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## Introduction

In this article the focus is on the utilization of natural resources which should be used consideration the basic principle of sustainable development. Nature protection is one of the basic premises of sustainable development. Managing natural systems requires an integrated approach capable of bringing together the multiple interests of the rural space in coordinated and rational manner and maintaining the ecological processes. Integrated management system is based on the essential components of integration and coordination throughout the program which can be structured to maintain the functional integrity of resource systems, reduce resource use conflicts and maintain environmental quality.

## Considerations of Ecological Functions in the Development of Rural Areas

Considerations of ecological functions in the development of rural areas are complex, and ought to be pursued in parallel with economic and social considerations. At the very beginning, it is very important to define the contents, what we specifically mean by ecological function. Usually it is understood that protecting nature includes activities, regimes and measures to preserve, improve, arrange, and utilize the nature with the purpose of sustainable development. In modern conditions, protection of nature and the policy of sustainable development are gaining in importance. In fact, the protection of nature is the main premise of sustainable development, and now there is a strong insistence that protection of nature ought to be integrated into the developmental policies at all levels of social interest (from national, through regional, to local). According to all the requirements of resource management, with a view to preservation, to a limit on exploitation, and to protection, mountain regions with preserved natural ecosystems are supposed to be the vanguard of sustainable development. However, in defining and in realizing policies/programs of development of rural areas, every day we encounter many problems and limitations, of various nature and intensity, and these individually or together make impossible the fulfillment of such policies/programs.

Lack of harmony between economic and ecological segments of development is seen most quickly and easily in the space, which means, in the environment. All disturbances arise from the impossibility of simultaneous fulfillment of several demands in the same space, because space is a limited resource on Earth, and not equally available to all the potential users. Social and economic aspects in the paradigm of sustainable development are placed in the same level as ecological aspects. Conflicts between developmental intentions of various social groups arise because of their contradictory understanding of values and aims of development, which means, because of their conflicting interests, aspirations and tendencies to use the space in one way or another.

Unlike the urban areas and urban way of life "with interconnected economic, social, cultural and other activities, defined as essential functions, interactively inseparable" (Deric, 2001), rural areas are characterized by a lower level of economic development (in volume, intensity and structure) as a precondition for protection and preservation of nature, namely, as a

## **MILJANOVIC**

measure of non-disturbance of the processes in the natural environment; in rural areas, interaction between economic and social function of development is not manifested in the manner characteristic for urban areas. Precisely because of such relationships, the function of protection is seen as a factor of sustainable development capable of contributing to the development complementary with protection. In the rural areas (meaning, primarily, areas of mountains and hills), well-preserved nature is essential in starting initiatives for their revitalization, primarily through the development of various segments of economic system, such as sustainable tourism and recreation.

Speaking about the ecological functions and their importance in rural areas (and generally), it is important to stress that they are directly linked to the achieved degree of economic development of the society/State. Of course, the condition of the environment is influenced by the policy of regional development of the State, which should aim to alleviate the regional disproportions, achieve a more rational use of resources, and to improve the quality of life for the population. If we consider the existing level of development of villages and rural areas in Serbia, the policies of the State had negative consequences, mainly harmful to the economy, less so but still importantly harmful to society, and least damaging to the ecology. Today's structure of Serbia, economically and demographically highly differentiated in space and extremely polarized, has gone far from the principle of sustainability (Vojkovic et al., 2000). On the one hand, development of cities and regional centers along the axes of development created a great pressure of population and then many problems in the spatial structure of cities. such as the phenomenon of illegal occupation of municipal land and illegal building on it, occupation of large spaces and best arable land in the vicinity of cities, the lagging-behind of the infra-structural and communal build-up and equipment, inadequacy of public services and functions, poor servicing of socio-cultural needs of the population, low quality of their life, and deteriorating environment. This means that development did not only initiate changes in the elements of environment, but also changes in the way the space is organized, arranged and used. Rural spaces are degraded, and, as K. Petovar (1996) points out, village is marginalized, because it lacks support of the State and of social institutions. Development of villages was left to a feeble initiative of local communities who had neither the economic power nor the political influence to realize the necessary developmental programs all by themselves. So, because of numerous circumstances (political, economic, transport etc.) in the lag-behind regions of Serbia (mainly in the mountainous and hilly regions, usually close to the borders, and passive), the quality of environment is better preserved, and with it, the health of the population and the condition of flora and fauna, but, conversely, other indicators of the "quality of life", those that depend of the level of social and economic development (communal equipment, health services, educational facilities, etc.) remained at a very low level. Exploring the possibilities for the development of villages in Serbia, B. Tosic (2001) points out that "development requires planning to equip these areas with various contents and capacities (functions and objects) in accordance with local conditions (natural areas, characteristics of the network of rural settlements, demographic characteristics, economic orientation of the area) and with the level of interest of the wider community. Simultaneously, the development of rural areas, as multifunctional productive, social and cultural spaces, and economic strengthening of the village household, are among the most important questions of the properly and evenly distributed regional development in Serbia."

Numerous interrelated factors determine the development of ecological function of rural spaces. Ecological functions, in their large variety, are determined, above all, by the multitude of natural phenomena, but these functions are articulated by the awareness of the entire society, not only the local community. Here we should keep in mind the fact, explained by B. Deric (2001), that the precondition for the development of local, self-ruled communities is a qualitatively balanced economic and social functions, which in practice is not possible to achieve. The same precondition is necessary for a healthier and higher-quality environment.

Ecological functions of the local self-rule derives from its economic and social functions which are closely linked because the social situation closely follows the economic structure, power, and effects. In rural areas, where economic functions are frozen and social functions neglected, ecological functions may be seen as affirmative, but only if they are initiated locally, and assisted and supported on the national and regional level (institutionally, financially, with personnel, etc.). For this, a strategy of development of rural areas must exist, compatible with

the strategy of protection of natural heritage, and local environmental action programs must follow from this.

Protection of nature is often perceived as an obstacle or something opposite to development, although this attitude is contrary to the theory of sustainable development. A very important place in the concept of sustainable development belongs to the upkeep of biodiversity, which is defined as "the totality of all genes, species and ecosystems on Earth" (Stevanovic, Vasic, 1995). To secure the sustainable development of rural areas, and to meet the growing public demand for better surroundings for living, and also to harmonize Serbia with the EU requirements about the preservation of biodiversity, the policies of management of natural and rural areas ought to be designed in such a way as to affirm all three dimensions of development (economic, social and ecological), which means, in such a way as to maintain precious ecosystems and habitats and ensure the functioning of Pan-European network of protected areas.

In all countries, and in Serbia also, the system for protecting the nature is founded on proper legal basis. In a work titled "Role of Local Community in the Protection of Natural Heritage" the authors Ljesevic et al. (2001) discovered that so far the experiences in organized activities directed towards the protection of natural treasures in Serbia did not, in fact, much rely on realization of potentials of local environment. What low collaboration there has been with the local communities, often followed from numerous unsolved problems and went against the principles of integrated management of a protected areas. This form of management respects the government leadership (The Institute for Protection of Nature, government-owned firms, firms and organizations named by legal acts as wardens, non-governmental organizations of citizens, and individuals), but with strong insistence also on the active participation of local communities, uniting the approaches "from top towards downwards" and "from bottom towards the top" into a synergic management framework. This approach favours the local self-management, namely, its inclusion into the process of consultation and decision-making.

Unsolved questions of ownership over the protected natural heritage are those not precisely articulated in the current legislation (The Law for Protection of Environment of the Republic of Serbia does not define exactly nor does it differentiate accurately the categories of management, wardenship, and ownership of a protected areas) and these unsolved questions produce, in practice, various conflicts and disagreements about what to protect and what to develop, whose economic interests will prevail if somebody owns the resource but the broader community wants to preserve the resource, etc. Also current is the question of compensations to the local community on whose territory the protected natural values are, and the question of assistance to those owners or lease-holders who wish to go along with environmental restrictions and demands. According to D. Dabic and S. Milijic (1999), despite the claims by the majority of ecologists that protection of nature and natural values is not an obstacle to economic development nor to other general interests of society (claims which usually ignore the private and local interests), the truth is that long-term sustainable development of these regions in Serbia cannot be based on such claims, for reasons mentioned above. Experiences from the developed world are pointing to the fact that local community and private owner are the most reliable and the most creative quardians of the natural heritage of the country, if there is a reasonable and fair distribution of general and local interests, well-ordered State legislation, and well-developed local self-rule. This is not yet the case in Serbia, not in legislation (a Law of Local Self-Rule has been just passed in Serbian Parliament 14th February 2002) and not in reality.

In the theory and practice of protecting nature, there still is an open question whether the status of a protected area is a value above all other values or a barrier to progress. According to Ljesevic et al. (2001), in the living conditions of modern mankind the process of degradation and devaluation of valuable, rare, unique, or representative natural values is more and more pronounced. From this follows the conclusion that a harmony of functions has not been achieved in realization of demands for development of protected areas. Such harmony may be achieved through an adequate process of management and utilization of protected areas.

In rural areas with preserved natural ecosystems, the natural resources are sometimes used in a planned, but very often in totally non-planned manner. For the development of such a protected area, there are two options available, and they might be, with some simplification, be called developmental and protectionist. In the first, economically developmental option (leaving

## **MILJANOVIC**

aside the demands of certain branches of economy, such as forestry, agriculture, water economy, tourism etc.), the nature is an infinite resource, inexhaustible, a given constant in space, ready to satisfy our economic needs; but in the other, it is a value in itself and must stand protected, cherished and improved, a treasure which must be given unharmed into the care of all future generations (one of the principles of sustainable development). This discrepancy of treatment produces, quite logically, problems in the relation between protection and development. Existence of conflicts does not mean that there are no common interests (integrative elements), nor that there are no possibilities for satisfying them. Without adequate protection of natural heritage, sustainable development would be threatened in its own starting premise, while without steady economic development any policy of protection of environment would inevitably fail. Observed globally, the essential questions of understanding of the relationships man (society) - environment are conceptualized in the theory of sustainable development, which expresses the common interests, development being vital to ecology and vice versa. According to this concept, methodology of management of natural resources ought to be dominated by multisectoral (economic, social and ecological) and multidimensional approach (integration of all systems of management, from local, to regional, to national; see Miljanovic, 2001).

Protected special natural values are extremely important, and belongs to the public, but attracts various interests of the participants in the management process, from the owner of the land, through the strategists who define developmental policies, to environmentalists, and all this at national, regional and local level. The most frequent conflicts are connected with: (1) users who exclude each other (for instance, forestry as cutting down and exploiting forests, and protection of forest); (2) private ownership; (3) long-term interests of protection, as opposed to immediate economic interests; (4) providing communal services in accordance with the achieved level of development (for tourism, for instance) and other. Cooperation between sectors is necessary, and an accommodation of various interest-groups, and integration of various levels of governing; all these make for a complicated situation in managing the protected areas, planning the land use, and protection of particularly valuable natural resources as well.

Interdependence of human activities and natural resources explains why the sectoral approach to management of natural areas could not give satisfactory results. In connection with this, efficient management of a protected area must not be based on the *analysis* of human activities and their influences, but on *evaluation* of synergetic effects of these activities upon the natural resources. No single interest group has the right to use a protected natural resource exclusively. Integrated management does not mean a replacement for sectors planning, rather it concentrates on connecting various activities in space, so as to achieve the aims of protection. This is feasible only if all the forms of use, all users, and all relations between them are seen in totality. Integrated management is broader than static spatial planning, and requires a multidisciplinary approach to the management of dynamic processes in protected areas. Although such management is often a long-term governmental project, private sector will play important part in realization of the sustainable development of protected areas. There is a possibility of influencing private investment by incentives (stimulating measures) to direct them towards appropriate developmental programs rather than inappropriate short-term investment.

For the realization of the concept of sustainable development, it is necessary to realize a number of preconditions, especially a sufficient level of demographic stability, economic stability, and ecological sustainability. Most of the mountain villages, in Serbia and in many other parts of the world, are stagnating; for their development (according to D. Dabic and S. Milic, 1999) it is necessary to define the scenarios of development capable of integrating and in the best manner valorizing the potentials and limitations of development. These two authors categorized the dominant limitations and far rarer conflicts of sustainable development into four categories: demographic, socio-political, economic and spatial-ecological. The concept of sustainability is particularly important in the development of areas which are of special national or international importance and therefore require a special system of management and exploitation. Various limitations, from legal to those that are deliberately introduced in planning, are intended to prevent excessive exploitation. With clearly defined and planned limitations on the use of an area, the concept of sustainability becomes a very important instrument for protection of exceptional natural treasures and rarities, to the benefit of today's and future

generations.

If we wish to be able to speak about the real importance of the protection of nature in the development of rural areas, we must see the reality, which is, their characteristics (possibilities/limitations for developmental options, also the complementarily/incongruent with the protection of nature). Assumptions for sustainable development of rural areas still do not exist in Serbia. As in many other developing countries, mountainous rural areas in Serbia are the most passive, least populated, and least organized parts of the territory, with a tendency of further worsening of these developmental indicators.

The above mentioned authors, Dabic and Milijic (1999) are pointing out that further sustainable development of rural areas in the mountainous parts of Serbia is dependant on an intricate complex of limitations:

- Demographic limitations of sustainable development of rural areas in the mountainous parts of Serbia refer to the ever-decreasing population, reduction of natural increase coupled with drastic emigration from these spaces, increasing proportion of old and disabled as opposed to young and capable-of-work people, worsening social structure, and no improvement in education and work-skills of the population there. Aging, impoverished population in the mountains today is less and less capable to develop their surroundings, and their communities cannot any longer survive on old, traditional activities; even less are they able to enter alone, without the help of the State, into new, modern scenarios of development.
- > Socio-political limitations of sustainable development of rural areas in the mountainous parts of Serbia are in their constant neglect by the society and State in the name of urbanization and industrialization of valleys which, indeed, are richer and more attractive for settlement. Low standard of living, especially in traffic and communications, poor services, health institutions, social care, culture etc., are the worst direct obstacles to development and the greatest cause of emigration from such areas. Traditionalism, old age, and poverty also make the Serbian mountainous villages non-vital, unaware of the possibilities of modern development, and devoid of will and ability for local initiative.
- Economic limitations are closely connected with the demographic and socio-political ones. Local economy of the mountainous regions is based on natural resources and limited by the stagnation or decline of the traditional, non-intensive production. Predominant activities are cattle-raising, orchards, some vegetable-growing, and limited production of material for house-construction (timber, stone, etc.); secondary processing is at a low level, and happens mostly at home or in a few workshops or small industries. For the traditional local economy of today's villages in Serbia, most important is arable land, almost entirely in private ownership, and, to some extent, the privately-owned forests. But tourism, which is in the developed world understood as the main force of the development of mountainous regions, because it animates, organizes and integrates other, less profitable local activities, may get the same function, one day, in the mountainous regions of Serbia.
- > Spatial-ecological limitations of sustainable development of rural areas in the mountainous parts of Serbia are more in the domain of anthropogenic than natural conditions. Unfavourable position is a major limitation to development. Infrastructure has not been constructed, and the morphological structure of the villages is broken up; also, the villages are not equipped with communal infrastructure nor with the public facilities of social standard (and the regimes for protecting nature are not working), and these are the main factors of anthropogenic, man-made limitations to the development of Serbian mountainous villages. Inadequate and technically non-standardized network of regional and, particularly, local roads is definitely the main developmental limitation in the category of infrastructure. Mountain villages, scattered as they are (with very great distances between one house and the next) cannot be easily and rationally equipped with communal infrastructure. In regard of communal (non)arrangements, most of the mountain villages (with the exception of those on low slopes or foothills) do not fulfill even the elementary standards necessary for tourist offer.

According to R. Maric (2001), in the context of finding all-inclusive solutions for reversing

## **MILJANOVIC**

the processes of the villages' economic weakening, deagrarization and depopulation of rural areas, one of the central questions is adequate structuring of rural economy, in accordance with locally available natural and other resources. In such sustainable framework of development a place ought to be found not only for protection but also for other activities; Maric says we should "put into proper place the tourist activities which, in previous policies and concepts of development of these regions of Serbia, were not given adequate developmental role, although it is strongly rooted in varied and attractive natural-ecological and anthropogenic values".

Tourism as a multifunctional complex of activities has for many years been one of the most dynamic areas of complex development, especially in the areas which are ecologically highly preserved which means economically undeveloped. European declaration for sustainable tourism in protected areas insists on preservation, maintenance, and improvement of local heritage, natural and cultural. Apart from this orientation, the attitude toward the local population is changing radically, making the locals an important subject in defining the strategies of sustainable development and in managing the work of protection and development. In the book Loving Them to Death (FNNPE, 1993) examples of national parks in Europe were used to show strategies of development of sustainable tourism as the various states and governments undertook them in order to preserve the natural heritage. Local farming households were activated to provide services to tourists, including the foods characteristic for the area. In the book, Abruzzo National Park in Italy is recommended (and several others, such as Haute-Sure Naturel in – Luxembourg, Shumava National Park in Czech Republic, Kiruna National Park in Sweden, Peak National Park in Britain, Lahemaa National Park in Estonia, etc.) as a very positive example, a place where by application of this concept a revitalization was successfully accomplished of an area previously impoverished and strongly depopulated. Abruzzo Park is divided into three zones: the zone of strict protection, the zone for development of tourism, and the zone where the population is traditionally active in agriculture. In the Abruuzzo Park, one village was previously almost abandoned, but now it is vital and makes satisfactory profit from tourism. According to E. Jakopin (1997), development of sustainable tourism in Serbia must be based on the following elements:

- development of sustainable tourism in national parks, for several reasons: (a) reduction of regional disproportion, (b) re-directing the demographic trends; and (c) valorization of integral tourist product;
- maximum integration of the strategy of sustainable tourism into the global strategy of management of natural resources;
- transformation of ownership and management (from socialist State-owned to private);
- > redefinition of management in protected areas, with the stress on international standards for environmental protection; and,
- > affirmation of new tourist product (demand for green and white mountainous destinations).

Keeping in mind the previously mentioned characteristics of the rural areas, we see that the greatest obstacle to sustainable development of rural areas in the protected parts of Serbia, besides demographic emptying, is definitely the magnitude of underdevelopment, and, in some segments, backwardness. Speaking about the development of tourism and recreational activities, we should point out that in those places where the development of tourism did happen, the construction of buildings and the tourist offer conflicted, sometimes, with the protection of nature, its treasures, and, in some places, with cultural heritage. These phenomena are proportionate to the level of development of tourist centers, and are manifested by endangering the land, waters, air, vegetation, and individual natural or cultural valuable sites; reasons are unplanned construction and use of tourist or accompanying buildings or landscapes for tourist or recreational purposes, also non-respect and non-honouring of plans.

## Conclusions

With all the differences of conditions in developing and in developed countries, rural space in both fulfills equally important existential needs. Diversity of natural and socio-economic conditions, and complexity and interdependence of problems and their causes, demand an all-

inclusive approach and a uniting of all available forces. For rural areas, if they are to be preserved and further developed, a policy is needed to help the local population, settlements and landscapes with irreplaceable potential of natural treasures which ought to be kept safe for the good of the present and future generations. Developmental strategies must reflect in the best manner the differences of starting conditions, also the possibilities and limitations of sustainable development (demographic, economic, socio-political and spatial-ecological). Fundamental preconditions for sustainable development of rural spaces are: on the one hand, safeguarding and equal treatment of land, water and forest resources, also credits, working capital, and advice; on the other hand, investments into the cities, which is, urban areas. To achieve this, sometimes new reforms are necessary, and also an ownership reform, and protection of long-term rights of ownership arranged for the benefit of producers in the rural space. Modern management of land requires legal and planning security in regard of ownership and land use. In Serbia, this process of reforms of law and ownership is just only starting, but the interest of investors and level of investment into the villages and rural areas will largely depend on the enactment and enforcement of these reforms. Development of rural areas is also one of the most important elements of balanced regional development in Serbia.

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