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Greek Mountainous Areas: The need for a Worthliving Integrated Development

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Summary

Greece is the most mountainous country of the European Union (EU) along with Austria. According to NORDREGIO (2004) mountainous areas in Greece account for 77.9% of the total country area, while according to the National Statistical Service (2005) the area of the mountainous and semi mountainous municipalities accounts for 71.3%. Mountainous areas are fields of great natural, biological/genetical and cultural wealth, but in their great majority they face numerous environmental and socioeconomic problems. These are mainly abandonment, isolation and population ageing. As for practicing agricultural activities, this is very difficult, because of the intense and intensively changing topographic relief, the fragmentation and dispersion of very small land holdings (ownership/use/exploitation units) and the extreme climate conditions prevailing.

In 1975, the European Community announced the first mountain oriented "development" measure, introducing direct income support for farmers in mountainous areas (European Commission 2002). Since then, important progress has been made not only in dealing, at a theoretical level, with the strategies, policies and measures for the "sustainable" development of mountainous areas, but also in documenting specific critical views (Dax 2004, Rokos 2004, 2010).

The fact is that so many years after the "implementation" of these European and national strategies, the complicated, multidimensional and interrelated problems of environment and development in mountainous areas, have not been confronted. On the contrary, in many cases, they get even worse.

There are many reasons for this failure. First of all, there is no specific European strategy for the development of mountainous areas which take into consideration the fundamental elements that characterize the specific natural and socioeconomic reality of these areas, even though the voices pointing out the need for a "Green Paper on the Future of the European Mountain Areas" (Euromontana 2007, AEM 2008) are getting stronger.

Apart from this, a critical analysis of the European strategies, policies and measures for the "sustainable" development in general and especially for the development of mountainous areas, indicates that the main directions for such a development, concerning agriculture and secondly, tourism, depend exclusively on competitiveness, entrepreneurship, innovation and flexible forms of employment and are in most cases partial, sectorial, segmental and even inappropriate. In this paper,

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it is documented that the implementation of such policies, even though these policies could have some positive sides for industrial lowland countries and regions, cannot contribute to the revival of the mountainous areas in general and especially of those in extremely mountainous countries like Greece. On the contrary they may deepen the existing social and economical problems of mountainous regions and degrade even more their already sensitive and vulnerable natural, socioeconomic and cultural environment.

Thus, a radically different approach is necessary for mountainous areas. This approach should be based on the concept, values, methods, techniques and procedures of the Worthliving Integrated Development (WID), which has to be simultaneously economic, social, political, cultural and appropriately technical/technological development (Rokos 2003, 2004, 2005, 2010). WID should be always in dialectical harmony and with respect toward human beings and the natural and cultural environment of mountainous areas, in which they behave as their integral part and not as owners, "investors" and exploiters. The basis of such developmental and environmental policy should be the implementation of an interdisciplinary and holistic approach, methodology and practice with the overall aim of a life worth-experiencing by all citizens of the world, at our common home, planet earth. The technological tools, the methodological and technical steps and the optimal policy practices for the pursuit of the Worth-living Integrated Development include interdisciplinarity and the need for holistic approach, inventory, mapping and systematic monitoring of the elements, features, appearances, phenomena and facts, which constitute the - unique in each case - unity of natural and socio-economic space.

The economic but moreover the social, political and ethical crisis not only in Greece, but also in Europe, as well as all over the world, might be an opportunity for the revival of mountainous areas in an integrated manner, far away from the dominant developmental model that caused all the contemporary social, economic and environmental problems in mountains and in our planet, in general.

1. Features of Greek mountainous areas

Mountainous areas are globally recognized as biodiversity hotspots and are the headwaters of all Europe's major rivers. Apart from their natural, environmental and mineral wealth, they are also considered as cultural reserves, where traditional social structures, customs, habits, professions, know how and techniques are still lively transferred from generation to generation. They are also great examples of successful coexistence between human beings and their environment, as mountainous people have managed to adapt, interrelate and interact with it in harmony and with respect.

Even though Greece is famous for the hot sun and beaches according to touristic advertisements, the fact is that at the same time it is the most mountainous country of the European Union (EU) along with Austria. According to a study conducted on behalf of the European Commission (EC), mountainous areas in Greece account for 77.9% of the total country area (NORDREGIO 2004), while according to the National Statistical Service (2005) the area of the mountainous and semi mountainous municipalities accounts for 71.3%.

But in their majority, Greek mountainous areas face serious social, economic and environmental problems. Maybe the most serious problems are abandonment, population reduction and ageing (M.E.P.P.P.W 2000, Papadimatou and Rokos 2004, Rokos 2004). The luck of adequate and/or sufficient educational, health, transport and communication infrastructures in combination with the physical isolation of these areas, enhance the aforementioned social problems. There are also

difficulties in practicing agricultural activities because of the intense and intensively changing topographic relief, the extreme climate conditions prevailing, the short growing season and the fragmentation and dispersion of very small land holdings (ownership/use/exploitation units) (Rokos, 2004, Michailidou and Rokos 2005). Finally, the danger of loosing the unique natural and cultural mountainous identity is evident as the contemporary lifestyle, which is mainly characterised by overconsuming, relentless pursuit of wealth and cultural uniformity, is expanding and dramatically affecting them.

All the natural and socioeconomic problems of Greek mountainous areas are complicated and interrelated, so strategies and policies for their revival should be holistic and integrated.

2. European strategies for mountainous areas

The first mountain oriented "development" measure, introducing direct income support for farmers in mountainous areas, was published by the EC in 1975 (European Commission 2002). In 1988, mountainous areas were first considered as specific spatial unities which needed separate development policies and not just as part of rural areas in general (Commission of the European Communities 1988). Gradually, more and more policies have been implemented in the direction of the "sustainable development" of mountainous areas (European Commission 2009a) and especially after the International Year of Mountains in 2002. Even though one third of the European territory is mountainous, just recently (2008) the importance of implementing specific policies "to rural areas, areas affected by industrial transition, and regions which suffer from severe and permanent natural or demographic handicaps such as … mountain regions", was recognized. According to the ″Consolidated version of the Treaty on the Functioning of the European Union″ (2010), policies should lead to the "strengthening of economic, social and territorial cohesion of mountain regions".

Trans-national approaches to mountainous regions began in the Alps with the foundation of the International Commission for the Protection of the Alps in 1952, which eventually lead to the Convention on the Protection of the Alps (Alpine Convention) in 1991. In 2003 the Framework Convention on the Protection and Sustainable Development of the Carpathians (Carpathian Framework Convention) was signed by eight countries (Price 2010) and since 2009 networking initiatives have been taking place for South Eastern European mountainous regions.

Despite these initiatives, there isn't a separate strategy for the development of mountainous areas in Europe but all relevant measures are part of other European sectoral and regional policies.

According to the Community strategic guidelines on cohesion, "the actions supported with the limited resources available to cohesion policy should be concentrated on promoting sustainable growth, competitiveness and employment having regard to the renewed Lisbon agenda" (Official Journal of the European Union 2006a). Thus, "the programmes supported by cohesion policy should seek to target resources on the following three priorities:

- improving the attractiveness of Member States, regions and cities by improving accessibility, ensuring adequate quality and level of services and preserving the environment,
- encouraging innovation, entrepreneurship and the growth of the knowledge economy by research and innovation capacities, including new information and communication technologies, and
- creating more and better jobs by attracting more people into employment or entrepreneurial activity, improving adaptability of workers and enterprises and increasing investment in human capital."

Following the concept of "sustainable development" which depends exclusively on competitiveness, entrepreneurship, innovation and flexible forms of employment according to EC official documents (Official Journal of the European Union 2007, European Commission 2011), specific measures are implemented, mainly for the rural development of mountainous areas.

Finally the Commission gives special attention to the formulation and implementation of Territorial Cohesion policy. "Territorial Cohesion … is a means of transforming diversity into an asset that contributes to sustainable development of the entire EU" by making the most of inherent features of the various territories to ensure the harmonious development of all these places. "The concept of territorial cohesion builds bridges between economic effectiveness, social cohesion and ecological balance, putting sustainable development at the heart of policy design." "Three specific types of regions cases face particular development challenges: mountain regions, which are often border regions and in which more than a third of the people live in rural regions, island regions, which in many cases are mountainous … and the 18 European sparsely populated regions" (Commission of the European Community 2008). "Mountain and island regions present economic characteristics as singular as their topography. While tourism has, in many cases, served them well, boosting the local economy and providing the means and motivation for transport links and good basic services, it has also made them vulnerable. Dependence on one sector alone puts these economies at risk, rendered more acute by the challenges of climate change … Accessibility is another cumulative barrier to development –the islands are frequently peripheral and mountain areas in many cases act as natural barriers between Member States, reinforcing border effects. International co-operation in these areas is therefore essential not only for the mountain areas themselves, but also for the lowland areas they separate" (European Union 2008).

In this framework there should be better coordination of Community policies especially with transportation policies, energy, fast internet connection, Common Agricultural Policy, employment, environment, high quality research and competitiveness (European Commission 2009b).

So far no specific measures have been announced for the achievement of the indefinite objective of the Territorial Cohesion, although "many contributors argued for a clear-cut definition" responding to the relevant public consultation[3].

3. National strategies for mountainous areas development

At national level, gradually various European countries such as Austria, Switzerland, France and Spain, have become aware that sectoral programmes alone could not cope with environment and development issues of these regions and tried to apply more integrated "bottom-up" approaches (Dax 2004). Despite this, in Greece, policies for the development of mountainous areas are practically stiff implementation of the relevant European policies without any effort of adaptation to the country's specific needs and characteristics. The National Strategic Reference Framework (NSRF), which is the reference document for the programming of European Union Funds at national level for the period 2007-2013, is formulated according to the strategic guidelines of the EU Lisbon Strategy and Cohesion Policy. According to NSRF (Hellenic Republic 2007) there will not be a differentiated policy implemented at regional level, but a horizontal policy covering mountainous areas of the entire country. "The strategic development of the mountainous space aims at restructuring the production and housing activities … and at dealing with pressures, which appear in certain mountainous areas due to the tourist and housing development. The development of

[3] http://ec.europa.eu/regional_policy/consultation/terco/consultation_en.htm

mountainous areas will be pursued in a prudent manner, so as not to put its broader ecological and cultural importance at risk, by combining traditional and modern business activities within limits compatible with the environment and the landscape, as well as with the rules of the market. In this context, developing tourism and small-scale tourism in particular, maintaining agriculture and cattle-breeding, highlighting the ecologic and social importance of forests and creating/preserving small industry are distinct areas of intervention. … Therefore, the elaboration of a multifunctional development model is considered desirable."

Besides this general strategy, we should point out that in 2004 a draft plan for a Common Ministerial Decision was established with subject "Special Framework of Regional Planning and Sustainable Development for Mountainous Space". Even though it is not yet completed, signed and published, according to the draft, special attention should be given to tourism (especially alternative tourist activities, but also to the creation of new ski centres), agriculture and the utilization of natural (especially renewable energy) mineral and water resources. Even though is not yet published, we can conclude that, 7 years after the draft, the main directions for the development of mountainous areas remain competitiveness, diversification of production and tourism, even though these strategies have failed as documented below.

4. National policies for mountainous areas

The "Rural Development Programme of Greece 2007-2013"[4] (Hellenic Ministry of Rural Development and Food 2010) complies with the EU rural policy therefore all the measures for the agricultural development of Greek mountainous areas are based on the relevant Council Decision (Official Journal of the European Union 2006b).

The most important of them are:

Aid for the setting-up of young farmers (measure 1.1.2): According to the Hellenic Ministry of Rural Development and Food (MRDF) "the objective of this measure is the revitalization of rural areas, through the setting up of young farmers by giving motives". Young farmers should submit a business plan and they are eligible for aid depending on the area of residence, the productive direction of the farm and the income. According to the 1st call for interest on January 2009 the payments are as follows:

[4] According to the Hellenic Ministry of Rural Development and Food (http://www.agrotikianaptixi.gr), "the new programming period 2007-2013 presents a great opportunity to boost Greek agriculture competitiveness, improve the environment and broadly develop a country´s rural areas through financing support supplied by the European Agricultural Fund for Rural Development (EARFD).

The rural development policy for Greece is implemented through the Rural Development Programme 2007-2013 (RDP) focusing on the following Axes :

AXIS 1 : Improvement of the Competitiveness of the Agricultural and Forestry Sector

AXIS 2 : Improvement of the Environment and the Countryside

AXIS 3 : Quality of Life in Rural Areas and Diversification of the Rural Economy

AXIS 4 : Implementation of LEADER Approach"

	Criterion	Parameter	Support (€)
1	Area of residence	Mountainous area	15.000
		Less-favoured area	10.000
		Other	5.000
2	Productive direction in the future situation	Animals	15.000
		Cultivations	15.000
		Mixed-Beekeeping	10.000
3	Future income	> 120% from initial income	10.000
		80% - 120% of initial income	5.000
TOTAL POSSIBLE SUPPORT		Maximum	40.000

According to the table, payments are increased for mountainous farms with higher incomes.

Aid for early retirement (measure 1.1.3): The measure concerns farmers at the age of 55-65 who have been productive for at least 10 years before retirement. At least 50% of the farm (and within 10 years the whole of it) should be transferred to a young farmer under 40 years old. Since 2007 no call has been published.

Aid for farm modernization (measure 1.2.1): The measure aims at the modernization of animal farms mainly, by using innovative technologies for the enhancement of quality, the production of organic products and the diversification towards non-food and energy plants. Fundings regard the purchase of new mechanical equipment and infrastructure, computer and communication technologies, automatization and monitoring of production and the promotion of e-commerce.

The percentages of the payments have as follows:

Beneficiary	**Small island of Aegean**	**Mountainous, Less Favoured, Natura 2000 and areas of 2000/60/EC decision**	**Other areas**
New farmer	75%	60%	50%
Others	75%	50%	40%

Aid to compensate for handicaps in less favoured areas (measure 2.1.1): According to MRDF "mountainous areas are characterized by high elevation and steep slopes which are their main natural handicaps. These handicaps constrain the farmers' options regarding the agricultural species and varieties that can be cultivated in such conditions (mainly extensive productions). At the same time the functioning and transaction costs are increased affecting negatively the farmers' income. As a result, large areas are being abandoned with negative consequences to the preservation of rural areas, the environmental protection and the prevention of natural disasters. Thus, the preservation of agricultural activities in these areas is necessary and a measure towards this direction is the compensation for counterbalancing income decrease due to the aforementioned natural handicaps". The following table presents the aid for 2010 according to the 3rd call for interest.

Plantation	Aid in Euro by Ha			
	New Farmers		Others	
	With green certificate (under 40 years old)	New farmers or/and early retirement successors (under 40 years old)	Small islands of Aegean	Other areas
▪ Animal food ▪ Medicinal plants and herbs ▪ Legumes ▪ Non food	140	125	110	100
Other cultivations	80	80	80	80
Pastures	160	150	140	110
Maximum aid	6.600 €	6.100 €	5.500 €	5.000 €

Aid is given provided that beneficiaries are permanent residents of mountainous areas and they cultivate an area of at least 2 Ha.

Aid for agri-environmental undertakings given by farmers (measure 2.1.4): Agri-environmental measures are designed to encourage farmers to protect and enhance the environment and natural resources (soil, water, air) on their farmland by paying them for the provision of environmental services. The measure includes plenty of actions concerning mountainous and in general rural areas, the most important of which are:

- Environmentally friendly practices, i.e. organic farming and livestock production, extensification of farming.
- Agri-environmental actions for the protection of water resources:, i.e. crop rotation, fallowing.
- Actions for biodiversity preservation, i.e. aid for the set-aside of farmland, preservation of extensive cultivations where there is danger of genetic erosion.

Other measures, according to Rural Development Programme of Greece "2007-2013", concerning the environment and development of mountainous areas, are voluntary land consolidation, improvement of mountainous pastures, diversification towards non agricultural activities, restoration and development of villages and protection and enhancement of rural heritage.

European Commission also funds measures for the improvement of forests' economic value, improvement of the quality of agricultural products, vocational training, payments for practicing farming in NATURA areas, protection of terraces, reforestation actions, flood and erosion protection programmes in burned mountainous areas and promotion of tourist activities (European Commission 2002, 2009a, Hellenic Ministry of Rural Development and Food 2010).

LEADER is a very important European initiative for the support of development actions in mountainous and less favoured areas. It is based on a "bottom-up" approach of programming and implementation by local action groups for each area. The initiative promotes the creation and development of very small enterprises, efforts for the diversification or rural economy, promotion of tourist there is no specific strategy for the development of Greek mountainous areas but the

policies implemented follow the general European model for rural and regional "sustainable" development the main elements of which are the enhancement of economic growth, competitiveness and flexible forms of employment activities, enhancement of rural heritage, villages' restoration, cooperations, networking and marketing.
Apart from the European rural policy, other policies and measures also affect the environment and development of Greek mountainous areas. For instance, one should mention actions for the quality and quantity of infrastructures, initiatives for local entrepreneurship, education, training and lifelong learning, research and technology, transports and communications and cross-border cooperation (Interreg initiative).
Actions having to do with knowledge, technological innovation and information society, with mountain areas as potential beneficiaries, are not always fully utilized as Commissioners point out (European Commission 2002).

5. Some critical aspects of European and national strategies and policies for mountainous development

As documented so far, (Rokos 2003, 2005, 2010, Sedlacek and Gaube 2010).
In 1987 World Commission on Environment and Development (WCDE), utilizing contributions from scientists, academics and politicians of different values and theories from all over the world signed "Our Common Future" report (WCED 1987). Despite the Commission's correct analysis and findings regarding the perpetual increase in inequality, poverty and marginalisation of the great majority of citizens in the "developing" third world countries, as well as in the ghettos and the poor regions of developed countries, "sustainable development" is limited to the need for rational management of our planet's resources, so that they suffice for generations to come according to the interests, values and policies of the always favoured 20% which owns the 80% of the world wealth.
The definition of "sustainable development" as development which meets the needs of the present without compromising the ability of future generations to meet their own needs evokes several, huge, well-founded, theoretical and practical questions for scientists working on development issues, politicians managing these issues and all thinking citizens and workers on the planet. Will "sustainable development" concern all human beings in all countries and regions and all their needs? What are these needs? Whose are they? Who determine these needs, in what manner and on what criteria? Are they the same for every part of the planet and every culture, the "developed" western, capitalist countries (and all their regions and population categories), the rising eastern economies, the former communist and currently brutally capitalist economies and the "developing" countries of the third world? How are priorities for their satisfaction ranked in space and time? Who may determine the future needs of coming generations and how? In meeting these needs, how are we to co-evaluate and confront issues related to production, distribution and consumption (as well as productive and social relationships and forces), intragenerational and intergenerational justice for all social classes, respect for and protection of human, individual, political social and work rights and the natural and cultural environment, eradication of illiteracy, poverty, oppression and employment? (Rokos 2005)
Unfortunately, voices documenting the objective inability of the strategies, policies and measures depending on the theory and concept of "sustainable development" strictly based on competitiveness of the wild neoliberal markets, (Rokos 1992, 2003, 2005, 2010, Sachs 1992, Papadimatou and Rokos 2004, Michailidou and Rokos 2005) to deal with multidimensional and complicated contemporary issues of human development, politics, culture, economy, society and

environment are proved to be true, as we are all witnessing the recent dramatic consequences, namely the economic but moreover the social, political and ethical crisis not only in Greece, but also in Europe, as well as all over the world. This "development" paradigm is "only" sustainable for the rich, sustaining and growing their fortunes. According to the Human Development Report (United Nations 2010), one of their conclusions "is the lack of a significant correlation between economic growth and improvements in health and education". Also "the distance between the richest and poorest countries has widened to a gulf. The richest country today (Liechtenstein) is three times richer than the richest country in 1970. The poorest country today (Zimbabwe) is about 25 percent poorer than the poorest country in 1970 (also Zimbabwe)." At the same time disparities within the countries between the poor and the rich remain huge and in many cases increase.

The failure of the relevant EU policies and the need for new strategies is now obvious according to their official documents (Official Journal of the European Union 2008a, Commission of the European Communities 2009a).

In 2006, Spring European Council asked the Committee of the Regions to prepare a summary report in support of the Partnership for Growth and Jobs for its 2008 Summit, to assess the effects of the revised Lisbon Strategy on the local and regional level, and to provide an outlook beyond 2008. One of the key changes of the revised Lisbon Strategy adopted in 2005 is the concept of 'going local', aimed at stressing the role of the local and regional levels. But the "Lisbon paradox" is pointed out, namely "while Europe's regions and cities are engaging in virtually all the growth and jobs objectives of the Lisbon strategy, a majority of them feel that the contribution of this Strategy towards the achievement of these objectives is of low importance". The Committee "regrets this 'Lisbon Paradox' and recalls that increased ownership of the growth and jobs agenda, as requested in the 2005 revision of the Lisbon Strategy, can be achieved only if the different levels of government (the EU, national, regional and local) work together to meet the task" (Official Journal of the European Union 2008a). According to the Committee, the only cause of the failure in implementing Lisbon goals is the luck of coordination among local and regional authorities and not the fundamental values, options, objectives and implementation means which should probably be revised.

Moreover, two key issues in implementing Cohesion Policy are causality (identifying the impact on growth attributable to Structural and Cohesion Funds) and the opportunity cost (the best way of spending the money through other EU or Member State policies) (Bachtler 2009).

Despite these conclusions, practically EU developmental policy remains the same (Commission of the European Communities 2009a) and the only innovation is the concept of "green growth/economy" which is promoted as panacea for all contemporary socioeconomic problems within the concept of "sustainable development". "The exit from the crisis should be the point of entry into a new sustainable social market economy, a smarter, greener economy, where our prosperity will come from innovation and from using resources better, and where the key input will be knowledge" (Commission of the European Communities 2009b). The truth is that we are talking about a new bussiness opportunity for funding and developing environmentally friendly technologies (concerning mountainous areas as well), with possible positive effects on environment but doubtful impacts on local employment and income.

Especially for mountainous areas, the basic components of such policies which are competitiveness, entrepreneurship, innovation and flexible forms of employment cannot objectively contribute to their integrated development (Rokos 2004). On the contrary they may result to their even greater decline and abandonment because of their difficulties and constraints in adapting to the market

demands due to the small and dispersed land holdings, the low fertility and productivity, the lack of infrastructures, the remoteness and the topographic relief which makes the use of automatic productive systems difficult. These characteristics raise the production and delivery cost. Besides we wonder what competitiveness means for mountainous areas. Is it competition between upland and lowland areas? Among upland areas? Or is it among the few residents of each mountain community who literally fight for their survival? At the same time large scale investments may degrade the fragile mountainous environment.

In Greece a major problem in implementing national development plans is the low absorption and utilization of the available EU funds. According to European Commission (2011) Greece is in the last place in terms of percentage of uptake of the 2007-2013 Cohesion Policy allocations contributing to sustainable growth by Member States. As documented above, rural development measures for the development of mountainous areas face the same problem and by 2011 in many cases there have not been any calls for interest. Moreover, even though one may argue that payments relieve beneficiaries temporarily, longterm monitoring of the impacts to local societies and their environment is under contestation as long as measures are not part of integrated structural programmes even for the one-dimensional rural development of mountainous areas.

Specifically, measure 1.1.2 for the setting-up of young farmers, presupposes higher payments for the most profitable enterprises. The real situation of Greek mountainous farms is much different as they are family landholdings of a very small size, fragmented and dispersed. If the measure really aims at the improvement of farmers' living conditions and not only at attracting foreign, not necessarily friendly to local environments, "investments", should take the specific mountainous reality into consideration.

As for measure 1.1.3 (early retirement), no calls for interest have been published so far and there is a big question if there will be any, given the contemporary reforms in the limits and preconditions for retirement in Greece.

Beyond the Greek reality, especially for mountainous areas, is measure 1.2.1 concerning farm modernization. Obviously, new technologies cannot solve sustainability problems of mountainous family farms. Also, the utilization of such technologies is generally unnecessary because of the farms' small size, if not impossible, due to the intense and intensively changing topographic relief which makes the use of advanced agricultural machines and automatic systems impossible. So far only two calls have been published concerning small and large scale plans for the improvement of farms.

Compensations for handicaps in less favoured areas (measure 2.1.1) are the premium and oldest measures for mountainous areas. According to the National Statistical Service most of the farmers in mountainous areas have landholdings of less than 2 Ha or use community pastures so they are not beneficiaries. Besides, payments are increased for farmers with green certificate, which is positive and for those below 40 years old. Of course the aim is to attract and support young people but the fact that in Greece most mountain farmers are older (in many cases much older) and because of them many villages are not yet abandoned, shouldn't be overlooked.

Criticizing measure 2.1.4 on agri-environmental measures, especially for mountainous environment rich in biodiversity, waters and habitats, but also in danger by natural hazards, we believe that integrated plans for environment protection by area should be promoted. On the contrary the authorized measures depend on possible initiatives by individual farmers, in many cases having as primary objective the financial aid without any environmental awareness. Apart from this, benefits are minimal when in nearby lands conventional agricultural methods are used, especially in

mountainous areas where objectively can't be any extensive cultivations. So the measure can be characterized as partial and ineffective. By now, from the 14 types of actions funded, only 2 calls for interest have been published about the preservation of agricultural genetic resources and the protection of certain regions from nitrates.

Another measure for mountainous agricultural land is voluntary consolidation. According to Rokos (1980, 1989, 2006), in lowland areas the implementation of this measure failed (in fifty years only one sixth of Greek lowland agricultural land was covered, without any provision for keeping united the new larger consolidated land) so implementation of consolidation projects would objectively be more problematic in mountainous areas.

Finally, the measures on agrotouristic activities could have some possible effects but should be integrated and adapted to each area's needs as they cannot face all related problems in every mountainous area (Michailidou and Rokos 2005). The first calls for interest on restoration and development of villages and on protection and enhancement of rural heritage were published in 2010, in the middle of the programming period. As for LEADER initiative, the programme is in abeyance.

Concerning the rest policies for mountainous areas, objections are expressed regarding strategies for their tourist development. Ski tourism can only offer seasonal income in certain areas. In Arachova for instance, one of the most touristic Greek mountainous villages with a ski center, local incomes were increased significantly, but on the other hand, the building of cottages and tourist settlements from non locals without any respect to local architecture and ethics, as well as massive tourism, degraded traditional values, culture, communities and the local character in general, as local culture survives only as folklore and souvenirs "made in China" in most cases. But the most important issue is the temperature increase globally as a result of climate change that reduced and still reduces annual snowfalls and therefore the operational season of ski centers. And of course climate change is the result of human monocracy in pursuit of wealth upon nature in the frame of the so called competitive "sustainable development". For these reasons our opinion is that the creation of more ski centers across Greek mountains would only cause more degradation to their natural and cultural environment and have negative effects on local economy as well.

Generally speaking, one-dimensional promotion of the creation of tourist installations and relevant infrastructures, particularly after the unfortunate economic circumstances in Greece, doesn't seem to be able to deal with the complicated socioeconomic problems of mountainous areas, but on the contrary may lead locals to unsustainable business investments and as a result accentuate abandonment even more.

Concluding, all measures concerning rural and especially mountainous areas as well (and specifically them) remain general and wishful thoughts, despite the failure of accomplishing their aims all previous years.

Finally, we should point out the lack of specific mountain policy at national and European level, apart from the separate measures as part of sectoral European policies (agricultural, environmental, tourist, etc.). Representatives of mountain communities (Euromontana 2007, AEM 2008) own–initiative opinions of the Committee of the Regions (Official Journal of the European Union 2008b) and systematic research of the Metsovion Interdisciplinary Research Center (MIRC) of the National Technical University of Athens (NTUA) (Rokos 2003, 2004, 2005, 2010, Michailidou and Rokos 2005, Papadimatou and Rokos 2004) ask for the preparation and implementation of a specific policy or a green paper for the environment and development of mountainous areas.

According to Euromontana declaration (2007) “most policies influencing mountain areas are sectoral and often promulgated from outside mountain regions without appropriate regard for specificities of these regions. Public policies dedicated to mountains have become more diluted and less concerned with the specificities of mountains” which is absolutely right. A year later the Committee of the Regions (Official Journal of the European Union 2008b) “points out the need to bring European policies together into an integrated sustainable development strategy that can take account of the diversity of massifs” (paragraph 15) and “notes that a European policy for upland areas would involve a large number of sectoral policies that are already covered in part by European legislation but have never been coordinated under an integrated approach” (paragraph 28). Despite these correct markings, mountainous areas are characterized “as drivers of Europe's global competitiveness” (paragraph 19) without any reason, mistakenly and obviously in purpose and the Committee “recommends that the European Commission makes upland regions pilot areas for innovation, the knowledge society and sustainable development” (paragraph 35). The green paper for upland regions is not yet decided and published, but the texts documented above, reveal the real purposes of decision centers for mountainous areas which are faced as “unexploited” business opportunities because of their aesthetic, natural, mineral and environmental resources.

6. Worthliving Integrated Development: A new reliable alternative strategy

No one disagrees that development is a positive and creative concept in theory and practice. But it can’t and shouldn’t be monodimensionally economic, as economic growth is not the only fundamental precondition for progress and prosperity despite the opinion of the majority of economists and accountants (Rokos 2010). Because, objectively, development has also specific important political, cultural, social, technical/technological and environmental dimensions. We believe that the only reliable alternative is a Worthliving Integrated Development (WID), which has to be a simultaneously in space and time economic, social, political cultural and appropriately technical/technological development.

WID should be always in dialectical harmony and with respect toward human beings and their natural and cultural environment, in which they behave as their integral part and not as owners, “investors” and exploiters(Rokos 2003, 2004, 2005, 2010). And of course WID presupposes respect and equality among human beings. And this is the radical difference between “sustainable” and Worth-living Integrated Development since the supporters of “sustainable” development are, in the best case, used for the fiercest exploitation of human beings by other human beings, in the name of “progress” and neoliberal globalisation in the era of the absolute dominance of rapacious markets.

The basis of such a development and environment policy like WID should be the implementation of an interdisciplinary and holistic approach, methodology and practice with the overall aim of a life worth-experiencing by all citizens of the world, at our common home, planet earth. The technological tools, the methodological and technical steps and the optimal policy practices for the pursuit of the WID include interdisciplinarity and the need for holistic approach, inventory, mapping and systematic monitoring of the elements, features, appearances, phenomena and facts, which constitute the - unique in each case - unity of natural and socio-economic reality. In opposition to “sustainable development”, WID does not consider the practice of development as the sum of independent thematic/sectoral development strategies in the aspects of economy, society, culture, technology and environment but faces them as an interactive, interrelated and integrated “whole”.

Based on the above, procedures and action plans for regional Worthliving Integrated Development should follow the following steps (Rokos 2007):

- Stakeholders of local development initiatives should document, agree and accept in an interdisciplinary and holistic way, the principles, values, goals, actions and practices of WID as the optimum choice.
- The necessary Integrated Surveys' research and studies of the natural and socioeconomic reality of the region and systematic monitoring of its changes through time should be conducted. The research should also take into account the dynamics of the multidimensional relationships, interdependences and interactions between nature and society.
- The elements/data that constitute the natural and socioeconomic reality of the area (historical, statistical, bibliographical, climatic, using results from properly structured questionnaires, maps, records, opinions and proposals of residents and stakeholders of the area, remotely sensed data processing, data from specific research and studies etc.) should be properly analysed.
- Alternative scenarios for the Integrated Development of the specific region should be formulated and documented.
- Implementation problems, potentials and objective constraints of each scenario should be investigated and evaluated.
- The balance between the positive and negative elements of each scenario for the Integrated Development of the region should be pre-assessed and evaluated and then the optimum scenario should be chosen, integrating the positive elements of the other ones.
- Finally, we proceed to the implementation of the optimum Integrated Development scenario for the region and its constant monitoring, scrutiny and feedback.

The necessary requirement for the best, possible and effective serving of this undertaking, at a local/regional level, is the apprehension, awareness and understanding on behalf of every public, social or political stakeholder, that (Rokos 2007):

- Regional development cannot be the same for every region depending on general directions and frameworks.
- The one-dimensional, competitive, concentrative and fragmentary economic growth of urban areas does not ensure the development of the majority of the poor, less favoured and mountainous regions, and the well being of their inhabitants.
- The choice of a predatory and one-dimensional exploitation of the "comparative advantage" of an area (such as the unique mountainous natural environment and culture), attracts only "investors" aiming at short-term profits at the expense of nature and mountains' people.
- Local administration units as well as citizen initiatives, should participate actively in the design and implementation of local action plans, since they are the only ones who really know the actual potential, peculiarities, problems, limitations, priorities and expectations of their territory and its inhabitants.

Especially for mountainous areas, WID is the only solution for their revival because as documented in this paper the theory and practice of "sustainable" development has not faced and in some cases deteriorated their environment and development problems. In this direction, the Metsovion Interdisciplinary Research Center (MIRC) of the National Technical University of Athens (NTUA) for the protection and development of mountainous environment and local European cultures (http://www.ntua.gr/MIRC/), since 1993 implements and/or supports integrated interdisciplinary scientific, research and educational programmes, initiatives and actions in Greek mountainous

areas. The main installations of the NTUA MIRC are in Metsovo, a typical mountainous village in the Region of Epirus (the most mountainous Greek region and one of the most sparsely populated and poorest regions in the European Union/EU-15), which is the homeland of the Founders and Great Benefactors of the NTUA. The University community by supporting and participating in NTUA MIRC's activities for mountainous areas Worthliving Integrated Development and specifically Epirus and Metsovo, aims to pay back a part of its relevant debt. The installations include fully equipped laboratories, library, reception, accommodation and dining facilities to serve the needs of the educational personnel, researchers and students of the NTUA Postgraduate Interdisciplinary Programme "Environment and Development of Mountainous Regions" (http://www.survey.ntua.gr/environ/) and the University of Ioannina, who contribute to projects relevant to MIRC's aim. There is also a MIRC branch in Athens.

According to MIRC's studies, in mountainous areas of Greece fundamental elements for WID still survive such as:

- People of mountainous communities love their homeland and this concerns elderly inhabitants as well as children (Tsevreni and Geronteli 2010), but also immigrants in Greek urban centres or abroad that visit their villages in every case (Rokos 2007). Greeks of diaspora have always been close to their homelands as benefactors and development actors.
- Local heritage is not only exploited for tourist reasons but traditional customs, techniques and technologies, materials and products are still vital, utilized and produced in every day life (Geronteli 2009) proving that mountain communities are examples of dialectical harmony between man and environment as WID theory emphasizes.
- Mountain people still preserve communal and social values such as solidarity, benefaction, hospitality etc.
- Traditionally, mountain people have been more independent and free spirits and had difficulties in compromising with lifestyle values.

Of course, there are also many problems and constraints but we believe that the foundations towards a WID are inherent in Greek mountainous areas and gradually more and more people realize that objectively it is the only suitable approach for their worthliving revival.

7. Conclusions and discussion

As a conclusion, strategies and policies dealing with mountainous areas in Greece are decided at European level, without any adaptation to their specific socioeconomic and natural reality (Dax 2004, Rokos 2004, 2007). In this framework, in the name of "sustainability" European, national and local authorities implement any programme they decide serving mainly their own economic and political interests.

Moreover, as Funnell and Parish (2001) note, conventional concepts of development "have been constructed by a lowland, mainly urban based elite, whose principal interest is in maintaining and enlarging its own base". These decision centers consider that all European mountainous areas have the same characteristics, problems, constraints, needs and potentials while various studies have proved the opposite (Monfort 2009, European Commission 2009a). Topographic relief, productivity of agricultural land (Dax 2004, 2005), human resources, infrastructures, natural and cultural resources etc are unique in every mountainous area so different development strategies should be followed in every region.

The need for a new approach for regional and especially mountainous development toward the direction of a Worthliving Integrated Development is documented. Emerging is also the need for a

special national framework plan for the environment and development of mountainous areas following the concept of WID.

The systematic collection, mapping, monitoring, analysis and interpretation of the necessary reliable, diachronic and up-to-date quantitative and qualitative data that constitute their natural and socioeconomic reality are the fundamental preconditions for mountainous areas' WID.

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 (GIS) environment for the systematic mapping and monitoring of land use, cover, natural resources inventories, biodiversity, and natural protection etc (Rokos 2004, Michailidou and Rokos 2005).

Another measure proposed in the framework of mountainous areas WID is the Integrated Land Consolidation, the implementation of which presupposes the existence of Integrated Surveys (Rokos 1980, 2004, Michailidou and Rokos 2005). 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 characterized by intense and intensively changing topographic relief (Rokos 2004). 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 mountainous community can contribute to such voluntary, conscious, self managed, cooperative WID effort as follows:

- 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) participate with their land, unused or abandoned houses and equipment and if possible with their personal labour,
- landless farmers participate with their personal labour and
- scientists, technicians and professionals participate with their scientific, technical and traditional knowledge and skills (Rokos 2004).

Agricultural land should be rented for low price to landless people/farmers or to emigrants who would like to resettle to their homeland, for group farming, without loss of any property rights. This would not only give motive to young people to settle down in mountainous areas but would also keep landless residents there. It 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).

But the most important is the need to believe in new values, processes and practices that are not exclusively focused on financial wealth and to reconsider the way of our lives and aims. The recent dramatic economic but moreover social, political, cultural, environmental and ethical crisis not only in Greece, but also in Europe, as well as all over the world, might be an opportunity for such a reconsideration. Moreover it might be an opportunity for the Worthliving Integrated Development

of mountainous regions, far away from the dominant supposedly "sustainable" development model that caused all the contemporary social, economic and environmental problems in mountains and in our planet, in general.

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