

# **Innovative structures for the sustainable development of mountainous areas**

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## **PREFACE**

The current publication is the outcome of the presentations and discussions that took place during the ISDEMA Thessaloniki Seminar. The Seminar as well as the current publication are the intermediate results of the project 'INNOVATIVE STRUCTURES FOR THE SUSTAINABLE DEVELOPMENT OF MOUNTAINOUS AREAS - ISDEMA' co-financed by the EU (Contract: DG XII SEAC-1999-00093).

The project partners are: the National and Kapodistrian University of Athens (Greece, coordinator), the Ecole Nationale Supérieure Agronomique de Montpellier - ENSA.M (France), the University of Trás-os-Montes e Alto Duro (Portugal), the Bundesanstalt fuer Bergbauernfragen/ Federal Institute for Less Favoured and Mountainous Areas - BABF (Austria), the Groupement Suisse pour les Regions de Montagne/ Swiss Center for Mountain Regions - SAB (Switzerland); and the Scottish Agricultural College - SAC Edinburgh (U.K.).

### **The objectives of the project concern:**

- A. The bringing together of partners and relevant stakeholders in order to
  - 1. compare the evolution, current situations and trends in selected mountainous areas and, thus
  - 2. elaborate on i) new research fields and ii) policies that have the potential to contribute to the complex issue of mountainous sustainability (i.e. the simultaneous examination of social, economic and environmental dimensions within a holistic framework) with emphasis on institutional set-ups that is, innovative structures/mechanisms facilitating the design, implementation, monitor-ing and evaluation of local/ regional development
- B. Within such activities, the dissemination of the results of the project titled "Determination of Sup-port Mechanisms & Structures towards Sustainable Development: The Case of Regions with Ad-ministrative Gaps & Discontinuities" (Contract no: SOE1-CT98-1124/ DG XII) and the present project and,
- C. The establishment of a dialogue and hopefully a network between researchers, policy makers and the Community as far as research and policy orientations are concerned.

The ISDEMA Seminar took place in Thessaloniki, Greece (17 - 18 March 2002). Twenty participants coming from Universities, Development Agencies and consultant agencies relating to disciplines and/or projects in mountainous areas contributed to the Seminar.

The contributions of the present volume actually intend to open the discussion on the abovementioned topics; thus, six cases on mountainous areas and

development aspects are included aspiring that they may provide the ground for further debates on the critical issues of sustainable mountainous development and the necessary mechanisms for its attainment. In addition, a review of projects relating to mountainous areas is included in order to provide an overview of the efforts undertaken by academics, researchers and stakeholders to confront the complex issues arising due to the unique characteristics of such areas.

## **INTRODUCTION**

The following presentation intends to summarize the main topics that emerged from the project titled "Determination of Support Mechanisms & Structures towards Sustainable Development: The Case of Regions with Administrative Gaps & Discontinuities". The project was co-financed by the EU (Contract no: SOE1-CT98-1124/ DG XII) and the partners were the National and Kapodistrian University of Athens (Gr) and the Bundesanstalt fuer Bergbauernfragen - BABF (Austria).

### **THE CASE OF MOUNTAINS**

During the last 25 years, the language of sustainable and equitable development has been added to the policies of many organisations. Within such a framework, political and institutional momentum has been building to develop better policies and mechanisms to mobilise more financial resources for conservation and sustainable development of the world's mountainous regions. Such a significant example is the endorsement of Agenda 21, Chapter 13, entitled "Managing Fragile Ecosystems: Sustainable Mountain Development" at the 1992 United Nations Conference on Environment and Development. Nevertheless, in this same period mountain peoples have become poorer and have progressively lost control over their subsistence base of resources. Global ecosystems (including mountains) have deteriorated, genetic material has been lost, and the resources upon which human survival depends have dwindled.

Therefore, mountains merit special consideration in development policy. While the last decades have witnessed a steady increase in global attention to mountain regions, mountains have yet to be firmly integrated into the conservation and development agenda. Within the latter, primary emphasis needs to be placed on understanding the wide diversity, limited production scale, and fragility of mountain environments. Likewise, it is important to recognise that community control of resources is critical to building sustainability and equity across many sectors.

Indeed, mountain environments are characterised by unique qualities; understanding these special characteristics is a critical step in the formulation of policies and action priorities capable of bringing real benefits to mountain regions. Mountain ecosystems have in common the combined effects of rapid

changes in altitude, climate, soil, and vegetation over short distances. Biologically, their high diversity - including prolific concentrations of species found nowhere else - leaves them vulnerable to losses of whole plant or animal communities. The socioeconomic characteristics of mountain peoples are inextricably linked to this specific ecological setting. Moreover, the fact that most mountain peoples are outside the dominant cultures of the plains, leaves their regions poorly represented in the centres of political or commercial power where much of their fate is determined.

Historically, adaptive mechanisms of mountain peoples have been centered on local ecosystems and resources. In the last decades, however, change has been more externally driven. Development interventions, large infrastructure projects, and growing market pressures have pushed self-sufficient economies towards commercialisation, often with negative consequences. Some typical threats to mountain environments arise from agricultural expansion, construction of dams and roads, commercial and illegal logging, mineral and hydrocarbon exploitation, tourism, and so on.

It is clear that external influences will continue to increase along with improved access and communications, health care, education, tourism, migration, and seasonal labour. Concurrent pressures for economic integration with lowland and/or international communities will also increase. Along with economic opportunity, however, there are many risks associated with rapid cultural, economic and environmental change. Hence, even the best 'sustainable' development strategies must face the difficult dilemma of how to maintain traditional and often unique cultural integrity and practices while promoting some level of integration with a more 'modern' world.

Thus, effective development action in mountain regions should incorporate the constraints and comparative advantages of mountain environments. It needs to focus on community action and long term commitment. Primary emphasis is to be placed on understanding the tremendous diversity, limited production scale, inaccessibility, and fragility of mountain environments. Concurrent with a focus on locally driven initiatives, a cooperative working relationship with government must be established and maintained. Sustainable and equitable development policies specific to mountains need, after all, to be firmly placed on the global development agenda. This, in turn, is expected to result in a major reorientation of current implementation practices and the mobilisation of significant financial and technical resources for mountain regions.

## **PROJECTS**

At the local scale, small-scale and multisectoral projects are the most effective ones vis-à-vis resource management and community development. By targeting an area or community rather than a sector, and incorporating local initiatives,

significant results can be achieved. Ecological, social, and community concerns should be fully integrated at all levels.

By valuing the specific features of mountain environments, many community-based initiatives have established viable prototypes for integrating economic vitality and ecological resiliency. The key will be an array of local approaches, informed by lessons learned in other places and supported by the right policies at higher levels.

In mountainous areas planning and assessment have to provide a solid foundation for community development. Planning, monitoring and assessment should be ongoing, and not practiced only at the outset or completion of a project. This allows for a flexible learning approach and creates room for adaptation when dealing with the dynamic nature of communities and mountain environments.

In addition, planning should begin at the field level. It is important that local communities are the key participants in developing an integrated local development plan. At the same time, co-ordination among various groups and communities is important. Further, it is essential to identify potential positive impacts, such as economic benefits, as well as negative impacts, such as forest degradation and cultural exploitation. Communities should also take a leadership role in the monitoring process.

Furthermore, the long time frames required for implementing various activities should be recognised. Process-oriented approaches in which community development is seen as a continuous process have significant advantages over target-oriented approaches, as well as implications in terms of required resources.

In this respect, local strategic plans have to refer to the general guiding principles, actions and tools used to establish and manage various activities in such a manner that maximizes benefits to the community and equitably distributes those benefits. Although a certain degree of cultural and environmental change is inevitable in any development initiative local plans should aim only for the degree and type of change desired by the local community. Participatory action research can be especially helpful in understanding development and the roles played by the community and other stakeholders. This research also enables stakeholders to understand one another's views and expectations toward development and change.

It is also important that development planning and management are systematically integrated into a broader economic, socio-cultural and environmental framework. Long-term plans with special attention to local needs and wants increase the likelihood of successful activities.

Community initiatives can take place at a number of levels, including administrative units (like the village, the district, the province) and/or environmental units like regional ecosystems and watersheds. Organising structures based on a regional perspective of community, as in a district or province; tend to demonstrate greater stability and innovation. Communities working within a regional framework have the advantage of access to a wider resource base in terms of environmental and cultural attributes, capital, marketing and control. There are the greater economies of scale and appropriate scale arguments for communities within a region to cooperate with or coordinate their scarce human, natural and economic resources in the context of common tourism objectives. However, this potential is seemingly seldom taken advantage of.

In general, a regional approach can create environmentally compatible conditions, ease existing political tensions, strengthen regional competitive advantages through unity, create greater demand through product diversification, create a greater flow of goods and services as well as information systems, and enhance quality control through standardisation. Alternatively, by adopting a regional development strategy, communities within a region can potentially avoid social disharmony caused by competition between villages or towns.

Finally, community development initiatives and plans work best within the context of supportive and arbitrating national, as well as regional strategies for sustainable development. Specific policies can be enhanced by progressive national policies related to conservation, cultural heritage, and economic assistance to disadvantaged mountain regions. National strategies often rely on NGOs and community initiatives for implementation.

### **Project assumptions**

Project assumptions are statements that help to define the approaches to be taken in initiating, implementing and evaluating a project.

Such assumptions may include the following:

1. Any development cannot ignore social, biological and physical environment.
2. Partnerships between natural resource managers and their neighbouring communities create a win-win situation in natural resource management.
3. A community that puts values on its natural resources is likely to protect that resource willingly.
4. Grassroots management of the environment facilitates conservation, particularly when the community consents.

## **Providing information to the local communities and other practitioners**

In the planning stages, communities should be able to make informed decisions about the changes that are likely to occur. Alternatives and potential impacts should be understood, and unrealistic expectations dispelled. Local community information exchange includes raising awareness within local communities and potential partners about the linkages between nature, culture, and economy, or about the impacts of various activities. Accurate and complete information regarding potentials and pitfalls, as well as alternatives, are essential from a human development perspective.

The provision of information can also help dispel unrealistic expectations that a community might hold. An accurate depiction of costs and benefits can be provided through awareness raising within the community. Further, community members can understand how various plans and activities act as an instrument for the community to achieve its own broader set of goals. Community workshops, lectures and classes are effective means for educating community members. Facilitating NGOs and project teams can foster awareness about development and related issues and help communities look toward methods of alternative development.

Awareness-raising should not be limited to local community practitioners; it applies equally to all stakeholders, including project managers, planners, agents, NGOs, policy-makers, donors, and so on.

## **Skill-based training**

Skill-based training provides a community with instruction in the technical aspects of operating and managing development. It also provides information on the linkages between nature, culture and various aspects of development. Without sufficient training, programs can fail.

## **INSTITUTIONAL DEVELOPMENT**

Institutional development is one means through which local community members can empower them-selves and generate the knowledge base and enthusiasm necessary for conservation and for involvement in community development. Such institutional forms include committees, cooperatives and networks. Committees and cooperatives can ease unhealthy competition between individuals or communities, and increase the resource base available to all participants. Networks provide community members with a means for transferring knowledge and experience with mountain tourism, including related impacts and useful practices.

## **Conflict and negotiation**

The sustainability of rural development initiatives depends greatly on the capacities of the stake-holders involved, the relationships among them and their relative power. It follows that a strategy to foster pluralistic approaches to rural development should focus on building the capacities of those who have been marginalised by development strategies as well as on developing relationships that allow more effective, efficient and equal interactions and greater accountability among all participants. Therefore, the types of changes that are needed to promote substantive and sustainable community-based development are closely associated with more general processes of promoting pluralism and democratization. Without political space it is exceedingly difficult for local people to organise or have an impact on policy-making processes.

In sum, sustainable development requires an appreciation of and support for the participation of people in such processes. This includes: recognising and calling on local knowledge, skills and experience in resource management; understanding the interests and motives of people directly dependent on these resources; relating general concerns to specific local contexts; helping to identify and strengthen local institutional capacities; and challenging and revising inaccurate assumptions about the nature and causes of local problems.

Therefore, conflicts may arise; conflicts have always been a part of human life. Without conflicts, there is rarely any progress. Most resource and development issues today are less dependent on technical matters than they are on social and economic factors. It follows that project staff must learn to better work with the rural people; project staff must be catalysts in bringing people together. This, in turn, involves engaging people in dialogue.

It is not surprising, then, that both academics and practitioners increasingly stress the importance of people working together as part of the development of sound policy. Agencies must recognise planning as a forum for public deliberation on the shape of a common future. In this respect, planning needs to combine diverse viewpoints; people can work together and deliberate through collaborative processes. Indeed, many agency managers are realising that collaborative approaches may be their best and only chance to influence the direction of policy.

## **Collaborative approaches**

Creative efforts and solutions that give greater emphasis to problems and contributions of rural peoples, particularly those pertaining to local incentives for sustainable development, are needed. Collaboration is a process in which interdependent parties work together to affect the future of an issue of shared interests. Its central tenet is that the best way for the public to manage its



interest is to have all concerned parties work out a solution together on a local level. It implies a joint decision making approach where power is shared, and stakeholders take collective responsibility for their actions and subsequent outcomes from those actions. The key is that the participants' efforts are oriented not in opposition to those of their fellow participants, but in concert. An environment, then, needs to be created in which exploring differences is encouraged rather than hindered.

Collaboration, in addition, requires innovative kinds of decision-building structures that will have to be designed with considerable attention to the incentives they create. It has indeed been argued that in regions with greater endowments of social capital (i.e. more numerous civil society organisations; social networks linking people in government, society and business; and relationships based on trust and shared values) enjoyed far greater mutual accountability among state, market and civil society and, as a consequence, were characterised by more efficient governments and more synergistic relationships between state and society.

Sustainable development and sustainable livelihoods have been seen as being dependent on appropriate levels and mixes of four types of capital: human-made capital (financial resources, infrastructure, etc.); human capital (skills, knowledge, etc.); natural capital (natural resources); and social capital (social relationships). The tendency has been to suggest that social capital is the most important of the four, for it has the most significant influence on the efficiency and equity with which the other types of capital are combined at the household, local or national level. Endowments of social capital, therefore, may permit groups to be both more efficient in building and using the other forms of capital and more effective in influencing other actors; building appropriate social relationships and organisations is a sine qua non condition for development.

Social capital can be built. Most such efforts are based on a 'bottom up' approach, based on building effective rural peoples' organisations and strong networks that give them more synergistic and productive relationships with the market, government and other NGOs.

## **ORGANISATIONS IN TURBULENT ENVIRONMENTS**

Nowadays, organisations have to face the challenge of complex environments, the latter being broadly interpreted. 'Turbulent environments' are characterised by uncertainty about the nature of complex problems and the consequences of collective action, by inconsistent and ill-defined preferences and values, and complex networks of participants with a varying interest in problem resolution.

In this respect, rigid, hierarchical 'command and control' organisations whether public or private are competitively disadvantaged due to slow response, lack of creativity and initiative, and excessive cost. Today Taylorism is in crisis. Based on the separation of thinking and doing, the very high degree of specialization and the 'one best way' ('scientific') of doing things, it built rigidities both in the organisations and the fabric of the society.

Despite resistance, post-Taylorist organisations are driving and shaping both globalisation and local responses. 'Organic approaches' view organisations as systems open to their environment as well as socio-technical systems integrating the needs of individuals and organisations. Such 'project' or 'matrix' organisations are established on the principle of differentiation and integration. Moreover, according to 'decision making approaches' environmental change is to be perceived as a norm; therefore, both new ways of seeing the environment and a move beyond collecting and processing information to the creation of insight and knowledge are essential. The members of this 'species' of organisations have to be able to challenge operating norms and assumptions (i.e. being able to create new ones when appropriate), while the organisation creates space in which many possible actions and behaviors can emerge moderated by an understanding of the limits that need to be placed on behaviour to avoid chaos. Accordingly, team members with multiple skills make it possible that the team as a whole absorbs an increasing range of functions as it develops more effective ways of approaching its work; units are empowered to find innovations around local issues and problems that resonate with their needs.

Therefore, the establishment of alternative, integrated, task-oriented structures such as 'multi-disciplinary project teams' and 'parallel structures to bureaucracies' is currently on the agenda. Within such flexible structures adaptive management which is concerned with the process of learning as well as with continuous decision making and adjustments in policy and action is essential. Among organisational resources, information and human resources (i.e. human intelligence, knowledge based on experience, creativity and flexibility) are the ones, which can strengthen the power of organisations.

Evolution and development can be conceived as a process of 'creative destruction' where new innovations in effect lead to the destruction of established practices. In addition, every solution leads to a new problem i.e. problem solutions are constantly negated, and the process continuous. Then, 'permanent innovation' is seen as the solution vis-à-vis turbulence. The essential definition of innovation involves the notion of learning to learn or a process of human learning in which knowledge is continually tested and reconstructed. Hence, organisations have to adapt continuously to the rapidly changing environment and integrate the responses to external factors within the learning culture of the organisation. Besides, an understanding that the relations between an organisation and its environment are also socially

constructed is required; strategy making has to be understood as a process of enactment that produces a large element of the future with which the organisation will have to deal.

The aforementioned process of learning includes all members of an organisation and it is permanent, holistic, problem centered and context relating. It has to be clear that organisational learning is not mechanistic, but it must involve 'cultural change'. Organisations that employ 'culturally programmed strategies' which emphasise continuity, consistency, and stability in order to maintain the status quo are unable to face contemporary challenges. Culture shapes the character of an organisation. The creation of appropriate systems of shared meaning is then the task at hand; new contexts can be created by generating new understandings of a situation, or by engaging in new activities.

Action learning in organisations is the way to achieve direct results in terms of innovation. Action learning strategies differ from traditional approaches in that they strive for changes in organisational culture, the unification of systematic reflection and practice through action-research, and the development of reflective practitioners. The action-research approach:

- Makes use of the social context of a specific environmental problem or development challenge to increase its own effects;
- Redefines the research process towards a rapid, interactive cycle of problem-discovery-reflection-response-problem redefinition;
- Replaces the neutral social scientist/observer with a multi-disciplinary team of practitioners and researchers, all working together in a process of mutual education;
- Proposes that pluralistic evaluation replace static models of social processes. This is characterised by concern for: institutional functioning, continual monitoring of project implementation, the subjective views of major constituent groups, and methodological 'triangulation' by which a variety of data sources are brought to bear for evaluation; and
- Generates replicable learning from the above elements, which is constantly tested against both past experience and the results of current action.

Inter-organisational collaboration is another clear feature of successful management since there is a wide range of phenomena not amenable to control by a single organisation. The logic of complexity suggests that thinking about change in terms of loops rather than lines is more appropriate; that there is a need to replace the idea of mechanical causality with the idea of mutual causality. It follows that solutions depend on the development of shared understandings of the problem, and an ability to reframe system dynamics so that short-term individual interest and long-term sustainability become more balanced and integrated in this respect, innovative management

devotes resources to linkages with other actors, agencies, and sectors. Hence, networks emerge. An informal, task-oriented group, with either its membership being free to grow or by contracting the skills necessary to address a specific problem is a vehicle for moving, through learning-by-doing, from specific tasks to broader tasks of sustainable development.

The action-oriented network is characterised as a linking-pin structure. It is a centre of communication, general services, co-ordination and 'drive' towards the achievement of its tasks. Even without a formal status it will play a key role in integrating the loosely coupled system. In defining and implementing activities towards sustainable development conflict between organisations may well arise. In all action-oriented networks therefore, bargaining to resolve conflicts is likely to be a central mode of political action. Bargaining in turn can be made more effective by processes of organisational learning and facilitation / mediation. Consensus building involves a dynamic process that requires skill and perseverance. It is concerned with how things are done (process, thoughts and feelings) as well as what is done and changing perceptions is a key to the process.

## **EPILOGUE**

It is then obvious that sustainable mountainous development has to face and overcome numerous difficulties/obstacles. Some of them are directly linked to the specific characteristics of mountainous environments and therefore socio-economic systems; other are linked to the, usually bureaucratic, top-down, and narrow (i.e. focusing only in economic returns and thus to promising sectors) policy and project culture of intervening bodies/organisations; finally, some emerge due to changes in organisational cultures within the broader/global socio-economic context the latter being related to uncertainty and risk. Linking such complex issues within a systemic and participatory approach is but an easy task.

The dialogue among local/primary stakeholders, academics and researchers, and policy makers should then be a major task. However, such an achievement implies among others empowered local communities and local institutional building. What are, then, the appropriate structures/mechanisms for such an endeavour and how can it be facilitated? The papers in this volume intend to present a number of such efforts i.e. of building local partnerships, their successes and failures and so on in a number of European mountainous areas. Each of these areas, despite rather common characteristics in terms of environmental, population, production and economic trends (with the exception of the Swiss case), presents its own peculiarities esp. in terms of political and policy developments that, in turn, affect the emergence or not of local partnerships and their function with a view to local development. The wealth of data, approaches and experiences presented in these case studies

aspires to provide a solid basis upon to which further elaboration on sustainable mountainous development can be built.

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### **Notes to readers**

This paper is a proceeding of The Innovative Structures for the Sustainable Development of Mountainous Areas (ISDEMA) seminar in Thessaloniki, Greece. 17-18 March 2002.

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