

# Land Policy Measures Affecting Livestock Production and Forestry in Mountainous Areas and Worth-Living Integrated Development

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## Summary

The aim of this paper is to review land policies affecting the sectors of livestock production and forestry in Greece from the perspective of Worth-living Integrated Development, which is the simultaneously economic, social, political, cultural and technical/technological development, in dialectical harmony with the human and natural environment and with respect toward it. In particular, a review of policies on land consolidation, pastures, grazing regime, forest areas (and their definition) and forest cadastre is attempted, with regard to their content, their practical application and the way in which they deal with the specific characteristics of the natural and socioeconomic reality of mountainous areas. It is documented that, so far, related land policy measures have, in their majority, been partial and have failed to fulfill their purpose.

According to the theory of Worth-living Integrated Development, the elements, characteristics and phenomena, which constitute the natural and socioeconomic reality of the mountainous environment and define its multidimensional relationships, interdependences and interactions must be approached, analyzed, surveyed, mapped and monitored, following a holistic and interdisciplinary methodology. In this framework, land policy measures, such as Integrated Surveys of the natural and socioeconomic reality of mountainous areas and Integrated Land Consolidation, are necessary presuppositions for the Integrated Development of mountainous areas, particularly in the sectors of livestock production and forestry.

*Keywords: E. Michailidou & D. Rokos, worth-living integrated development, mountainous areas, land policy, livestock production, forestry.*

## Introduction

“Land policy can be defined as the set of measures, rules, regulations, initiatives, attitudes and behaviors through which the state, citizens and social groups interact, in a positive (encouraging) or negative (prohibitive) way, for the possession, distribution, administration, protection, utilization, but also the exploitation (even the over-exploitation) and dissipation of the most valuable, non renewable natural resource: Land” (Rokos, 1994). This interaction depends on several parameters, which relate to the institutional and regulative framework and the power equilibrium among ideological, political, economic, social and cultural values and choices of each government and those of specific social forces. An interdisciplinary and integrated approach and analysis of the historical, institutional, political, social, developmental and cultural factors which affect land policy, is thus necessary. Yet in Greece, land policy has been the object of partial development measures and actions focusing on urban areas, a consequence of which has been the abandonment and decay of rural areas, particularly mountainous ones.

The aim of this paper is the critical presentation of land policy measures which have been affecting, in a negative or a positive way, the development of mountainous areas in the sectors of livestock production and forestry, from the perspective of Worth-living Integrated Development,

which is the simultaneously economic, social, political, cultural and technical/technological development, in dialectical harmony with the human and natural environment and with respect toward it (Rokos, 2001a, b).

## **Critical analysis of land policy measures affecting livestock production and forestry in mountainous areas**

Mountainous rangelands and forests in Greece are affected by a number of problems. The abandonment of the traditional way of nomadic grazing of ruminant animals has led to a decrease in the allowance use of pastures, an increase in forest fires and serious erosion problems (M.E.P.P.W., 2000). Fires, caused by intention or carelessness, are still the greatest danger for Greek forests. Meanwhile the lack of a national cadastre and systematic recording of rangelands makes planning for their rational management very difficult. For the same reason, the localization and protection of burnt and encroached forest areas is almost impossible (Ministry of Agriculture, 1999).

In an attempt to solve the problems mentioned above concerning forest areas, Law 998/79 “On the protection of the country’s forests and other forest areas” was passed. According to this Law, concession of forest areas for agricultural or other (tourist, athletic, school facility, etc.) use is allowed, after approval from the Ministry of Agriculture or responsible forest authorities. This last stipulation was amended by Law 1734/87 (“On grasslands, stock rearing, forests and other items”) according to which, land use changes for these purposes presuppose the Prefect’s decision if the case regards an area of 1 ha, the Agriculture Minister’s decision for an area of 5 ha and the Ministers’ Council decision for larger areas.

Unfortunately, in the effort of Law 1734/1987 to facilitate procedures and deal with bureaucracy problems, decision making centers were transferred to lower levels, resulting in the facilitation of land use change procedures. This has become a great danger for forests near cities. On the other hand, the problem for mountain forests is exactly the opposite, as according to the Law, pastoral areas that were burnt or agricultural land that has been abandoned for a period and has meanwhile been covered by regrowth, can no longer be used productively. Finally, the Law gives all farmers the right to pay and feed their animals whenever they decide, without any programming or the implementation of rational pasture management or any protective measures for recently burnt forest areas. Such measures are far from the achievement of forest protection and Worth-Living Integrated Development of mountainous areas in the sectors of livestock production and forestry, since interaction and dialectic relations between these sectors, as well as among all other aspects of life (agriculture, economy, society, culture, education, health and technology) are necessary elements for the revival of mountainous areas and their mechanistic consideration as competitive sectors can only bring opposite results.

A very controversial land policy measure has been the implementation of forest cadastre. This was decided in 1976 by Law 248/1976, which was amended by Law 998/1979 that aimed at the recording of forests and forest areas according to their proprietary regime, in absentia of a national cadastre as the necessary metric and qualitative infrastructure for this effort. The inventory regards existing forests and forest areas as well as forest areas that existed in the past and have changed use. According to C.P.E.R (1989), since then, related surveys and forest cadastre preparation have proceeded at very slow rates. One of the main reasons for the delay is the confusion caused by the two Laws on forest cadastre (Law 248/1976 and Law 998/1979) because they give different definitions for forest areas. Additionally, the necessary procedures described are complicated and in many cases overlapping or parallel with those needed for the preparation of the National Cadastre (Ministry of Agriculture, 1999, Rokos, 1993, 1994).

The land policy measures mentioned above affect the development of mountainous areas but were not designed especially for them. In general, there is a complete lack of a special mountain development policy in Greece, irrespectively of what kind of development this would be (mono- or multi-dimensional/sectoral, economic, “sustainable” or integrated). For example, it has already been mentioned that peri-urban and mountain forests are affected by different problems. The need for a special mountain land and development policy, according to the special characteristics of mountains’ natural and socioeconomic reality, is thus indicated. Only in the last few years have there been some special measures regarding mountainous areas, following European Commission’s (E.C.) guidelines. For example, Ministerial Decision (KYA) 488/12-7-2002 concerns financing for the improvement, utilization and management of pastures in mountainous and less favoured areas. The problems mentioned above regarding the delimitation and recording of forests and pastures still remain unsolved, which means that, among other issues, there is the risk of encroachment, deforestation and overgrazing in forests and forest areas with the tolerance of the State, which does nothing to deal with these problems, although they have repeatedly been pointed out in the past (Rokos, 1993, 1994).

Several problems mentioned above were already pointed out in 1952 by P. Margaropoulos. It seems that since then, policy measures affecting mountain (and not only) rangeland management and forests that were implemented the following years, as well as all development policies affecting mountainous areas directly or indirectly, were (deliberately or not) partial and/or ineffective. All land policy measures can only be examined within the framework of the general policy for rural - and therefore for mountainous - areas. For example, one of the most widely implemented measures for the improvement of Greek agriculture’s competitiveness (an essential element for “sustainable rural development”) is land consolidation (Law 674/1977). As far as mountainous areas are concerned, the intensely changing relief is not appropriate for the existence of large holdings. An increase in the productivity of mountainous holdings would cause additional problems, such as difficulties in finding labour (since these areas are constantly being abandoned), difficulties in product distribution (which practically means that the reassurance of a steady and satisfactory agricultural income is doubtful) and finally, serious damage or degradation of the sensitive and fragile mountainous environment and its valuable ecosystems. Moreover, the creation of a big livestock production unit would affect the traditional character of local products, in addition to being a foreign body in a traditional mountainous settlement. But even if we overlook land consolidation’s negative results, this measure can only be characterized as useless for mountainous areas, since there is complete lack of protective measures to avert future fragmentation of the land redistributed, which would in essence still be divided due to the intensely changing topographic relief, the different microclimatic conditions prevailing and social factors.

According to the European Common Agricultural Policy (C.A.P.), among the basic principles for the “integrated strategy for rural development” are “multi-functionality” which is the “creation of alternative sources of income”, and “multisectoral approach that seeks to develop the rural economy by creating new sources of income and employment” (European Commission, 2000). Both seem to be leading to the abolition of the original occupation of the “farmer” and to the creation of a new rural life style that combines several occupations other than traditional production, such as light industry or agrotourism. Mass tourism activities, big hotel units and agricultural industries may also contribute to the degradation of mountainous environment and the loss of local identity and will only have marginal benefits for mountainous communities, since enterprises will probably belong to people from other areas and their seasonal personnel will probably come from other areas as well. On the other hand, agrotourism is considered to be the answer for every mountainous area’s problem. In our opinion, agrotourism should be promoted in specific areas, only after thorough examination of the potential of each area to meet the needs of this development model, since agrotourism presupposes, among other factors, satisfactory infrastructure (roads, water supply, etc.).

There is also the danger that people might enter the farming sector only because of the high financial motives offered for agrotourism activities. The truth is that agrotourism in a mountainous area can only have a future if pursued in combination with other productive procedures and the promotion of local products, otherwise in areas where tourist traffic is low and seasonal, mountain people's income will be proportionately low and seasonal.

This is only a small example of the negative consequences of the contemporary policies implemented by the E.C. and thereafter by the Greek State, for the so called "sustainable development" and the "economic growth" of rural and mountainous areas, leading to the adoption of an urban life style and the gradual loss of these areas' special natural and socioeconomic mountainous identity (clean air, fabulous landscapes, maintenance of tradition and customs, etc.), which after all, is an advantage for their revitalization. Unfortunately, the inappropriate land policy measures and development policies which have been implemented, in combination with the difficult natural and socioeconomic conditions prevailing in mountainous areas, have finally led to these areas' gradual and continuing abandonment, a trend which contemporary "sustainable policies" have failed to reverse.

## **Proposals for land policy measures aiming at the Worth-living Integrated Development of mountainous areas in the sectors of livestock production and forestry**

As monodimensionally economic "developmental" processes have been causing dramatic social and environmental problems all over the world, a lot of people seem to be convinced that real development can only be integrated. Unfortunately, even when the term "integrated development" is used, the need for harmonious and synergistic integration of the new scientific and technological possibilities and the real possibilities and limitations of the particular natural and socioeconomic conditions, at local, regional, national and planetary level, is not, usually, deeply understood. As established by the study of land policies related to forestry and livestock production, the "development" strategies implemented under cover of "sustainable development" – a concept with a completely ambiguous and controversial meaning (Rist, 1997, Rokos, 1980, 2001a, Schuurman, 1996) – in reality promote sectoral development, competitiveness and economic growth, mainly serving the interests of the North-West European countries.

Integrated Development presupposes integration and interdisciplinarity in approaching, analyzing, recording, monitoring and utilizing the real strengths and possibilities of the natural and the socioeconomic reality and of their multidimensional interdependences, interrelations and interactions (Rokos, 1996, 1998, 2001a). In the framework of the theory of Worth-living Integrated Development of mountainous areas, a precondition for integrated land policy is the systematic collection, mapping, monitoring, analysis and interpretation of the necessary reliable, diachronic and up-to-date data on their natural and socioeconomic reality and the state of livestock production and forestry. In addition to statistical data, these Integrated Surveys of mountainous areas require the use of photointerpretation and remote sensing methods and techniques in a Geographic Information Systems (G.I.S.) environment for the systematic mapping and monitoring of land uses. In the sectors of mountain livestock production and forestry, Integrated Surveys can be useful for:

- editing land use/cover maps of mountainous areas,
- mapping and monitoring forests and forest areas in terms of area, tree species, age, health, topographic relief, etc.,
- investigating, surveying, mapping and monitoring natural and human resources and existing infrastructure,
- developing fire monitoring systems for immediate mobilization and confrontation. This can be achieved through integrated forest monitoring and management systems based on remotely

sensed data in a G.I.S.. Such systems could also contribute to the predictions of possible fires and their behavior. For this purpose, data on topographic relief, slope, existing vegetation and current temperature, moisture and wind conditions are necessary,

- recording burnt areas immediately after a fire in order to prevent illegal construction and over-grazing,
- monitoring mountain forests and forest areas to protect them from illegal construction,
- monitoring and mapping agricultural holdings in a systematic manner,
- mapping and recording mountain pastures for their rational management, taking into account the real possibilities and limitations of each mountainous area, traditional knowledge and practices and the specific natural and cultural environment. Management guidelines should not blindly follow E.C. directives and regulations, but have to be founded on a knowledge base of reliable qualitative and quantitative information, including information generated using remotely sensed, spatial (altitude, slope, orientation etc.), climatic (climate and microclimate), soil, geological, hydrogeological, agricultural and other data on the natural conditions which affect agricultural and livestock production practices in each area in a G.I.S. environment,
- monitoring land use changes.

Another land policy measure proposed in the framework of the Worth-living Integrated Development of mountainous areas is Integrated Land Consolidation, the implementation of which presupposes the existence of Integrated Surveys (Rokos, 1980, 2001c). Contrary to the prevailing concept of land consolidation, the implementation of which is useless – if not negative – for mountainous areas as documented above, “Integrated Land Consolidation in mountainous areas conceptualizes in a holistic and interdisciplinary way the total problem which has to be solved, and which concerns the Integrated Development not only of the land to be redistributed but also – and most importantly – of other, more remote and harder to access mountainous land which is environmentally sensitive, climatically vulnerable, pedologically critical, geomorphologically discontinuous and intensely changing in terms of altitude” (Rokos, 2001b). In addition, it takes into account and utilizes the existing human resources and at the same time aims at contributing to the revitalization of mountainous areas by attracting new labour. By taking into account not only the natural but also the human resources of an area, Integrated Land Consolidation is not another partial measure that monodimensionally supports agricultural economic growth and competitiveness. It promotes Integrated Development with respect to the human and natural environment and their multidimensional interrelations, interactions and interdependences. All members of a community can contribute to such an effort:

- land owners (whether they are permanent residents of their homeland or not, financially active or retired) and local authorities (under specific spatial, environmental and developmental provisions) offer their land and equipment and if possible their personal labor,
- landless farmers offer their personal labor and
- scientists and technicians offer their scientific and technical knowledge (Rokos, 2001b).

The disposal of agricultural land, for a low rent, without loss of property rights, to landless people/farmers or to emigrants who would like to resettle in their homeland, for group farming, would not only give motive for the settlement of young people in mountainous areas and would keep landless residents there, but could also contribute to the alleviation of problems stemming from current legislation, which forbids the productive use of abandoned agricultural land in case that forest has covered it (Law 1734/1987). It is obvious that the idea of Integrated Land Consolidation is closer to the form of a multifunctional association of producers and inhabitants than to the prevailing rural role of land consolidation.

For the achievement of such a venture, a change in development thinking is absolutely necessary for the state, which should play the leading role, in cooperation with local authorities, for the

planning and coordination of this effort according to the concept of Worth-living Integrated Development, as well as for all citizens, who should put aside personal conflicts and competitions and work together for the common good, which in this case is simultaneously their own good. Seminars, workshops or other educational activities, preferably carried out by local authorities in cooperation with research, educational or non governmental institutions working for Integrated Mountainous Development and with the participation of native scientists, would contribute to the understanding and adoption of Worth-living Integrated Development values, not only for the implementation of an Integrated Land Consolidation, but as a life theory in general.

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