

## **THE INFLUENCE OF NATURAL VALUABLE AREAS ON THE DEVELOPMENT OF ENTREPRENEURSHIP (BASED ON THE EXAMPLE OF LUBLIN VOIVODESHIP)**

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**Abstract.** The aim of the study is to determine the entrepreneurs' perceptions of the impact of valuable natural areas on local entrepreneurship with an indication of the opportunities and constraints arising from such a location. The paper presents results of research on a sample of 150 companies located in 30 municipalities with the highest environmental valuables in the Lublin voivodeship (Poland). The study shows that in the case of enterprises basing on resources and environmental qualities of the communes within natural valuable areas is a natural direction of their development, resulting from favourable, strongly affecting the activity natural conditions. In order to increase the utilization of the existing opportunities for businesses that are created within natural valuable areas, it is important to disseminate among entrepreneurs knowledge on the environmental determinants of economic activity, including the impact of the areas on the possibilities and limitations of business development. The dissemination of this knowledge can be translated into an increased acceptance of the limitations resulting from the need to protect the natural environment of ecologically valuable areas and the identification of a wider range of the specific opportunities for business development. The results were processed using SPSS statistical package. They describe the selected elements of descriptive statistics and the different significance results of the non-parametric Mann-Whitney test. The paper was prepared within the research project No.2011/01/D/HS4/03927 entitled "Environmental conditions and factors of development of the economic functions of valuable natural areas of Lublin Voivodeship" funded by the National Science Centre.

**Key words:** legally protected area, entrepreneurship

**JEL code:** Q56

### **Introduction**

The notion of a valuable natural area is variously interpreted in the literature. In Poland, generally, in narrow terms, the term refers to the areas of documented natural values protected under the Nature Conservation Act (Journal of Laws of 2004 No. 92, item 880) (Cieszewska A., 2009), and the elements of the environment, fauna and flora, present on its

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territory, are an essential contribution to sustainable development and biodiversity conservation (Luszczuk M., 2011). In terms of the Nature Conservation Act of 16 April 2004, protected areas\* are characterized by particular natural, scientific, social, cultural and educational values (national park - Art. 8 of the Act ...), are protected due to the natural, historical and cultural and landscape values in order to preserve and popularize these values in terms of sustainable development (landscape park, Art. 16 of the Act ...), include areas protected because of distinguishing landscape characterized by varied ecosystems, valuable because of the possibility of meeting the needs of tourism and recreation and function as ecological corridors (protected landscape area, Art. 23 of the Act ...). The above features of protected areas condition their many functions associated with a number of benefits, including: the possibility of their touristic and recreational use, watershed protection, providing a range of environmental services, maintenance of biodiversity, opportunities for education and research, providing a plurality of consumer products and non-consumer benefits: (Dixton J.A., Sherman P.B., 1991).

New approaches to protected areas, as compared to traditional concepts, focus mainly on maintenance and often try to limit human activities trying to preserving coherent integration and development functions. In line with this aspiration, protected areas should become "living landscapes" in economic and social terms (Mose I., 2007). Today, the tendency to include protected areas into economic areas and gradually eliminate restrictions on local entrepreneurship is growing. The new features of protected natural resources that were previously in a non-economic sphere are re-integrated into an economic sphere, becoming the drivers of the development of regions and local communities (Boltromiuk A., 2003).

The existence of protected areas can in various ways affect the development of rural areas. Firstly, it can be concluded that protected areas are an opportunity for the sustainable development of communes and may affect incentives for local people, and indirectly the natural environment. Creating protected areas may cause, on the other hand, the appearance of the limiting factors associated with the occurrence of various forms of surface protection (Mastalska-Cetera B., 2007). In particular, limitations can be revealed with regard to: traditional forms of management, investment, use of techniques and measures changes in the components of the natural environment, gaining economic and non-economic land environment, land use planning, the use of the natural environment for recreation, or the need for new security solutions. The leverage effect of valuable natural areas can be linked to the greening of traditional forms of management and operating sectors, the development of different forms of tourism, development of organic farming and production of healthy food, the increase in value of the existing residential properties, acquisition of land to non-economic positive consequences of the implementation of local sustainable development strategy, the

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\* Art. 6 of the Nature Conservation Act of 16 April 2004 lists the following forms of nature: on the surface, which include: national parks, nature reserves, landscape parks and protected landscape areas and Natura 2000 sites.

possibility of conducting research and development of environmental education, employment in the protection of nature sites and new protective solutions for improving the quality of life of residents and tourists (Czaja S., Becla A., 2007).

Including a protected area in a group of factors that support or inhibit development is largely dependent on the attitude of the local community towards the fact of establishing an area nature conservation form and the ability to integrate protected areas into the strategy for socio-economic development of the region (Kulczyk-Dynowska A., 2013). This is possible due to the fact that protected areas can provide important impulses for the development of the region, e.g. in tourism, marketing regional products and, in general, in regional development of innovative products and services (Hammer T., 2007). The challenge is therefore to identify opportunities that do not restrict the usability of the site by people, and at the same time minimize the negative consequences for protected areas. It is postulated that land management adopted the "win-win" strategy, is satisfactory from the point of view of human needs and the needs of maintaining the ecological functions of the area. This happens, for example, when nature conservation brings economic benefits (DeFries R., Hansen, A., Turner BL, Reid R., Liu, J., 2007). One of these directions is entrepreneurship dependent on biodiversity - based on the exploitation of natural resources, which should be developed in accordance with the criterion of sustainable development, contributing in this way to strengthening the social functions of nature sites.

The aim of the study is to determine the perceptions of entrepreneurs of the impact of valuable natural areas on local entrepreneurship with an indication of the opportunities and constraints arising from such a location. The study verified the hypothesis that in the case of enterprises dependent on biodiversity location in a protected area and access to valuable resources and values of the natural environment positively determine their current operation and create opportunities for further development. Within environmentally valuable areas, however, there is a need to implement measures to provide information in order to more fully exploit the possibilities of entrepreneurship development based on the use of resources and natural assets of communes.

The study area consisted of 30 municipalities with the highest environmental valuables in the Lublin voivodeship, designated under the synthetic index developed by D. Guzal-Dec (2013) in the study of ecologically valuable rural and semi-urban areas of the Lublin voivodeship. In each of the communes, on the basis of the REGON number, 5 companies located in rural areas were selected for testing, as directed of the sample reflection of the sectoral structure of business entities in the commune and selecting test subjects with the highest level of employment. Diagnostic survey was applied using a questionnaire interview. Interviews with owners (or managers) of enterprises were realised in the period November-December of 2013. The research material consisted of 150 questionnaire interviews. In the study group of 150 companies 85 entities dependent on biodiversity were selected – basing their activities on the

use of natural resources. The newly selected group included entities in the case of which natural conditions determined the possibilities of doing business and offering certain types of products / services.

The results were processed using SPSS statistical package. They describe the selected elements of descriptive statistics and the different significance results of the non-parametric Mann-Whitney test used to compare two independent groups in the situation of the ordinal nature of the variables. The report was prepared as part of the research project No. 2011/01/D/HS4/03927 entitled: "Environmental conditions and factors of development of the economic functions of valuable natural areas of Lublin Voivodeship" funded by the National Science Centre.

## Research results and discussion

Assessment of the impact of resources and values of the natural environment of the commune on local entrepreneurship. Enterprises basing on the natural resources within environmentally valuable areas represented mainly manufacturing (30.6%), activities related to accommodation and catering services (27.1%) as well as agriculture, forestry, hunting and fishing (23.5%). Companies included in the group of other operated mainly in such sectors as trade and repair (30.8%), manufacturing (13.8%) and other services. The study group was dominated by micro-entities. A more fragmented structure by number of employees was characteristic of enterprises using natural resources (Table 1).

Table 1

### The structure of enterprises using natural and other resources by the number of employees

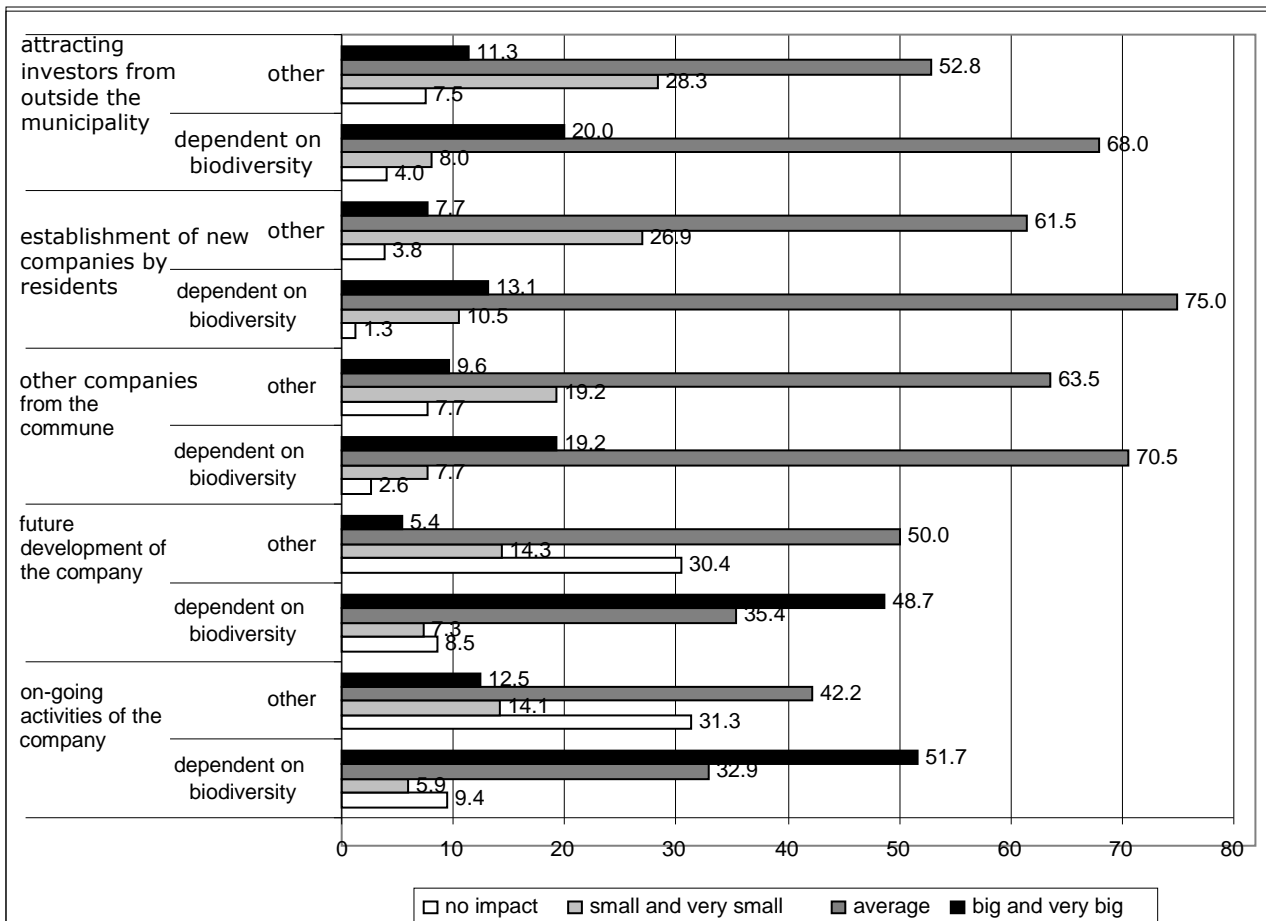
Type of enterprises	The range of employment		
	0-9	10-49	50-249
Use of natural resources	82.4	9.4	8.2
Others	69.9	22.2	7.9

**Source:** *autor's calculations based on empirical research*

Enterprises that use natural resources more often than others were characterized by local range of supported markets (40.0% compared to 34.0% for the other). Furthermore, they were characterized by a slightly longer length of their presence on the market - to 2000 44.8% of those entities were established and in the case of other - 41.6%. In addition, companies using natural resources were often family businesses - 51.8% compared to 40.3% for the group of others. Within the group of 150 entities 37.7% declared functioning within the area covered by one of the forms of nature protection.

Resources and values of the natural environment were an important element of the business environment affecting, in the opinion of their representatives, their activity and the activity of other traders from the commune. The impact of the natural factor on local entrepreneurship was primarily declared by entrepreneurs representing industries dependent on biodiversity. About half of the representatives of these entities declared large and very large impact of the natural environment of the company - on its current activities and future development. These entrepreneurs also perceived greater environmental impact on the other aspects of local entrepreneurship - the activities of other companies in the community, the possibility of establishing new companies by inhabitants and attracting investors from outside the municipality, compared with entrepreneurs representing other branches (Figure 1).

The different significance results of the non-parametric Mann-Whitney test showed that the observed differences in the strength of the influence of the natural environment of the commune on local entrepreneurship between the two groups of companies were statistically significant (variable: the on-going activities of the company:  $p = 0.000$ , the future development of the company:  $p = 0.000$ , other companies from the commune:  $p = 0.009$ , establishment of new companies by residents:  $p = 0.012$ , attracting investors from outside the municipality:  $p = 0.003$ ).



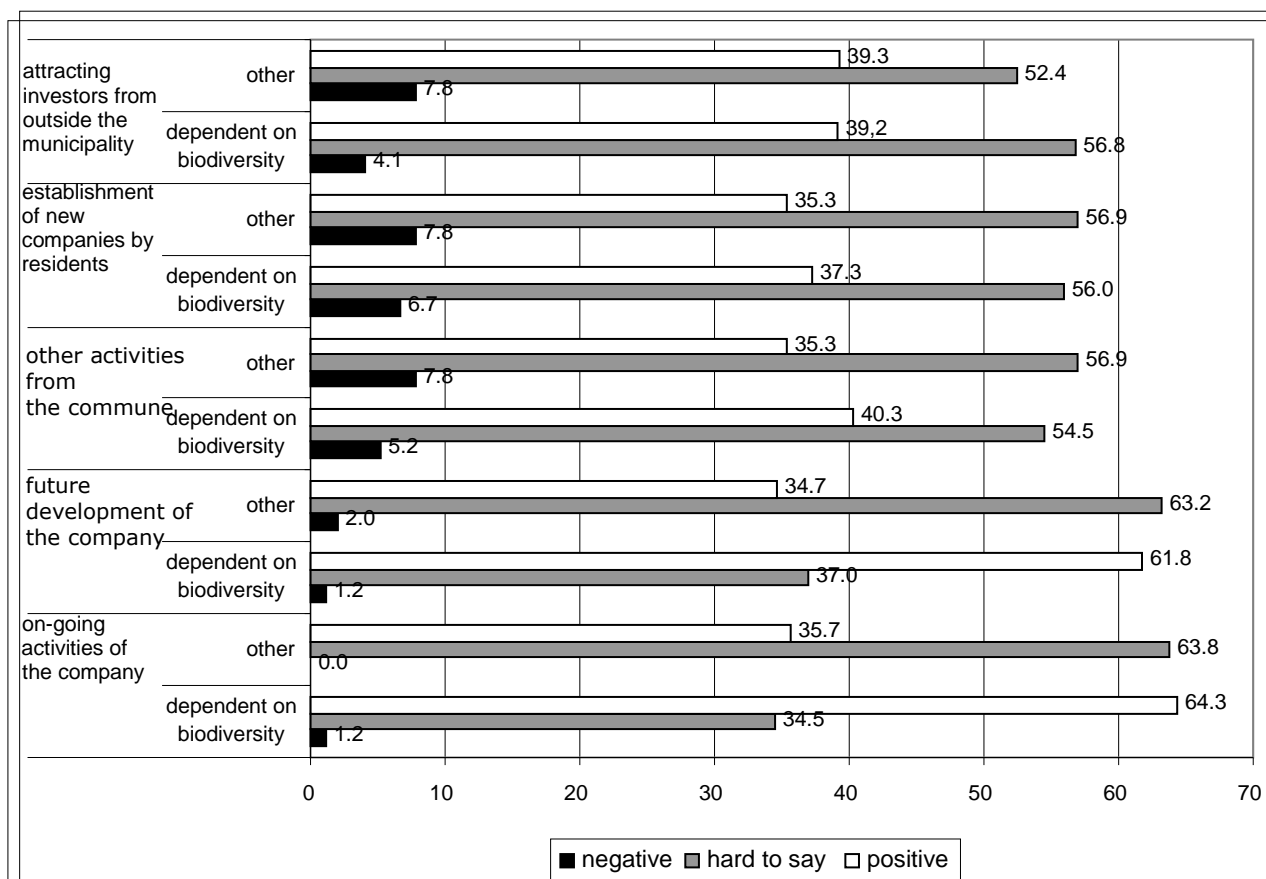
Source: autor's construction based on empirical research

**Fig. 1. Assessment of the impact of environmental forces of the commune on the local entrepreneurship by the surveyed entrepreneurs (% of responses)**

Businesses representing industries dependent on biodiversity, next to perceiving clearly stronger impact of resources and values of the natural environment of the commune on local entrepreneurship much more frequently than in the case of the other pointed it out as positive. More than half of the surveyed entrepreneurs believed that the natural environment of the commune had a positive impact on the current activities of the companies and their future development (Figure 2).

Moreover, in the case of enterprises dependent on biodiversity, the negative impact of valuable natural environment of the commune, the establishment of new businesses by the inhabitants and attracting new investors from outside the commune on the activities of other companies from the commune was perceived less frequently than in the case of the other. It should generally be said that in the group of the surveyed companies the proportion of negative assessments of the impact of the natural environment on local entrepreneurship was small, including negligible in the case of the industries dependent on environmental resources. It should be noted that other companies much more often were not able to clearly identify the environmental impact on businesses. Negative assessments were more often perceived than in the case of others. The statistical significance of the observed differences in the impact

assessment of the natural environment on local entrepreneurship determined on the basis of the Mann-Whitney test within the communes concerned only the situation of entities represented by the surveyed entrepreneurs (variable: the on-going activities of the company:  $p = 0.000$ , the future development of the company:  $p = 0.000$ ). For all other variables the differences proved to be statistically insignificant. (variables: other companies from the community:  $p = 0.381$ , establishment of new companies by residents:  $p = 0.578$ , attracting investors from outside the commune:  $p = 0.542$ ).

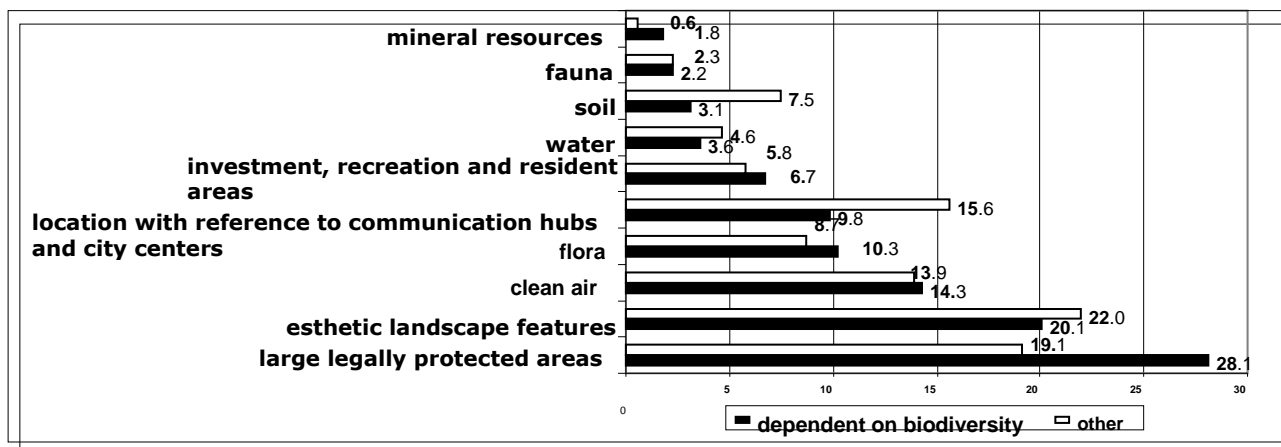


Source: autor's construction based on empirical research

**Fig. 2. Assessment of the environmental impact of municipalities on local entrepreneurship according to the surveyed companies (% of responses)**

At this point the convergence of the results with other studies carried out in the areas covered by the Natura 2000 network (Dokument zamykajacy ... 2012) should be noted, indicating that entrepreneurs basing their business on the natural values of the region, tend to have a positive opinion about the conditions of doing business. Negative opinions on doing business in the areas of natural beauty appeared among entrepreneurs from other sectors whose activities are based on the use of the advantages of the landscape. They mainly pointed out limitations in the development of companies regarding extensions or preventing investment processes. Lack of knowledge about the opportunities and the lack of own funds were often hampering factors.

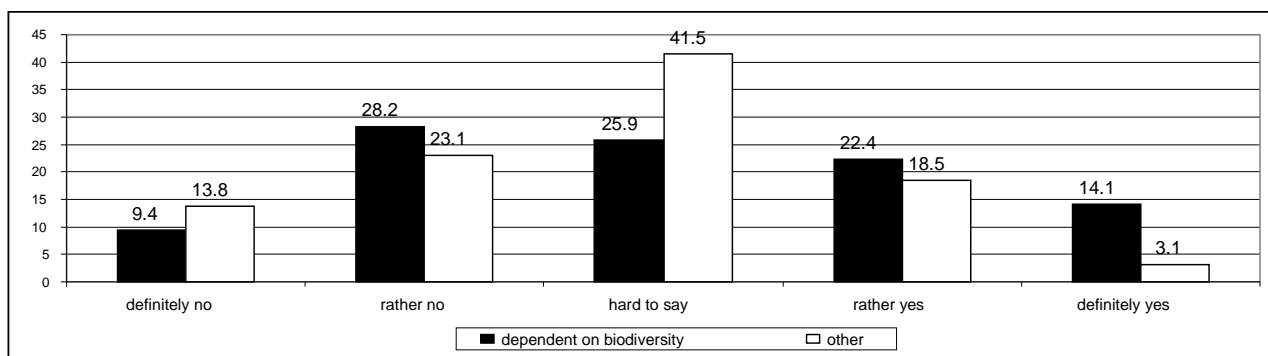
The possibilities of using resources and values of the natural environment in the development of the local commune entrepreneurship. The entrepreneurs surveyed were aware of the special qualities of the natural environment of the communes where their companies were located. In particular, among these values entrepreneurs representing industries dependent on biodiversity pointed out diverse and valuable natural environment under legal protection, aesthetic landscaping, clean air. Other entities paid more attention to: the aesthetic features of landscape, the area of protected areas and favourable location in relation to hubs and urban centres (Figure 3).



Source: autor's construction based on empirical research

**Fig. 3. Specific advantages of the geographical environment of the commune according to the assessment of the surveyed entrepreneurs (% of responses)**

Perceiving by the entrepreneurs the advantages of local environment and its positive impact on entrepreneurship was accompanied by their opinion on incomplete use of the area of the commune in their business operations. Enterprises dependent on biodiversity, due to the nature of activities, often recognized that the geographical values of the environment of the commune were fully utilized by local companies (36.5% compared to 21.6% for other entities) (Figure 4).

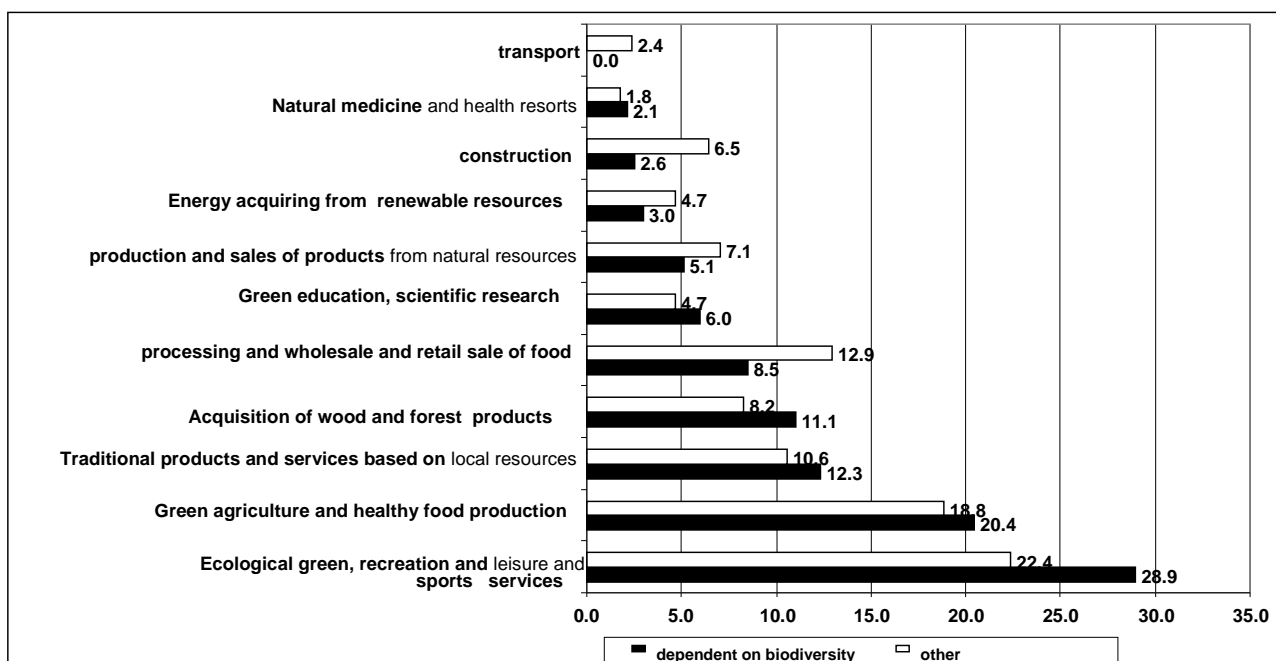


Source: autor's construction based on empirical research

**Fig. 4. The use by local companies of the geographical environment values of the commune in the assessment of the surveyed entrepreneurs (% of responses)**



Entrepreneurs perceived the potential of local resources and values of the natural environment possible for use in the development of various economic activities. In particular, the following areas which have shown development opportunities were pointed out by the surveyed: ecological tourism, recreational and sports facilities as well as organic farming and production of healthy food. Representatives of the entities dependent on biodiversity also perceived opportunities in the development of traditional products and services based on local resources, and in the case of other entities – these included processing and wholesale and retail sale of food. Few entrepreneurs indicated the possibility of developing or acquiring natural medicine or energy from renewable sources which required the existence of adequate infrastructure and considerable resources (Figure 5).



Source: autor's construction based on empirical research

**Fig. 5. The areas of entrepreneurship with development opportunities in the commune, according to the assessment of the surveyed companies (% of responses)**

With respect to enterprises operating in areas under legal protection, both opportunities and constraints arising from the development of such a location were indicated. Most possibilities were indicated by the respondents in relation to the less restrictive forms of nature, such as landscape parks or Natura 2000 sites. In the case of all forms, the basic perceived opportunity resulted from tourism development. Within landscape parks and the areas covered by the Natura 2000 network the importance of the location for large interest in the companies' products pointed out: access to local resources, opportunities for development of light industry and agricultural activity (Table 2).

**Opportunities and threats indicated by the surveyed companies arising from the location in the area legally protected by forms of protected areas**

<b>Area</b>	<b>Chances</b>	<b>Restrictions</b>
Natura 2000	development of tourism, the influx of tourists, the possibility of the use of grants, subsidies, great interest in the company's products development activities based on the available natural resources, opportunities for small industry development, development of farms	insufficient level of infrastructure development the need for numerous, complex, restrictive environmental legislation lack of adequate investment rules restrictive provisions hindering or preventing the investment process prohibition of certain investments, cutting of trees
Landscape Park	large stock of raw materials, virgin nature, natural values development of tourism, increase in the number of tourists	lack of subsidies for activities' development the need for complex, restrictive laws administrative restrictions, limitations and difficulties of investments legal requirements in the natural valuable areas
National Park	tourism development	the need for complex, restrictive laws environmental protection rules investment restrictions legal requirements in the natural valuable areas

**Source:** *autor's summary based on empirical research*

Compared to the perceived chances, entrepreneurs reported significantly more constraints associated with the operation of the area covered by legal protection. The restrictions include: insufficient level of infrastructure development, the need for numerous, complex and restrictive environmental legislation and the need to comply with regulations limiting or impeding investment processes.

Other surveys carried out among the entrepreneurs within the Natura 2000 sites show that they have little knowledge about the network and the benefits and risks arising from the

location of firms in its area. In addition, the views of entrepreneurs on the network are in conflict and are often based on unreasonable and stereotypical opinions (Boltromiuk, Klodzinski 2011). Other surveys of entrepreneurs operating in the Natura 2000 areas, in turn, revealed the important role of information and promotional support, grants and subsidies, the advice of the business environment institutions, the use of exemptions and tax benefits in the development of economic activity. In particular, entrepreneurs reported a need for assistance and advice on fundraising for business development, advice and assistance in adjusting the profile of the requirements arising from the location within the Natura 2000 areas or near it (Analiza uwarunkowan..., 2012).

## **Conclusions**

The discussion presented in the paper allows for formulating the following conclusions:

1. The hypothesis formulated in the study was verified. Entrepreneurship based on natural resources and environmental qualities of the commune in the natural valuable areas are the natural direction of their development, resulting from favourable, strongly affecting the activity natural conditions. In addition, the field of entrepreneurship can be specified as the desired factor in the natural valuable economies allowing for the development of environmentally valuable range of economic and social functions of these areas and improving their socio-economic situation.
2. The environmentally valuable areas covered by different forms of protection should seek individual directions and forms of entrepreneurship, using a specific system of conditions for development. An important role in this process should be played by local government authorities aimed at economic revival of the communes on the basis of their sustainable use of their natural potential.
3. Skilful incorporation of business in the environment in the commune of valuable resources and natural beauty protected by law requires specialized knowledge of the environmental determinants of economic activities, including the impact on the possibilities and limitations of entrepreneurship in those areas. This requires the initiation of cooperation between municipal authorities and the local business sector, representatives of the local community and environment experts involved in the development of valuable natural areas. Dissemination of knowledge of this type among businesses can result in increased acceptance of the limitations resulting from the need to protect the natural environment ecologically valuable areas and the identification of a wider range of specific opportunities for business development.
4. Future deepening studies needs to identify the most important factors stimulating the development of entities dependent on biodiversity, including those related to knowledge about the conditions, development opportunities and constraints arising from their location within environmentally valuable areas.

## Bibliography

1. Analiza uwarunkowan prowadzenia dzialalnosci gospodarczej na obszarach Natura 2000 w wojewodztwie warminsko-mazurskim, Dokument opracowany w ramach projektu „BUSINESS TO NATURE – Interregional Approach to SMEs and Entrepreneurship in Natural Areas” (Analysis of the Conditions of Conducting Business in Natura 2000 Areas in the Warmia and Mazury Region, Document prepared under the „BUSINESS TO NATURE – Interregional Approach to SMEs and Entrepreneurship in Natural Areas” project) (2012). Warszawa: Warminsko-Mazurska Agencja Rozwoju Regionalnego S.A. w Olsztynie. p. 83. Retrieved: [http://www.business2nature.eu/files/Analiza\\_uwarunkowan\\_Natura\\_2000\\_woj\\_warminsko-mazurskie.pdf](http://www.business2nature.eu/files/Analiza_uwarunkowan_Natura_2000_woj_warminsko-mazurskie.pdf). Access: 18.09.2014
2. Boltromiuk, A. (2003). Ekonomiczne aspekty funkcjonowania obszarow chronionych (Economic Aspects of the Functioning of Protected Areas). Bialystok: Wyd. Uniwersytetu w Bialymstoku. pp. 88-91.
3. Boltromiuk, B., Kłodzinski M. (2011). Podsumowanie i wnioski z badan (Summary and Conclusions of the Study) in: Boltromiuk A. (ed.), Uwarunkowania zrownowazonego rozwoju gmin objętych siecia Natura 2000 w swietle badan empirycznych (Determinants of Sustainable Development of Municipalities Covered by the Natura 2000 Network in the Light of Empirical Research). Warszawa: IRWiR PAN. pp. 366-367.
4. Cieszewska, A. (2009). Strategia rozwoju turystyki na terenach cennych przyrodniczo (The Strategy of Tourism Development in Environmentally Valuable Areas). Studia i Materialy Centrum Edukacji Przyrodniczo-Lesnej (Studies and Research Centre for Nature and Forest Education), Volume 11, Issue 23, p. 43.
5. Czaja S., Becla A. (2007). Ekologiczne podstawy procesow gospodarowania (Ecological Basis of Economic Processes). Wroclaw: Wyd. AE im. O. Langego we Wroclawiu. pp. 374-375.
6. DeFries, R., Hansen, A., Turner, B. L., Reid, R., Liu, J. (2007). Land Use Change Around Protected Areas: Management to Balance Human Needs and Ecological Function, Ecological Applications, Volume 17. Issue 4, p. 1031.
7. Dixton, J. A., Sherman P., B. (1991). Economics of Protected Areas. Environmental Economics, Volume 20, Issue 2, p. 70.
8. Dokument zamykajacy projekt „BUSINESS TO NATURE – nowe podejscie do rozwoju przedsiebiorczosci na obszarach cennych przyrodniczo” (Closing Document for the Project: „BUSINESS TO NATURE” – a New Approach to the Development of Entrepreneurship in Natural Valuable Areas” (2012). INTERREG IVC, European Regional Development Fund.
9. Guzal-Dec D. (2013). Operacjonalizacja modelu Presja-Stan-Reakcja w badaniu cennosci ekologicznej gmin wiejskich na przykladzie wojewodztwa lubelskiego (Operationalization of the Pressure-State-Response Model in the Study of Ecological Valuables of Rural Communities, as Exemplified by the Lublin Voivodeship). Rocznik Ochrony Srodowiska (Annual Set the Environment Protection), Volume 15, Issue 3, pp. 2925-2941.
10. Hammer T. (2007). Protected Areas and Regional Development: Conflicts and Opportunities in: Mose I. (ed.), Protected Areas and Regional Development in Europe: Towards a New Model for the 21st Century. Aldershot: Ashgate. p. 28.
11. Kulczyk-Dynowska A. (2013). Rozwoj regionalny na obszarach chronionych (Regional Development in Protected Areas). Wroclaw: Uniwersytet Przyrodniczy we Wroclawiu. p. 122.
12. Luszczuk, M. (2011). Kierunki rozwoju spoleczno-gospodarczego obszarow przyrodniczo cennych. Zrownowazony rozwoj obszarow przyrodniczo cennych (Directions of Socio-Economic Development of Valuable Natural Areas. Sustainable Development of Valuable Natural Areas) in: Poskrobko T. (ed.), Planistyczne i implementacyjne aspekty rozwoju obszarow przyrodniczo cennych (Planning and Implementation Aspects of the Development Valuable Natural Areas), Volume 1, Bialystok: Wyd. WSE w Bialymstoku. p. 263.

13. Mastalska-Cetera B. (2007). Obszary chronione. Szansa i zagrożenie dla rozwoju obszarów wiejskich, Przyrodnicze uwarunkowania rozwoju obszarów wiejskich (Protected areas. Opportunity and a threat to rural development. Natural conditions for rural areas development) in: Grykiewicz S., Hasinski W. (ed.), *Studia Obszarów Wiejskich (Studies of Rural Areas)*, Volume 12, Warszawa. pp. 95-96.
14. Mose, I. (2007). Foreword in: Mose I. (ed.), *Protected Areas and Regional Development in Europe: Towards a New Model for the 21st Century*. Aldershot: Ashgate.
15. Nature Conservation Act of 16 April 2004, 2004 Nr 92 item 880.