

Dax, Thomas; Hovorka, Gerhard; Loibl, Elisabeth

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Regional dynamics in mountain areas and the need for integrated policies

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39th Congress of the European Regional Science Association (ERSA)

Dublin, Ireland, 23-27 August 1999

theme: Sparsely populated regions

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Regional dynamics in mountain areas and the need for integrated policies

by *Thomas Dax, Gerhard Hovorka and Elisabeth Loibl*

Bundesanstalt für Bergbauernfragen

Möllwaldplatz 5

A-1040 Wien

AUSTRIA

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1. Introduction

Mountain regions cover about one-fifth of the world's surface and greatly influence regional and continental climate conditions, atmospheric circulation as well as water and energy cycles. Estimations reveal that about a tenth of humankind live in mountain areas and the lives of half of the world population is indirectly affected by them (Ives 1992). The relation between population and surface area indicates that mountain areas, in general, comprise sparsely populated areas. Given its extreme topography which entails small-scaled "regional" units and a high degree of local variability considerable parts of the mountain areas have been affected by isolation.

This appearance has been also true for mountain regions like the Alps which tend to be more integrated into the national economies (and European economy) and more densely populated. Particularly in the Alpine area the economic conditions have been related to the rise of external demands, characterised by factors such as tourism, demand for agricultural products, industry, landscape preservation, water resources etc. Within this area the natural resources have been realised since long time as a major potential for regional development and hence traditional tourism

resorts have developed. The accelerated sectoral shift of employment from agricultural to industrial and services activities has enlarged the (mountain) regions which are concentrating their development strategies on tourism.

In general, this lead to considerable success of employment development in parts of the European mountain regions, particularly in Austria. However, detailed territorial analysis reveals that demographic and employment development is quite different across regions. In addition the concentration of settlement development in the valleys sharpened the problems of high population densities in these parts of the regions. Phenomena of isolation and remoteness are thus restricted to parts of the mountain regions and communities and have to be assessed due to topographical barriers locally.

The paper will focus on the diversity of regional development in Austria's mountain areas. By using this national case it is suggested that similar analyses would be applicable to other mountain regions in Europe. The Austrian case also provides experience from a long-lasting commitment to mountain policies. The common concern for the mountain development shared by different sectors and recognised at different territorial levels favoured the conceptualisation of "integrated" programmes. Mainly starting from a specific focus of agricultural policies on mountain farmers in combination with the establishment of regional policies consensus about the need for integration of programmes has developed. Recently this attitude is increasingly shared as paradigm for regional development in Europe and mountain areas are conceived of as "laboratories" (Barruet 1995a).

The new attention attached to mountain issues is specifically related to the high ecological sensibility of mountain areas and its impact on global change (Price 1999). The inclusion of Chapter 13 "Managing Fragile Ecosystems: Sustainable Mountain Development" in the "Agenda 21" document, endorsed by the UN Conference on Environment and Development (UNCED 1992) in Rio de Janeiro, signifies the priority of the theme. What is more, the process initiated by that document and numerous other activities at different levels have pushed the discussion, preparation and implementation of integrated policies further.

The conflicts between environmental, developmental and societal changes often occur earlier in mountain regions than elsewhere. Mountain regions like the Alps are therefore called upon to find

ways to preserve their highly valued landscapes and resources. The resulting challenges underline the general thrust for integrated policies. By adding the dimension of extreme topography, often resulting in low population densities, the need for such policies even becomes more acute.

2. Mountain areas in Europe: Between core and periphery

Mountain areas represent approximately 20% of emerged surfaces in the world. In the EU they occupy 30% of the territory, with 20% of the UAA (Utilised agricultural area) and more than 25% of the farm units (EUROMONTANA 1998, p. 141). In some European States like Austria, Switzerland, Greece, Italy, Spain and Portugal they are even much more important and cover more than 50% of the territory. As consolidated data for this proportion does not exist, figure 1 presents the share of the UAA in the mountain areas of Europe. It shows that in large parts of Europe agriculture has to cope with such unfavourable conditions.

Historically, the mountain areas have been seen as remote and peripheral regions. They were strongly characterised by economies limited to small areas, defined by their specific topographical situations. Life in those communities also was marked by features of isolation and exchange to other regions and the flatlands was restricted. This view was not just relevant in the very sparsely populated mountain areas at the periphery but was also attributed to central-located mountain areas with considerable settlement densities such as great parts of the Alps.

If adequate at any time, meanwhile this picture does not hold true for most of the European mountain regions any more. With population growth, a tremendous sectoral shift in the employment structure, improvement in infrastructures and increased accessibility of the remote areas, mountain areas can not be seen any longer as just a “sane world” at the periphery of our countries, and economies (Bätzing 1993). However, this has been one of the predominant viewpoints when tourism to this area by urban people developed over the last century. Up to the recent revival of mountain issues starting in the 1970s/1980s, especially in the German-speaking countries of the Alps, the fascination for them was built around the idea to preserve the natural landscape as a reservoir and refuge for urban people (StremLOW 1998).

Recent analyses on the increasing movement towards mountain related activities, research and policies could prove that significant changes of this traditional picture have occurred. The discussion having started from issues of nature preservation, signified by catchwords like “mountain wilderness”, has moved on to the concept of “ecological sensitive areas” (Dax 1998a) and culminated in the notion of “cultural landscapes”. In the 90s the Alps are more and more conceived of as “model region of Europe”. Setting the Alps into the “heart of the Europe of the regions” (CIPRA 25/1992, p. 4 – c.f. Stremmlow 1998, p. 233) indicates not a mere territorial, but also a symbolic dimension. Assigning tasks of a “laboratory” to them means that the former image of a peripheral, structurally weak region is taken from the Alps.

Mountain regions are characterised by large areas which nearly fall outside almost any (traditional) economic use. Thus, when measuring the overall population density mountain areas are rather sparsely populated. The Alps for example dispose of a density of about 50 – 60 inhabitants/km², in most of the national parts of the concerned countries (Schindegger et al. 1997, p. 28). Obviously at a lower territorial level the variability of this indicator increases drastically. For Austria it can be shown that population density in extremely peripheral locations is very low and considerably rising for accessible communities also in the mountain areas (Table 1).

In Austria, Switzerland and South Tyrol as well, a density measurement has been developed which takes into account the fact that only a small part of the surface in mountain areas can be/is used for settlement. In general, through this measurement high alpine zones of rocks, glaciers etc. and other “unusable” area, as well as forest area, is excluded. The remaining area accounts in the Austrian mountains for 22% and in the most extreme parts of it such as the Tyrol for just 13%. On the other hand, in the non-alpine part of Austria this share reaches 70% (Schindegger et al. 1997, p. 37). Relating the population to this limited “settlement area” reveals that many areas in the mountain regions are rather densely populated. An even more acute indicator for the scarcity of area and intensity of use is provided if the “maximum of population density” is calculated (inhabitants and tourist guests in the month with most overnight stays in relation to the settlement area). Table 2 illustrates that especially in the western part of the Austrian Alps the maximum population density of the more remote areas lying higher up in the mountains is hardly lower than in the valleys. Touristic use here leads – at least in the main season – to the two-fold intensity.

If regarded more closely, it is particularly the “unused” part of the mountains and its specificity that attracts people. The distinctive nature of areas not apt to ordinary categories of land use has been re-evaluated recently. In particular the dichotomy of intensive use in the valleys and those areas which are not serving settlement uses (in this wide sense) is increasingly addressed and initiatives to preserve the “natural” element of the regions are spreading. To some extent the former handicap is re-coined as an amenity feature of mountain areas. It has thus become part of a strategy to use this development potential (Dax 1998b).

3. Regional dynamics in the mountain regions of Austria

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 (later Reg.(EC) 950/97), is the clearest spatial backdrop in this context. According to this classification the mountain area comprises 70% of the Austrian territory.

With a population of 2.8 million (1991), it is home to 36% of the Austrian population. This percentage is the same as at the middle of the 19th century. It decreased until the end of the 19th century, then remained stable until the Second World War and increased again since then.

In absolute numbers, however, there had been a clear population growth, in particular because of high birth-rates. This tendency has been most significant in the western three provinces Tyrol, Salzburg and Vorarlberg within the last decades. In contrast, there appeared shrinking population numbers in the mountain area of the provinces of Lower Austria and, lately, Styria, both in the East of Austria (Dax 1998c, p. 10).

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 considerable share of total employment, despite in some cases marked job losses, and the shift of jobs towards the tertiary economy is continuing 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% by 1995 and remaining stable since then. 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.

Analyses of the population and employment changes over the decade 1981 – 1991 underline the discrepancy of development between the western and eastern mountain areas of Austria. The aggregated indicator of the regional dynamic, which combines local and regional data and takes also account of extreme unemployment situation in some communities, depicts the on-going economic growth in large parts of the mountains (Figure 2). Some of the rural areas with greatest employment increase are to be found in the mountain areas of Austria (Table 3). Although this is clearly related to the coincidence with population development there have been other factors such as an improvement of accessibility and adaptations in touristic activities and offers which contributed substantially to the regional dynamics. As has been emphasised by an explorative study of OECD the decisive role of a set of intangible factors should not to be neglected (OECD 1998b).

Whereas the proportion of the working population engaged in agriculture was still almost 14% in 1971, and in many areas still over 20%, since then it has fallen sharply – in the alpine area as a whole to barely 6%. In the western provinces, Salzburg, Tyrol and Vorarlberg, the proportion engaged in agriculture has dropped to the low level of 2.7% to 4.9%, 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%, which means that the maintenance of farming, which is also in the interest of caring for the landscape, is becoming ever more difficult (Dax 1997).

Tourism plays an important role in the Austrian economy. There were 117 million overnight stays per year in 1995 (87 million of which were by foreign visitors) and the value-added share of tourism in the total GDP amounted to approximately 8% and almost 15% 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 mountain area accounts for nearly 90% of overnight tourist stays and the economic activities associated with them in Austria (Hovorka

1998). 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 (Schindegger et al. 1997). 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 a wide 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 mountain regions.

However, the image of the Alps as a unique tourist area often leads to an overestimation of the economic role of tourism. Recently the inter-relation of mountain agriculture, landscape and tourism is used to be recalled as the specific feature of land use in these mountain areas. Whereas in some places, as has been shown, the tourist population might exceed the number of inhabitants and particularly acute forms of utilisation conflicts arise, other areas remain threatened by economic decline and population exodus. The concentration of tourist activities can be assessed through the share and tendencies of employment in accommodation and catering employment branches (Table 4).

The mono-structure of the employment structure in communities, where more than 50% of the labour force is engaged in accommodation and catering, causes a serious dependence on an economic branch with a doubtful future. The early half of the 1990s has been marked by considerable difficulties for tourism in mountain areas. Moreover, the sub-urbanisation processes of the main valleys and sub-alpine regions has induced a retreat of tourism to more peripheral locations which are characterised by extremely sensitive environmental conditions (Schindegger et al. 1997, p. 97).

This is why many development concepts and strategies emphasise the need to preserve the natural and cultural landscapes, conceiving them as the basic potential for a wide scope of development options for mountain areas (OECD 1998a). Sectoral shifts are therefore more and more assessed not just in their quantitative terms but evaluated due to their interconnectedness to other uses of the area and to demands from beyond the region as well.

The significance of mountain agriculture

In this regard agriculture plays a pivotal role in mountainous areas. In Austria with 49% of all agricultural and forestry holdings situated in the mountain areas it is also of great national concern. These farms manage 49% of the agricultural area and 75% of the woodland. The major significance of animal husbandry is expressed in the high proportion of managed grassland (area ratio 78%). These holdings keep 63% of the dairy cows, 61% of all cattle, 60% of all horses and 79% of sheep (Dax 1998c). 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% share of the total arable land. 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 farms in mountain areas is only 11.1 ha utilised agricultural area and 10.9 ha woodland. Only 31% of these 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% of the Austrian land registry area. Thus alpine pasture grazing represents an important area for a large section of the Austrian mountain farmers and ecological situation of mountains. The management of these extremely sensitive eco-systems through

mountain farmers 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).

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

- * 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 45% less than in the non-alpine areas (Dax 1998c, p. 54), the income from agriculture is almost 20% lower. For mountain farms facing particular difficulties, income from agriculture and forestry is only 60% of the income in the non-mountain farms (Hovorka et al. 1999, p. 36).

4. Integration of mountain policies?

The wide range of tasks attributed to farming in mountain areas has been realised rather early in Austria since regional development faced substantial changes and a difficult future with the strengthening of economic integration already some decades ago. In difference to other mountain

areas in Europe (see Barruet 1995b, p. 231) it was the agricultural sector in which the first relevant mountain programme has been developed. In particular since the beginning of the 1970s support for mountain farming has got a priority through the establishment of a specific support programme. This “Mountain Farmers Special Programme” not just focused on site-specific farming difficulties but attached importance to the social situation of farm households and incorporated the regional dimension. Along this concept the following groups of measures were combined by this programme:

- * direct payments
- * improvement of the infrastructure in the mountain area
- * regional agricultural aid (in particular investment aid)
- * forestry measures
- * agricultural terrain improvement and other measures.

Over time the priorities of the programme shifted and direct payments, in particular the mountain farmers' allowance became the predominant measure. This trend continued also in the 1990s when the label of the programme was abolished and its core measure, the direct payments, even were intensified after EU-accession.

The philosophy behind was to conceive this agricultural support as part of mountain specific policies. Hence it did not just take into account the preservation of mountain farming but made – at least in the beginning – considerable efforts to raise the farm-related infrastructures and alleviate the situation of peripheral locations. In the core, the objective to safeguard the development of “cultural landscapes” as primary base for other uses and asset for local development has been intensified over this period (Hovorka 1998, OECD 1998a). Together with an increased acceptance of mountain farming support by the majority of Austrian population it contributed to enlarge the view that an integrated approach is needed in those areas.

Spatially integrated policies for the Austrian mountain areas

Besides the development of a programme specifically addressing the needs of mountain farmers it was also conceived very early in Austria that those measures have to be linked to and find its complement in integrated concepts on the regional development of those peripheral areas. Thus, in

the late 70ies, 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 (Bundeskanzleramt 1980).

However, the concept of independent regional development also displayed some elements hindering development. 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-relations, the danger to overestimate the endogenous potential, and the inner-regional economic cycles. As a result, a 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.

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 initiative was the support of co-operative-business projects in all sectors. Although the support grants provided were in total compared to other industrial renewal schemes rather small, it can be assessed as a rather stimulating incentive on regional policy in Austria's mountain areas (on a low

area level). One core measure to enhance this "bottom-up" approach was the provision of training of regional consultants and of on "area-wide" regional consultancy, especially in the beginning of the initiatives. In the process, the emphasis was shifted further to regional innovation and know-how transfer.

In the Austrian context it is very important that the provinces (Länder) also developed aid programmes to support regional development initiatives for economic development in mountain areas. These programmes complemented the federal development in some peripheral mountain regions. Selected examples for programmes by the provinces are:

- "Styrian aid initiative for independent regional initiatives" (STEFREI)
- "Village and Regional Development" (ORE) province of Carinthia
- Village renewal guidelines, province of Lower Austria
- "Spatial Planning Programme" (ROSP) province of Tyrol

But in many parts of the mountain area (especially in Western Austria) 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 reveal of the discussion towards regulatory policy terms of reference in the alpine area in the early 90s. This new assessment 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.

Assessment of current mountain area policies in Austria

The EU accession in 1995, along with the changes in the neighbouring CEECs, have been the greatest shifts for the regional economy and also for Austria's mountain policies in recent time. In the EU accession negotiations, Austria therefore had endeavoured to reach agreement on maintaining the previous system of support for mountain farming as this constituted the primary policy in this aspect. In particular, the direct payments in the form of the former mountain farmers' allowance had enabled higher compensation payments for mountain farmers with greatest difficulties and with low household income. As the EU was not prepared to extend the system of compensatory allowances at that time Austria, however, made an effort to succeed in agreeing the possibility of a national grant for a transitional period. This national grant covers the loss for those farmers, who would have had to suffer from the shift to the compensatory allowances system a reduction of their specific direct payments. This national aid is limited to 10 years. 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 only EU co-funded in the context of Objective 1 and 5b-programmes).

With Agenda 2000 reforms also the system of support for less-favoured areas, including mountain areas, is undergoing some changes. It is the political intention to use the greater flexibility allowed under the new regulation to introduce a payment providing basic support to mountain farm. This new payment from 2000 onwards will try to incorporate some of the advantages the old system prior to EU-accession had. In particular, small farms and farms with greatest difficulties should be supported again stronger.

The adoption of EU-policy brought about more drastic alteration for regional policy itself. Many objective 5b areas and partly also objective 2 areas are lying in the mountain areas. In addition, the Community initiatives LEADER and INTERREG were applied in many mountain regions. One can estimate that about two third of these programmes were relevant to the mountain areas which implied a considerable increase in regional funding. It also led to a new step in Austria's regional policy. The

prior activities had concentrated on small, local initiatives and provided pilot cases. The pioneer function is esteemed invaluable and serves as reference for enlarging these activities to a wide range of regions in Austria. The accompanying discussion process referred to those experiences and broadened the application. The phase of bring up “niche” activities and raising awareness and acceptance for such new initiatives (see Loibl 1997) thus entered into a new phase.

For the mountain areas also the new paradigm of sustainability gained importance as the environmental performance turned to be a key issue. This reflects both the valuation of research on global change (Price 1999), underlining their relevance with regard to future life resources of humankind, and also the view that rural amenities in mountain areas are basic assets of the regional development potential. An integration of the environmental concern into the mountain economies (Dax and Wiesinger 1998) is not at hand, but numerous initiatives start to develop concepts and, in particular, local projects.

5. Changes underway and innovation

Still several years ago “marginal regions (were) traditionally characterised by depopulation, demographic distortion and long distances to growth centres” (Persson 1994, p. 127). Moreover, in many western European countries with a developed welfare system, marginal regions are characterised by a high dependency on public support to compensate for weak economic conditions. Whereas the unfavourable situation of many marginal regions expressed by those indicators is relevant for great parts of the mountain areas as well, a series of quite different trends and estimations of regional characteristics are reported recently. In many occasions international studies start to draw a more optimistic picture by separating dynamic from lagging rural regions (OECD 1996, EC 1997). As mentioned above for the Austrian case there is ample evidence that also mountain areas are affected by these tendencies.

For these areas it is in particular the re-evaluation of regional resources which has brought about an increased awareness of the scope of the potential of peripheral regions, too. This assessment is primarily lead by a horizontal shift in the expectations of rural and urban people. It thus lead through immigration, increased social and economic interrelations, cultural and life styles changes to persistent changes in the social structure in rural areas. These alterations have been extremely strong where

tourism activities or other exchange relations to outside regions were expressed extraordinarily. The shifts in the social structure itself, together with a new understanding of the inter-relation of the regional economy to other areas, meant that mountain areas are not any more the idyllic place as many urban people had wished them to stay for ever. New rural functions have emerged not at least because of the decreasing of local resources and the increased insertion into the “global” economy and global division of labour (Persson 1994, p. 140). New uses in mountain areas are looked for as a necessity to grasp the limited options available but they correspond also to a much enlarged concept of amenity-based development (Dax 1998b). The discussion with regard to this point has moved on in the last years, particularly backed through the deepening of the issue of sustainability. Yet, the doubts about actual environmentally sound (rural) development (see, e.g. Greer 1992) continue to be relevant, as application of the concept is hardly advanced.

The future for development of mountain areas will be particularly shaped by the values of different groups, both inside the regions and outside. Through an increased bias on consumer demands new conditions for development and a wide variety of activities have been established. Although in many cases such initiatives started from the wish to extend the farm-based income they could expand to other sectors as well and had a significant effect on the local economy (Loibl 1997). At the European level it was in particular the LEADER Community initiative which deliberately aimed at using changes which favour innovation in a rural context. The LEADER European Observatory found the following three dimensions most relevant to rural innovation:

- * “the diversification of local economies;
 - * the intensification of interactions between the local and global context;
 - * the strengthening of relations between local actors: toward new internal or local synergies”
- (AEIDL 1997, p. 19 f.).

The factors are extremely important in the situation of (remote) mountain areas where either difficulties in access or conflicts on restricted use potentials in a largely sensitive environment prevail.

6. Conclusions for policy design

“History ... tells us that regions which have been defined as marginal at one point in time often have a quite different status at another point in time” (Andersson 1994, p. 215). This conclusion from the

work of the Consortium for the Study of Perceived Planning Issues of Marginal Areas in Developed Countries (PIMA) acting in the first half of the 1990s can be taken as relevant to large parts of the mountain areas, too. It implies that the future of those areas is not inevitably doomed to failure and that (regional) policy and planning matters substantially. Also there the wish to integrate the formerly prevailing policy and planning intentions coming to the regions from “somewhere” above and the bottom-up perspective was called for (Anderson 1994, p. 226).

The long-standing discussion on mountain issues initially had focused on the *preservation* of natural habitats and esthetical values. In this regard the origin of the Alpine Convention and its basement with the ministries of environment is a quite clear example. As further discussion on the applicability of ensuing documents has shown the future of the Alps can not be developed just along environmental policies. However, there is still a lack of policies in these regions which relate to all territorial concepts and political measures relevant.

The specificity of the Alpine area is not any more recalled through a situation of disadvantaged areas – except for the sector of agriculture and forestry and other activities which are mainly effected by difficult accessibility. In contrast, it is argued nowadays that the topographical situation underpins the problems of ecological sensitivity much earlier and in a more acute manner than elsewhere. Hence political reactions can be expected to be taken (or are required) here earlier. Innovative actions which are elaborated also with the support of studies on the strategy for mountain areas (OECD 1998a, Dax and Wiesinger 1998, Commissariat Général du Plan 1999) contain core elements of pioneer characteristics which can be useful to other regions in Europe. In this regard the geographical conditions and the political experiences with mountain policies favour the notion of the Alpine area as a “laboratory for the territorial development policy” in Europe (Schindegger 1999).

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 (OECD 1998a, p. 61f.):

- 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. The integration of ecological prescriptions is of high priority in these areas and guarantees a high level of social acceptance.
- Owing to its above-average costs, the provisions, safeguarding and operation of the social and economic infrastructure in the mountain area requires particular attention and support from the public authorities.
- In order to apply aid measures in conformity with objectives, the definition of mountain areas and less-favoured areas need to be founded on naturally based small territorial 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 small-farming structure in the mountain areas has particular tasks with regard to natural elements and landscapes of the regions which go far beyond its agricultural significance. It is of great importance to the maintenance of farming and its socially desirable “side-effects” in providing amenities and therefore has to be supported by specifically designed production-neutral direct payments.
- 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 infrastructure subsidies.

- In the long-term, an ecological orientation as the fundamental principle of agriculture and forestry is necessary everywhere. The sustainable form 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, in general, not possible without mountain agriculture. Mountain areas seem a good case to show that a targeted and co-ordinated regional, spatial planning, economic, environmental, technology, transport, structural and agricultural policy is called for at the different territorial levels. The outstanding resource demands in these regions imply that the high degree in regional problems only can be addressed via the permanent search for integrated policies.

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Table 1: Population density in mountain areas of Austria

Mountain areas	population density	share of national total (in %)				
		population	surface area	UAA ¹⁾	all farmers	mountain farmers of category 4 ²⁾
central	78.2	19.4	23.1	18.5	20.2	28.8
peripheral	36.7	14.9	37.7	32.9	25.0	53.5
Extremely peripheral	15.0	1.4	8.4	6.1	3.2	17.0
Austrian mountain areas	60.0	35.7	69.2	57.6	48.4	99.4

1) utilised agricultural area (UAA)

2) mountain farmers with most severe difficulties (category 4).

Source: ÖSTAT, ÖROK, own calculations

Table 2: Population density according to altitude levels (1991)

	Population per km ² of settlement area					Sum
	< 700m	700-799	800-899	900-999	> 1000	
Alpine area – West	528	201	258	211	195	362
Alpine area – East	246	177	131	116	103	208
Non-Alpine area						227
Austria						240
	Maximum of population density (per km ² of settlement area)					
Alpine area – West	583	274	381	355	452	468
Alpine area – East	271	203	155	167	148	236
Non-Alpine area						232
Austria						263

Source: Schindegger et al. 1997, p. 39

Table 3: **Selected dynamic and lagging regions in mountain areas (Austria)**

district/type of area	population change (1981-91) in % p.a.	employment change (1981-91) in % p.a.
Imst	1.06	1.36
Kufstein	0.99	1.22
Kitzbühel	0.88	1.18
Feldkirch	1.06	1.10
Voitsberg	- 0.22	- 1.59
Leoben	- 0.88	- 1.54
Mürzzuschlag	- 0.34	- 1.12
Murau	- 0.52	- 0.87
Lilienfeld	- 0.22	- 0.61
PR *)	0.28	0.17
SR *)	0.45	0.72
PU *)	0.12	0.36
Austria	0.31	0.44

*) OECD-Classification established by OECD-Rural Indicators:

PR – predominantly rural areas (more than 50% of population in “rural” communities;
i.e. density lower than 150 inh./km²)

SR – significantly rural areas (15 – 50% rural population)

PU – predominantly urban areas (less than 15% rural population)

Source: ÖSTAT, OECD-Rural Indicators, Dax 1998b.

Table 4: **Concentration of tourism in Austria’s communities (1981 – 1991)**

Communities	1981	1991
with dominant tourism employment (> 25%) ^{*)}	5.7	7.6
with significant tourism employment (10 – 25%) ^{*)}	23.9	24.4
with insignificant tourism employment (< 10%) ^{*)}	70.4	68.0
all communities	100.0	100.0

*) of total labour force, at place of labour

remark: Austria’s average is 5.6% (1991)

Source: Schindegger et al. 1997, p. 96

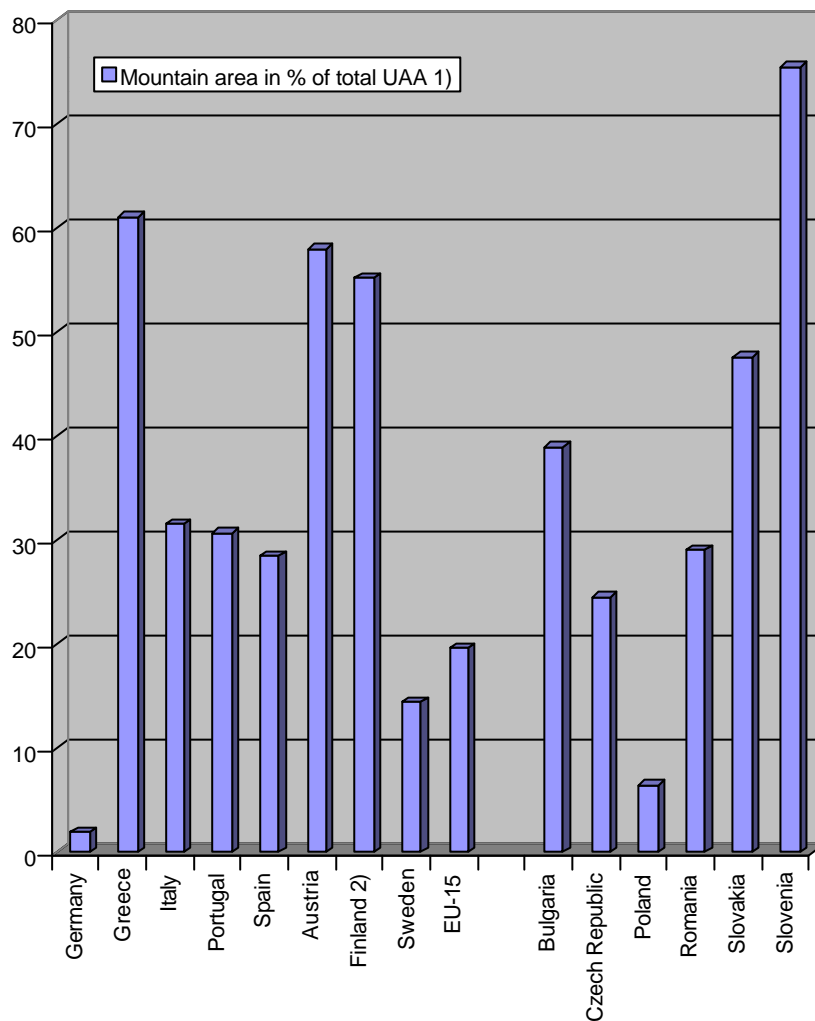
Table 5: **Mountain farms according to categories of difficulty (1995)**

	Mountain Farms				total	non-moun- tain farms in mountain area	Mountain area sum	Austria
	Group 1	Group 2	Group 3	Group 4				
in % of Austria	11.4	9.9	12.1	2.6	36.0	16.6	48.6 (1)	100
Share of UAA (in %)	15.3	12.0	13.8	3.0	51.7	8.6	48.8	100
Share of LU (in %)	19.3	14.3	15.1	2.5	51.2	7.3	52.3	100
SGM per ha farm area ²⁾	94	73	59	48	73	60	67	100
Farm income level per labour unit (Austria = 100)	87	84	78	61	82	-	85	100
Household income level per labour unit (Austria = 100)	92	88	85	79	88	-	90	100

1) 10.141 mountain farm units are not situated in the mountain area but in general in adjacent less-favoured areas.

2) Standard Gross Margin (SGM) in relation to sum of UAA and forest area

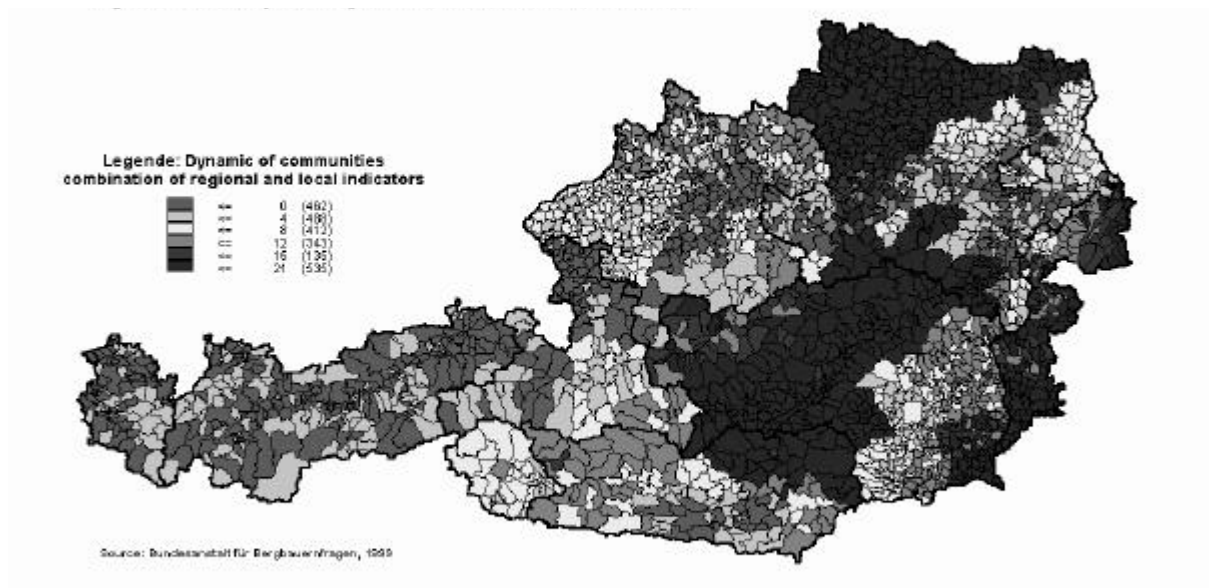
Source: ÖSTAT, Dax 1997

Figure 1: **Mountain areas in Europe**

- 1) Utilised agricultural area, according to art. 23, Reg. (EC) 950/97.
- 2) According to the treaty of accession of Finland, these areas are not altitude areas but Nordic areas.
- 3) Data for CEEC countries are estimations by EUROMONTANA and not strictly comparable to EU-15.

Source: EC 1998, annex 2; EUROMONTANA 1998, p.28 (3).

Figure 2: Development dynamics in Austria's communities



Legend: points calculated are featuring negative elements of development dynamics, hence:

- 0 - most positive development
- <= 4 - positive
- <= 8 - average
- <= 12 - negative
- <= 15 - very negative
- <= 21 - extremely negative