

# ECONOMIC DEVELOPMENT IN UPLAND AREAS: CONCEPTS AND POLICIES

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Upland areas constitute a particular kind of less-favoured areas with characteristics specific to their natural, economic and social conditions, different from those of other rural areas<sup>(1)</sup>. Upland areas include mountainous areas, but also some hilly areas or plateaus in high altitude regions. Nevertheless, the two terms «upland areas» and «mountain areas» are used in the literature interchangeably. Rural areas on the other hand, include non-urban areas in the plains and hills where agricultural or other primary activities are predominant. Although primary activities are also predominant in such rural areas in the plains or in the hills, their natural, economic and social conditions differ considerably from those of upland areas and, also, their development problems and potential. Upland regions around the world, but in particular in Europe and the Mediterranean, are characterised by a multitude of problems. Very low economic growth in these regions widens the gap from other prosperous areas where economic activity concentrates. As a consequence poverty is widespread and living conditions are substantially lower than those in the plains or in the urban areas. Lack of employment opportunities results in high unemployment rates that discourage the youth and induce them to seek migration to other areas where employment prospects are better. The social implications of these trends are significant because they lead to a depopulation of the upland areas and a vicious circle of marginalisation where each element of the system feeds-back into other parts reinforcing the downward trend in economic activity with adverse consequences on the economic and social functions of the areas.

Although the economic and social dimensions of the problems of upland areas are rather well understood and taken into account, the resource dimension of the problem is usually forgotten<sup>(2)</sup>. *Natural*

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<sup>(1)</sup> Area designated in the EC Council Directive 75/268 as Mountain and Hill Farming in certain L.F.A's cover 45% of the utilised agricultural area in the E.C. (Meredith, 1987).

<sup>(2)</sup> Many researchers see mountainous regions, simply as part of the rural space with altitude as the most emphasized attribute. Nevertheless, mountainous areas should be seen as an ecological space and as a space intensity affected by human and economic activity.

## Abstract

Upland areas constitute a particular kind of less-favoured areas with characteristics specific to their natural, economic and social conditions, different from those of other rural areas. Public policy for upland areas usually does not exist; and when it does, it fails in most cases to recognize the roots of the problem, hence, it cannot differentiate upland from other rural areas. This paper attempts to address public policy issues for upland areas developing with a bio-economic framework where concepts and policy options can be analysed. The paper looks first into trends and developments in the economic and social system of upland areas and focuses on the causes that create imbalances in their systems. The paper identifies increasing productivity and efficiency as the key factor in increasing the sustainability of the ecosystem of upland areas. Next it proceeds with a discussion of alternative policy options to increase productivity and sustainability. Finally, it concludes with some general remarks and policy recommendations.

## Résumé

*Les aires de montagne représentent un type particulier d'aires marginales ayant des conditions naturelles, économiques et sociales spécifiques, différentes de celles d'autres régions rurales. D'habitude, il n'existe pas une politique publique des aires de montagne; et là où elle existe, elle ne réussit pas à reconnaître les causes profondes du problème, ce qui fait qu'elle réussit pas à différencier les aires de montagne des aires rurales. Ce travail essaie d'analyser les problèmes de politique publique pour le développement des aires de montagne suivant une approche bio-économique permettant d'analyser les concepts et les options de politique. Il analyse d'abord les tendances et les développements du système économique et social de ces aires et il examine en particulier les causes des déséquilibres desdits systèmes. L'accroissement de productivité et l'efficacité sont considérés les facteurs clés pour améliorer la durabilité de l'écosystème des aires de montagne. Enfin, l'auteur discute des options de politique alternatives pour accroître la productivité et la durabilité de ces aires et il conclut par des remarques générales et des recommandations de politique.*

*resources* form an integral part of the upland regions and constitute together with *population* and *economic activity* a tripartite eco-systems in dynamic equilibrium. Water and soil resources, forests, genetic resources, etc. are just some of the elements of natural resources in upland ecosystems. Resource degradation is another manifestation of the problem of upland areas together with their economic and social decline. The policy objective is to stop this decline. It is usually stated that the economic and social life of these areas and regions should be kept going. What is, then, to be done to arrest this decline in upland regions? What is the role of public policy in achieving this objective? What kind of action is needed? What type of interventions should be promoted. All these are public policy related questions. However, before one can proceed to discuss policies, the root-cause of the problem should be identified, otherwise measures taken will not be effective.

The objective of this paper is to first attempt an understanding of the eco-systems of upland areas and its operation, then to proceed to a diagnosis of the problem and, finally, to propose policy recommendations.

The structure of the paper is as follows. The next section looks for the root-cause of the problem starting with a presentation of concepts and development trends in upland areas. After a brief review of alternative explanations or interpretations proposed for

the problem of upland areas, the paper proceeds to propose a conceptual model that describes the ecosystem of upland areas, that can be used to provide explanations for observed trends. The working of the ecosystem in developed and in developing areas is contrasted on the basis of the identified exogenous factors that influence its operation. The next section focuses on public policy with emphasis on upland areas of the Mediterranean. It identifies the policy implications of the operation of the ecosystem and of the impact of exogenous factors, it defines the policy priorities and for each policy priority delineates actions for public policy so that the objective of arresting decline in upland areas can be achieved. Finally, the paper concludes with some methodological and policy remarks and conclusions.

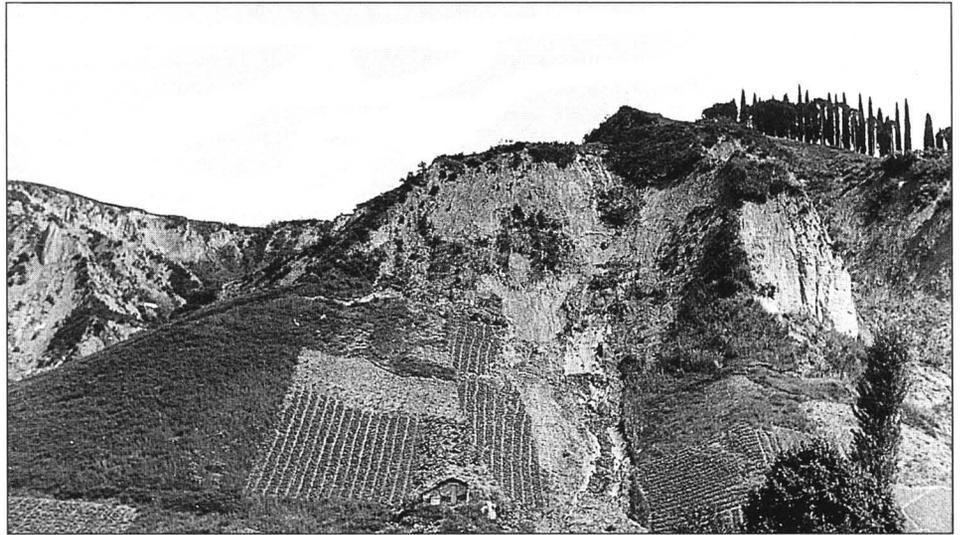
## Conceptualizing the problem of development in upland areas

Rural development has preachers of many faiths. Each one is proposing his own diagnosis and prescription to the problem. It can come as no surprise that the multitude of solutions offered to the development problem of upland areas ranges from advocates of agriculture or sectoral policies to the pro-

vision of infrastructure and support for local small scale handicraft activities, or tourism. What comes as a surprise, however, is the lack of analysis that characterises these suggestions and the fact that their preachers appeal to conviction rather than to reason in recruiting supporters to their proposed suggestions for upland areas. Take, for instance, those who consider as the root-cause of the development problem of upland areas, *depressed conditions for agriculture* and other resource based industries. They tend to forget that agricultural or other primary industry related income is usually less important than non-farm income and that economic growth in rural areas is not necessarily related to growth in agricultural income (Knutson and Fisher, 1989, p. 8). Building on this myth, many agricultural policy makers and farm organizations emphasize agriculture's role in rural areas in order to gain support for protection of agricultural products. But if agricultural income is not necessarily linked to economic growth in upland areas, then agricultural support may not benefit rural economic growth in upland areas. In fact, it may have an exactly opposite effect, since benefits from the support of agricultural products will probably be to a large extent absorbed by farmers in more endowed and productive regions in the plains, leaving farmers in upland areas with a very small proportion of the expenditure for agricultural support. Hence, agriculture support as an instrument for the development of upland areas does not stand much scrutiny.

Another frequently cited instrument is the *provision of infrastructure and services*. It is thought that because of lack of infrastructure and deficiencies in service provision, upland areas do not attract new economic activities and lack employment opportunities for their population. Again, infrastructure and services, should be reminded, is not a free-good to be available on demand. Roads cannot be constructed to be travelled by just a few cars or passengers and school or health centres cannot operate with a handful of student or patients. Public infrastructure is an expensive investment that, in order to play its role in development, should generate enough public income to fund similar activities elsewhere.

Last, but not least, some others emphasise that the *low cost unskilled labour force* of rural and upland areas can become a development resource. Nothing is farther from the truth. What is relevant in the decision for the location of economic activity is not just low labour cost but rather low labour cost per unit of product produced and, therefore, the quality of labour and the productivity of labour are important determinants of the decision. Furthermore, distance costs from consumption points play a crucial role in determining the final product cost. Hence, contrary to this widely held perception, low-cost, unskilled, uneducated labour force is ill-equipped to be used by new economic activities and, hence, to fuel economic growth in upland areas.



Looking for the root cause of the development problem of upland areas

The first chapter of a collection of workshop papers on rural development, (Boylam, 1992, p. 13), reiterates an earliest statement by Young as follows «... Current efforts in rural development around the world remind one of medical practice before the germ theory of disease: experience has accumulated and practitioners have devised some specific skills, but it is still not possible to say with certainty why a proposed program is likely to be beneficial... We simply do not have tested explanations of rural development processes...» (Young 1983, p.xix). This statement is giving a brief, yet comprehensive, assessment of our knowledge about the root-cause of the development problem of rural and upland areas.

A good starting point may be to look where the problem is observed. Black (1992) writing about the mountainous area of Serra do Alvao in Portugal makes the distinction between the agricultural crisis of Northern Europe (one of overproductions) and the one of Southern-Europe (low productivity and inefficiency) (Black, 1992, p. 8-9). Nevertheless, large parts of Scotland, Ireland, France, Italy and perhaps the Scandinavian exhibit these very similar problems that he observes for Southern Europe, i.e., low productivity and inefficiency of agricultural production. The problem, therefore, is not confined to Southern Europe, but it is also prevalent in several other rural areas, and it is perhaps more acute in the upland areas of several parts of Europe, the United States and other parts of the world<sup>(3)</sup>.

Mountain and upland areas, however, include also the Alpine region, i.e., the European Alps, which extends into several countries. This region, despite its less productive but highly supported agriculture, does not suffer similar development problems mainly because its population derives considerable

income from other sources. One may ask, then, what kind of public policy has been followed in this region or why this region does not exhibit similar development problems, as other rural areas do. Hence, once again the issue of the root-cause of the problem becomes relevant.

Many consider the development problem of rural areas, and consequently of the upland areas, as a problem of agriculture. Depressing conditions in agricultural markets and for products of other primary industries are cited as reasons for the observed decline and the lack of a growth potential. Extending this logic further, they would ask for strong agricultural and sectoral policies for primary activities. However, it has been discussed above, this approach to the problem is inadequate and may in fact lead to policies and results quite different than those intended. The persistence of small and fragmented landholding is also widely perceived as one of the most serious impediments to agricultural development both in Southern Europe (Hadjimichalis, 1987) and in developing countries. However in the natural environment of mountain areas not much can be gained in productivity by reducing fragmentation and, perhaps, much might be lost in terms of resource use. In fact, Black (1992) in his study for Serra do Alvao region concludes that «.....this fragmentation of the landholding structure is far from acute and pervasive», instead fragmentation is providing both opportunities, as well as obstacles to efficient agricultural production. Other researchers (Gade 1988, p. 51) focus on the spatial character of the difference in incomes and development opportunities within a single country. While functional and spatial interaction in the non Thunen tradition might be helpful in understanding some

(3) The problems manifested in mountain regions of Europe are also present in other parts of the world. In fact, it is widely recognized that mountain ecosystems worldwide tend to be fragile and have little tolerance for changes in human and economic activity (see, e.g., Singh, 1991, Panday, 1990, and many others).

of the observed differences in incomes and growth potential between regions, such explanations cannot become operational in providing meaningful public policy recommendations. An explanatory model that aims only to provide a typology (Gade 1992, p. 57) cannot by itself be useful for public policy in upland areas.

Cuddy (1992) uses an urban-rural model to conceptualize the impact of the urban centre on the rural periphery in another attempt to provide a working model for the decline in rural remote areas. Upland and mountainous areas are among those where the impact of the urban centre is stronger. Cuddy conceptualizes this urban-rural linkage as «..... the pull of the urban centre, sucking out labour and capital and forcing a declining terms of trade on the rural areas ....» (Cuddy 1992, p. 68). He sees the process in the tradition of the unequal exchange theory with the drain in population and resources leading to a cumulative decline of rural areas which is mirrored by a cumulative expansion of the urban centres (Cuddy, 1992, p. 75). Although his approach receives credit among many development economists, one does not need to agree with Cuddy and see the process as an inevitable phenomenon, accepting that urban growth and rural decline are in fact one and the same problem looked at from two different sides. Also, his system representation of the rural decline (p. 71) has several problems with outmigration being an exogenous and at the same time an endogenous factor. The other exogenous factor considered being the decline in agriculture, has been discussed and qualified earlier. Hence, this approach, also, has several shortcomings in explaining the development problems of rural areas and in proposing policy measures. Black (1992) in his study presents also a similar approach where the decline in a rural

region is looked at as a marginalization process which is the result of the integration of the small farm sector into the capitalist mode of production. The process, according to this approach, forces producers to extract an unsustainable surplus from the land and abandon traditional conservation practices which prevent environmental degradation (Black 1992 p. 27-35). While this explanation has merit, it does not lead to policy recommendations since the integration is desirable by the region's population.

Finally, the «political regional ecology» approach sees the problem of rural and upland areas as one where the interaction of farmers with their natural environment is seen in a political, economic and historical context (Black 1992, p. 37). This approach has been put forward by Blaikie (1985). Blaikie argues for the incorporation of environmental considerations into the theories and policies for regional growth and decline. We have up to now reviewed briefly alternative theories that look into the root-cause of rural and upland decline. The starting point was to see whether such theories may be useful for public policy in an upland area. We come to the conclusion that additional work is needed to better explain the observed phenomena and to be useful in providing operational public policy recommendations.

**A tripartite ecosystem of the upland areas**

A tripartite relation can be considered to describe the ecosystem of an upland area consisting of «population», «resources», and «economic activity» as shown in **figure 1**. The population is the number of people supported by the resource base of the system with food and energy through their

economic activity. Each part makes contribution to the viability of the system, but also yields from the system. The resource base of the system includes renewable (forests, etc) and non-renewable (soil, etc) resources. The driving force of change in the system is population growth or the demand for higher incomes, hence, changes are governed by demographic and economic forces. The system is in equilibrium when the yield of the resource base exceeds the uptake caused by the demand which the population exerts on the productive capacity of the resource. High population growth or demand for incomes may lead to an uptake from the resources which exceeds its yield and hence, initiates a resource depletion process. Population growth and demand for high incomes puts pressure on the system which threatens its sustainability. The sustainability concept of an ecosystem is explained by Convey (1987) and it is shown in **figure 2**. The system in **figure 2(a)** can withstand stress and recover to achieve a sustainable yield level. The system in **figure 2(b)** cannot withstand stress and becomes unsustainable. But, the declining process may lead to a much lower yield which brings the system into a low equilibrium.

The nature of the stress that a rural ecosystem experiences may originate, as mentioned above, either in an increase of the population or an increase in the economic activity which may or may not be sustainable by the existing resource stock. In upland areas of developing countries the driving force of the system is population growth and lack of opportunities for employment in the urban areas. Population growth leads to an increase in demand for food and energy which exceeds the resource yield and it eventually leads to a decrease in the stock and a depletion of the

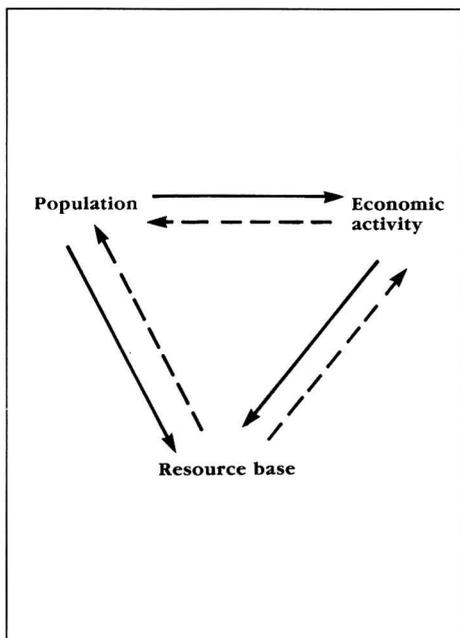


Figure 1 - A tripartite ecosystem of upland areas.

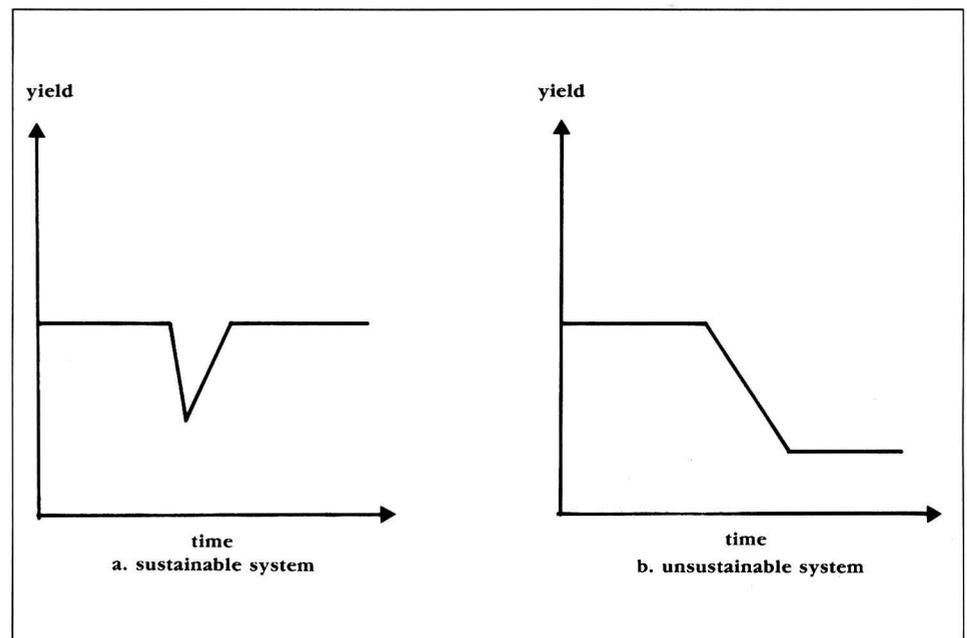


Figure 2 - Conway's sustainability concept.

resource, making the system unsustainable. In the upland areas of developed countries the situation is quite different. In these areas population growth is very small, perhaps lower than the replacement level, but there is a high demand for higher incomes. It is, in fact, this increase in demand for higher incomes that puts the system under stress. The population in these areas has the desire and ambition to achieve a higher level of living in parity with growth experienced in urban areas. But for this purpose a higher level of income is required which the economic activity and the resource stock of the system in upland areas cannot support. Consequently, a migration process begins, usually of the most talented and capable individuals, which puts the system in a declining process because the reduction of the population and the labour force has adverse effects on the level of economic activity and on the resource stock since many conservation activities are abandoned as a result. The process of migration and the reduction in economic activity triggers the decline and leads the system to lower levels of equilibrium because of its lack of sustainability. The system may or may not reach a lower level equilibrium, as it is the one shown in **figure 2(b)**.

The sustainability of the system may be secured and its decline may be arrested in both cases, in developed and developing countries, when productivity and efficiency are increased. In the first case, in developed countries, increasing the efficiency and productivity of the system leads to higher incomes for the population and allows the continuation of economic activity and of social life of the areas without migration or drawing on resource stock. In the developing countries, an increase in the productivity and efficiency of the system allows support of the increased population levels without reducing the stock of the natural resource.

Using this conceptual model of the ecosystem, leads to a good understanding of its operation, the forces that create stress and may threaten its sustainability and, finally, the strategic approach that may be used to ensure sustainability of the system.

## Policy options and strategies

In the previous section we attempted to obtain an understanding of the eco-system of upland areas and an appreciation of its operation, within the context of our objective to identify the root-cause of its problems. After reviewing alternative proposed explanations we arrived at an economic-demographic model where population (growth or decline) plays an instrumental role into the system. Population growth puts an increasing pressure on the resource stock through increased demand for food and energy, while population decline disrupts the operation of the economic system, interrupts conservation practices and leads to unsus-

tainability of the system. The key strategic factor to increase the system's capacity to withstand pressure is to increase its productivity and efficiency so that additional demand either for food and energy or for higher incomes does not lead to a depletion of the resource stock. In this way the sustainability of the system is ensured.

### Policy strategy

Increasing productivity and efficiency is the strategic objective because it allows the system to support higher levels of population and to satisfy the demand for higher incomes. In both cases this should be done without affecting the resource stock, hence, without affecting the system's sustainability. The *strategic objective*, therefore, of public policy should be to increase productivity and efficiency of the ecosystem of upland areas. We concentrate in the remaining part of the section on policies for upland areas in developed countries, like the ones of Southern Europe.

The strategic approach can be translated into particular policy priorities that lead to the overall objective. Such priorities can be:

- (a) Improve technology of resource use;
- (b) Reduce distance costs; and
- (c) Develop new institutions

The first priority is to improve technology. It is well known that improvement of technology improves productivity of resource use of a system. The question is then, how it can be done and what policy actions can lead to an increase in productivity in upland areas. Some of such actions are suggested below and can be considered as public policy measures:

- Introduce additional activities that make better utilization of the resources of the area and provide additional incomes.
- Reduce sectoral dependence by limiting income dependence on a single traditional sector.
- Promote better techniques of production in traditional sectors.
- Seek a diverse, adapting to change, economy and society.
- Attract non-traditional activities.
- Promote training and education.

The aim of such activities is to reduce pressure on the resource stock, increasing efficiency in resource use and improving the productivity of resources introducing and promoting better knowledge and technology.

The second priority is to reduce distance costs for the area from urban centres regional or national. Distance should not be considered as measured in kilometres but rather in time and costs. Products moving to consumption centres are charged with the cost of transportation. The share of that cost to final consumer expenditure is lower, the better is the transportation system. Communication is also usually a problem in attracting new, non-traditional activities in upland areas. Both transportation and communication constitute the main elements that de-

termine distance costs for a region or an area. Good transportation and communication systems reduce distances costs and attract new non-traditional activities. The following are some possible measures that can serve this priority and can be pursued by public policy:

- Better infrastructure in general;
- Better roads and transportation;
- Better communication system;
- Industrial parks to attract non-traditional activities;
- Development financing, banking system, credit.

Infrastructure is always in high demand. Since building infrastructure is heavily capital intensive and there are competing demands for financing infrastructure projects in alternative regions, there are always limits to what can be achieved by using this measure in a short time. Improving infrastructure is always a long term objective which is conditioned by the macro-economic conditions of the country and the size of the public investment programme.

Third, an increase in productivity and efficiency of the system can be achieved by introducing new institutional arrangements and by fostering local initiatives. Perhaps, the best way is to promote the endogenous development type of approach by strengthening local initiatives. The LEADER project in the EC has a very good record and the experience gained seems quite satisfactory. Some measures which can serve this priority are:

- Promotion and development of institutions for self-help.
- Engagement of the local population in the process of planning, implementation and evaluation of development activities.
- Help innovative financing (e.g., revolving funds, credit societies, etc).
- Undertake collective action where it is required (e.g. market research, marketing activities, training, etc).
- Speak with one voice to regional and national authorities.

Such measures have very limited demand for capital they can be implemented in the short term, and therefore they may have if they are successful very high rates of return. However, they are more difficult to implement because they need the awareness and commitment of the local population.

### Sectoral considerations

Agriculture and sometimes forestry are considered by many as a key sectors in rural and upland development. However, looking into the future, agriculture's role as an instrument for growth in upland areas is limited. It seems that first, there is no scope for increasing production, given the situation in the international market. Second, markets become more competitive and hence, products from upland areas need to be marketable on a competitive basis, perhaps without subsidies. Also quality and environmental considerations are expected to pre-

vail in the future. Farm support will probably be mainly in the form of direct income support. Finally, pressure for non-traditional uses of land is expected to increase.

Given such developments in agriculture there is need for integration of agricultural activities in mountain regions in a vertical and a horizontal way with other non-agricultural activities. Aspects that need to be stressed are specialization into typical «mountain products» and the development of particular techniques that are suitable for such areas. This leads to a flexibility of resource use for the development of mountain regions and increases their sustainability.

Many consider tourism as an important economic activity for mountain regions. However, others object since tourism development in mountain regions causes substantial economic, social and environmental changes. Because of the diversity of mountain regions, much research is needed on issues related to development patterns and it is questionable whether tourism can be relied on as a solid foundation for the long-term future of mountain communities (Price, 1992).

Finally, forestry and silviculture is considered as an option for mountain regions due to lack of competitiveness of such regions in agricultural production, but also since forestry products face substantially better demand prospects.

The impact of such future development's in the economy of upland areas will probably induce farmers to seek to maintain their incomes by improving efficiency and quality, produce other products (e.g. environmental goods) and take on non-agricultural activities. An increasing diversity of objectives and activities is also expected for upland areas. Production and farm employment is expected to decline and spill-over effects to other activities will, perhaps, be observed. Given the above developments, the strategic approach of public policy for upland areas should be to promote a diverse economy, where agriculture plays a key, but substantially reduced, role. The aim should be to obtain *strength through diversity*. Since mountain and hill farming cannot compete with intensive farming in the lowlands, it is necessary necessary to explore alternative, activities such as forestry, leisure and tourism, handicraft and other small scale activities that promote a diverse, viable economy which is sustainable in the fragile environment of mountain regions. This question is not difficult to answer. Forestry, recreational and leisure activities can be promoted as new and additional productive activities that diversify the economy and increase its sustainability. Tourism, as agrotourism or mountain-tourism, has been promoted in many countries and in various ways. However, by reducing distance costs and improving transportation and communication, various other productive activities in production and services can become profitable. In this way the economy obtains

a diversity and the system of the upland areas becomes more sustainable.

## Conclusions

Upland areas around the world, but mainly in South Europe and the Mediterranean, are faced with particular problems that make them distinct from other rural areas. They experienced low growth, that widens the income gap from other prosperous regions, widespread poverty and lack of employment opportunities. These economic trends have adverse social and environmental effects with depopulation leading to disruption of the social and economic life of the regions and degradation of natural resources due to discontinuation of conservation activities.

Public policy has up to now neglected upland areas or has treated them similarly with less endowed rural areas. Sectoral policies and in particular farm policies that have been followed in the past did not differentiate between types of rural areas with significant adverse effects on some upland areas which threaten their viability.

This paper looks into the problem of the upland areas from an economic perspective and attempts a characterization of issues and policy options. After reviewing other efforts that look into the root-cause of the problem of upland areas, this paper proceeds to elaborate a demographic-economic conceptual model where «population-resources-economic activity» constitute and an integrated system (ecosystem) that has a particular structure and behaviour. The paper attempts to identify the operation of this ecosystem and proceeds to characterize the problem observed in upland areas, using this conceptual framework, identifies the root-cause of the problem and proceeds to policy recommendations.

The tri-partite eco-system is driven out of balance in the upland areas by changes in demographic structure and the consequent changes in its economic and social structure.

The rapid growth of population in upland areas of developing countries puts pressure on the system with increases in demand for food and energy that cannot be sustained by the resource base of the system, leading to resource depletion and threatening the sustainability of the system. The causal relation runs from another direction in upland areas of developed countries where population growth is down to zero, or close to replacement levels. The aspirations of the people for higher incomes put, again, pressure on the system, but this pressure cannot be sustained by the resource base. As a consequence, there is either a depletion of the resource or migration of the population in other (mainly urban) areas leading to resource degradation and disruption of the social and economic activity. The root-cause of the problem is, therefore, the increased pressure on the resource base, either in the form of demand for food and

energy or for higher income, which cannot be sustained by the resource base and threatens the sustainability of the system. Hence, the strategic approach for public policy is an increase in the productivity and efficiency of the system and an increase in its capacity to satisfy additional demand and ensure its sustainability.

The section dealing with policy recommendations focuses on the problems of upland areas of Southern Europe. The strategy for increased productivity and efficiency can be conceptualised in terms of priorities for (a)improving technology of economic activity and of resource use of the system, (b) reducing distance costs and (c) developing new institutions. Several public policy measures can be included within the context of each of these priorities in a halt comprehensive strategy to halt decline and degradation in upland areas.

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