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WAYS OF MANAGING REGIONS OF NATURAL VALUE WITHIN THE CONTEXT OF A SUSTAINABLE DEVELOPMENT

METÓDY SPRÁVOVANIA REGIÓNŮV PRÍRODNEJ HODNOTY V KONTEXTE TRVALO UDRŽATEĽNÉHO ROZVOJA

Lidia KALISZCZAK – Marek SMOLEŃ

University of Rzeszów, Rzeszów, Poland

In this paper an analysis is undertaken of the prospective ways of managing, especially a sustainable development, in Podkarpacki province. This region of Poland may be considered a region of natural values because of its larger area covered by territories protected

Key words: naturally valuable areas, ways of management, sustainable development

The importance of naturally valued areas⁽¹⁾ for the region's social and economic development stems from the fact that it supplies benefits going beyond the borders of the local society. Its environment creative function, which involves the protection and rational exploitation of aquatic and forest resources, recreational and health resort space, as well as the different species, etc. is of strategic importance, both nationally and internationally. It is estimated that in comparison to the EU about 24 % of total Poland's land area have natural values that are no more present in the west (Baturó, Burger, and Kassenberg, 1997). The protection of naturally valued lands can contribute to Poland's attractiveness within the EU framework as well as create opportunities for obtaining various forms of capital financing. The environment protection ought to yield results, which can in turn be used in its financing. Nonetheless, managing lands of high natural values, especially National Parks, creates specific dilemmas. More and more often residents of such areas see the instructions and guidelines as limitations to the development of their economic activities. In order to achieve a balanced development, it is necessary to choose such ways of managing that, on the one hand, will take into consideration the regulations of the environment protection while on the other hand creating opportunities to improve the living standards of local residents.

Material and Methods

The aim of this paper is to present possible courses of sustainable development of Podkarpacki province, which belongs to the nation's top echelon due to the natural resources at its disposal as well as its clean environment. The percentage of land under protection amounts to 45.5 % while 35.9 % is under forestry, thus placing the Province in the second position. This has great implications for possibilities of social economic development as well as for improving the living standards of

residents through a proper exploitation of natural and ecological potentials. The province ought to sensibly make use of developmental opportunities in a modern world where the clean environment is becoming a kind of marketable goods.

The statistical data from GUS and WUS, as well as the information obtained from the Provincial Head Office in Rzeszów are the main empirical material for the study.

Results and Discussion

Ways of managing in the Podkarpacki regions of natural value as an example.

The area of Podkarpacki Province is 17,928km², which makes 5.73 % of total Poland's area. Geographically, it is made up of three geographical units, i.e. Carpathian mountain area, the highland chains of Doły Jasielsko – Sanok, the Dynów – Cieżkowicki hills, as well as the Sandomierski valley range. The agricultural quality index for productive areas is 73 points (the national average being 66.6) shows that conditions for agricultural production are favourable but they differ in various geographic areas. The most difficult conditions for agricultural development are in the Carpathians, where over 80 % of the land is covered by mountains and hills with a 61.0 point index value.

In order to rationally exploit these natural resources and protect these values for future generations, there is a big need for economic and territorial management that complies with the principles of balanced development. Types and forms of economic activities ought to be suited to existing natural conditions, which dictate the primary ways of development for each region. The land use system is the primary determinant of the social economic function of given area. Arable land constitutes 52.6 % of the Province's land area while the cultivated area makes about 67 % of the arable land area. This gives credence to the economic importance of the village and agriculture. The majority of agricultural land is privately owned (88.7 %). Far reaching farmland fragmentation, 82.3 % of which are below 5 ha, is responsible for high employment (47 % compared to the national average of 27 %) as well as

⁽¹⁾ Naturally valuable lands are also referred to as areas of great biological variety that are protected within the framework of National System of Land Protection. This is composed of National Parks, Natural Reserves, Landscape Parks, and other protected areas. All these together amount to 30.0 % of Poland's land area.

unemployment. Rural unemployment in some communes is much higher, amounting to 65 %.

The above overview calls for the need to create new job places outside of agriculture within the framework of balanced development, including seeking new methods of agricultural development. Farming systems are similar to national averages and since they are not suited to fragmented land areas, they do not guarantee management profitability. The dominant crops are cereals – 50% of arable area and tubers, particularly potatoes – 14 %, while cattle and pig farming lead animal husbandry. It is necessary to adopt changes in agriculture which will exploit the values of the clean environment and create possibilities of producing high quality food, inclusive of high reserves of manpower. This is why labour intensive forms of production were preferred since they in spite of low labour efficiency guaranteed relatively higher incomes from a unit area when compared to other sectors. In the area of crop production, vegetable farming including the use of ecological friendly forms, orchards, as well as shrub and herb farming fulfils this condition. There are possibilities of increasing fish production, rabbit rearing and bee farming in the area of animal husbandry. The prospects are favourable for horse breeding for recreational purposes. There are groups of farmers capable of practising ecological or integrated farming. This kind of farming is being encouraged, especially in the areas with protected drinkable water, surrounding areas of National Parks and in communes with tourist and recreational values. Ecological or integrated production does not require only knowledge but first and foremost an instituted support from the state with respect to legal procedures including advisory services in course of turning the farms to new ways. All actions aimed at increasing qualifications, organising training, demonstrations, etc, are indispensable (Runowski, H. 1996). In searching for suitable ways of developing agricultural farms in the area discussed, it is necessary to stress that balanced development does not formulate goals of radical changes of territorial land use systems. Higher efficiency can be obtained in various types of farms if emphasis is laid on environmentally friendly technologies. Land merging measures are preferred since the average farm is usually made up of several plots of 350 m² in size. Restructuring and modernisation processes should be focused on changes in production techniques, production organisation, implementation of principles of good agricultural practices, as well as propagation of biological advancement as an important and the cheapest growth factor.⁽²⁾ Biological advancements are responsible for 52 % of production increases in EU countries. Subsidy has led to this advancement, being crowded into agricultural practices more intensely. Poland's percentage participation of biological advancement in production increases is 50 % lower than in EU countries and it is gradually declining. This fact is confirmed by the situation in Podkarpacki province where indexes of the distribution of cereal seed material was 47.1 % in the year 2000 while that of planting tubers was 24.6 % when compared to 1999.

The natural landscape and cultural values of the region, especially in its southern, mountainous part with the available infrastructure, make it very suitable for the development of different forms of tourism including agro- and eco- tourism. The importance of agro-tourism in balanced development is increasing, in particular in mono-functional areas where

agriculture dominates but at the same time possesses natural values in the form of clean environment or landscape. This becomes one of the possible forms of complementary development of agricultural and non-agricultural areas, thus shaping the model of a modern multifunctional village. A continued development of agro-tourist base may increase the demand for products of local agriculture and ecological food. This kind of relaxation is gaining in popularity among our urban population and it is also attractive to foreign tourists. There is an on-going change in ways of spending spare time in favour of relaxing in the areas which are attractive for both their natural values and clean environment. Attention should be paid to the fact that an average modern tourist wishes to have intimate contacts with nature but at the same time he would like to live in comfortable conditions. This calls for investment expenditures both at the farm and commune levels. The main weakness of tourism in rural Podkarpacki is a low level of sanitation. Most rural communes do not have their own dump sites and the sewage network and sewage treatment plants they have at disposal are weak though they should deserve a lot of praise for making substantive progress in the last few years. As much as 51.4 % of farms are linked to portable water system but only 9.6 % to sewage. This situation poses certain ecological problems. The gas supply program is relatively better, as over 77 % of the population benefits from this source of energy.

As far as forestry is concerned, management processes of pro-ecological transformation may lead to the equalisation of production functions with functions of the environment. This involves the re-forestation of marginal lands as well as the establishment of energy forests, e.g. willows, the more so as a greater part of arable and agricultural land is followed – Koreans has the largest. So far, this is the least popular and underestimated means of obtaining energy. More of it is being utilised in European countries.

Agricultural processing could play a significant role in the ecological development of naturally valued areas of Podkarpacki province. Agricultural products being the fruit of ecological methods will not lose its biological values in the chain of food economy, i.e. in storage, processing and sale. The development of small-sized processing companies is most desired due to their less energy intensive technological processes and a better chance of using clean production processes. The development of the agro-food industry also creates possibilities of reducing unemployment. Small-sized processing plants located on farms or organised in the form of companies could lead to employment increases. Podkarpacki province could specialise in the manufacture of local products based on local resources with exemplary taste to show that it comes from an ecologically clean area and that the method of manufacture makes it possible to retain high nutrient values.

The dilemmas of a balanced social economic development of naturally valued areas

The only surety for a proper environmental management is the society's ecological awareness, its attitudes towards the environment protection, as well as pro-ecological activities. It can be seen from the responses of the residents and owners of farms located within the Bieszczady National Park – 27,065 ha – that 46.5 % of them do not understand what benefits the functioning of the park can bring to them (Woźniak and Kaliszczak, 2000). One in every four was against the limitation of their economic freedom. It was only people below the age of

⁽²⁾ Agricultural modernisation without the restructuring of farm areas is only possible if biological advancements are introduced [Woś, 1995, p. 50]. Other authors also mention that it is to a large extent dependent on the farming system [Michna – Wrzochalska, 1998, p. 19].

35 who were able to see that the National Park brings in tourists from within and abroad, which will enable them to carry out economic activities. Nevertheless, in order to get farmers interested in changing their farming patterns or activities, they must be provided some financial assistance. The local communities deserve the right to ask for some kind of compensation for the limitations placed on them in exercising control over the local resources of strategic importance which bring benefits to people from other regions, the whole nation and even abroad. From the prospects of Poland's integration with the EU there have emerged new sources of financing, structural funds, the development of rural areas. It goes to show that income subsidies in the agricultural sector will be based on environmental services and not for equalisation payments. The concept of a balanced development, among other ideas of social economic development, best takes into consideration the aspects of protecting the natural environment.

Conclusion

Sustainable development of rural areas does not only involve food and feed production but also performs a lot of other important functions connected with nature conservation, the sustenance of bio-diversity, and landscape transformation. Also, it has social economic functions which are important in terms of development and the efficient use of human resources, improving standards of living and income increases for rural inhabitants. The promotion of ecological forms of management ought to be the scenario for a sustainable development of Podkarpacki region as a region of high natural values, especially within the preserved areas including the National Parks. On the one hand, this process should assure economic efficiency while on the other hand, it should form the basis for the active natural environment protection. The area covered by research is predestined to perform varied functions, which are conditioned by the environmental values and resources, as well as cultural values. The spatial distribution of lands which function as farming, forestry, tourist/recreational, especially in

pro-ecological forms, industrial, aquatic, as well as healing and health resort centres is of immense importance.

Súhrn

V práci sa popisujú perspektívne spôsoby hospodárenia zabezpečujúce trvalo udržateľný rozvoj Podkarpatskej oblasti v Poľsku. Väčšiu časť tohto regiónu pokrývajú chránené územia, a preto sa môže považovať za cennú prírodnú oblasť.

Kľúčové slová: cenné prírodné oblasti; spôsoby hospodárenia; trvalo udržateľný rozvoj

Literature

- BATURO, W. – BURGER, T. – KASSENBERG, A. 1997. Agenda niespełnionych nadziei : Raport Instytutu na rzecz Ekorozwoju. Warszawa, 1997.
 DUBEL, K. 1998. Procesy transformacji rolnictwa na obszarach przyrodniczo cennych a integracja z Unią Europejską : VIII Forum Ekologia Wsi. Krosno : CEEW, 1998.
 MICHNA, W. – WRZOCHALSKA, A. 1998. Główne kierunki przeobrażeń w rolnictwie w latach dziewięćdziesiątych. Warszawa : IERIGŻ, 1998.
 ROSNER, A. 1998. Ludzie zbędni. In: Nowe Życie Gospodarcze, 1998, no 28.
 RUNOWSKI, H. 1996. Ograniczenia i szanse rolnictwa ekologicznego. Warszawa : Wyd. SGGW, 1996.
 WOŚ, A. 1995. Alternatywne scenariusze rozwoju polskiego rolnictwa w okresie długim : Scenariusz rozwoju zrównoważonego. Warszawa : IERIGŻ, 1995.
 WOŹNIAK, M. – KALISZCZAK, L. 2000. Wybrane problemy ekorozwoju obszarów górskich na przykładzie Bieszczadów : Ekorozwój w polityce regionalnej, t. II, red. H. Sasinowski. Białostock : Politechnika Białostocka, 2000.

Contact address:

Dr. Lidia Kaliszczak, Dr Marek Smoleń, University of Rzeszów, Department of Economics, Rzeszow, Ul. Œwiklińskiej 235-601 Rzeszow, Poland.

Tel.: 17-85-74-263, e-mail: m_smolen@poczta.onet.pl