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SUSTAINABLE MANAGING IN THE NATURALLY VALUABLE AREAS IN POLAND

The aim of the article is the diagnosis of management of specific naturally valuable areas. One can include to natural valuable areas ecosystems, which are subjected to more or less restrictive forms of protection and also ecosystems which have interesting and important, non-economic arable lands (e.g., rural areas or areas of big biodiversity). Future of naturally valuable areas is seen in the idea of sustainable development, which will cause the protection of natural values, at the same time not limiting socioeconomic functioning. Naturally valuable areas have an economic potential, in the form of economy ecologization, which will save these areas for present, as well as future generations.

Keywords: sustainable development, naturally valuable areas, ecological management.

JEL classification: Q01, Q26, Q57.

Анетта Зелінська

СТАЛЕ УПРАВЛІННЯ ЦІННИМИ ЗЕМЛЯМИ В ПОЛЬЩІ

У статті описано характер управління цінними землями в Польщі, включаючи цінні природні екосистеми, до яких застосовуються обмежувальні форми захисту, а також науково цікаві екосистеми орних земель, які не використовуються в сільському господарстві (наприклад, сільські райони чи області з великою різноманітністю видів). Майбутнє природних цінних територій бачиться в сталому розвитку зі збереженням природного середовища без обмежень соціально-економічного розвитку. Описано економічний потенціал цінних територій у формі "екологізації економіки", що дозволить зберегти ці області для нинішніх і майбутніх поколінь.

Ключові слова: сталий розвиток, цінні землі, екологічний менеджмент.

Табл. 1. Рис. 5. Літ. 17.

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УСТОЙЧИВОЕ УПРАВЛЕНИЕ ЦЕННЫМИ ЗЕМЛЯМИ В ПОЛЬШЕ

В статье описан характер управления ценными землями в Польше, включая ценные естественные экосистемы, к которым применяются ограничительные формы защиты, а также научно интересные экосистемы пахотных земель, не используемые в сельском хозяйстве (например, сельские районы или области с большим разнообразием видов). Будущее природных ценных территорий видится в устойчивом развитии с сохранением природной среды без ограничений социально-экономического развития. Описан экономический потенциал ценных территорий в форме "экологизации экономики", что позволит сохранить эти области для нынешних и будущих поколений.

Ключевые слова: устойчивое развитие, ценные земли, экологический менеджмент.

1. Introduction.

Nowadays a significant impact on nature conservation in Poland is exerted by the pace of economic growth and the membership in the European Union. These elements determine the necessity of working out and implementation of the original model of nature conservation. Environmental values and biodiversity elements in Poland are of prestigious character on the international scale. It should motivate fur-

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ther activities on the preservation of environmental legacy, which at the same time is the European legacy and often a global one.

That is why wildlife conservation and sustainable use of resources influences the harmonious coexistence of human and environment's activity. Naturally valuable areas contribute to the preservation of ecosystems and they stop the process of the loss of biological diversity. They are a practical necessity for the present as well as future generations.

The aim of this article is the diagnosis of managing of specific outlined space which constitute naturally valuable areas. One can include to naturally valuable areas the ecosystems, which are subject to more or less restrictive forms of protection and also ecosystems which have interesting and important, non-economic arable lands (e.g., rural areas or areas of large biodiversity). The author of this article presents different forms of managing which are accomplished in these areas, and tries to analyze their positive and negative impact on natural environment.

2. The essence of naturally valuable areas.

In accordance with Act on wildlife conservation of 16 April 2004, Journal of Laws of 2009, No. 151, item. 1220, naturally valuable areas are the following ones (Zielinska, 2010: 211–220):

- 1) The forms of area protection consisting of:
 - traditional forms of protection: national parks, nature reserves;
 - newer forms of protection: natural scenery parks and the areas of protected landscape;
 - European forms of protection: areas Nature 2000.
- 2) Forms of individual protection consisting of: natural feature of historic importance, documentary position, ecological arable lands, natural-landscape teams.
- 3) Forms of plant, animals and mushrooms species protection which have two solutions:
 - in situ protection, in other words the protection of ecosystems and natural species habitats and keeping and restitution of those able to live their natural environment, and domesticated or farm species, in the surrounding, where they developed their specific values and,
 - ex situ protection, which is the protection of biological diversity elements beyond their natural environment.
- 4) Botanic gardens, zoological gardens and rehabilitation centers for animals.
- 5) The green belt and tree-covered areas.
and additionally beyond legal forms:
- 6) Urban greenery protection.

In Poland on the 31st December 2010 (Environment 2012, 2012: 277) 32,4% of the total land surface is legally taken into area protection, including: 23 national parks, which constitute 1% of the total surface, 1.469 nature reserves (0,5%), 121 landscape parks (8,0%), 386 protected landscape areas (22,4%) and additionally Nature 2000 Network (19,7% of lands) (Poszerzenie sieci Natura 2000...), which consists of (Wojcik, 2011: 8–9; Rozporządzenie Ministra Środowiska, 2011):

- 144 special protection areas for birds (OSO) – 15,56% of lands;
- 823 special protection areas for habitats (SOO) – 11,05% of lands.

Natura 2000 Network covers mostly national parks and natural scenery parks and partly the protected landscape areas. Works on Nature 2000 Network are continuing.

On the naturally valuable areas there are valuable elements of natural and cultural environment thanks to which these areas are the most precious and beautiful in our country. One may say that they are a brand mark of Poland and they are the destination of Polish as well as foreign tourists.

3. Sustainable development versus naturally valuable areas.

Sustainable development was considered to be an alternative idea to the used so far socioeconomic concepts of development (growth). They used to be based on the following principles (Becla et al., 2010b: 11):

- 1) domination of anthropogenic point of view, which puts a human being, his/her needs and values as superior ones, in relation to other species of fauna and flora;
- 2) preferring quantity growth (quantity changes) to be the aim of human being's economic activity;
- 3) extensive raw material character of economic development (growth) that increased the load on natural environment, and shaped the development of technique and technology into easier exploitation of natural resources;
- 4) domination of economic values (aims) over other aims (social, ecological);
- 5) limitation of ecological or social conditioning for socioeconomic development.

The idea of sustainable development appeared in the modern economy at the turn of the 60s and 70s of XX century. It was the effect of noticing the anthropogenic threats for natural environment, and also for the society, man's health and economic welfare (standards of living).

Sustainable development means a continuous improvement of life quality of modern and future generations, through shaping the appropriate proportions between 3 kinds of capital: economic, human and natural (Piontek, 2002: 15).

The idea of sustainable development assumes changes leading to balancing basic dimensions (orders) of man's functioning: economic, social, ecological and spatial. All mentioned orders have a specific reference in natural valuable areas, which make a practical space to implement the concept of sustainable development into life. Natural valuable areas give a possibility of assurances of sustainable and durable development for local communities, and such transformation of socioeconomic space, where its developmental values do not reduce, but become stronger, without depleting the chances of future generations.

Cognitive problems concerning naturally valuable areas are connected with how much we are able to identify and make an inventory of the values of these areas, use them in practice, and keep them in time, in accordance with the appropriate principles of sustainable development.

If we treat naturally valuable areas as an element, which builds the idea of sustainable development, then one should take into account the fact that it should be kept in time, what means to obey the rules of conduct with natural capital. We can distinguish 4 approaches here: weak, sensible, strong or restrictive principle of durability. The first one means to remain the quantity of total capital (natural,

anthropogenic and social), without taking into account its structures. This principle of durability concerns such forms like: areas of protected landscape, areas Nature 2000, documentary positions, ecological arable lands, natural landscape areas, botanical gardens, zoological gardens, urban greenery or urban parks. Sensible principle tells to keep the whole capital and its appropriate structure (it concerns landscape parks, natural feature of historic importance). Strong principle pays attention to the necessity of keeping each capital resource itself (e.g., national parks), whereas a restrictive principle forbids to reduce whichever resources (nature reserves).

That is why, the idea of sustainable development refers to the above mentioned forms of natural valuable areas, except nature reserves and national parks, (particularly rigorous protection), for which the idea of eco-development is used. For nature reserves and national parks, the harmony of order (ecological, economic, social, spatial) is weakened, a dominating order is the ecological (environmental) one.

According to Stefan Kozłowski, eco-development is based on ecological criteria, in other words it is accomplished in accordance with natural conditionings, or it is creating socioeconomic development without destruction of natural resources (Kozłowski, 2000: 83).

One should design and create, in the area of Poland, a homogeneous system of natural valuable areas.

In the subject literature, one suggests a narrower approach than a system of naturally valuable areas, because creating "National system of protected areas", which has to provide effective and efficient accomplishment of the wildlife conservation's aims. This system should encompass spatial arrangement, where the forms of area protection, which complement each other are linked by ecological corridors². At the moment there is lack of appropriate guidelines concerning the need of remaining the ecosystems cohesion and the contact between population, what ecological corridors provide.

Naturally valuable areas cause the realization of guidelines included in the document "Sustainable Development Strategy for Poland up to 2005", where it was written that one of the most important tasks is: "providing ecological security for the country, raising life quality of the society by providing good natural environment condition in every area of country and to guarantee that Polish legacy of environment and culture will be handed over to future generations, under such a condition, which will allow to accomplish the aims of next generations" (Sustainable Development of..., 1999).

4. Managing the naturally valuable areas.

Managing should be treated as a process of making decisions concerning the ways on how to use economic resources, or as a process of the accomplishment of transformations of these resources, into useful, from the human needs point of view – good (services) which are able to satisfy these needs. A process of managing is described in Figure 1.

² The area for migration of organisms with the physical abilities or the abilities of moving genes and specimen "step by step which are deprived of such abilities; the area which enables plant, animals or mushrooms (Act on wildlife conservation, 2004, art. 5 point 2).



Source: (Becla et al., 2010a: 91).

Figure 1. **Determinants and criteria of managing process**

This scheme shows all crucial problems in managing, particularly the issues of economic effectiveness, socioeconomic optimum, rationality, purposefulness or efficiency – statistical or dynamic. These problems refer to managing as a whole, and to more theoretically taken process, as well as, to particular kinds of economic resources.

Managing as a process of necessary decisions is determined by unlimited (in the sense of Cartesian product – kind, quantity and changeability – dynamic), needs and rare (in the sense of Cartesian product – limitation (physical finiteness, demand and accessibility) economic resources. These two determinants give managing a feature of necessity (indispensability). Unlimitedness of needs results from, as mentioned above, overlapping effects of human needs diversity, their individual or group quantity (community of people) and changeability (dynamics) in time and space. Rarity of economic resources means the relation between needed quantity of resource and the available quantity of resource. If it exceeds unity, then a certain resource has the rarity attribute. Available quantity of resources is physically limited, whereas needed quantity of this resource reflects the level of satisfying the needs, socioeconomic development, even the range of waste in using a specific economic resource (Becla et al., 2010a: 92).

Naturally valuable areas should be treated as an element of natural capital. It means that "resource" should be subjected to specific principles of different level of generality. To the most important principles of managing natural capital one should include:

- 1) the principle of balancing resources and disbursements, in other words, realizing resources as a specific capital, and keeping records of its disbursements;
- 2) the principle of not reducing the resources of natural capital, particularly fundamental, natural capital (e.g., biological diversity, the world of wild nature);
- 3) the principle of retaining diversity of natural capital's components, in other words on the 3 levels of biological organization: genetic (ontogenetic), species and biocoenotic (habitat);
- 4) the principle of substituting natural capital by other forms of capital. Substitutivity of natural capital's elements is limited. Therefore, there is no possibility of total replacement of this capital, by other anthropogenic forms of capital, such as: subject and financial capital, human resources, social capital, or information capital;
- 5) the principle of minimization of the source of entropy. From nature observation, it results that in natural processes, there are "chosen" solutions, which minimize the pace of extending entropy in nature. Similar rule should be applied in economic activity and in human functioning;
- 6) the principle of national use of natural capital resources (applying a criterion of maximization of usefulness, achieved from natural capital), in other words comprehensiveness of gaining values;

7) the principle of effectiveness of the use of natural capital's elements, in other words, economization of conduct, which means to obey the criterion of achieving surplus over costs.

Business activity in accordance with the idea of sustainable development on naturally valuable areas can be carried out by the following fields of science:

- tourism (and its environment-friendly forms),
- agriculture (ecological agriculture and the production of health food),
- forest management (acquiring undergrowth, hunting),
- natural medicine and health-resort services (using natural environment conditions for the development of health-resort services),
- souvenir industry.

The protective function of naturally valuable areas put a lot of restrictions on business activity, however these restrictions concern traditional forms of business. In the act on nature conservation there are listed orders and prohibitions (Act on wildlife conservation, 2004, art. 15, 17, 24, 33), concerning possible and forbidden forms of managing within the protected areas. That is why a desirable direction of development is greening of the economy (Table 1).

Table 1. Business activity in the selected forms of wildlife conservation

Type of activity	National park protection:		Landscape park	Area of protected landscape	Natura 2000 area
	accurate	part			
Ecotourism	-	+	+	+	+
Farm tourism	-	x	+	+	+
Cycling tourism	-	x	+	+	+
Mass tourism	-	x	x	+	+
Ecological agriculture	-	x	+	+	+
Care-farm forest management	x	+	+	+	+
Acquiring of undergrowth, efficient hunting	-	-	x	+	+

(-) unacceptable; (x) acceptable; (+) recommended

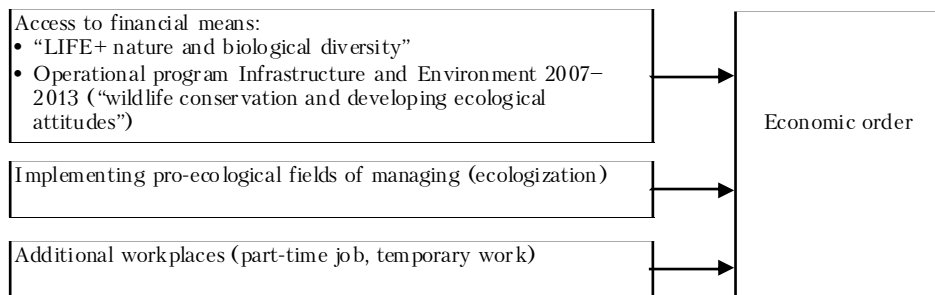
Source: (Zielinska, 2009: 110).

Greening of traditional economy is a challenge and peculiar paradigm of the present, that is why naturally valuable areas become competitive through the fact that they are crucial elements in the strategy of sustainable development (Zielinska, 2007: 167).

A crucial benefit, resulting from the existence of naturally valuable areas is the possibility to gain some additional financial means from the European Union funds for local community, local governments and non-governmental organizations. To the most important funds, which can be used for naturally valuable areas, the following ones are included (Nature is profitable..., 2006: 70–72):

- European Agriculture Funds of Regional Development (EAFRD);
- European Regional Development Fund (ERDF) – Operational Programme "Infrastructure and Environment";
- European Social Fund (ESF);
- Agri-environmental programmes.

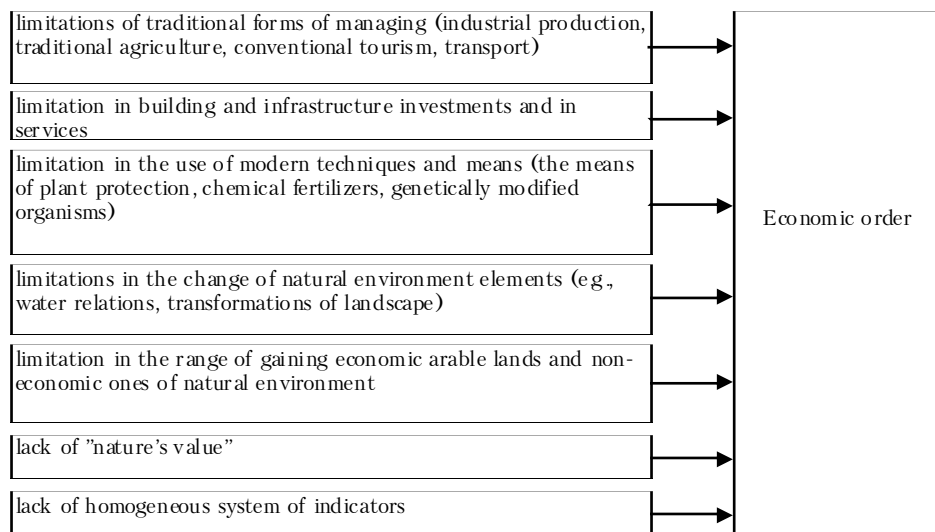
Potential advantages resulting from the functioning of valuable natural areas are introduced in Figure 2.



Source: Own study.

Figure 2. **Economic benefits of naturally valuable areas**

In functioning naturally valuable areas one also seeks for a threat, which results from the lack of assigning economic value of natural capital and eco-system services, offered by these areas.



Source: own study.

Figure 3. **Economic threats to naturally valuable areas**

5. The significance of HR and non-economic values of naturally valuable areas.

Human resources in the idea of sustainable development refers to the following issues:

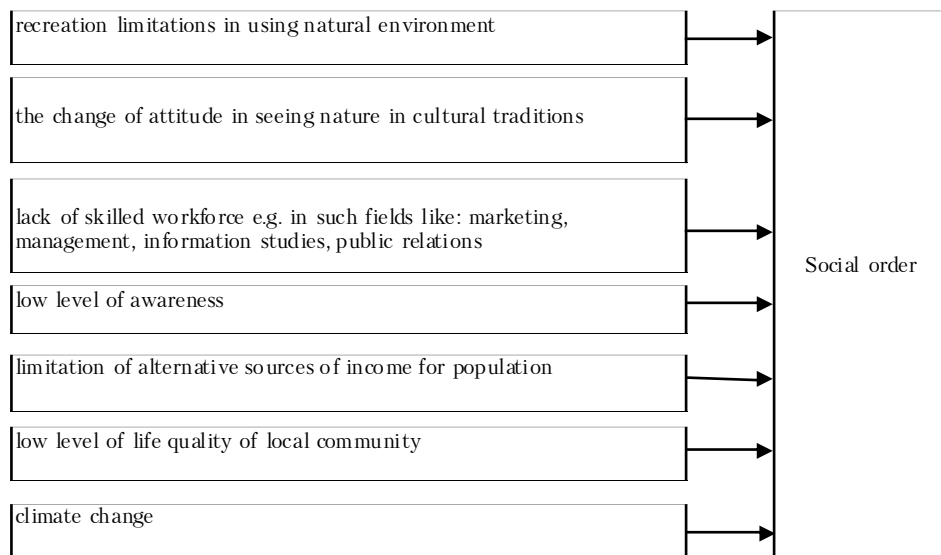
- The aims and restrictions of development: environmental, social and economic;
- capitals: environmental, cultural, social, non-cash and financial;
- orders: economic, environmental, social, spatial and institutional – political;
- civil community participating in environment protection.

Functioning of naturally valuable areas, which are directly connected with human resources, influences the quality of life.

Below are mentioned the risks of human resources resulting from functioning of naturally valuable areas (Zielinska, 2005: 489–493; Zielinska, 2006: 198–203):

- low level of inhabitants' quality of life (local community);
- unfavorable emigration movements (emigration of youth and well-educated people);
- lack of qualified labour force, e.g., in marketing, management, information technology, public relations;
- high level of unemployment in rural communities;
- lack of alternative sources of income in rural communities;
- lack of internal capital (agricultural incomes decrease) for modernization and reshaping of arable farms into pro-ecological businesses and little inflow of external capital;
- low level of internal and external investments;
- low level of water and sewage, tourist infrastructure, and lack of financial means for its modernization and expansion;
- inability to use financial sources coming from the European Union.

Additionally to the threats is also included the decrease of the range of the competences of local governments, what complicates the decision-making processes (the example of this is creating and functioning of the Natura 2000 areas). Local community and local governments are forced to implement new, more expensive protective solutions.



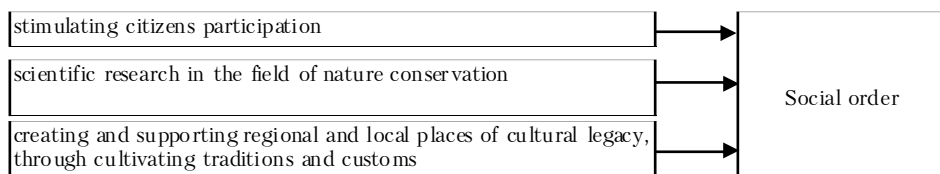
Source: Own study.

Figure 4. Social threats resulting from naturally valuable areas

In social threats, one should pay attention to the lack of the change of society's attitudes in seeing nature not only in cultural traditions, but in a more practical approach, which shows the functions fulfilled by eco-system/nature (protection against soil erosion, purifying sewage).

Low level of social awareness about the naturally valuable areas results from the lack of information and the action of propaganda. Local community sees a threat, in legally protected areas, for socioeconomic development. That is why, there is a need of a bigger engagement of inhabitants, local and regional governments, to work out high quality information and training programs.

To significant limitations concerning spatial economy one can include: an increase by almost 8% to 1990, the number of built-up areas, which at present take over 12.500 km², it concerns for example industrial areas, housing estate, transport infrastructure. Such significant changes in land use lead to the loss of habitats and their degradation, they also cause a serious fragmentation for the existing habitats (Monitoring of the Union policy's..., 2010).



Source: own study.

Figure 5. Social benefits of naturally valuable areas

One should pay attention to non-economic values of natural environment, which are of great importance in the modern ecological-economic thought. These values can be combined with such aspects like:

- the beauty of landscape;
- appropriate acoustic climate;
- esthetic experience and emotional thrill;
- recreation values;
- cognitive values of natural environment;
- ethical values, particularly an increase of the feeling of bond with flora and fauna, leading in some situations to sacralization of the elements (components) of natural environment.

All above mentioned aspects creating non-economic values of natural environment, have their individual as well as social dimensions. The first one is connected with an individual identification of these arable lands, the second one is connected with their social acceptance. Natural environment in the valuable areas delivers can be more effectively received, than the urbanized environment, provided there is no overcrowding. To perceive these values, a certain psychological space is needed.

However, to non-economical benefits resulting from the existence of naturally valuable areas, society takes additionally:

- pure life environment, beautiful landscapes;
- increasing the mobility of local community through creating seasonal and part-time workplaces, making the employment policy flexible and creating innovative workplaces;
- excitement of the civic participation for natural valuable areas, supporting civic initiatives in the fields of tourism and agriculture, what influences the increase of attractiveness of these areas for tourists as well as for farmers;

- excitement of the activeness of local environments and their involvement in the actions preventing the marginalization of natural valuable areas and also involvement of the inhabitants in preparing the concept of the development of naturally valuable areas;
- promoting active leisure (weekend, holiday) and health styles of life among community to widespread the idea of responsibility for own health;
- using European Union financial sources for projects, social initiatives concerning training, information, promotional and advisory actions;
- creating and supporting regional and local places of cultural legacy through preserving traditions and customs;
- protection of cultural legacy, internationalizing cultural legacy, international promotion of culture and supporting transboundary cultural exchange;
- realization of local and strategic documents on sustainable development and widespreading the idea and the rules of sustainable development;
- rising the level of ecological education, increasing the ecological awareness (widespreading the knowledge of natural environment values and ability to use it in an economic way);
- the development of scientific researches.

Conclusions.

On the basis of the conducted theoretical analysis, the following conclusions can be formulated:

- Many of nowadays well-known plant and animals species are endangered, mainly because of infrastructure development and intensive agriculture, but also because of climate changes. A reaction, which opposes this tendency is wildlife conservation through valuable natural areas, which are not only ecological necessity, but also economic, social and spatial.
 - Naturally valuable area is a geographical space, which is under legal protection, in the form of rational managing, together with resources inside it, and necessary restitution.
 - Naturally valuable areas fulfill few important functions, such as:
 - * retaining and reconstructing natural capital,
 - * retaining biodiversity,
 - * retaining homeostasis of eco-systems,
 - * retaining the ability of matter cycle.
 - Future of naturally valuable areas is seen in the idea of sustainable development, which will cause a retain of natural environment's values, at the same time not limiting socioeconomic functioning.
 - In naturally valuable areas there is an economic potential, in the form of economy ecologization, what will cause a retain of these areas for present, as well as future generations.

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