultural, forestry and water economy aid measures also need a meaningful harmonisation with the regional, industrial and trade promotion policies, as well as with settlement, social and environmental policy.

6. Austrian mountain area policy in the context of the community policy of the European Union

6.1 The Austrian mountain area policy after accession to the EU

6.1.1 The preservation of continuity as an objective

Social, regional and socio-political aspects have been taken into greater consideration in agrarian structural policy in Austria than they are in EU policy, which is primarily oriented to the promotion of efficiency and performance. Adoption of EU agrarian structure policy without modification according to Austrian specifics would thus have meant a big shift of emphasis in Austrian policy. After joining the EU, for Austria the important point in the regional and agrarian structural policy area was to preserve as far as possible the continuity of the previously successful policy. This entailed:

- definition of areas in a way that is meaningful for Austrian geographical circumstances (mountain area, other less-favoured areas, small areas, Objective 5b areas);

- the maintenance and co-funding of the mountain farmers' allowance and the direct payments for the less-favoured areas;

- the recognition and co-funding of the Austrian agri-environmental scheme;

- the safeguarding of the equal rights to investment aid, also for small farmers and part-time farmers;

- the adaptation of other agrarian structural measures to Objective 5a of the EU (sectoral plans, indirect Objective 5a measures, e.g., individual farm investment aid, start-up premiums for young farmers, collective investments, professional training, producer co-operatives);

- taking the previous policy approach into consideration in Objective 5b schemes and the schemes in the framework of the relevant EU community initiatives (above all LEADER II, INTERREG).

In the EU accession negotiations, Austria wanted to reach agreement on maintaining the previous system of direct payments (mountain farmers' allowance, direct payments for less-favoured areas) with co-funding by the EU, as this better corresponded to Austrian conditions (a higher proportion of difficult to mechanise mountain areas threatened with the abandonment of farming, small-farm structure) than the EU compensatory allowance did. The significance of the basic premium was particularly emphasised. Further, a raising of the upper limit for EU compensatory allowance was proposed, in order to make the continuation and reimbursement of the provinces' direct payments possible (mountain farming and alpine pasturing premiums). The maintenance of infrastructural investment measures (road development in rural areas, in particular) and the equal rights to investment aid for small farmers and part-time farmers were matters of particular concern to Austria. Austria did not find agreement on these issues. The EU was not prepared to extend the system of compensatory allowances. Austria did, however, succeed in agreeing the possibility of a national grant (maintenance clause) for a transitional period. A transitional arrangement was also created as regards investment aid to small farmers and part-time farmers, and the road development of rural areas continues to be supported (although from national funds, and EU co-funded in the context of Objectives 1 and 5b).

6.1.2 Definition of the mountain area according to EU guidelines

In order to enable the continued farming and the achievement of an appropriate income from agriculture for farms in less favoured areas, facing higher working costs and greatly limited scope for exploitation of the land, the EC Directive 75/268/EEC was drawn up in 1975 as a basis for guaranteeing a compensatory allowance for the benefit of agriculture in mountain areas and in specified less-favoured areas. This compensatory allowance is intended to help compensate for the permanent natural disadvantages, to guarantee incomes and the viability of less-favoured areas and to maintain their population levels.

The definition of the mountain areas (and the other less-favoured areas as well as the minor regions) pursuant to Directive 75/268 of the Council, was carried out in the EU according to communities or parts of communities. This concerned the mountain areas in which agricultural activity is necessary to the conservation of the landscape (protection against soil erosion, maintenance of recreational areas) as well as further areas in which the maintenance of a minimum population density or the conservation of the landscape could not be guaranteed without external aid.

The area proposed by Austria as the mountain area included all local authority areas in which there were mountain farms. Although Austria was largely able to find consensus for its proposals, after accession to the EU not all mountain farms fell within the mountain area. The criteria established for Austria by the EU Commission for categorising a local authority as a mountain area according to EEC Directive 75/268 were: an altitude of 700m above sea-level or a mean gradient of 20 per cent, or a combination of at least 500 m above sea-level and a mean gradient of 15 per cent. The definition of agriculturally less-favoured areas was decided by the Agricultural Council on 25 May 1995. According to

this, on EU criteria the mountain area makes up 70 per cent of the total land registry area of Austria. The whole of Tyrol is classified as mountain area. In Carinthia, Salzburg and Vorarlberg, the mountain area is over 90 per cent of the total land-registry area, in Styria it is 79 per cent. Of the mountain farms according to the previous Austrian definition (individual classification in a category of difficulty, known as the zone of difficulty), 90 per cent are in the mountain area, 5 per cent in other less-favoured areas, 2.5 per cent in minor regions and 2 per cent (some 2 200 holdings) outside less-favoured areas. Almost half of all farm holdings in Austria are within the mountain area. The graduation of the mountain farms into four categories (zones) of difficulty graduated according to the difficulty of conditions within the mountain area, remained in place after accession to the EU. Additionally, on joining the EU, a fifth category (base category) was established in the mountain area. This covers all farms that are not counted as mountain farms according to the Austrian individual farm definition, but which are within the mountain area according to the EU community directory. The number of farms eligible for aid has thus increased.

6.1.3 National grant and EU compensatory allowance

After accession to the EU, the EU direct payment system (EU compensatory allowances) for agriculture in the mountain area and specified less-favoured areas had to be adopted by Austria. This compensatory allowance replaced what had previously been the most important direct payment to the mountain farms and farms in less-favoured areas: the federal mountain farmers' allowance, the direct payments from the provinces (mountain farming premiums and further direct payments for mountain farms) and the joint federally and provincially funded direct payments to "other less-favoured areas". The budgetary funds for this form of aid were boosted by more than ATS 1 billion on accession to the EU.

The EU compensatory allowance subsidies per livestock unit or per hectare were graduated in Austria according to the degree of farming difficulty, and a degression on the number of LU or the land area eligible for compensatory allowances was established dependent on farming difficulty. For the mountain farms, the degree of difficulty is defined by the mountain farm zoning carried out by the Ministry for Agriculture and Forestry. The farms in the basic category in the mountain area, which received no mountain farmers' allowance before EU membership, are now entitled to subsidy under the new system. Thus not only has the subsidy fund been expanded, but the circle of subsidy recipients has also been extended.

It was precisely the small farms facing a high degree of difficulty that would have been the losers from the adoption of the system of EU compensatory allowances with the number of LU or hectares as a basis, as opposed to the previous direct payment system in Austria (the mountain farmers' allowance in particular). Because of this, the possibility of compensation in the form of a national grant was created in the treaty of accession ("maintenance regulation"), at least for a transition period of ten years, for those farms that would receive reduced compensatory allowances or none at all after the adoption of the EU system. After five and ten years, these national grants would be subject to auditing by the Commission, with an accompanying report to the Council.

This "maintenance regulation" was primarily to the benefit of the farms with relatively few cattle (or sheep), or which farmed only a relatively small area, which showed a high degree of difficulty of cultivation and had a low income (measured according to fictitious unit value). These farms had previously received the highest subsidy, through the basic allowance of the mountain farmers' allowance, but as a result of the structure of the EU compensatory allowances would only receive a limited subsidy in future. Owing to the structural conditions of Austrian agriculture, a large number of farms were affected. The farms managing less than three hectares of agricultural area, which previously received direct payments, also benefited from this regulation. Further, the regulation benefited farms managing areas in

communities not accorded less-favoured agricultural area status in the EU community directory, and which thus have no claim to EU compensatory allowances for these areas. In 1995, over 50 per cent of the mountain farms in zone of difficulty three and over 80 per cent in zone four received a national grant in order to avoid loss of subsidies (Data of the Ministry for Agriculture and Forestry, Dept II, B6).

6.1.4 The promotion of agrarian structural measures and forestry measures, and their significance for the mountain area

Apart from the EU compensatory allowances described above, in the area of horizontal structural measures the most important aid measures that should be mentioned are the individual farm and collective investment aids (largely EU co-funded), the road development in rural areas, interest-rate subsidies in the context of investment aid, and various forestry measures (e.g., development of torrent run-off areas, high-altitude afforestation and protective forest renewal aid under EU Reg. 2080/92). The measures had existed before accession to the EU and continue to be implemented, however they had to be partly adapted to EU aid conditions. They are of great importance for the mountain area, but are no longer concentrated on the mountain area by means of a Mountain Farmers Special Programme.

6.1.5 The significance for the mountain area of the Austrian agri-environmental scheme

In Austria an integral, horizontal approach was chosen for the environmental scheme for agriculture in the context of the implementation of EU Reg. 2078/92. The objective is the nation-wide ecological orientation of Austrian agriculture. This is to be effected by promoting the maintenance or introduction of a form of agriculture corresponding to the needs of protecting and improving the environment and conserving natural living space. The Austrian agri-environmental scheme integrated pre-EU environmentally relevant direct payments (e.g., aid to organic farmers), and adopted a range of new aid measures. In 1995, environmental programme supports of ATS 7.3 billion were paid out. Of central importance for maintaining the amenities of the cultural landscape in the mountain area is the provision of aid for organic farming, aid for abandoning the use of particular yield-enhancing farming materials over the whole area of the farm, aid for the mowing of mountain meadows and areas with steep gradients, the alpine pasturing premium and measures for grassland areas. The environmental programme makes an important contribution to the maintenance of extensive farming methods, to the environmentally appropriate shaping of the cultural landscape and to safeguarding the existence of farms. Alongside the mountain area compensatory payments, the environmental supports are the most important direct payments for the mountain farms.

6.1.6 The significance for the mountain area of the Objective 5b schemes

An Objective 5b scheme has been developed for each federal province in Austria (excepting Vienna and the Objective 1 area Burgenland)[20]. As a rule, each Objective 5b scheme consists of three subsidiary schemes, the priorities of which correspond to the three EU structural funds – the EAGGF (European Agricultural Guidance and Guarantee Fund), the ERDF (European Regional Development Fund) and the ESF (European Social Fund).

20. Objective 5b of the EU structural fund: promotion of rural development through assisting development and structural adaptation of rural areas.

These schemes are concerned with an all-embracing approach for rural areas in terms of a comprehensive regional policy. Rural development therefore requires the interplay of trade, agriculture and social issues.

In drawing up the Austrian schemes for the EU structural funds, it was possible to draw on the extensive regional policy experience of the federal government and the provinces. The necessary co-ordination between the federal government and the provinces in defining the structural fund areas, the drawing up of the schemes and the accompanying scheme takes place within the context of the Austrian Conference on Spatial Planning (ÖROK) as the proven institution for harmonisation of differing interests (federal government, provinces, local authorities, social partners). The Austrian Objective 5b areas cover 60 per cent of total national territory and encompass 29.2 per cent of the population. The greatest part of the Objective 5b areas is within the mountain area.

Austria's Objective 5b schemes anticipate the public expenditure of ECU 1 097 million for the initiation of projects with a total cost of ECU 2 702 million in the 1995-1999 scheme plan period. ECU 411 million of this will be contributed by the EU structural funds: the EAGGF will contribute 39.9 per cent, the ERDF 43.0 per cent and the ESF 16.9 per cent. The financing amount for the agricultural subsidiary schemes from the EU, federal government and provinces together amounts to approximately ECU 455 million. The priorities vary owing to the differing regional policy experiences and ideas of the federal provinces. Whereas some schemes are agriculture-dominated, others place the emphasis on the promotion of software-oriented measures or support for the development of initiatives for independent regional development (c.f. Dax, Oedl-Wieser, 1995, p. 17). The concept of endogenous regional development has been drawn on as a general guideline for all schemes.

The agriculture sub-schemes primarily embrace projects in the context of rural infrastructure and village development, the introduction and further development of farming innovation and the creation of added value through diversification (e.g., farmhouse holidays, direct marketing), the building up of regional co-operative structures and the promotion of renewable sources of energy. In the ERDF part, the financial priority measures involve for the most part innovative enterprise investment or quality improvements in tourism. As the main part of Austrian Objective 5b areas are in the mountain area, these schemes, with their direct impact on the alpine cultural landscape, are of a particular significance for the further agricultural and economic and social development in the mountain area.

6.1.7 The significance for the mountain area of EU community initiatives

The INTERREG II community initiative is promoting regional measures for the upgrading of trans-border co-operation of the regions on the internal and external borders of the EU, for the build-up of co-operation networks to cope with the particular development problems arising from situation on the border. The aid measures cover a wide spectrum of infrastructure, telecommunication, small and medium-sized businesses, environmental protection, spatial planning, education, the media and culture. EU funds of approximately ATS 550 million are envisaged for INTERREG schemes in Austria. The same amount is being made available by Austria. A large proportion of the Austrian regions taking part in INTERREG II is within the mountain area.

In the context of rural development, the LEADER II community initiative is of particular relevance. The objective is the promotion of innovative development in rural areas to complement the measures of the Objective 1 and Objective 5b schemes. At the centre is the promotion of regional identity, guaranteeing rural incomes and maintaining and improving the quality of the environment. The main characteristics are endogenous local development, a comprehensive approach, innovation and

sustainability, local action groups and trans-national partnership. In Austria, 32 local action groups and more than 400 local authorities, with a total population of over 765 000, are taking part in the LEADER community initiative. Until 1999, funds of some ATS 600 million, 50 per cent from the EU and approximately 25 per cent each from the federal government and provinces, are available for the realisation of their innovative ideas and projects. A minimum of ATS 330 million will be invested additionally by the organisers of the various development projects. The scheme co-ordination has been transferred to the provinces; overall co-ordination of the activities of the federal government and the provinces is provided by the Federal Chancellery. The ÖAR Regionalberatung (Austrian Consultancy for Endogenous Regional Development) acts on behalf of the Federal Chancellery as the service bureau for the Austrian LEADER network, functioning both as an interface between the local action groups and the EU level, and in support of the network of LEADER protagonists within Austria. The philosophy of the LEADER scheme corresponds to a large degree to the integrated approach of endogenous development in rural areas that has been followed in Austria since the beginning of the 80s, and is thus expressed in the wide participation in LEADER. Most of the 32 LEADER regions are in the mountain area. This demonstrates the great significance of this EU community initiative for the Austrian mountain area.

6.2 Austrian initiatives for a mountain area policy for the EU

6.2.1 The Austrian memorandum on mountain farmers

In June 1996, the Austrian federal government brought a memorandum on agriculture and forestry in the European mountain areas (Austrian Memorandum on Mountain and Hill Farming) into discussion. In this memorandum it was stated that -- as the current discussions on the reform of the common agricultural policy demonstrate -- the current agricultural and structural policies cannot provide a satisfactory solution to the problems of the mountain and upland regions. In Austria's opinion, the present EU subsidy system, even under the optimum implementation of existing legal possibilities, displays considerable shortcomings which make safeguarding a multi-functional mountain agriculture and forestry more difficult. Austria is therefore proposing the further development of the present system in order to overcome the mounting problems in an appropriate manner.

- It is proposed to base the division of the mountain areas and disadvantaged areas not only on administrative regional units – as is present EU practice – but to take account of the natural landscape to allow division into smaller units. Further, there should be a survey of permanent natural handicaps affecting individual farms in less-favoured areas, which serve as a basis for a graduated aid system -- implementation would be optional for Member States

- Sustainable farming at higher altitudes cannot be guaranteed by the present EU compensatory allowance, because it is based on livestock units and acreage, and thus puts small farms at a considerable disadvantage in terms of subsidy, particularly compared with larger holdings in more favourable production areas. It is therefore proposed to introduce a basic allowance – optional for member states – particularly for the smaller farms, that would then be graduated according to difficulty and social conditions.

- Viable regions need structures with both full- and part-time farmers if the various functions of agriculture and forestry are to be fulfilled. As there is only limited potential for expanding agricultural and forestry enterprises at higher altitudes, not least because of the terrain, part-time farming tends to

be the rule in the Austrian Alps. The member states should therefore be allowed to create a level playing field for part time farmers as far as investment aid is concerned.

– In order to secure and upgrade farmers' incomes from forestry on a long-term basis, there should be aid programmes to encourage more intensive forest maintenance and increased use of biomass for renewable energy production, especially in the regional supply systems.

In conclusion the Austrian memorandum states that, on account of problems affecting agriculture and forestry in all mountain areas, and with the increasing interconnection and interdependence of agriculture and forestry with diversified regional structure, a forward-looking policy for mountain and hill farming cannot hope to succeed unless it is based on integral Community concepts. The regions need to become stronger in economic and social terms if Europe's mountain areas and its mountain farmers are to have a viable future. All relevant social groups should be involved in implementing this approach, as farming and conservation in Europe's mountain and upland areas is in everyone's interest.

Italy and France have also submitted a memorandum on agriculture in the mountain areas in which, among other proposals, an upgrading of aid for farms in the mountain areas is suggested.

6.2.2 The Austrian position paper on spatial development

In 1991, the federal government, provinces and local authorities agreed the Austrian spatial planning concept within the framework of the Austrian Conference on Spatial Planning (ÖROK). This provides the Austrian territorial authorities with a common, nation-wide guideline for spatial planning, regional policy and other measures with a spatial impact.

Austria's new European demands -- the opening up of a new political level of activity on European spatial planning -- were addressed in 1995 with the "Austrian position paper on spatial development policy in Europe". This comprehensive position paper set out the challenge of ensuring sustainable development in the Austrian regions -- the ecologically sensitive and/or economically sensitive areas above all -- in the changed economic and legal circumstances with restricted room for manoeuvre for independent national policy and, among other issues, explicitly referred to need to use the remaining room for manoeuvre in the formation of an independent Austrian policy for the conservation of the alpine cultural landscape and agriculture compatible with the needs of the environment.

In the Austrian proposals for spatial development policy at a European level, in the section on "Regional resources and the interplay between the interests of conservation and use", on the subject of "the prudent management and development of the natural and cultural heritage", the Alpine Convention and its minutes are referred to as an example of transnational co-ordination of national policies with the participation of the EU. On the same subject, under the agricultural policy measures section among others, the aid for safeguarding the landscape in less-favoured areas is acknowledged, but it is also maintained that the Common Agricultural Policy (CAP) in its present form does not completely meet the specific demands of the alpine area.

The further development of previous approaches to an ecological orientation of agriculture and forestry is proposed as the basic principle of the Common Agricultural Policy of the EU. Existing EU aids would have to be complemented by legal restrictions for all of Europe for ecologically dubious forms of intensive farming -- the competitiveness of which is a threat to the economic survival of ecologically more compatible forms of land management, above all in less favoured areas (c.f. ÖROK 1996).

7. Austrian mountain area policy as a general model for the environment and rural development

7.1 Assessment of the Austrian experience

The cultural landscape in Austria is characterised by the high proportion of mountain areas. According to EU criteria, the mountain area accounts for 70 per cent of the Austrian land registry. The alpine area is the residence of nearly half of Austria's population. It is a fully integrated living and working space, whose particular difficulties lie primarily in the restricted area for settlement and economic activity, extreme farming difficulties for agriculture and forestry, an expensive infrastructure, and an extremely sensitive ecology of the cultural landscape.

Mountain agriculture bears the key role in safeguarding the sensitive eco-system in the mountain areas and thereby maintaining the general living and working space as well as the cultural landscape. This cultural landscape with its socio-economic, cultural and natural dimension has considerable rural amenity characteristics and is the most important basis for tourism. In Austria, 36 per cent of all agricultural and forestry enterprises, managing 44 per cent of the agricultural area and 50 per cent of the forests, are categorised as mountain farm enterprises.

The increasing problems of mountain agriculture (farm closure and land abandonment, labour migration, lagging behind in income growth, depopulation tendencies) and the accompanying difficulties of maintaining and developing the cultural landscape in its socially desired form, cannot be solved through agricultural policy measures alone. It had already become clear at the beginning of the 70s that the conceptual co-ordination of regional, structural and spatial economic measures as well as a graduated agricultural policy would be necessary to solve the problems of the mountain area:

- Questions of the mountain areas are acquiring increasing importance within the framework of the Austrian Conference on Spatial Planning (ÖROK), a common advisory platform of the federal government, provinces, local authorities and social partners, and within the general outlines of a nation-wide co-ordinated spatial planning and regional policy developed by it.

- In 1979, the special programme for strengthening less-developed rural areas in the Austrian mountain areas (Special Initiative for Mountain Areas) was established by the Federal Chancellery, which made a contribution to independent regional development by supporting co-operative economic projects, and provided an impulse for the provinces to subsidise similarly oriented projects.

- The decisive step towards a graduated, spatially oriented sectoral policy was made, in the agricultural sphere, with the introduction of the Mountain Farmers Special Programme in 1972, providing a regional policy focus for the benefit of the mountain areas. The explicit objective of the programme was to maintain viable mountain areas. The Mountain Farmers Special Programme consolidated a package of new and already proven measures. One particular innovation was the introduction of the mountain farmers' allowance as a production-neutral direct payment. The mountain farmers' allowance was funded exclusively by the federal government, whereas the costs of other support measures (e.g., road development, agricultural investment aid) were born jointly by federal government, provinces and the local authorities. Specific additional programmes of the provinces (mountain farming premiums, alpine pasture premiums) supported the aim of a graduated agricultural policy and contributed to safeguarding the mountain farms and thus,

too, the amenities of cultural landscape that is dependent on them in the mountain areas. The Mountain Farmers Special Programme corresponded to the required standards to a high degree, as public funds were:

a. regionally concentrated in the mountain area,

b. graduated within the mountain area according to categories of difficulty,

c. concentrated, by taking account of income levels, on those farms with the greatest need,

d. awarded on an equal basis to full-time and part-time farm enterprises on the basis of their contribution to the fulfilment of social objectives,

e. linked to ecological conditions guaranteeing sustainable farming,

f. awarded on the condition of year-round farming and residence, in order to maintain population density,

g. organised on a production-neutral basis, i.e., awarded to farms independently of their level of production (no incentive to intensification).

The concentration of agricultural policy aid on the mountain areas succeeded in part in compensating for the income and cultivation disadvantages of mountain farms in comparison with the farms in the better-favoured areas. It also made a contribution, allowing for the extremely sensitive ecological interdependencies, to maintaining settlement and conserving and shaping the cultural landscape in areas with particularly great work-related farming difficulties, which were also threatened by population exodus. It thus consolidated the basis of the social and economic activities in the mountain regions (agriculture, trade, tourism and industry). Nevertheless, the provision of the basic services of everyday life (post, banking, filling stations etc.) is now under threat in some parts of the mountain areas in the course of the current state efficiency and privatisation strategies.

The specific structure of the Mountain Farmers Special Programme (e.g., income-related production-neutral direct payments) meant that -- in contrast to the subsidies under agricultural market policy -- the programme met with widespread acceptance from the population, the farmers, the authorities, agricultural scientists and international organisations.

Of great importance in safeguarding environmental amenities and the cultural landscape and promoting rural development is not only an effective agricultural policy, but also the contribution of other policy areas, as for example, the aid to trade and industry, tourism and the environment, and its co-ordination in the context of regional policy. The agreement of the various policy areas at supra-national level is of increasing importance for the mountain area, as on the one hand the existing problems are being intensified by Europe-wide developments (e.g., traffic problems) and, on the other, the room for manoeuvre in design and planning at regional and national level is becoming more restricted.

Rural regions in general, and mountain areas in particular, should not just be seen as problem areas. Given the right conditions, they are regions with a future. The rural space has considerable amenities such as a high living, leisure time and recreational value, a less polluted environment, and clear structures. It offers a wide range of participatory and organisational opportunities in public live and could, owing to its special quality of life, be particularly highly valued in the future as a “production factor of a higher order” (c.f. Lanner 1992, p. 2).

7.2 Generalisable criteria for a successful mountain-area policy

The Austrian experience shows that successful policies to safeguard environmental amenities and the cultural landscape while promoting regional development in the mountain areas call for the incorporation of spatially oriented sectoral policies in integrated regional development strategies. The most important points are as follows:

- Clearly formulated objectives in the policy for the mountain area are called for at parliamentary level (laws, programmes), at the administrative level (guidelines, etc.) as is a packaging of measures with an integrated approach.

- Integrated regional policy approaches for strengthening endogenous regional development support the realisation of innovative, ecological and socially acceptable projects in the mountain areas, and help to extend development potential.

- A particular experience of Austria lies in the contribution of its integrated regional policy to the maintenance of a multi-sectoral economic structure and the prevention of mono-sectoral tourist use of the mountain area.

- On account of the high level of ecological sensitivity of the mountain area, the safeguarding and support of the sustainable use of natural resources (in particular water and woodland) is of particular importance.

- Owing to its above-average costs, the provision, safeguarding and operation of the social and economic infrastructure in the mountain area requires particular support from the public authorities.

- In order to apply aid measures as closely in conformity with objectives as possible, the definition of mountain areas and less-favoured areas need to be founded not only on the administrative units, but also allowing for naturally based smaller units. Enterprise-specific graduation of the agricultural and forestry enterprises, based on permanent natural cultivation disadvantages calculated according to objective criteria, is of particular importance. In Austria this was guaranteed through an enterprise-specific graduation of the mountain farms according to categories of difficulty. An even more accurate graduation system (new mountain farm registry) is on the point of completion.

- The level of direct payments to compensate for natural disadvantages should be graduated according to the corresponding different levels of difficulty of farming, and be dependent on the income situation of the farms.

- The basic subsidy payment per farm, graduated according to difficulty and social conditions, is primarily for the benefit of the smaller farms. The basic payment corresponds to the small-farming structure in the mountain areas and is of great importance to the maintenance of farming and its socially desirable side-effects in providing amenities.

- A production-neutral design and planning of direct payments and the establishment of ecologically determined conditions of cultivation guarantees a high level of social acceptance.

- Owing to their equal contribution to the maintenance of settlement and the conservation and shaping of the cultural landscape, full- and part-time farms should receive equal treatment both in regard to direct payments and investment and infrastructural subsidies.

- In the long-term, an ecological orientation as the fundamental principle of agriculture and forestry is necessary everywhere. The sustainable forms of agriculture in the less-favoured areas -- above all in the mountain areas -- face an additional threat from competition by ecologically questionable forms of intensive agriculture.

- An orientation towards sustainable economic systems in the mountain areas should not, however, restrict itself to agriculture and forestry, but must in the longer term include all economic and policy areas (e.g., environmental, regional and transport policy).

The long-term provision of the public environmental amenities and the cultural landscape in the mountain areas can only be ensured through the maintenance of settlement, the conservation and shaping of the cultural landscape and the maintenance of social and economic activities in the mountain area. This is not possible without mountain agriculture. In order to maintain this, an effective, targeted and co-ordinated regional, spatial planning, economic, environmental, technology, transport, structural and agricultural policy is called for at national and international level.

REFERENCES

ABAWI, Qayum (1995), "Die AIK-Förderung (1994),Fakten-Daten-Schwerpunkte", Special supplement in *Der Förderungsdienst of issue* 9/1995, Vienna, September.

ARBEITSGEMEINSCHAFT für Bergbauernfragen der Präsidentenkonferenz der Landwirtschaftskammern Österreichs (1969), "Entwurf eines Bergbäuerlichen Grundsatzprogrammes", Manuscript of 12.5.1969.

BAUER, Alexander (1963), "Das land- und hauswirtschaftliche Beratungswesen", in *Präsidentenkonferenz der Landwirtschaftskammern Österreichs: 40 Jahre Landwirtschaftsförderung in Österreich*, Vienna.

AGRARISCHE RUNDSCHAU No. 5/1996 (1996), "Bergbauernpolitik in Europa", Vienna, November.

BACHER, Ludwig (1987), "Entwicklung der Bergbauernförderung des Bundes am Beispiel des Bergbauernzuschusses. Der Berghöfekataster und die Schaffung von Erschwerniszonen als eine Voraussetzung dazu", in REICHSTHALER, Rudolf, WYTRZENS, Hans Karl, *Die österreichische Landwirtschaft in Regionalwissenschaft und Raumplanung*, Kiel.

BÄTZING, Werner (1996), *Landwirtschaft im Alpenraum -- unverzichtbar, aber zukunftslos?*, pub. Europäische Akademie Bozen, Berlin.

BROGGI, Mario F., KUSSTATSCHER, Kurt, SUTTER, Roman (1997), *Ökologisch motivierte Direktzahlungen in der Berglandwirtschaft des Alpenbogens*, pub. Europäische Akademie Bozen, Berlin.

BUNDESKANZLERAMT (1980), "Entwicklungsschwache ländliche Räume in Berggebieten", Series of the Federal Chancellery, Section IV/Dept. 6, No. 1/80, Vienna.

BUNDESMINISTERIUM für Land- und Forstwirtschaft (various years from 1971 to 1995), "Bericht über die Lage der österreichischen Landwirtschaft", (Grüner Bericht), Vienna.

BUNDESMINISTERIUM für Land- und Forstwirtschaft (1975), "Agrarpolitik zwischen Bewahrung und Fortschritt. Die Land-, Forst- und Wasserwirtschaft 1970 bis 1975", Vienna.

BUNDESMINISTERIUM für Land- und Forstwirtschaft (1987), "Europäisches Forum Alpbach 1987. Wiederentdeckung der Land- und Forstwirtschaft als Lebensgrundlage der postindustriellen Gesellschaft", special issue of the journal *Förderungsdienst*, Vienna.

BUNDESMINISTERIUM für Land- und Forstwirtschaft (1989), "Agrarbilanz 1989. Entwicklungen in der Land-, Forst- und Wasserwirtschaft", Vienna.

BUNDESMINISTERIUM für Land- und Forstwirtschaft (1990), "30 Jahre Landwirtschaftsgesetz und Grüner Bericht", special issue of the journal "Förderungsdienst", Vienna.

BUNDESMINISTERIUM für Land- und Forstwirtschaft (1996a), "Österreichisches Umweltprogramm 1995. Implementation of EEC Regulation 2078/92", Report to the European Commission, Vienna.

BUNDESMINISTERIUM für Land- und Forstwirtschaft (1996b), "Österreichisches Bergbauernmemorandum", Austrian memorandum on agriculture and forestry in the European mountain areas, Vienna.

BUNDESMINISTERIUM für Wissenschaft, Forschung und Kunst (1995), *Forschungskonzept 1995*, Cultural landscape research, Vienna.

CERNUSCA, Alexander et. *al.* (1997), "Ökologie und Bewirtschaftung alpiner Ökosysteme", in *Der Förderungsdienst*, No. 1/97, pp. 20-24, Vienna January 1997

DAX, Thomas (1993), "Bergbauern Österreichs. Kennziffern der Land- und Forstwirtschaft", *Facts & Features No. 4* of the Bundesanstalt für Bergbauernfragen, Vienna.

DAX, Thomas (1997), "Einstellung von Bauern zu Direktzahlungen in der Landwirtschaft. Auswertung ausgewählter Fragen der Abschlußerhebung des internationalen Forschungsprojektes zur Erwerbskombination", Arbeitspapier, Vienna.

DAX, Thomas, OEDL-WIESER, Theresia (1995), E*x-ante Evaluierung der Einheitlichen Dokumente der Programmplanung (1995-1999) für die Ziel 5b-Gebiete Österreichs*, Vienna.

FESSEL & GFK (1995), "Image der Landwirtschaft", Textkommentare, Vienna.

GROIER, Michael (1993), "Bergraum in Bewegung. Almwirtschaft und Tourismus -- Chancen und Risken", *Forschungsbericht No. 31* der Bundesanstalt für Bergbauernfragen, Vienna.

GROIER, Otto (1978), "Zweites Bergbauernsonderprogramm 1979 bis 1983", *in Der Förderungsdienst No. 2/78*, pp. 33-35, Vienna, February.

HAIDEN, Günther (1983), "Von der Unterversorgung zur Überproduktion -- 30 Jahre Agrarpolitik in Österreich", in *Der Förderungsdienst*, Issue 1, Vienna, January.

HELD, Alexander, SCHABLITZKI, Gerd, SCHEER, Günter 1984), *Analyse der Zielerreichung und Effektivität der Bergbauernsonderaktion des Bundeskanzleramtes*, Institut for Advanced Studies, Vienna.

HOVORKA, Gerhard (1996), "Das Direktzahlungssystem in Österreich nach dem EU-Beitritt", in *Forschungsbericht No. 37 of the Bundesanstalt für Bergbauernfragen*, Vienna.

HOVORKA, Gerhard (1994), "Die Bergbauern in der österreichischen Landwirtschaft. Entwicklung, Einkommen und Direktförderungen", in *Facts & Features No. 13 of the Bundesanstalt für Bergbauernfragen*, Vienna.

HOVORKA, Gerhard, WIESINGER, Georg (1993), "Die Nebenerwerbslandwirtschaft. Bedeutung in Österreich", in *Facts & Features No. 7 of the Bundesanstalt für Bergbauernfragen*, Vienna.

KNÖBL, Ignaz (1987a), "Bergbauernförderung in Österreich, Direktzahlungen von Bund und Ländern", in *Forschungsbericht No. 10 of the Bundesanstalt für Bergbauernfragen*, Vienna.

KNÖBL, Ignaz (1987b), "Güterwegebau in Österreich -- Rechtsgrundlagen, Geschichte, Förderung", *Forschungsbericht No. 16 of the Bundesanstalt für Bergbauernfragen*, Vienna.

KNÖBL, Ignaz (1993)," Österreichs Bergbauern, Bedeutung und Förderung", in *Facts & Features No. 1 of the Bundesanstalt für Bergbauernfragen*, Vienna.

KOBSA, Franz (1990), "Entstehung des Landwirtschaftsgesetzes und Bedeutung des Grünen Berichtes", in *Bundesministerium für Land- und Forstwirtschaft: 30 Jahre Landwirtschaftsgesetz und Grüner Bericht*, special issue of the journal *Förderungsdienst*, Vienna.

KRAMMER, Josef, KNÖBL, Ignaz (1984), "Überlegungen zur Neuorientierung der Förderungspolitik", in *Der Förderungsdienst*, Issue 4, Vienna.

KRAMMER, Josef, SCHEER, Günther (1978), *Das österreichische Agrarsystem,* Vol. 1, Vienna.

LANNER, Sixtus (1992), "Zukunftsperspektiven für den ländlichen Raum", in *Der Förderungsdienst*, Issue 1, January.

LANNER, Sixtus (1993), "Vom Zeitgleiter zum Raumgleiter", in *Telearbeit. Neue Mobilität für den ländlichen Raum*, Vienna.

LEOPOLD, Rudolf (1978), "Agrarförderung im Wandel der Zeit, pub. Bundesministerium für Land- und Forstwirtschaft", special issue of the journal "Förderungsdienst", Vienna.

MARKET (1992), *Repräsentativumfrage des Meinungs- und Mediaforschungsinstitutes unter den oberösterreichischen Landwirten 1992*, Linz.

ÖAR-Regionalberatung GmbH (eds.) (1994), *Handbuch Ausbildungsprogramm Regionalberatung*, Vienna.

OECD (1994), *The contribution of amenities to rural development*, Paris.

OECD (1996), *Amenities for Rural Development. Policy Examples*, Paris.

ÖSTERREICHISCHES Institut für Raumplanung (ÖIR) (1997), *Regionalentwicklung im Alpenraum,* Part 1, Vienna.

ÖSTERREICHISCHE Raumordnungskonferenz (ÖROK) (1981), *Annex zum österreichischen Raumordnungskonzept, ÖROK-Zielkatalog und ÖROK-Ziele für bestimmte Gebiete bzw. Gebietsteile*, Vienna.

ÖSTERREICHISCHE Raumordnungskonferenz (ÖROK) (1991), *Integrierter Alpenschutz,* Series No. 87, Vienna.

ÖSTERREICHISCHE Raumordnungskonferenz (ÖROK) (1992a), *Österreichisches Raumordnungskonzept 1991*, Series No. 96, Vienna.

ÖSTERREICHISCHE Raumordnungskonferenz (ÖROK) (1992b), *Raumordnung und Alpenschutz in Österreich*. Recommendation No. 41, Series No. 67a, Vienna.

ÖSTERREICHISCHE Raumordnungskonferenz (ÖROK) (1993), *Siebenter Raumordnungsbericht*, Series No. 107, Vienna.

ÖSTERREICHISCHE Raumordnungskonferenz (ÖROK) (1996a), *Position Österreichs im Rahmen der europäischen Raumentwicklungspolitik*, Series No. 125, Vienna.

ÖSTERREICHISCHE Raumordnungskonferenz (ÖROK) (1996b), *Achter Raumordnungsbericht*, Series No. 128, Vienna.

POSCHACHER, Gerhard (1984), "Entwicklung, Stand und Zukunftsaspekte der österreichischen Agrarförderung unter Berücksichtigung gesamtwirtschaftlicher Rahmenbedingungen im Zeitraum des Grünen Planes sowie Konsequenzen für ein Förderungskonzept", Dissertation for the University of Agriculture, Vienna.

PRÄSIDENTENKONFERENZ der Landwirtschaftskammern Österreichs (1963), *40 Jahre Landwirtschaftsförderung in Österreich*, Vienna.

PRUCKNER, Gerald (1994), *Die ökonomische Quantifizierung natürlicher Ressourcen. Eine Bewertung überbetrieblicher Leistungen der österreichischen Land- und Forstwirtschaft*, Frankfurt.

PRUCKNER, Gerald (1995), "Agricultural landscape cultivation in Austria: An application of the CVM", in *European Review of Agricultural Economics*, Vol. 22.

PUWEIN, Wilfried (1993), "Maßnahmen zur Erhaltung der Kulturlandschaft in Österreich", in *WIFO-Monatsberichte No. 5/93*, Vienna.

REICHSTHALER, Rudolf, WYTRZENS, Hans Karl (1987), *Die österreichische Landwirtschaft in Regionalwissenschaft und Raumplanung*, Kiel.

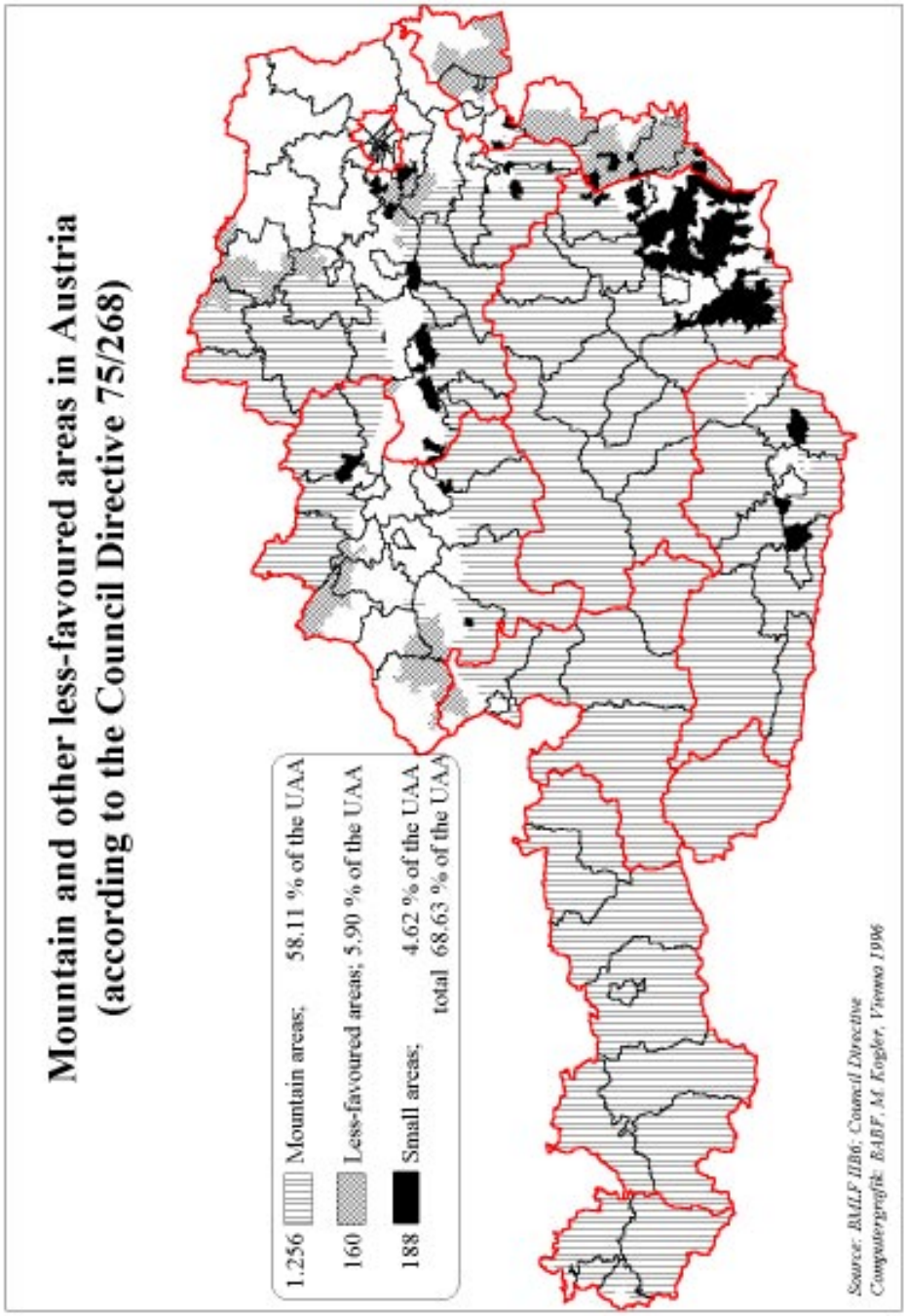
RIEDER, Peter (1994), *Berglandwirtschaft in der Schweiz*, pub. Europäische Akademie Bozen, Berlin.

SCHINDEGGER, Friedrich, ZANETTI, Gerhard (1997), "Regionalentwicklung im Alpenraum".,Teil I, Study of ÖIR, Vienna.

STEGER, Gerhard (eds.) (1988), *Grünbuch. Krise und Perspektiven der österreichischen Landwirtschaft*, Vienna.

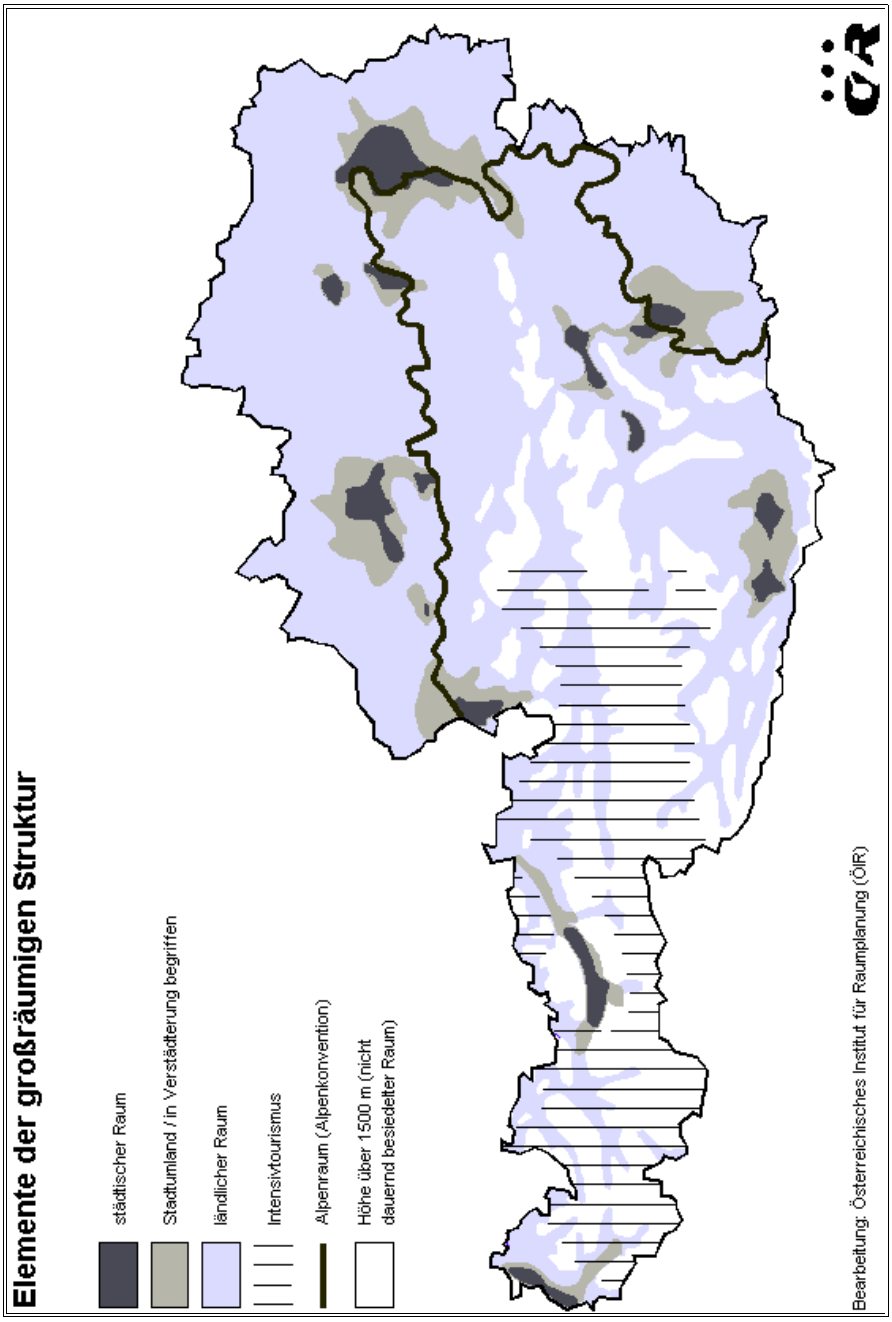
APPENDIX I. MAPS AND TABLES

Figure 3. **Mountain and other agriculturally less-favoured areas in Austria**



Source: Ministry for Agriculture and Forestry, Department II B6, Council Directive.

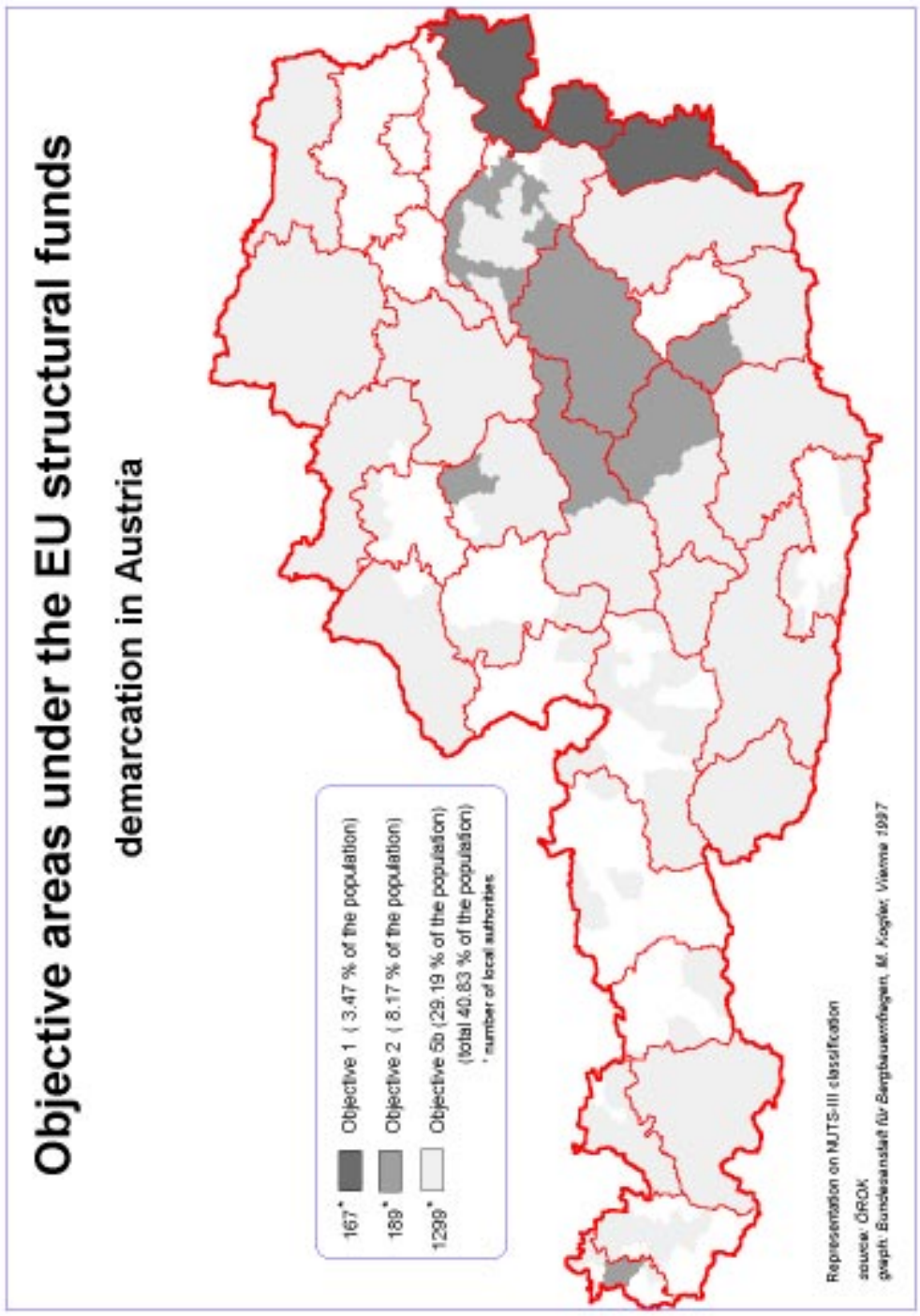
Figure 4. **Elements of the large-scale spatial structure**



German	English
Städtischer Raum	Urban area
Stadtumland / in Verstädterung begriffen	City environs / in the process of urbanisation
Ländlicher Raum	Rural area
Intensivtourismus	Intensive tourism
Alpenraum (Alpenkonvention)	Alpine area (Alpine Convention)
Höhe über 1500 m(nicht dauernd besiedelter Raum)	Over 1500 (area without permanent settlement)

Source: Österreichisches Institut für Raumplanun (ÖIR).

Figure 5. **Objective areas under the EU Structural funds**



Source: ÖROK.

Table 4. **Green Plan Aid Measures**

Measure	1990 in ATS m.	1970-1990 in ATS m.	percentage (1970-1990)
Improvement of basis of production	363.49	5 961.17	15.9
Improvement of enterprise structure	29.26	391.76	1.0
Sales and marketing measures	201.92	4 448.58	11.8
Research, testing and other measures	70.84	317.59	0.9
Social policy measures	28.95	836.67	2.2
Credit policy measures	671.53	10 015.16	26.7
Mountain Farmers Special Programme (from 1972)	1 520.51	15 580.61	41.5
TOTAL	2 886.39	37 551.55	100.0

Source: Ministry for Agriculture and Forestry, Green Report, 1990.

Table 5. **Classification of mountain farms according to zone of difficulty and federal province, 1996**

Federal province	Zone of difficulty 1	Zone of difficulty 2	Zone of difficulty 3	Zone of difficulty 4	Total
Burgenland	189	783	11	0	983
Carinthia	2 265	2 824	5 200	1 394	11 683
Lower Austria	9 537	6 220	5 881	101	21 739
Upper Austria	10 988	5 908	5 220	135	22 251
Salzburg	1 988	2 156	2 267	843	7 254
Styria	3 827	5 525	7 832	687	17 871
Tyrol	2 695	2 976	4 840	3 061	13 572
Vorarlberg	672	1 215	1 467	602	3 956
Austria	32 161	27 607	32 718	6 823	99 309
Percentage	32.4	27.8	32.9	6.9	100.0

Source: Ministry for Agriculture and Forestry, Dept. II B6.

Table 6. **Expenditure in the framework of the Green Plan (Budget Chapters 602 and 603)**

Year	Green Plan (603) in ATS m.	Mountain Farmers Special Programme (602) in ATS m.	Green Plan total in ATS m.	of which, Mountain Farmers Special Programme in %
1972	707.9	260.0	967.9	26.9
1973	725.1	250.0	975.1	25.6
1974	807.0	271.9	1 078.9	25.2
1975	950.4	461.6	1 412.0	32.7
1976	943.8	540.7	1 484.5	36.4
1977	934.1	426.2	1 360.3	31.3
1978	914.7	426.6	1 341.3	31.8
1979	957.0	695.7	1 652.8	42.1
1980	974.3	702.1	1 676.4	41.9
1981	1 008.0	826.8	1 834.8	45.1
1982	1 046.3	889.7	1 936.0	46.0
1983	1 083.4	1 021.7	2 105.1	48.5
1984	1 064.0	1 036.1	2 100.1	49.3
1985	1 049.6	1 142.5	2 192.1	52.1
1986	1 146.1	1 185.1	2 331.2	50.8
1987	1 632.4	1 254.3	2 886.7	43.5
1988	1 845.7	1 276.0	3 121.7	40.9
1989	1 121.1	1 393.0	2 514.2	55.4
1990	1 365.9	1 520.5	2 886.4	52.7
Totals	20 276.9	15 580.6	35 857.5	43.5

Source: Knöl 1987b, p. 135, Federal budget estimates, various years, results column, own calculations.

Table 7. **Expenditure in the framework of the Green Plan (Budget chapters 602 and 603) at constant prices**

(Consumer price index: 1986= 100)

Year	Green Plan (603)	Mountain Farmers Special Programme (602)	Green Plan total (602 and 603)
1972	131.7	46.8	88.5
1973	125.3	41.8	82.8
1974	127.3	41.5	83.7
1975	138.4	65.0	101.1
1976	128.1	71.0	99.0
1977	120.2	53.0	86.1
1978	113.5	51.2	81.8
1979	114.5	80.5	97.3
1980	109.7	76.4	92.8
1981	106.2	84.3	95.1
1982	104.6	86.0	95.1
1983	104.8	95.6	100.1
1984	97.5	91.8	94.6
1985	93.2	98.1	95.7
1986	100.0	100.0	100.0
1987	140.5	104.4	122.1
1988	155.7	104.1	129.5
1989	92.3	110.9	101.7
1990	108.8	117.2	113.1

Source: own calculations.

Table 8. **Expenditures in the framework of the Green Plan from 1991 to 1994 (Budget chapters 602 and 603)**

Year	Green Plan (603) in ATS m.	Mountain area and less-fav. area (602), in ATS m.	Totals in ATS m.	of which, mountain area and less-fav. area, in %
1991	1 639.5	1 826.0	3 465.5	52.7
1992	2 871.4	1 558.7	4 430.2	35.2
1993	3 241.3	1 875.5	5 116.8	36.7
1994	2 984.8	2 005.7	4 990.5	40.2
Totals	10 737.0	7 266.0	18 003.0	40.4

Note: "Green Plan – Mountain farm areas and other less-favoured areas (Chapter 602)" Budget Estimate

Source: Federal Budget estimates , various years, results column, own calculations.

Table 9. **Expenditures in the framework of the Green Plan**

Mountain farm areas and other less favoured areas (1991-1994)

	Type of aid	1991		1992		1993		1994		TOTALS (1991-1994)	
		in ATS m.	in %	in ATS m.	in %	in ATS m.	in %	in ATS m.	in %	in ATS m.	in %
A	Direct income supplement and other allowances	1 084.6	59.4	1 035.4	66.4	1 184.1	63.1	1 261.6	62.9	4 565.7	62.8
B	Road development	377.6	20.7	221.3	14.2	337.1	18.0	338.6	16.9	1 274.6	17.5
	Electrification and telephone connection aid	0	0	0.7	0.0	0	0	0	0	0.7	0
C	Agricultural technology and construction investments	225.0	12.3	138.3	8.9	204.6	10.9	215.4	10.7	783.2	10.8
D	Forestry measures	32.0	1.8	31.6	2.0	10.9	0.6	24.7	1.2	99.2	1.4
	High-altitude afforestation and protective forest renewal	25.7	1.4	25.6	1.6	18.4	1.0	21.5	1.1	91.2	1.3
	Forest access improvement	16.6	0.9	19.6	1.3	19.6	1.0	14.7	0.7	70.4	1.0
E	Agricultural operations and other measures	64.5	3.5	86.3	5.5	100.8	5.4	129.3	6.5	381.0	5.2
	Totals	1 826.0	100.0	1 558.7	100.0	1 875.5	100.0	2 005.8	100.0	7 266.0	100.0

A. Mountain farmers' allowance, allowances for farms in less-favoured areas, commercialisation allowance for cattle sales (until 1993), reimbursement of general marketing subsidy contribution for farms in zone of difficulty 3 and 4 (until 1991), freight cost allowance for forage straw, etc., but excluding suckling cow keeping premium.
B. Infrastructure improvement measures.
C. Agricultural construction and technology investments (individual farm aid measures) previously regional agricultural aid.
D. Miscellaneous forestry measures.
E. Agricultural operations, routing of torrent run-off areas, other measures.

Source: Various federal budget estimates. Years, results column, own calculations.

Table 10. **Federal provinces' mountain farming premiums in 1993**

Province	Description	Recipient	Total payment in ATS 1 000	Average total payment per farm in ATS
Carinthia	Subsidy for care of the landscape	8 347	43 320	5 190
Lower Austria	Compensatory payment	19 148	69 901	3 651
Upper Austria	Farming premium	20 450	88 998	4 352
Salzburg	Farming premium	4 649	30 355	6 529
Styria	Mountain farmers' compensatory payment	12 277	27 227	2 218
Tyrol	Farming premium	10 207	139 776	13 694
Vorarlberg	Mountain farmers' aid/Acreage premiums	c. 4 400	54 886	12 474
Total	-	79 478	454 463	5 718

Note: In Tyrol, Vorarlberg and Carinthia, limited overlaps of several measures may have been included.

Source: Bundesministerium, 1994a, own calculations.

APPENDIX II

A) Mountain farmers' allowance in 1993[21]

The level of the federal mountain farmers' allowance in 1993 ranged from a minimum of ATS 400 to a maximum of ATS 41 500 (for zone of difficulty 4 at the lowest basis of assessment: a maximum basic premium of ATS 27 100 and a maximum acreage premium of ATS 14 400) per farm entitled to aid. In 1994, the minimum premium was raised to ATS 450 and the maximum to ATS 47 100.

In 1993, 86 078 mountain farm holdings -- 86 per cent of all mountain farm holdings in the zoning list of the Ministry for Agriculture and Forestry -- received a total of ATS 1 058 million in mountain farmers' allowance. The average subsidy per farm was ATS 12 294. In accordance with the aid objectives, mountain farms in zone of difficulty 4 received the highest subsidy. The average subsidy per farm in zone of difficulty 4 was more than double the total average, and more than four times the average for zone 1 farms. Of the total sum, 50 per cent of the aid went to farms in zone of difficulty 3, which represent 33 per cent of all mountain farms. Their average subsidy was three times higher than that of the farms in zone 1, and 1.5 times the average for the whole.

Table 11. **Mountain farmers' allowance for 1993, according to zone of difficulty**

Zone of difficulty	Recipients	Total in ATS 1 000	Average allowance in ATS	Percentage of beneficiary farms	Percentage of total payments
Zone 4	6 473	166 734	25 758	7.5	15.7
Zone 3	29 307	528 938	18 048	34.1	50.0
Zone 2	23 418	204 019	8 712	27.2	19.3
Zone 1	26 882	158 563	5 898	31.2	15.0
Total	86 078	1 058 254	12 294	100.0	100.0

Source: Ministry for Agriculture and Forestry, Dept. II B6, own calculations.

21. In EU membership negotiations, 1993 was set as the reference year for aid to mountain farms. Thus the results of the Mountain Farmers' Allowance are documented here for 1993.

In 1993, the proportion of recipients with the lowest basis of assessment (up to ATS 70 000 fictitious unit value) was 14.2 per cent. These farms accounted for 27.1 per cent of the total expenditure and received an average mountain farmers' allowance of ATS 23 395. By comparison with the highest basis of assessment (up to ATS 400 000 fictitious unit value), their average subsidy was 3.8 times higher. The clear graduation of average subsidy shows the positive effect of the social component of the basic premium.

Table 12. **Mountain farmers' allowance for 1993, according to basis of assessment**

Basis of assessment (fictitious unit value)	Recipients	Total in ATS 1 000	Average allowance in ATS	Proportion of beneficiary farms (%)	Percentage of total payments
up to 70 000	12 243	286 429	23 395	14.2	27.1
70 001 to 130 000	15 755	243 969	15 485	18.3	23.0
130 001 to 230 000	21 567	246 212	11 416	25.1	23.3
230 001 to 330 000	20 887	203 245	9 731	24.3	19.2
330 001 to 400 000	7 836	48 527	6 193	9.1	4.6
over 400 000 (acreage premium only)	7 790	29 874	3 835	9.0	2.8
Total	86 078	1 058 254	12 294	100.0	100.0

Source: Ministry for Agriculture and Forestry, Dept. II B6, own calculations.

In 1993, the acreage premium already amounted to ATS 346.6 million, or 32.7 per cent of the total mountain farmers' allowance. From 1991, in contrast to the basic premiums, the acreage premiums had been continuously increased. In 1991, the acreage premium, at ATS 223.4 million, had only been 24 per cent of the mountain farmers' allowance.

The federal mountain farmers' allowance: results for 1993, by federal province

The highest average subsidy per farm was in the federal provinces of Tyrol, Carinthia and Vorarlberg. In Tyrol, 89 per cent of all mountain farm holdings received a federal mountain farmers' subsidy, in Salzburg it was as high as 90 per cent.

Table 13. **Mountain farmers' allowance for 1993, by federal province**

Federal province	Recipients	Total in ATS 1 000	Average allowance in ATS	Recipients as a percentage of all mountain farms in the province
Burgenland	542	3 385	6 245	55.0
Carinthia	9 417	144 930	15 390	80.9
Lower Austria	19 215	211 095	10 986	86.3
Upper Austria	19 547	178 319	9 123	86.3
Salzburg	6 533	83 201	12 735	90.1
Styria	15 324	197 822	12 909	86.0
Tyrol	12 406	192 171	15 490	89.0
Vorarlberg	3 094	47 330	15 297	78.7
Austria	86 078	1 058 254	12 294	85.7

Source: Ministry for Agriculture and Forestry, Dept. II B6, own calculations.

B) Other direct income supplements of the Mountain Farmers Special Programme

Suckling-cow keeping

Suckling-cow keeping is an extensive, labour saving form of cattle husbandry for beef production on the basis of farm-derived fodder, which serves at the same time to preserve the cultural landscape and relieve the milk market. A premium is granted to improve competitiveness. Suckling cow keeping as an alternative to milk production is taken up in the mountain area in particular as a labour-, land- and capital extensive branch of production, and has demonstrated positive ecological effects. It has been subsidised by the Ministry for Agriculture and Forestry since 1979. Some 75 per cent of all participants are mountain farms in zones 3 and 4. Total aid in 1989 was ATS 55 million; in 1990, ATS 161 million.

Livestock marketing aid

The functions of the mountain farms in maintaining the settlement and sustainable cultivation despite unfavourable site conditions with particularly high costs and working difficulties have been supported through premiums to subsidise livestock marketing (marketing of breeder cows). They were graduated according to zone of difficulty and were paid only for zones 2, 3, and 4. The total aid in 1989 was ATS 28 million; in 1990, ATS 29 million.

Sheep raising premium

Sheep raising is a further production alternative for mountain farms. In the mountain area in 1990, ATS 3.6 million of federal funds were provided for the purchase of breeding sheep for fat-lamb production. A premium for ewes was also introduced in 1990.

Forage- straw transport cost allowance

In order to improve the fodder basis of the farms in the mountain farm areas, a forage-straw transport cost allowance, for the transport of domestic forage straw and hay from its place of origin to the alpine areas where it is needed, is granted, which was paid at the same level by the provinces. In 1990, the federal government paid total aid of ATS 2.6 million.

Reimbursement of general marketing subsidy contribution for milk for mountain farms in zones of difficulty 3 and 4

The general marketing subsidy contributions from mountain farms in zones of difficulty 3 and 4 that are milk suppliers were reimbursed to them. For the financial year 1989/90, 19 278 farms were reimbursed by ATS 67.8 million.

C) Further important forms of aid for the mountain area in the framework of federal agrarian policy (alongside Mountain Farmers Special Programme)

Improved aid conditions for mountain farmers in agricultural investment credit aid

Federal government interest-rate subsidies are intended to reduce the costs of agricultural investment credits to an economically bearable amount for the borrower. The Ministry of Agriculture and Forestry pays an interest-rate subsidy to reduce the gross rate of interest, established by a formula (since 1982, credit terms have been on a floating-rate system). The amount of subsidy is graduated, partly regionally, partly dependent on the purpose of the credit. The graduation of interest rates for agricultural investment credits from 1981 is particularly noteworthy. Mountain farms, farms in border areas and in regional aid scheme areas have been granted a 50 per cent interest rate subsidy since this period. The intention was that the funds should thus be more heavily concentrated on the areas where aid funds are needed to safeguard the survival of farms. These are primarily the small and medium-sized farms in the extreme mountain areas, and the border areas threatened with depopulation. The federal interest-rate subsidy is also paid at a rate of 50 per cent of the calculated gross rate of interest for the borrower for all alpine pasture management investment plans as well as for priority measures such as improvement of the market structure, innovations, energy from biomass and other alternative forms of energy, greenhouse construction, investments by farmers on taking over a farm, and for land consolidation loans. All other farms receive an interest-rate subsidy of 36 per cent. The necessary funds were not provided by the Mountain Farmers Special Programme, however, but exclusively from the Green Plan. Since 1990, the federal government has provided interest-rate subsidies for farmhouse building of 25 per cent and 18 per cent related to the gross rate of interest calculated. The difference up to 50 per cent or 36 per cent is paid by the respective provinces. Thus, owing to the involvement of the provinces, the borrower is not affected as far as the level of interest rate subsidy is concerned. Mountain farms made up 53.5 per cent of the participants in the agricultural investment credit initiative in 1990. At ATS 1.3 billion, they accounted for

43.8 per cent of the total credit payments (lowland, 42.9 per cent, joint-enterprise and other measures, 13.3 per cent). The largest proportion of Green Plan credit was employed in "Improvement of residential and farm buildings" and "regional agricultural aid".

Since 1992, the aid allocations have been grouped under the following headings:

- farm maintenance measures (construction investment, improvements in the structure of land tenure, mechanisation investments);
- infrastructure measures (road development in rural areas);
- innovation measures (innovations, energy from biomass, improvements in market structure);
- quality improvement measures (animal husbandry, crop production);
- socio-political measures;
- forestry measures;
- consolidation measures;
- farming land tenure structural funds.

The largest number of approved applications for agricultural investment credits in 1994 were for construction measures (new, extension or renovation of residential and farm buildings), with 4 189 applications (63.6 per cent of the total) and ATS 1.6 billion of agricultural investment credits (53.2 per cent of the total). The mountain farmers represented 50.6 per cent of the borrowers in 1994, and claimed 40.3 per cent (ATS 1.2 billion) of the agricultural investment credits; 43.1 per cent was claimed by lowland farms and 16.6 per cent for joint-enterprise and other measures (c.f. Abawi 1995, p. 3f.). Joint-enterprise measures cover machinery syndicates, as well as all forms of marketing combines and arrangements.

Agricultural investment credits, as can be seen from these figures, represent an important aid area for mountain farmers alongside the allowances under the Mountain Farmers Special Programme, in particular in the field of construction measures and regional agricultural aid. The higher interest-rate subsidy for mountain farms (50 per cent instead of 36 per cent) shows the particular regional weighting and preferential treatment for mountain farms as regards agricultural investment credits in the framework of the Green Plan.

Special programmes for border areas

In order to make an effective contribution to safeguarding the survival of agricultural holdings in the border areas (eastern areas bordering Czechoslovakia, Hungary, Yugoslavia) which were showing agrarian problems comparable in their severity to the problems of the mountain area, the federal government initiated a further regional aid initiative in 1974, known as the Border Areas Special

Programme[22]. The aid to border areas started in Lower Austria in 1974 and had been extended to Carinthia, Upper Austria, Burgenland and Styria by 1976. The objective of agricultural aid to border areas was to create and maintain effective agricultural and forestry holdings by increased application of aid funds, and thus help to strengthen the regional economy and the population density. The aid programmes were half-funded by the federal government, and half by the respective province. The federal funds were prioritised for regional aid (financing of new construction and conversion and for improvement work for residential and agricultural buildings) and for the development of road links in rural areas (Green Report 1990, p. 131f.). The objectives of the Border Areas Special Programme corresponded to those of the Mountain Farmers Special Programme and can be regarded as complementary to the mountain area policy. From 1974 to 1990, a total of ATS 1.48 billion investment aid was provided, as well as ATS 6.86 billion in agricultural investment credits (AIK)[23].

From 1989, after a pilot project carried out in 1988 in 19 local authorities in the Styrian border area, production neutral direct payments were extended essentially to all areas covered by the Border Areas Special Programme. Payments are graduated according to a scale of unit values; the federal provinces must also provide aid to the same amount.

The 1989 Green Report of the Ministry for Agriculture and Forestry states that the Mountain Farmers Special Programme and the Border Areas Special Programme express the intention of the federal government to employ aid funds efficiently, with responsibility for the environment, socially oriented and taking account of the market and environmental situation, in order to improve the quality of production and the income situation and living condition of farming families and thus to provide an impetus for the whole economy in the countryside.

Torrent and avalanche regulation

Diverse protective measures of torrent and avalanche regulation contribute to the protection of the life of the rural population, as well as to the protection of areas of cultural importance, buildings and other objects, and access routes from destruction by flooding, mudslides and avalanches, and thus to the maintenance of settlement. The forest is of particular importance in the fight against flooding and avalanches. It forms a break against flood water, prevents soil erosion and reduces the danger of avalanches. In 1990, ATS 678.1 million of federal agricultural budget funds were spent on regulation measures.

22. The Border Areas Special Programme is presented here as it also concerns a regional approach to agricultural aid with comparable objectives to the Mountain Farmers Special Programme, and also includes mountain farms within the area of the programme.

23. In order to ensure comparability with the Mountain Farmers Special Programme, 1990 (the last year of the Mountain Farmers Special Programme) has also been chosen for the presentation.

II. AMENITY POLICY, SUSTAINABILITY AND THE MAINTENANCE OF THE CULTURAL LANDSCAPE[24]

Introduction

We are currently experiencing a significant shift in the balance of goods being sought from the rural areas of the OECD countries. The historical preoccupations with food supply and security have become less pressing, while a greater emphasis is being given to concerns for the quality of the rural environment. At the same time, many areas that have over long periods suffered from depopulation and economic decline are now experiencing a significant non-agricultural revival in their economic fortunes.

These changes have a variety of implications for the appropriate uses of land and other assets in rural areas and for the institutional arrangements that support them. While conventional market mechanisms and prices have played a central role in the support of agricultural production, many environmental attributes have public good characteristics requiring a search for novel institutional arrangements. The specific characteristics of the environmental goods most valued inevitably vary between different rural areas, implying a need for more diversified and decentralised approaches to policy. The declining significance of agriculture in the local economy and the changing relationship between them imply different patterns of social and economic disadvantage in rural areas requiring new forms of intervention. The focus on rural amenity and development captures an important element of this reorientation.

Outline of this report

This study is one of a series of case studies being undertaken as part of the Rural and Regional Development Programme's activity on rural amenities. This report reviews the policy approach adopted in the mountain areas in Austria. It draws heavily on a report by Hovorka (1997), supplemented by a very brief tour of some areas within Austria. The purpose is to reflect generally on the way in which policy is designed and implemented, drawing on concepts deriving generally from economics, and to suggest possible future directions. Given the relatively limited background and information available, the objective is not to make specific proposals for any change.

1. The Austrian context and case study

The report on the cultural landscape in the mountain area of Austria (Hovorka, 1997) gives a detailed and interesting insight into the experience and issues arising with mountain area policy in Austria. The study makes clear the complex nature of the cultural landscape and the fundamental interrelationships

24. This expert report has been prepared by Mr. Ian Hodge, University of Cambridge, United Kingdom.

between land use, agriculture and the local economy. The protection of this cultural landscape is a major purpose behind mountain area policy and a goal stated by many individuals and organisations in the area.

The report explains in some detail the development of policy and its administration over the past twenty years or so and the changes associated with Austria's entry into the European Union. There are some significant differences between the policy regimes operated before and after entry, particularly in the computation of a 'fictitious income' at the individual farm level, the determination of difficulty for individual farm rather than the regional level and the payment of a set allowance per farm, independently of farm size.

2. Economics and the cultural landscape

The definition for the cultural landscape established in Austrian research is quoted by Hovorka (1997, p. 1). "The cultural landscape is a perceived unity of the spatially effective fabric of natural conditions and human influences. Cultural landscapes develop and change over time as a result of the interplay of socio-economic, cultural and natural factors". Hovorka continues "The cultural landscape can thus in no way be conceived as a static entity but rather as an expression of ecological, cultural and socio-economic development and change in living and working space. … [It] can only be understood as a process."

The cultural landscape is thus seen as being concerned with more than just the physical appearance of the mountain areas, encompassing the economic activities and social structures that are associated culturally and historically with the use of and life within the mountain areas. This concept is some way from the assumptions commonly made in environmental economics, where a landscape would more often be seen as an essentially natural back-cloth, important primarily for its visual characteristics. In this context, it is relevant to consider the different ways in which the rural environment is characterised in agri-environmental policy analysis and their implications for policy. It is apparent that different assumptions tend to be made within different cultural contexts.

2.1 The environment in agricultural policy analysis

It is possible to suggest two rather different perspectives in the way in which the issue of environmental quality is assumed to enter into agricultural policy analysis. The first of these, an 'input model' tends to be associated more particularly with a New World context and the second, an 'output model' with an Old World context.

2.1.1 The 'input model' of environmental impact

The approach often favoured by North American and Australian commentators tends to model the impact of agriculture on the environment as an external cost associated with input use (e.g., Anderson, 1992; Dunn and Shortle, 1992; Zilberman, *et al.*, 1997). The paradigmatic example is of water pollution: fertiliser and chemicals applied by farmers run off or are leached from farm land into aquifers and watercourses imposing external costs on water users and damaging ecosystems. Reductions in output prices lower the value of the marginal products of the inputs, lowering optimal use levels and hence lessening environmental damage. The story with respect to soil erosion is similar to the extent that less erosion is associated with less intensive land use which would arise from lower output prices although it is more complex in that lower output prices will reduce the return to investments in soil conservation investments.

A key implication of this approach is the inevitable and clear relationship between output prices and environmental quality. Provided that we accept certain basic premises from economics about the supply response in agriculture, a reduction in the level of price support inevitably leads to a reduced intensity of production and thus to an improvement in environmental quality.

2.1.2 The 'output model' of environmental impact

A somewhat different although not necessarily conflicting model, more often stressed by European commentators, emphasises marketed food and environmental quality as separate *products* of the land (e.g., Russell, 1993). These are often seen as joint products that can be produced in varying combinations. In this case, the environmental focus concentrates more on landscape and wildlife considerations. It is sometimes further assumed that changes in policy and prices induce switches between production functions and structural change rather than simply movements along a single function. The model is less tractable and fails to produce unambiguous predictions of the impacts of policy change on the quality of the environment.

This model can have similar implications to the 'input model' where environment and food are assumed to be competitive in the relevant ranges. A reduction in agricultural production would still be associated with an increase in environmental quality. However, the 'output model' more often assumes that, over certain levels and styles of production, particularly in respect of relatively extensive grazing systems, agricultural outputs and environment are complementary. This means that a reduction in agricultural prices and hence of production may lead to a *reduction* of environmental quality. For example, as the price paid for livestock products falls, livestock grazing may become sufficiently extensive for undesirable scrub species to invade pastures that would otherwise maintain wildflowers.

In fact, the inference does not depend on an assumption of complementarity. A similar result may still be obtained assuming that countryside and agricultural output are competitive products. For example it could be assumed that, while countryside goods do have certain public good characteristics, they also offer significant private benefits to landholders. These may take an active form such as from shooting or may take the form of passive enjoyment of the farm environment, or even recognition from a farmer's peers. (Farm competitions are now judged in terms of environmental characteristics instead of purely by production criteria). In these circumstances, farmers under pressure from low incomes may decide to forego environmental quality in preference for a higher income. Thus it might be argued that a reduction in output prices leads to a reduction in income. Assuming a relatively high income elasticity for environmental quality, a farmer might choose to forego this in order to raise the income obtained from agricultural production.

It is difficult to test this type of model empirically, although some predictions are consistent with casual observation. For example deliberate provision of countryside goods seems to take place more often on larger holdings. Where higher environmental standards are achieved on smaller holdings, this may often either be attributable to the application of older technology (and it seems unlikely that price reductions would induce a move back to older technology) or benefits arise because environmental factors are given more weight on part time farms. There is no consistent evidence that small, conventionally farmed holdings are necessarily better for the environment.

If this model has validity, it suggests that price reductions will alter the mix of environmental attributes associated with agricultural production and not be unambiguously beneficial. There is likely to be less chemical pollution, but also potentially fewer countryside goods.

The two models would seem to have most direct relevance in different circumstances. The 'input' model posits an agriculture operated in opposition to the 'natural' environment. In fact, the environment existing prior to the introduction of modern farming methods may usually already have been substantially modified by human activity and thus not appropriately be termed 'natural' (see e.g., Budiansky, 1995), but the point is that it is not a product of this type of agricultural activity. In contrast, the 'output' model is premised on agricultural systems that have often co-evolved with the environment over substantial periods of time to the extent that there is a close interrelationship between the valued characteristics of the environment and certain attributes of the agricultural systems.

The former model and context imply that policies to improve the environment should restrict agricultural activity, the latter is less clear cut, but often implies that policy should support agricultural systems, especially in less favoured areas where the major environmental threat arises from a decline or abandonment of agricultural uses. This is a major concern in remote mountain areas.

2.1.3 Sustainability as an objective of policy

Over the past few years, the objectives of environmental policy have come to be described against the goal of sustainability. Sustainability as a guiding principle has been written into international conventions, national legislation and local plans. Sustainable development has been introduced as a key principle in European policy. But whether or not it has much practical impact on the environmental choices that are made in practice has yet to be seen. This will depend upon whether or not we are able to distil from the grand principles some more specific guidance for policy implementation.

2.1.4 Sustainability as the maintenance of income

The central focus of concerns for sustainability must be that the human population (we are here assuming anthropocentrism) should maintain an acceptable level of welfare indefinitely through time. This is often specified in terms of maintaining a 'non-declining' level of welfare, although this does present some odd implications for the choice of growth paths, where higher income levels might be rejected because of short periods of declining levels. In practice, the determinants of welfare are not well understood and the best that we can do is probably to maintain an acceptable material standard of living or income. This leaves aside the question of the relationship between the material standard of living and a judgement as to the more abstract level of welfare.

Threats to our ability to maintain this level of income indefinitely arise particularly from situations where decisions are made which have long term implications for the future but where there is uncertainty as to what those implications may be. Typically, there may be some element of the environment that seems to be of limited importance in the present, but which in the future may be found to be of much greater significance than had been anticipated. These circumstances are most likely to occur in the context of irreversibility, uncertainty and uniqueness. Where decisions, once made, cannot effectively be reversed within a relevant time period. Where there is uncertainty as to the way in which the environment works, such that the relevant interrelationships are not well understood. Where particular sources of value are unique, or where there are no close substitutes.

The focus thus tends to be on the maintenance of the assets from which income derives and in more practical terms the requirements for sustainability tend to be defined with respect to the capital stock passed on from one generation to the next. This assumes then that the income that can be generated in one period depends on the capital that has been passed on from the previous period. If the stock of capital is maintained, then so is the level of income.

3. Sustainability as the maintenance of capital

Thus the starting point for much of the economic analysis of sustainability is with the maintenance of a stock of capital that can be passed on to future generations. The implication is that the earning potential (the total future streams of benefits) from this stock of capital should not be diminished. But a given level of income may be produced by very different combinations of capital stocks. The objective of a sustainability rule cannot be to fix the economic system into a single form. Economic development is inescapably concerned with changes in the pattern of resource use and capital formation. Indeed a major element of the development process has been concerned with a diminution of natural capital and build up of man-made capital.

An objective for sustainability could thus be to maintain the total value of the capital stock through time, regarding all capital as a single category. This is often referred to as ‘weak sustainability’, concentrating solely on the aggregate of both natural and man-made capitals. However, many advocates take the argument further to stress that ‘weak sustainability’ depends on the assumption that there is sufficient substitutability between natural and man-made capital. However, there is a further concern that it may not be possible to find man-made substitutes for natural capital should its stock become depleted, leading to some functions of natural capital being lost with potentially serious consequences. This suggests that the rule should be applied more narrowly to natural capital as a separate category. This is often termed the ‘strong sustainability’ rule. For example, Turner (1993, p. 6) comments that 'a non-declining stock of natural capital over time is a necessary condition for sustainability, because of the substitutability limits in production processes as well as other factors'.

Further, it may be believed that because of their significant value and their uniqueness, certain specific elements of natural capital play an essential role in economic development such that they should be singled out for special protection. The strong sustainability rule may then be modified so as to establish certain elements of 'critical natural capital' that may not be depleted. However, it may be difficult in practice to establish which elements of natural capital are indeed 'critical'.

3.1 The relevance of natural capital

What constitutes the ‘natural capital’ that is to be protected? The rationale for selecting some component of total capital for special treatment lies in the concern that there is imperfect substitutability between different forms of capital. But this does not necessarily only apply to natural capital. Rather it applies to any capital that cannot be re-created by man, i.e., to non-reproducible capital. If we assume that the nature of capital depends in some part upon the context within which it was created, including the social and cultural conditions, then in this respect it is impossible to re-create any capital that was produced under differing circumstances.

In many instances this will not be crucial, but clearly some historic man-made structures cannot be reproduced authentically. Medieval cathedrals are an obvious example. In a rural context, many traditional farming systems or rural communities may embody elements of physical, human or cultural

capital that could not be replaced authentically by modern society. Sustainability then implies as a minimum the maintenance of the capability for the production of acceptable substitutes for such historic cultural capital.

The key issue here is to examine the basis from which values are derived and the categories of capital that underpin it. Thus we may argue further that certain forms of human organisation are critical to the capacity to generate certain types of value. While it may be less easy to argue generally that such elements are non-reproducible, it may well be the case that particular human skills and social institutions cannot readily be recreated once they have been lost.

This brings us back to the question of the maintenance of the cultural landscape. This is clearly comprised of a mixture of man-made and natural capital that has achieved its present form through a gradual process of co-evolution. Mountain landscapes involve certain characteristic patterns of pasture management intermixed within an afforested landscape. But it is not just the physical appearance, or even the complex of appearance, recreational opportunities and biodiversity that is to be maintained. The idea that a goal of sustainability should be to conserve plant and animal species would be unexceptional. But this logic takes the argument further, suggesting that the goal should be extended to encompass the forms of human culture and organisation that are *necessarily* bound up in the production of that landscape, where these could not readily be re-created if lost. The point is illustrated by the problems experienced in seeking to regenerate activities and land uses in areas where the basic institutional infrastructure has been lost.

This is not to say that the goal becomes one of preserving all forms of human activity and culture in their present form. The point has already been made that the cultural landscape is dynamic and changing. This is reflected in the history of the mountain area that has seen a shift from subsistence to market-based agriculture, with arable production of grains giving way to increased dairy production, and the growth of non-agricultural enterprises, especially those associated with tourism. One implication of this interpretation of sustainability might appear to be the need to protect existing farm businesses in order to continue to support particular forms of land use. But it does not require the protection of *specific* individual businesses, but rather a more general need to maintain an institutional structure that can support certain valued forms of land use. The key concern is to guarantee the capacity of the system to continue to maintain the critical capital in the face of changing social and economic circumstances. This might be termed the ‘critical institutional capital’.

Thus the protection of certain land uses and a wider conception of landscape becomes interrelated with the protection of rural societies in a much more general sense. But the identification of the relevant ‘critical non-reproducible capital’ is not simple. This is not, as it might be seen superficially, an argument for simply maintaining the status quo at any cost. The first stage is to define carefully the precise components of capital that deserve to be protected on the grounds that they are not readily substitutable and could not easily be reproduced once lost. This may be difficult given our present limited understanding of the processes of economic development, but this matches the uncertainty associated with our understanding of the processes in the physical environment and is a topic deserving greater attention. The next stage is to identify the institutional and policy arrangements that are required in order to achieve this goal in a cost-effective way.

Thus we might suggest that the aim is to preserve a particular mix of natural, man-made and institutional capital that can support a range of economic activities that is in turn needed to conserve the physical landscape in a desirable form. Many of these elements are not amenable to quantitative measurement and this presents difficulties for assessment and evaluation.

4. Policy and sustainable development

Such a general goal needs to be translated into more practical terms as an objective for policy. It is not possible, and probably not appropriate, to attempt to define this here in any detail. But a few observations may be made.

The physical characteristics of the mountain areas depend upon a continuation of a relatively extensive system of grazing and management. In the absence of agriculture, the land would be taken over by forestry and the desired character of the landscape would be lost. Excessive intensity would lead to a decline in the botanical richness of the pastures, although this appears to be a less immediate concern. The farms in the mountain area are necessarily small as businesses and generally incapable of providing a sufficient income for a full time occupation at a foreseeable level of agricultural prices or support. Enlargement of the agricultural businesses by amalgamation is restricted by the topography of the region and there are also limits to the range and scale of new agricultural operations that might be added. Tourism is the major source of non-agricultural income, offering opportunities both on and off the farm.

Hovorka (1997, p. 35) comments that "A certain minimum population is essential to the viability of an area. The greatest possible number of mountain farms occupied and farmed on an all-year basis is a precondition for the viability of the alpine cultural landscape as a humanly shaped living space with a high recreational value." One might wonder what is the "greatest possible number". However, in contrast many might argue the opposite; that only a low population could be sustained 'viably' in these relatively remote and agriculturally unproductive areas. Clearly there may be different views as to what is implied by 'viability', but the meaning here is not really clear.

How many farms are necessary in order to maintain the landscape? There is some discussion in the report of farm consolidation as an objective, but mostly a declining number of farmers appears to be regarded as a problem. If farm amalgamation led to a reduced number of farms, while the use of land and total population remained the same, would the cultural landscape be any less valuable? It would be helpful to have a broader exploration of the range of potential policy options and their specific implications for land uses, incomes and the cultural landscape.

There is also a key objective to maintain permanent settlement within the area and in association with this to maintain the infrastructure and service provision. In the their absence the area would no longer be attractive for tourism, which in many locations operates in both summer and winter, and it would become impossible to maintain other activities and hence other land uses. This again illustrates the interdependencies between land uses and economic activity.

5. Institutions and the cultural landscape

The way in which the incentives are generated for farm businesses will arise from the judgements made about the allocation of property rights. Making payments to farmers in order to encourage them to farm in one particular way, indicates a judgement that they are regarded as having a right to farm in some alternative way (see e.g., Hodge, 1994). Where the assumed alternative is that farmers will give up farming, then the not unreasonable judgement is that farmers have a right not to continue to farm. This is to say that no farmer can be regarded as having a duty to continue to farm against his or her will. There is a clear contrast here with payments to prevent farmers from adopting intensive farming methods that lead to water pollution. We would not generally assume that farmers have a right to cause pollution and equivalently, we would assume that farmers have a duty to avoid causing

water pollution. Thus the 'provider gets' rather than the 'polluter pays' principle applies to the maintenance of landscape in mountain areas (OECD, 1994; 1996).

This further implies that the 'beneficiary pays' principle also applies. Those who enjoy the benefits of the landscape should be expected to contribute towards its cost. This is more of an equity principle than an efficiency principle. In order to provide the landscape, it is necessary that those making decisions over land use face the appropriate incentives. These incentives may either arise from individual purchasers through a market or else they may be created by government policy. In the case of landscape, the public good characteristics indicate difficulties in establishing conventional market arrangements and hence a role for government in co-ordinating demand and supply. Nevertheless, there are situations where beneficiaries can be required to pay at least something towards the cost. Where this is possible, it has the added advantage of also requiring beneficiaries to reveal their preferences, offering a more reliable means of valuation than is likely through the political process or by means of expressed preference valuation methods. There may thus be some efficiency gains too.

A variety of factors, particularly the small size of holdings in the mountain area, act to promote and maintain co-operation between farmers. The small scale of the agricultural businesses, coupled no doubt with the influence of historical factors, encourage co-operation between farmers in such aspects as the grazing of common pastures or the use of machinery. The limited agricultural incomes and the associated extent of pluriactivity establish close links between the agricultural enterprises and other components of the rural economy. The sparse settlement pattern and remote nature of many communities present difficulties for the provision of infrastructure and the delivery of services to local residents. This too tends to bring the community together in dealing with a common problem.

It appears reasonable to argue that the social and cultural factors that engender this co-operation are a part of what may be seen as critical institutional capital. It is difficult to envisage the maintenance of the population in the absence of a relatively high degree of co-operation. However, it is difficult and perhaps impossible to identify which specific elements it is of the local culture and institutions that are essential to the continuation of co-operative behaviour.

5.1 Policy implementation

If the land is to be retained in use, there has to be some incentive in the form of a financial return, either from the market or from the state. But the prevalence of part-time farming means that it is not necessary for farms to provide a full income. Rather, some balance can be struck between income derived from the range of available sources.

An appropriate level of support might be taken as that level of payment that will just offer sufficient incentive to keep the land managed by farms in the desired way in the longer term. Where there is a flexible labour market and farmers face a reasonable range of alternative occupations, this might be a sufficient criterion in that a failure to offer an income equivalent to that available in other occupations will cause a movement out of agriculture. However, if there are significant institutional impediments preventing farmers from moving away from agriculture, it may be necessary to define an appropriate income level in terms of fairness so as to provide for an adequate standard of living or a reasonable return on capital.

Given that the purpose of the policy is to keep particular farmers in occupation of the land, then the level of payment required is sometimes described in terms of the amount of money needed to overcome the 'natural handicap' associated with occupation at a particular location. This is equivalent to

the amount of money needed to keep the cultural landscape intact on that particular holding and so might also be described as the marginal cost of producing the desired environmental goods. The language here implies quite different policy motivations, whether or not this is the intention. Similarly, it might be argued that linking the payments made to the level of off-farm income implies a social rather than a landscape goal. More generally, it does not seem appropriate to use the term 'compensation' with regard to payments made to farmers for the provision of environmental goods, any more that I would 'compensate' a shopkeeper who sells me a pound of potatoes.

The effective constraints on the agricultural sector and the interrelationships with other sectors indicate the importance of other sectors in supporting the cultural landscape. There is thus a presumption that support for agriculture in the mountain areas and the maintenance of the cultural landscape requires a broad policy approach; support for the local economy going beyond the agricultural sector. This is evident in practice in terms of the importance given to rural development programmes, such as at present in the Objective 5b and LEADER Programmes in relation to the objective of landscape conservation.

5.2 Other purposes of policy

Inevitably policies tend to have multiple objectives. In practice there is seldom a single policy mechanism associated with a single objective. Payments are then made to farmers against broad ill-defined objectives, complicating the evaluation of policy. In particular payments may be associated with the provision of compensation as a temporary measure in changing circumstances or with the provision of welfare payments to those who would otherwise have unacceptably low levels of income. In Switzerland, for example, social payments to farmers are allocated against the level of income, per child and per labour unit. (Curry and Stucki, 1997).

5.3 Local Variations

There are of course spatial variations in the quality of the landscape, in the extent to which it can be regarded as unique, and in the range of options available for agriculture and for the rural economy generally. We may thus expect to find different policy outcomes and possibly different mechanisms in different types regions within the mountain areas. While there is a sense in which every area is unique, we may presume that it is only the better examples of landscape that should be treated as critical natural capital. Therefore we may anticipate special protection for some areas, such as in national parks. Policy in other areas will tend to be more flexible, accepting change within a looser set of constraints.

While the common preoccupation in rural areas has tended to be with problems of decline, it is apparent that a number of regions, particular in the western alpine area, are experiencing significant growth and its attendant problems. In these areas we may anticipate policies to reduce the environmental impacts of non-agricultural development and to redirect pressures towards less intensively used areas. In contrast, other regions, particularly the structurally weak old industrial regions are performing less well. Some areas continue to be threatened by a population exodus. In these areas we may expect incentives to stimulate new forms of economic activity.

The spatial level at which decisions are made will depend on the spatial incidence of costs and benefits associated with change in the local area. In contrast to the more common usage within the European Union, subsidiarity might be as the establishment of political decision-making at such a spatial level so as to internalise the costs and benefits of the decision. While most decisions have some wider

implications, in many instances the most significant affects of environmental change are experienced within a region, albeit by residents or visitors.

This implies that decisions affecting the quality of the local environment, where this is not of national or international significance, should be taken at the local level and similarly that funds should be transferred within the region in order to support it. This also has implications for the sorts of mechanisms that may be appropriate for establishing the incentives for environmental management.

6. The evaluation of policy

6.1 A formal evaluation

A formal evaluation of mountain area policy might ask two questions: (i) Do the benefits of the policy exceed the costs? And (ii) could greater benefits be generated for the same costs or could the same benefits be generated for a lower cost, i.e., could the policy be made more efficient? Benefits and costs may be described in various terms and an attempt may or may not be made to determine monetary valuations. Whatever the approach, evaluation depends upon an assessment of the consequences of the policy; a comparison of the world as it is with the policy with that as it would be without it. These are sometimes referred to as the policy-on and policy-off scenarios. Thus, it is clear that a policy that leads to no change could be regarded as successful if it prevents an undesirable state of affairs.

There is always a difficulty in determining what should be defined as the policy-off scenario: is it to operate entirely at world prices, or to hold all policies the same other than mountain area policy? Clearly too, there must be uncertainty in seeking to describe a hypothetical world. But it is necessary to make this explicit in order to be able to judge the consequences of policy. This is not always done in practice so that it is often unclear as to precisely what is assumed to have been achieved through the operation of a particular policy.

6.2 The impacts of support

The policy under evaluation is the provision of support to mountain areas. We therefore need to establish what would happen in the absence of support. Some hints are given by Hovorka (1997, p. 43) as to the consequences of reducing support levels. For instance, reference is made to the collapse of agriculture and depopulation in the southern French Alps. It would be interesting to be able to explore in more detail the specific causes of these changes and the anticipated consequences of alternative policy arrangements within Austria. There may also be lessons to be learned from the application of different policies in similar conditions in other countries.

How would farmers react to alternative support arrangements? There is an assumption of satisfying behaviour rather than the conventional one of profit maximising in the report. "The positive income effect of the mountain farmers' allowance counteracts the pressure towards intensification of agricultural production, which would otherwise come into play as a strategy for the maintenance of income when prices are falling" (Hovorka, 1997, p. 41). Thus it is argued that the mountain farmers' allowance tends to reduce the intensity of production. The implication is that farmers would choose not to take up profitable opportunities for intensifying their production, only doing so when their incomes fall below a certain threshold level. This assumption contrasts with that which would tend to be adopted in most economic analyses. Most analysts would assume that higher support levels lead to higher production.

On the other hand, one of the major arguments for support payments is based on the grounds that they have the effect of keeping land in production that would otherwise be abandoned. In this respect, the payments might be regarded as encouraging production to some extent. In the report, they are also referred to as being 'production-neutral' (e.g., p. 7; 42). In fact, the position here may be quite complicated. The context of small-scale part-time family farming with a low or zero opportunity cost of labour may well affect the structure of incentives and hence the way in which farmers respond to policy. There appears to be little research on this topic.

One widespread criticism of practically all forms of government support is that because of the adjustment of prices, particularly of capital assets, governments are simply unable to give money away to an intended group. With respect to agricultural policy, the concern is that support payments become capitalised into rents and land prices. The extreme argument suggests they lead to an increase in the levels of rent paid by tenant farmers such that they end up no better off than they would otherwise have been had the support not been given. Similarly, those farmers wishing to become owner-occupiers have to pay higher prices for the land, ultimately to the point where the rate of return achieved on land acquired also is unaffected by the level of support. In the Austrian case, the effect may be muted because the majority of the land is owner-occupied and rarely sold on the open market. Legal limits on land sales and a general reluctance among landowners to sell property mean that while land prices are relatively high little property actually changes hands. While this may have the effect that support payments are translated into income received by farmers, the legal and social constraints on the land market are likely to have other implications for restricting adjustments in the structure of agricultural holdings and themselves represent a potential source of adjustment problems.

We might also ask how the different elements of agricultural and rural policy affect different groups within the mountain area. It would be interesting to seek to trace through the impacts of economic development programme support (e.g. Objective 5b and LEADER) to asses their consequences for the way in which land is used and for the distribution of benefits among farmers. It seems likely that income

is distributed fairly evenly amongst farmers, but is aid targeted effectively towards those individuals and areas with the lowest incomes or poorest living conditions?

6.3 Valuing the consequences of policy

A second stage in an evaluation would seek to make some sort of judgement as to the values placed on the differences between the policy-on and policy-off scenarios. Figures are given by Hovorka (1997) for expenditure on policy. The cost side of the analysis tends to be more straightforward, although since accession to the EU they may be looked at from either national or EU perspectives and there would be further issues in attempting to calculate the social opportunity costs of the expenditures.

There is a consistent presumption that a high value is placed on the protection of the cultural landscape by the population at large. Evidence for this is adduced from the political support given for these policies and from opinion polls. Either may of course be subject to question. Strong minority lobby groups can exert an influence on policy-making beyond their numbers. Responses to opinion polls can be influenced by the specific way in which particular questions are posed and may not represent a genuine willingness to forego income in order to see the outcomes supported in the answers. Questions also tend to be framed in total rather than marginal terms and this figure has less relevance to most policy decisions that are made in practice.

Attempts at the monetary valuation of landscapes have been made in a few countries such as the USA (e.g., Bergstrom *et al.*, 1985), United Kingdon (e.g., Willis and Garrod, 1993) and Sweden (Drake, 1992). Of direct relevance here, Pruckner (1995) has made an interesting attempt to value the 'agricultural landscape' in Austria as experienced by summer tourists in different provinces in Austria. The study adopted the contingent valuation method (CVM). In 1991, over 4 500 visitors were asked to indicate their maximum willingness to pay (WTP) for their travel party per day into a fund established to support agricultural landscape-cultivating services. This produced a mean value of 9.20 ATS and a median of 3.50 ATS. When aggregated across all visitors, this suggests a total valuation for all tourism during the summer season of 1.2 billion ATS. This figure may be compared crudely with a figure for direct payments of central and regional governments to mountain farmers in Austria in 1991 of 1.34 billion ATS.

In this study, the great majority of all tourists (84 per cent) regarded a well-kept landscape as the decisive factor in spending a vacation in Austria and 88 per cent selected 'environment and countryside' from a list of 26 possibilities as the component rated to be the most important at the vacation resort. However, Austrian respondents were found to express stronger feelings than tourists from other countries. This is reflected in a number of ways. While in the sample as a whole two-thirds of respondents indicated that farmers rather than other specialists should provide landscape-related services, this figure was highest at 70 per cent for Austrian respondents. Austrian respondents indicated the highest WTP with a mean of 10.3 ATS for all Austrians compared with a mean of 8.9 ATS for all others. (Given the skewness of the distribution of the responses, care should be taken in interpreting these mean values). The difference was found to be significant in a statistical analysis of the determinants of WTP. High values were also expressed by Swiss visitors.

The use of the CVM inevitably raises a huge number of contentious issues, many of which are discussed by Pruckner. This study only relates to some of the values provided by the maintenance of the landscape. Beyond the values appreciated by tourists, residents will also place a value on the landscape. A simple extrapolation from a study in Sweden suggests that this could be several times the value arising from tourists. The present study gave little attention to the role of the landscape in protecting the

avalanches and landslides, to non-use values (existence and bequest values) or to possible interrelationships between the maintenance of the landscape and the maintenance of other aspects of rural areas, such as infrastructure or cultures. It may be that as residents of the country, Austrians were more aware of these other aspects and considered them in making their bids. Indeed, as residents they would benefit from them over the whole year.

In this particular CVM, the relatively high non-response rate does give some cause for concern as to the reliability of the figures. It is estimated that 43 per cent of respondents declined to answer the WTP question, either refusing to answer at all or else giving a zero answer to it but then indicating that this answer reflected a rejection of this sort of question in general. The treatment of this group remains an unresolved issue in CVM. Several interpretations may be placed on these non-responses: that they regard the issue as unimportant, implying a low valuation, or else that the landscape is too important to be measured in these terms, implying a very high valuation. It might also reflect a perception that the respondent should not have to pay, perhaps because farmers should have a duty to maintain the landscape. Alternatively, it could arise from some other interpretation of the question, perhaps a feeling that agricultural policy already protects the landscape such that any further payment into the proposed fund would be unnecessary. Thus the non-responses may reflect ethical or more pragmatic issues arising from the way in which the question was posed.

Given the importance of tourism to the alpine areas, there may be scope for using the travel cost method in some instances. This has the advantage of being based on actual behaviour, but also brings with it another set of problems. Either approach is certainly subject to serious limitations and probably should not be expected to have the capacity to produce more than some guidance as to the significance attached to the provision of landscape.

6.4 Drawing conclusions

There are clear limits in the extent to which we can expect to be able to undertake a formal economic evaluation of most real complex policy issues. And any evaluation approach involves numerous value judgements and assumptions. The complexities of the natural and human systems mean that the precise effects of particular policy combinations remain uncertain. Interactions between components of policies raise the question as to which particular pieces of the policy complex are critical for the maintenance of the system as a whole? The are particular problems facing the application of economic valuation techniques. Nevertheless, an evaluation framework can make the questions to be asked explicit and point towards aspects where significant information is lacking.

7. Towards a more effective policy

No attempt will be made to develop specific policy proposals for the development of mountain policy. However a number of general observations may be made about the way in which the mountain area could be developed.

7.1 Defining precise requirements

The concept of the cultural landscape is a complex one. The inter-relatedness of the factors associated with the character of the mountain area is significant and has important consequences for the options available for policy. But it leaves uncertain the specific objectives of policy and the extent of the

room available for manoeuvre. The report does not seek to be precise as to which specific elements of land use, economic activity or institutional arrangements it is that are regarded as being critical. Rather the cultural landscape seems to be treated as a single whole, either supported or not supported. In consequence, the report fails to investigate any possible differences in significance attached to separate components of the cultural landscape. It thus also lacks clarity as to what variations are acceptable between different areas and what variations would be acceptable through time.

The dynamic character of the cultural landscape has been emphasised, and yet there is a sense in which the policy appears to be directed against change. As noted above, the language of calculating support requirements in terms of the degree of handicap experienced by the existing farm businesses at a particular location might be seen as implying that the objective is simply to hold whatever exists now in its current form; that any change is to be avoided. On the other hand, some aspects of the mountain policies seem to demonstrate a relatively high degree of flexibility notably with respect to the range of non-agricultural activities that can be developed, particularly where they are supportive of part-time farming. But there appears to be much less flexibility with regard to the range of acceptable changes in land use through time, despite the history of changing land use in the area.

It might be possible to unpack the concept of a cultural landscape as a first stage towards defining more precise goals for mountain policy. A more precise definition of the critical elements of natural and human capital would assist the evaluation of policy and might help to focus attention on the critical elements of policy. A policy targeted more specifically on outputs could leave more flexibility to decision-makers in determining how to provide the precise outputs required from the policies.

7.2 Responding to local variations

There are clearly significant variations between the circumstances and goals of different local areas. The report indicates substantial differences in economic and population performance between mountain areas. Similarly, the CVM study by Pruckner (1995) found significant variations in the values placed on the agricultural landscape in different provinces. The extent to which local policies have been developed in response to this is not clear. Presumably some differentiation has operated through designation of areas and different levels of off-farm incomes in determining 'fictitious incomes'. But if policies are targeted to produce different patterns of landscape in different areas, one might, for instance, anticipate higher payments in areas of higher landscape value. Thus payments would be based on the value of the landscape rather than on the degree of handicap. It is not clear whether the agri-environment programme policies have been applied in this way, but payments for organic farming and based of the degree of slope would appear not to be.

There is clearly not a single cultural landscape across all areas, but rather different versions of it in different circumstances. One would anticipate that different types of solution would be found in different areas as the profitabilities of activities and thus the costs of maintaining the status quo change through time and space. A more flexible approach might begin to explore the relative importance of alternative versions of a cultural landscape. In practice, policy changes will tend to lead to marginal changes in the circumstances of the areas; moves from dairy to beef or to sheep production, increase in afforestation, changes in population, consolidation of farm holdings. How are such marginal changes viewed by the population as a whole? Where are the limits of acceptability?

7.3 Developing local institutions

What scope is there for the political process to represent any differences in the balance of outputs demanded for different local areas in the face of differences in benefits and costs? There may be scope for a greater adoption of the beneficiary pays principle. In some of the most popular Alpine regions, such as Lech or St. Anton, mechanisms have been developed by means of which funds collected from those benefiting from tourist enterprises are used to make payments to land managers for the conservation of the landscape. The point was made in discussions with people from other areas that there were not sufficient funds available to adopt this approach in other regions.

Nevertheless, the mechanism does in principle have some attractions. If a significant part of the value attached to the landscape is associated with its appreciation by visitors to the area and by residents who depend to a large extent on tourism as a source of income, then the logic of subsidiarity would suggest that the decision as to how much landscape to buy should substantially be taken at the local level. The development of locally-based mechanisms to 'buy' landscape represents one possible approach towards this. Clearly, this depends on the local availability of funds. In many areas, the public good value of the landscape is not translated into local cash flows and thus is not available to be captured by a local community. However, the option would remain for the central or provincial government to allocate block funds to the local community and for that community to determine how the funds should be allocated amongst landholders in order to provide for the local landscape.

Communities could then choose the most appropriate mechanisms by which to pursue their objectives: making standard payments to landholders based on area managed or numbers of stock, entering into contractual arrangements with landholders for specific environmental goods or purchasing and managing land directly. Owners might either be government or collective, non-profit organisations. This would maintain the flexibility for local areas to respond to changing priorities independently from decisions and choices being made in other areas.

There might also be scope for the introduction of some elements of competition as a means of holding down the costs of landscape provision. Competitive tendering might be adopted in determining which landholders should receive contracts for landscape provision. The price offered on environmental management contracts could be raised up to the level sufficient to bring the desired area of land into an environmental management scheme. This would reduce the need for government agencies to determine externally the costs facing individual farmers of maintaining landscapes under particular sets of circumstances. It would be necessary to make higher payments in order to achieve landscape objectives in less productive agricultural areas. But the character of the mechanism would make the reasons for these higher payments explicit; not based simply on compensation for handicap but rather payments for the higher costs of protecting the landscape.

8. Conclusions

Changing priorities for the use of rural areas implies a need to review and refine policy mechanisms and not simply to redefine the purposes of existing policies. This indicates a need to review the critical elements of the natural and socio-economic landscape. A simple conception of external costs and environment, such as that adopted in conventional analysis in environmental economics misses the essential features of the cultural landscape and the interrelationships between economic activities and human institutions. It can lead to excessively simplistic implications for environmental and agricultural policy.

Concepts developed with regard to sustainability do appear to have application to a broader range of human capitals than have commonly been recognised and this would in principle seem to be a critical element of a cultural landscape. However this conceptual approach has not been well developed and there is a need to think more critically as to the essential human elements that are fundamental to the capacity to maintain a cultural landscape in a context of economic and social change, i.e., to the source of the resilience of the cultural landscape. This leads to a more detailed consideration of the variations and limits that could be acceptable within particular local contexts.

It is not possible to undertake a comprehensive quantitative evaluation of complex policy issues. However, the framework for this type of analysis does point to areas where there are significant gaps in the available information. Perhaps most obviously, we would benefit from a clearer assessment of the precise effects of support and other payments on the pattern of land use, economic activity and incomes.

There seems to be some scope for the more precise definition of the objectives of policy and for the development of new institutions that can deliver locally demanded patterns of landscape and economic activity in more transparent ways. These are issues being faced across the OECD countries and the experience in Austria can make a significant contribution to their resolution.

REFERENCES

ABLER, D.G. and SHORTLE, J.S. (1992), "Potential for environmental and agricultural policy linkages and reforms in the EC", in *American Journal of Agricultural Economics* 74 (3), pp. 775-781.

ANDERSON, K. (1992), *Agricultural Policies, Land Use and the Environment*, 14th Denman Lecture, Department of Land Economy, University of Cambridge.

BERGSTROM, J.C., DILLMAN, B.L. and STOLL, J.R. (1985)," Public environmental benefits of private land: the case of prime agricultural land", in *Southern Journal of Agricultural Economics* 17, pp. 139-149.

BUDIANSKY, S. (1995), *Nature's Keepers: The New Science of Nature Management*, Weidenfeld and Nicholson, London.

CURRY, N. and STUCKI, E. (1997), "Swiss agricultural policy and the environment: An example to follow?", in *Journal of Environmental Planning and Management* 40 (4), pp. 465-482.

DRAKE, L. (1992), "The non-market value of the Swedish agricultural landscape", in *European Review of Agricultural Economics* 19, pp. 351-364.

HODGE, I.D. (1994), "Rural amenity: property rights and policy mechanisms", Chapter 2 in OECD, *The Contribution of Amenities to Rural Development*, OECD, Paris.

HOVORKA, Gerhard (1997), *The Cultural Landscape in the Mountain Area of Austria: Policies for the environment and rural development*, Federal Institute for Less-Favoured and Mountainous Areas, Vienna.

OECD (1994), *The Contribution of Amenities to Rural Development*, OECD, Paris.

OECD (1996), *Amenities for Rural Development: Policy Examples*, OECD, Paris.

PRUCKNER, G.J. (1995), "Agricultural landscape cultivation in Austria: An application of the CVM", in *European Review of Agricultural Economics* 22, pp. 173-190.

RUSSELL, N. (1993), "Efficiency of rural conservation and supply control policies", in *European Review of Agricultural Economics* 20 (3), pp. 315-326.

TURNER, R.K. (1993), "Sustainability: principles and practice", Chapter 1, pp. 3-36 in TURNER, R.K. (ed.) *Sustainable Environmental Economics and Management*, Belhaven Press, London.

WILLIS, K.G. and GARROD, G. (1993), "Valuing landscape: a contingent valuation approach", in *Journal of Environmental Management* 37, pp. 1-22.

ZILBERMAN, D., KHANNA, M. and LIPPER, L. (1997), "Economics of new technologies for sustainable agriculture", in *The Australian Journal of Agricultural and Resource Economics* 41 (1), pp. 63-80.

III. AMENITY BASED RURAL DEVELOPMENT[25]

-- Austrian Mountain Policy -- Review and Outlook --

1. Cultural Landscapes, a development asset

1.1 Rural amenities -- clarifying the concept

Rural amenities cover a wide range of resources, goods and services provided or produced by rural areas. They often show characteristics of ***public interest goods***, or positive externalities. Market mechanisms, therefore, do not spontaneously ensure a provision of rural amenities at socially desired levels. This can be due to several reasons: It may be that:

- ***property rights*** are not, or can not be, specified and enforced appropriately (e.g., because exclusion can not be ensured);
- ***non-use values*** such as option or existence values are of major importance;
- amenities are a by-product of ***joint production*** processes that are steered by price signals that do not reflect rural amenity supply or demand.

Consequently, there is scope for ***rural amenity policies*** that:

- develop a consensus on what are desired levels of rural amenity provision, or what are desired directions for change;
- remove barriers which, at least partly, limit the capacity of market forces to ensure an optimal allocation and use of resources;
- establish conditions which enable markets to work more effectively, e.g., by better information and increasing transparency;
- simulate market solutions, and provide incentives which stimulate positive effects of rural amenity provision;

For designing amenity policies it is important to distinguish different ***types of rural amenities:***

- those given by nature;
- those threatened by human interference;
- those which require some limited management efforts;
- those which need to be constantly (re-)produced.

25. This expert report has been prepared by Mr. Heino von Meyer, Pro Rural Europe, Hamburg, Germany.

Often amenities are not produced independently. Instead they are a result of complex interactions between various natural and cultural, economic and social structures, structural changes and activities. This makes the task of rural amenity analysis and policy design extremely complex.

1.2 Cultural landscapes are rural amenities

The notion of "Cultural Landscape", while long established in some OECD countries, is a rather new concept in others. It emphasises the fact that most landscapes in OECD Member countries are in fact not "untouched natural landscapes" but to various degrees ***landscapes shaped by human intervention***. Cultural landscapes are testimonies of history, of a great variety of cultures, they are hosts of a rich bio-diversity. Not only in Europe, the greater proportion of animal and plant species can not be protected in pure nature reserves or national parks. They depend on cultural landscapes that represent and require certain features and management characteristics.

The Austrian case study report (Hovorka, 1997, p. 1) defines a ***"Cultural Landscape"*** as:

> *"...a perceived unity of the spatially effective fabric of natural conditions and human influences. Cultural landscapes develop and change over time as a result of the interplay of socio-economic, cultural and natural factors. ... (It) ... can thus in no way be conceived as a static entity, but rather as an expression of ecological, cultural and socio-economic development and change in living and working space. (The) cultural landscape is constantly changing, and can thus only be understood as a process."*

If this is true, it becomes crucial to develop criteria for assessing the qualities of cultural landscapes. Cultural landscapes show ***typical characteristics*** of rural amenities:

- they are appreciated by a great number of people, even those who do not, and may never visit the area (non-use, option and existence value);
- they cover extensive areas where limiting access is usually neither possible nor desirable, at least not in areas with comparatively high population densities;
- they are, to a certain extent, by-products of other commercial activities, such as farming, forestry or tourism development;
- their provision follows a logic that is driven by other considerations than rural amenity preservation and provision;
- they are the result of various un-co-ordinated activities of groups of actors who, most of the time, do not consciously interact for the provision of the amenities.

Neither is the supply of cultural landscape amenities systematically planned and adequately rewarded, nor is the demand clearly specified. On the contrary, there tend to be many overlappings and often ***conflicting demands*** on the same area. Even worse, due to changing preferences priorities may have to be adjusted rapidly.

Cultural landscapes are, however, not only public interest goods and services that directly affect the social well-being of individuals. They also ***represent important rural development assets***, infrastructures that determine the competitive advantage of an area. Cultural landscapes are part of a

regions' capital stock. For the development of an area, their quality is as important as the local road network, communication or education facilities.

For cultural landscape analysis it is particularly important to understand the dynamics of land use changes, and to monitor the relevant driving forces. Due to complex interactions there is a high degree of ***uncertainty*** concerning these dynamics. Since landscape changes, in particular in sensitive habitats such as mountain areas, are often ***irreversible***, any change and interference demand careful consideration. Otherwise, the destruction of cultural landscapes may limit development options that could become of crucial importance for the future of an area.

Characteristic features of cultural landscapes are often reflected ***in cultural traditions and practices.*** They can become preconditions for future development opportunities since they allow the identification of specificity and help in marketing not just the area, e.g., as a touristic place, but also other products that stem from it.

1.3 Mountain areas -- problems and perspectives

Austria's mountain areas represent ***typical examples*** for highly valued cultural landscapes. They represent:

- a living space for a great number of the Austrian population;
- a recreation destination for millions of visitors, many coming from abroad;
- a highly sensitive (alpine) eco-system, providing a rich reservoir of natural resources and bio-diversity;
- a treasury of important elements of the European cultural heritage.

Rural amenities in the mountain areas of Austria are ***threatened***, however, because

- traditional land uses are often no longer economically viable, at least not under the present settings;
- some remote areas are threatened by depopulation which in the longer run may challenge the capacity to provide decent infrastructures at reasonable prices;
- other areas are under strong pressures from rapidly increasing populations and touristic developments that undermine their carrying capacities;
- traffic intensities and consequent road constructions seriously harm amenities, in particular in the North-South transit valleys.

Despite these threats, which are often concentrated in specific areas, the amenities of the Austrian mountain areas still represent ***a great potential*** for their future development. These areas are attractive places to live, work and recreate, they deserve proper management and careful development

Populations in the Austrian mountains have a strong sense of both, ***independence and interdependence***. Their life and work are characterised by a strong demand for integration and co-operation. The majority of farmers do not depend on farming activities alone. Most farm families are pluri-active, with other gainful activities both on-farm, as well as off-farm. Farming and forestry are closely combined. Handcrafting has always been a complement to farming activities. Rural tourism has a long tradition and reaches high quality standards.

Within the ***local communities*** social ties and controls are still very strong. They ensure mutual support and co-operation. They may, however, also prevent necessary innovations. The membership in numerous village associations is impressive. Many cultural events keep traditions alive.

The Austrian ***federal political system*** puts strong emphasis on subsidiarity and local democracy. The *Länder* exert considerable powers, not least in shaping rural and regional policies. The fact, that nevertheless mountain policy is considered a national task and that the bulk of the financial transfers to mountain areas is in fact organised through a national programme reconfirms the importance of mountain policies in Austria.

There can be no doubt that ***caring for the mountain areas*** is not only legitimate, but indispensable for the well-being of people, the performance of the Austrian economy, the preservation of Europe's natural and cultural heritage. What might be argued is, how these aims can best be achieved and how negative externalities could be avoided or minimised, in case the maintenance and management of rural amenities generates repercussions for other countries ability to meet their own priorities.

In ***a globalising world (economy),*** uniqueness, specificity and distinctiveness are becoming important development assets. While many economic production functions and factors such as technology, information, finance and labour can either be quickly moved or found all around the globe, other development assets such as unique rural amenities, natural habitats, landscapes and local cultures are immobile and can only be experienced on the spot. Thus, in a globalising economy which speeds up factor mobility and international exchange of goods and services, these immobile factors begin to gain importance again, at least in relative terms. The challenge is to identify these critical development potentials, to maintain and enhance them, to make them known, and to find ways of managing and marketing them properly without undermining their carrying capacity.

2. Mountain Policy Approaches -- A review

In Austria, the responsibility for mountain policy is not allocated to a single institution. On the contrary, it is spread over a multitude of federal, provincial and local authority levels. Various state institutions work sometimes in parallel and sometimes even in political competition. In many ways, however, the process is characterised by informal co-operation. A typical example for this kind of Austrian policy co-ordination arrangement is the ***Austrian Conference on Spatial Planning (ÖROK)***. Although not regulated by law, this Conference serves as a platform for co-operation joining the Federal Chancellery and all other federal ministries, the *Länder* governors and representatives from the local authorities as well as of the social partners, like trade unions, employers or farmers organisations who participate in an advisory capacity (ÖROK, 1996, p. 19).

For a long time, Austrian mountain policy was characterised ***by two distinct approaches:*** One of sectoral origin, the other with a more explicit territorial approach. Both have developed specific sets of measures and instruments. They were, however, not well integrated. While the mountain farmers policy was directed by the Agricultural Ministry, regional rural policy was conducted by the Federal Chancellery.

Although ***agricultural policy*** in Austria had always been concerned with the specific problems of farming in mountain areas, it was only in 1972 that a special programme for mountain farming was set-up. During the Sixties it had become more and more apparent that mountain farms were systematically lagging behind the economic performance and development dynamics of farms in other parts of the country. This and related depopulation tendencies risked to undermine key functions of the mountain areas.

The ***Mountain Farmers Special Programme (MFSP)*** aimed at (e.g., Knöbl, 1987, p. 130 ff.)

- maintaining the multifaceted functionality of the mountain areas, and
- ensuring for the future an economically healthy Alpine area, in particular by
- stabilising the dispersed settlement of population.

The programme was geared at the following ***priorities***:

- Improvement of the income situation of mountain farms through direct payments compensating for natural handicaps;
- improvement of infrastructures, in particular through further improvement of the road, telephone and electricity networks;
- investment aid for the modernisation and rationalisation of farm buildings;
- improvement of forests structures, in particular with respect to their protective functions (against avalanches, etc.).

The direct payment scheme has meanwhile become by far the most important component of the mountain farmers policy in Austria.

In parallel to the sectoral / agricultural approach, Austria developed a ***regional / rural policy*** which now serves as a model for many other countries. While in the Sixties and Seventies the emphasis of regional rural policy was still on the provision of infrastructures such as hospitals, schools, road or telephone connections, during the Eighties Austrian regional policy shifted towards a new paradigm. It was designed no longer as a top-down policy "for" but "with" the people. First aid for self-help is the idea.

This ***bottom-up approach*** puts particular emphasis on consultancy and advisory work. It led to the creation of an advisory body, the ÖAR, which concentrates in particular on the animation and facilitation of local development processes. The new concept lays strong emphasis on the "cultural" dimensions of development and it aims at strengthening local identity which is considered as an important asset for rural development. It is seen as a source for entrepreneurship and local innovation.

While initially the emphasis was exclusively on stimulating endogenous development potentials it became increasingly clear that regional development also had to analyse and rely on external relations. Thus, the orientation shifted more towards innovation and strengthening regional competitiveness.

3. Direct Payments for Mountain Farming

The Austrian report presents the ***direct payments*** provided by the Mountain Farmers Special Programme (MFSP), as the "central element" of the Austrian mountain area policy. Since Austrias EU accession in 1995 this policy had to be adjusted to the EU scheme for Less Favoured Areas (LFA). Although this resulted in a budget increase of about 1 billion ATS, studies have shown, that the changes benefited primarily larger, better off farms with rather low handicaps while small mountain farms with highest handicaps would have lost significantly. The Austrian Government thus achieved to obtain a maintenance clause which, at least for a period of ten years, allows to compensate for losses compared with the former system. (Hovorka, 1996; Krammer, 1996)

Against this background, it appears appropriate to assess the direct payment scheme in some greater detail. In such a review of the contribution mountain farmers allowances can make to the maintenance and enhancement of cultural landscape amenities it should be discussed:

- how the objectives of the scheme are specified;
- how payments are targeted territorially;
- who receives, how much, based on which criteria?

3.1 Objectives

According to the Austrian report (Hovorka, 1997, p. 20f.): "The objective of the policy for the mountain regions is to preserve the viability of these areas. The required grants are to be provided through special measures, so that the economic health of the alpine area is ensured in the future." There appears to be ***general agreement***, that "... alongside the production function, the conservation and shaping of the cultural landscape, the maintenance of settlement density and the guaranteeing of agricultural areas as a production reserve in case of crisis, has to be a matter of concern for the whole of society."

Opinion polls confirm, that policy measures in favour of mountain areas are backed by the Austrian population. A recent study on models for valuation and remuneration of public goods (Baaske, Villani, 1996) found that the Austrian population appreciates positive externatilies of farming, that go beyond secured food provision. Over two thirds of the 2 000 persons interviewed saw agriculture as contributing to the maintenance of landscapes for recreation and tourism, as well as to the preservation of a valuable, genuine lifestyle. Asked, if they were willing to pay farmers in their neighbourhood, only 18 per cent denied, while another 17 per cent was prepared to pay over ATS 5 000. The total willingness-to-pay of the Austrian population was calculated at about ATS 18 billion, which came close to the actual federal budget for agriculture in 1994. These results confirmed the findings of other studies that showed, that the non-food public goods and services of Austrian agriculture were at least worth 50 per cent of its food product. (Pevetz, 1990; Pruckner, 1991).

In the stated objectives of the ***Mountain Farmers Special Programme (MFSP)*** cultural landscape management and rural amenity provision are not explicitly put forward or specified in greater detail. The direct payment scheme rather argues about the need to close the income gap between mountain farms and other farms by compensating farmers for the disadvantages in natural production conditions. This income support is, however, seen as an important means to ensure a certain settlement density which also stabilises the viability of infrastructures and public services in mountain areas. In this context it is also often mentioned that the maintenance of low-input mountain farming is essential for shaping the cultural landscape on which the Austrian tourism industry is heavily dependent. Tourism is considered to contribute about 15 per cent to the national Gross Domestic Product (GDP). In many mountain areas this share is even much higher.

Although farm income and rural amenity objectives must not be incompatible, it would appear more appropriate to address the positive contributions of mountain farming to the provision of rural amenities in a more direct manner. It should be made more explicit, what are the rural amenity objectives the MFSP scheme wants to achieve. In this context? language becomes crucially important. For example, what might be a "natural handicap" for producing food could be a unique advantage for providing rural amenity goods and services.

If the objectives of the scheme were adjusted and more explicitly focused on rural amenities, the ***justification for direct payments*** would also have to be different. The emphasis would shift from a social

equity concern to a motivation for providing services that are highly appreciated by the public. Payments could no longer be considered as compensation but rather as a remuneration for the delivery of scarce goods.

Obviously a change in primary objectives would also imply a need to become more precise in defining the rural amenities desired and delivered. Instead of measuring food production handicaps one would have to find ways for ***valuing amenities***. Appropriate indicators would have to be identified that could serve as measures of success.

Since Austria's EU accession the direct payment scheme is now partly integrated into the ***EU programme for "Less Favoured Areas"*** (LFA). Thus, Austria alone is not free to change the terms of reference. Changes would have to be discussed in a wider context. The recent EU proposals presented in July 1997 as "Agenda 2000" offer some opportunity for shifting the emphasis away from a pure compensation logic, more towards incentive payments for the up-keep of high nature value farming systems and landscape management in clearly designated areas.

A first step towards establishing closer links between rural amenity objectives and direct payments could be to further refine the ***set of basic requirements*** that must be met by farms receiving support. In this perspective it appears problematic, that the former requirement of a year-round residence on the mountain farm, had to be given up under the new EU regime (Krammer, 1996, p. 10).

The MFSP is not the only scheme offering direct payments to mountain farmers in Austria. Most farmers do in fact also participate in the ***ÖPUL***, the Austrian agri-environment programme implemented in the context of the EU-Regulation 2078/92. It would appear crucial to clearly define their respective tasks and inter-relationships, since both direct payment schemes contribute to the provision of rural amenities.

3.2 Targeting

The issue of setting clear objectives for the direct payment schemes, is closely related to the question of how to best target support. As long as the primary objective is income support and compensation of handicaps, it might be appropriate to target support to individual farms. If the emphasis is on rural amenities, however, it would seem more adequate to ***target specific rural landscapes***.

The Austrian MFSP is targeting farms facing ***different degrees of production difficulty***. Based on a sophisticated information system which provides detailed farm level information, farms are grouped into different categories of handicap. In turn, the EU Less Favoured Area scheme (LFA) is set-up on the basis of a rather simple area designation. Both schemes do not fully coincide. Some farms which under the Austrian scheme were considered handicapped mountain farms are now excluded from the EU LFA scheme. On the other hand the new LFA scheme provides support for farms that had not been considered handicapped under the previous Austrian scheme.

At first sight, if rural amenities are the main concern, it appears more adequate to take a ***territorial approach***, which refers to the cultural landscape features that shall be preserved or enhanced. However, since in mountainous areas, even on a rather small scale, topographic and other conditions can be extremely different, it might be reasonable to combine basic area information with more specific criteria generated at the farm level.

The field trip to the ***Lesachtal in Carintia*** provided an interesting example for designating a local zonal programme for direct agri-environmental payments. Here, in close co-operation between natural scientists and the local farming population, the designation was undertaken for an entire valley. The designation was subject to intensive discussions on the spot. This contributed to a better understanding of the objectives and priorities of the scheme and helped to achieve a proper targeting.

3.3 Modulation

The former Austrian MFSP was characterised by a series of conditions that led to a strong modulation of the support. The scheme distinguished ***four "zones" of difficulty***. A basic premium per farm, was paid as a function of the standardised income capacity of the farm. In determining the income capacity also non-agricultural income components of the farm family were taken into account. In addition an acreage payment was granted up to a maximum of ten hectares. Both direct payment components varied according to zones of difficulty.

To justify such a strong modulation of support it would be necessary to provide evidence that ***small farms*** are particularly important for supplying the desired cultural landscape features. In fact there are reasons to assume that this might be true. One could probably make a case that in mountain areas the opportunities for enlarging farm size are limited and that therefore amenities can only be provided within the given structural setting. It would, however, still be difficult to argue that small farms are automatically better placed to provide amenities. Thus, the best strategy would be to pay farmers directly for amenity services and if it is true that small farms are better able to deliver, the scheme would result in an improved distribution of incomes. In any case, it should be clear, that the justification for a higher basic payment is not the fact that the farm is small and has low income, but that under the specific conditions of the mountain areas only these small farms are able to provide the desired amenities.

For the provision of rural amenities it is not only farm size and income capacity that matter, but also the ***type of farming***. The present scheme does not provide a proper differentiation with regard to the kind of production. This might be problematic, since the mountain landscapes in Austria have undergone significant changes in land use in the recent past. Only a few decades ago, even in high mountain valleys, a great part of the land was used for cereal and potato production in subsistence farming. Shelters for drying cereals and old mills still mark the landscapes that are today almost totally covered by grassland. These buildings have lost their economic function but they still attract tourists who enjoy the scenery. There is a risk that artificial landscapes will not be attractive anymore in the longer run.

Many, in particular small farms, are today managed on a ***part-time*** basis. If direct payments are remunerations for the delivery of rural amenities, there is no convincing reason why they should receive less reward than full-time farms. Whereas for investment aid, the Austrian scheme has abolished the discrimination against part-time farms, it appears that with regard to direct payments the distinction still applies.

3.4 Budgets and results

Since 1972 direct payments under the Austrian MFSP increased significantly from less than ATS 200 to over ATS 1 200 million ATS (1 ECU = ATS 13) twenty years later. The number of farms that receive ***allowances increased*** from 16 000 in 1972 to over 85 000 in 1992. The fact that the allowances have increased dramatically while the problems of mountain areas persist, raises questions

about the possibilities to sustain such schemes in the longer run. The need to improve the effectiveness and efficiency of the direct payments is apparent.

In this context it is important to recall that ***the new LFA scheme***, introduced after EU accession, is more expensive and less differentiated than the previous Austrian schemes at Federal and *Länder* level. Since 1995 direct payments for less favoured and mountain areas are in the order of more than ATS 2 900 million. Despite an increase of the total budget of approximately ATS 1 billion, the new EU scheme does not provide sufficient support to those in greatest need: Small farms in the zones of greatest difficulty. On the other hand, the EU LFA scheme provides allowances now even for farms which previously had not been supported.

In 1995 over 50 per cent of the farms in zone 3 and over 80 per cent of the farms in zone 4 (highest difficulty) received ***national compensation payments*** in order to avoid a major reduction in premia compared to the previous Austrian scheme. This was possible only thanks to the maintenance clause, allowing Austria for a transitional period of ten years (until 2004) to compensate those farms that would otherwise have lost in comparison to the MFSP.

Table 14 provides some ***basic data for an assessment*** of the importance of the direct payments to mountain farms in Austria. It shows, that incomes of mountain farm families are 15 to 20 per cent lower than those of normal farms. The farm income, however, makes up for only 60 to 65 per cent of the total income. Apart from general social transfers like pensions etc. mountain farm families like other Austrian farmers rely heavily on off-farm activities. Thus, their well-being depends very much on the economic vitality of the (rural) economy in general.

Table 14. **Income of mountain farm families in Austria -- 1995**

	Mountain farms			Normal farms			Total farms		
Income	ATS 1 000	%	%	ATS 1 000	%	%	ATS 1 000	%	%
Total income	438	100		515	100		479	100	
Farm income	271	62	100	336	65	100	306	64	100
Agricultural policy									
total payments	179	41	66	234	45	70	208	43	68
Mountain farming	38	9	14	8	2	2	22	5	7
Agri-environment	64	15	24	62	12	18	63	13	21
Farm structure									
Land (ha per farm)									
Forest		18			4			11	
Agricultural		17			21			19	
Arable		5			17			17	
Livestock									
Total (LU)		19			15			17	
Dairy cows		9			5			6	

Source: Own calculations based on BMLF 1996, Tab. 85, P. 231, Tab. 96, P. 240.

Today, ***direct payments*** from the European, national and *Länder* budgets represent more than two thirds of the total farm income in Austria. The share is slightly higher for normal farms than for mountain farms. The direct payments for mountain farms represent only 14 per cent of their farm income and even less than 10 per cent of their total farm family income. It is interesting to note that direct payments under agri-environmental programmes are even more important today than the mountain farm payments. However, the later are in fact those which contribute most to correcting the balance in favour of mountain farms.

In the light of rapidly increasing expenditures for mountain farming on the one hand, and clear differences in the effectiveness of direct payments between the present EU LFA scheme and the previous Austrian MFSP it appears reasonable to review the ***options for a future design of mountain policies.*** For Austria this appears particularly urgent since the maintenance clause will expire in 2004. It has presented its ideas to the EU in a "Memorandum on mountain and hill farming" (4 July 1996). The EU document "Agenda 2000" and subsequent proposals for detailed regulations will provide further opportunities for reconsidering the present mechanisms of the LFA policy. Given the great diversity in (mountain) farm structures in Europe it will not be an easy task to identify the most appropriate design. Providing more latitude for national/regional implementation might be one option for achieving an optimal solution. In this context it should be recognised that ***farm structures*** in Austria, and in its mountain areas in particular, are characterised by comparatively small farm sizes. The average farm size, in terms of agricultural land is about 20 hectare. In mountain areas the average of arable land per farm is 5 hectare only. In turn, on average, mountain farms manage also 18 hectare of forest.

4. Better integration

The preservation and promotion of rural amenities are a complex task. It can not exclusively rely on one single instrument such as mountain farm allowances. What is required is an **integrated, multi-sectoral approach** applying a balanced mix of different policy measures. This view is expressed also in the Austrian memorandum on mountain and hill farming: Here it is stated:

> *"The task of combating the threat of sustainable farming and forestry in the mountains and keeping a minimum population on the land has long ceased to be a purely agricultural problem. To achieve the desired partnership between agriculture, forestry, the economy, society and the environment, a multi-sectoral approach is required."*

Consequently, although the focus of the Austrian amenity case study was on the direct payment scheme, a few more options shall be high-lighted here:

- agri-environmental measures;
- trademarks and marketing;
- rural tourism concepts;
- local initiatives and partnerships.

4.1 Agri-environmental measures

The mountain farmers allowances under the MFSP are not the only direct payments available to Austrian mountain farmers. Table 14 showed that the direct payments provided under the Austrian agri-environmental programme (ÖPUL) are even more important than the mountain farming allowances. ÖPUL is the Austrian scheme applied under ***EU-Regulation 2078/92***. Of all EU countries Austria is

putting the greatest emphasis on this programme. Austria has by far the highest coverage with agri-environmental management agreements in Europe. Over 70 per cent of all farms in Austria participate at least partly in the ÖPUL scheme. In 1995 Austria has spend over ATS 7 400 million on ÖPUL. This corresponded to approximately ATS 60 000 per farm (over ECU 4 000).

ÖPUL provides direct payments as incentives for ***voluntary adjustments*** in production practices that lead to a reduction in the use of environmentally harmful inputs such as fertilisers or pesticides. It encourages the maintenance of traditional extensive farming systems which would otherwise be abandoned, and it supports the conversion from conventional to ecological farming. ÖPUL addresses the environmental and landscape management services provided by agriculture in a more direct manner. While the mountain farm allowances are paid in a logic of income compensation, the focus of ÖPUL is more on environmentally beneficial practices and results.

Compared to the ***previous agri-environmental programmes*** which had already been set-up in some Austrian Länder (e.g., in Carintia) before 1995 ÖPUL appears more bureaucratic and less flexible. It seems less well adapted to the local conditions. It should thus be considered if under ÖPUL (or more generally under the EU-Regulation 2078/92) the regional/local programming could be strengthened, and how direct payments for mountain farming and environmental schemes could become more integrated into a broader strategy for sustainable rural development.

An important element of ÖPUL is the support for ***conversion to organic farming***. In Austria the number of ***registered organic farms*** increased dramatically over the last years: From 200 in 1980, to 2 000 in 1990, to 20 000 in 1996. In some parts of the country, in particular in the Alpine mountain areas, organic farms represent already over 15 per cent, sometimes even up to a third of all farms (Eder, 1996). For many mountain farms this did not require major adjustments, since anyhow they already complied with most of the organic farming standards. Prices for organic products are significantly higher than those for conventional produce. Organic farming can thus be considered as a means to capture through the market at least some of the rural amenity values provided by traditional mountain farming. Changing production methods, however, is often not the main challenge. Processing and marketing have often proved to be more difficult to launch.

4.2 Trademarks and marketing

As the example of organic farm products shows ***setting-up niche markets*** under clearly defined brands or trademarks can be another form of capturing some economic remuneration for the provision of rural amenities. In Austria many mountain areas have launched projects which try to market the amenity value of their area under trademarks for local speciality products. Sometimes these area specific trademarks seem to transport an even better product image than pure quality labels.

There is increasing evidence that consumers in Austria, and in Europe in general, are concerned to be sure about the ***origin of food products*** and that they prefer products of local or regional origin. They even seem to be prepared to accept higher prices in exchange.

Most marketing initiatives, however, face great difficulties because appropriate, ***small scale processing facilities*** often do not exist anymore. Supply of small quantities often can not be ensured at competitive prices. There is, however, a growing number of successful examples, where in co-operation among farmers and local processors new slaughter houses, cheese making facilities, or bakeries have been set-up, and run with great success. During the field trip an interesting example of small scale regional meat processing and marketing -- *Weizer Bergland Spezialitäten* -- has been visited. Apart from

contributing to the stabilisation of farm management in the surrounding mountain areas, this initiative also created and ensured employment in the rural area. In marketing its products the company explicitly refers to the importance of regional marketing for the maintenance and enhancement of the regions cultural landscape.

4.3 Rural tourism concepts

Rural tourism is obviously another important option for marketing rural amenities. In Austria, tourism is an important economic activity. In 1995, 75 per cent of all tourists staying overnight in Austria were foreigners. Austrian tourism is thus ***a major export industry*** and crucially important for the countries balance of payment. Since a few years, however, tourism is declining. New concepts must be found.

Tourists to Austria show great interest in the Austrian countryside. Consequently, rural areas, and mountain areas in particular, have a large share in the market. Also for many farmers in mountain areas, tourism has become an important ***additional source of income***. In some regions like Tyrol and Vorarlberg over 90 per cent of farm tourists are coming from abroad. (BMLF, 1996)

Tourism development may, however, also do harm to the quality of the cultural landscapes. In particular in attractive ski resorts, congestion and the construction of infrastructures, hotels and secondary houses has lead to problems of ***pollution and landscape degradation*** which undermine the rural amenity value.

To avoid such negative trends, some mountain areas have engaged in developing ***planning concepts*** for sustainable, environmentally sound tourism. The Lesachtal in Carintia has become a prominent example for the co-operative effort of the population of an entire valley to develop a tourism concept that respects the carrying capacity of the area. Here, it was agreed i.e., that the capacities for tourist accommodation should be limited to a ratio of 1:1, so that the number of tourist beds should not exceed the number of the local population.

4.4 Local initiative and regional management

Designing and implementing such projects like direct marketing, processing of local products, or the development of a tourism concept require intensive mobilisation of local populations. Setting-up the necessary ***co-operations and partnerships*** demands a lot of animation, discussion, conflict management, etc. Already in the past Austrian regional/rural policy has put particular emphasis on stimulating such processes at the local level. Regional animators and managers were supported for stimulating such bottom-up processes.

Under the new regional and rural policy schemes that have been set-up after the EU accession (for Objective 1, 2 and 5b areas), Austria has again put particular emphasis on the development of ***regional management units*** whose task is to moderate and co-ordinate the various development initiatives and policies at the regional level. Finding the right balance is not an easy task, since regional managers are often operating at the interface between the "top-down" and the "bottom-up". Time is needed to overcome traditional barriers between sectoral, local or political party interests. The task is to transfer information and knowledge from the outside into the region, and at the same time to communicate the strength and particular needs of the region to the outside. Regional management has to animate and

stimulate the internal regional debate and it has to assist the local and regional actors in setting-up new innovative projects.

The EU community initiative ***LEADER*** has great potential in this respect. During the field trip several groups were visited, which had been set-up only recently, but who had already launched significant development dynamics. Partnerships like those established under the LEADER process appear particularly well suited to achieve at the local level the integration of economic, social and environmental concerns that is essential for safeguarding and properly using the rich rural amenities the Austrian mountain areas have to offer.

In this work the importance of ***regional culture and traditions*** becomes evident. When people share a common understanding of what are the particular strengths and weaknesses of their area, when they share a common vision of its future, initiatives for rural development and amenity management are more likely to succeed.

5. Conclusions

Policies aiming at amenity management and rural development in the Austrian mountain areas should be based on ***an integrated, multi-sectoral, territorial approach*** which:

- encompasses natural and cultural aspects of landscape amenity in the Alpine mountain areas;
- recognises the particular importance of the multi-functionality of mountain farming;
- encourages the provision of public goods from agriculture through adequate remuneration;
- targets payments more effectively to those farms and practices that provide greatest value;
- aims at achieving greater synergies among different types of direct payment schemes;
- promotes income diversification as a means of stabilising small scale farming systems;
- ensures integration of agricultural support schemes and rural development initiatives;
- stimulates regional / local initiatives of all kind -- not just economic;
- searches for appropriate models for the provision of basic infrastructures and public services;
- strengthens local enterprises in processing and marketing;
- builds on mobilisation, democratic participation, and empowerment of local populations;
- supports partnerships among farmers, tourism, business, administrations and NGOs;
- establishes mechanisms of monitoring and evaluation as means for learning and self-regulation.

REFERENCES

BAASKE, W. and VILLANI, O. (1996), "Abgeltungen für Leistungen der Landwirtschaft aus Sicht der Konsumenten", in *Der Förderungsdienst*, 44. Jg., H 10, pp. 323-332.

BENNET, G. (ed.) (1996), "Cultural Landscapes -- The conservation challenge in a changing Europe", IEEP, London.

BMLF (1996), *Grüner Bericht* 1995, Wien.

BROGGI, M., KUßTATSCHER, K, SUTTER, R. (1997), *Ökologisch motivierte Direktzahlungen in der Berglandwirtschaft des Alpenbogens*, Blackwell Berlin, Wien.

DAX, T. (1996), "Der ländliche Raum auf dem Weg zu einer integrierten Entwicklungspolitik", in *Der Förderungsdienst*, 44. Jg., H 11, pp. 352-356.

EDER, M. (1996), "Auswirkungen der Umweltförderung auf die bewirtschaftungsformen im Berggebiet", in *Agrarwirtschaft und Agrarsoziologie*, 2/96, pp. 133-147.

HOVORKA, G. (1994), "Die Bergbauern in der Österreichischen Landwirtschaft -- Entwicklung, Einkommen, Direktförderung, Bundesanstalt für Bergbauernfragen", *Facts & Features No. 13*.

HOVORKA, G. (1996), "Das Direktzahlungssystem in Österreich nach dem EU-Beitritt, Bundesanstalt für Bergbauernfragen", *Forschungsbericht No. 37*, Wien.

KLASZ, W. (1996), "Die Multifunktionalität der Landwirtschaft als Motor regionaler Entwicklung", in *Der Förderungsdienst*, 44. Jg. H 10, pp. 301-305.

KNÖBL, I. (1987), "Güterwegebau in Österreich -- Rechtsgrundlagen, Geschichte, Förderung, Bundesanstalt für Bergbauernfragen", *Forschungsbericht No. 16*, Wien.

KNÖBL, I. (1993), "Österreichs Bergbauern -- Bedeutung und Förderung, Bundesanstalt für Bergbauernfragen", *Facts & Features No. 1*.

KRAMMER, J. (1996a), "Änderungen der Agrar- und Regionalpolitik Österreichs durch den EU- Beitritt und deren Auswirkungen", in *Agrarwirtschaft und Agrarsoziologie*, 2/96, pp. 87-111.

KRAMMER, J. (1996b), "Agrar- und regionalpolitische Auswirkungen des EU-Beitrittes", in *Förderungsdienst 44.Jg. Sonderausgabe Landtechnik im Alpenraum, 1c*, pp. 7-14.

MATOUCH, S. MATTANOVICH, E. (1994), *Kulturlandschaftsprogramm Leasachtal -- Zur Förderung der bergbäuerlichen Kulturlandschaft*, ARU, Wien.

V. MEYER, H. (1997), “Integrierte ländliche Entwicklungspolitik -- Dimensionen eines neuen Ansatzes”, in *Zeitschrift für Kulturtechnik und Landentwicklung*, Vol. 38.

OECD (1994), *The contribution of amenities to rural development*, Paris.

OECD (1995), *Niche markets as a rural development strategy*, Paris.

OECD (1997), *Environmental Benefits from Agriculture -- Issues and Policies*, Paris.

ÖROK (1996), *L'Autriche dans le cadre de la politique de développement du territoire européen*, Wien.

PEVETZ, W., HOFER and PIRRINGER (1990), *Quantifizierung von Umweltleistungen der österreichischen Landwirtschaft, Schriftenreihe der Bundesanstalt für Agrarwirtschaft*, Wien

PRUCKNER, A., HOREITHER, M. and SCHNEIDER, W. (1991), *Bewertung überbetrieblicher Leistungen und negativer externer Effekte der Landwirtschaft*., Linz

WAGNER, K. (1996), “Regional differenzierte Wirkungen des ÖPUL”, in *Der Förderungsdienst*, 44. Jg., H 7, pp. 207-214.