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ARE 'GREEN' MUNICIPALITIES SUSTAINABLE? AN ANALYSIS OF THE DEVELOPMENT CONDITIONS OF MUNICIPALITIES LOCATED IN PROTECTED AREAS

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CZY „ZIELONE” GMINY SĄ ZRÓWNOWAŻONE? ANALIZA UWARUNKOWAŃ ROZWOJU GMIN NA OBSZARACH PRZYRODNICZO CENNYCH

STRESZCZENIE: Obszary przyrodniczo cenne są postrzegane z perspektywy korzystnych uwarunkowań dla rozwoju zrównoważonego, który – w szczególności na poziomie lokalnym – może być znaczącym ograniczeniem, a nawet powodować konflikty. W rzeczywistości ocena uwarunkowań przyrodniczych dla rozwoju społeczno-gospodarczego jest uzależniona od poziomu analizy (lokalna, regionalna, krajowa czy ponadnarodowa). Badania podjęte w pracy są próbą oceny uwarunkowań społeczno-ekonomicznych gmin w zależności od udziału obszarów przyrodniczo cennych w powierzchni ogółem na przykładzie województwa lubuskiego (poziom lokalny i regionalny). Analizy podjęte w pracy sugerują, że najbardziej zrównoważone uwarunkowania dla rozwoju społeczno-gospodarczego pojawiają się w grupie gmin o umiarkowanym udziale obszarów przyrodniczo cennych na poziomie 30–60% powierzchni ogółem.

SŁOWA KLUCZOWE: obszary przyrodniczo cenne, „zielone” gminy, fundusze UE

Introduction

The aim of this paper is to evaluate the socio-economic conditions in municipalities of Lubuskie province characterised by a high share of protected areas in their total area ('green' municipalities). Protected areas (PA)¹ are seen from the socio-economic perspective as important for the persistence of the environmental foundations of social functions and the ability to develop services, in particular those related to tourism and recreation. A large share of these areas in the total area of a region is presented as a beneficial factor for sustainable regional development. But the perception of these favourable conditions for development is changing very much at the local, municipal level².

The literature presents numerous conflicts and problems that arise in relation to the presence of PA for local communities³. Local problems result, for example, in poor functioning of local labour markets, and migration associated with the search for jobs⁴.

Many actions undertaken with a focus on economic revival in Lubuskie province point to tourist attractions. However, the opportunities of 'green' municipalities (or regions) for sustainable development are not determined by natural assets alone, but the ability to create attractive tourism products

¹ PA – Protected area (synonymous for *obszar przyrodniczo cenny*) is any geographic space which is subject to legal functional protection, rational management of resources and restitution, whenever necessary, A. Zielińska, *Istota obszarów przyrodniczo cennych w naukach prawnych i ekonomicznych*, „Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu. Ekonomia”, „Gospodarka a Środowisko” 2010 No. 140, p. 211.

² A. Hibszer, *Komunikacja społeczna jako sposób przewycięzania konfliktów społecznych w parkach narodowych*, in: *Zarządzanie krajobrazem kulturowym*, Sosnowiec 2008, p. 579.

³ Ibidem, 584 and further; A. Hibszer, J. Partyka (eds), *Między ochroną przyrody a gospodarką – bliżej ochrony. Konflikty człowieka – przyroda na obszarach prawnie chronionych w Polsce*, Ojcowski Park Narodowy 2005; B. Kaczor, I. Miedzińska, *Konflikty w systemach rekreacyjnych na przykładzie wybranych parków krajobrazowych województwa lubuskiego*, in: A. Schwichtenberg (ed.), *Gospodarka turystyczna na obszarach parków narodowych i krajobrazowych*, Koszalin 2003, pp. 231–237; M. Lusarczyk, *Rola władz lokalnych w społeczno-gospodarczym rozwoju gmin położonych na obszarach cennych przyrodniczo*, w: *Konkurencyjność i usługi w zrównoważonym rozwoju obszarów wiejskich*, „Zeszyty Naukowe Uniwersytetu Szczecińskiego. Ekonomiczne Problemy Usług” 2012, p. 166.

⁴ M. Czepczyński et al., *Studium porównawcze polityki gospodarczej, rynku pracy i struktury zatrudnienia Brandenburgii, Berlina i województwa lubuskiego/Comparative analysis of economic policy, labour market and employment structure for Brandenburg, Berlin and Lubuskie province*, www.efs.lubuskie.pl [15/06/2016].

on their basis. This is also connected with the level of economic activity of local communities. Sustainable regional development does not imply that individual municipalities in the region also have similar opportunities.

Protected areas from the business perspective

Protected areas are usually seen from the national and regional perspective as valuable resources of natural capital which create positive conditions for the healthy life of the citizens, as well as the huge potential for tourism development. For example, a report on Lubuskie province points to the good quality of the environment and natural potential of the region⁵. Local authorities of Lubuskie province also emphasize favourable natural conditions for tourism development, claiming that 'Lubuskie has a wide range of tourist attractions, mainly due to its natural advantages. It is one of the five regions with the lowest levels of environmental pollution'⁶.

The sector of tourism and recreation is indicated as most strongly associated with the functioning of PA. R. Ziółkowski claims the 'development of tourism has always been connected with the natural environment'⁷. Although this claim is exaggerated if we consider the current multitude of other types of tourism (for example, sex or shopping tourism), many tourism products strongly rely on the presence of natural areas (for example, countryside tourism, eco-tourism, spa tourism). And because the share of the tourism and recreation sector in national economies continuously increases⁸ these opportunities must not be ignored by regional policies.

However, running a business in a PA is subject to restrictions which predefine the low level of human pressure, also with respect to tourist activity⁹. For this reason, the existence of PA, particularly at the local level, is often perceived as a serious barrier to the economic development of local communities.

⁵ K. Cheba, J. Hołub-Iwan, A. Świadek, *Specjalizacje regionalne województwa lubuskiego*, Warszawa 2014, p. 13.

⁶ Lubuski Regionalny Program Operacyjny na lata 2007–2013/Regional Operational Programme for Lubuskie Province, Zielona Góra 2011, p. 46.

⁷ R. Ziółkowski, *Charakterystyka aktywności turystycznej na obszarach o dominujących walorach przyrodniczych*, „Acta Scientiarum Polonorum. Oeconomia” 2010 Vol. 9, No. 4, p. 657.

⁸ For example: the *World Travel & Tourism Council* has estimated over 4% increase (from 9.8% in 2015 to 10.8% in 2026) in the total contribution of the tourism sector to GDP (direct, indirect and induced effects) within the next 10 years, WTTC, *Travel & Tourism Economic Impact 2016 – World*, World Travel & Tourism Council, 2016, p. 1.

⁹ G. Gołębowski, *Miejsce ekologii i ochrony środowiska w kreowaniu i promocji produktu turystycznego przez samorządy*, „Europa Regionum” 2015 No. XXIII, p. 9.

For example, A. Hibszer indicates social conflicts stemming from the lack of communication in the process of establishing PA, and indicates strategies in which local communities are treated as an integral part of the environment. This approach reduces antagonisms between the protection of nature and the interests of local communities¹⁰. On the other hand, I. Miedzińska et al. show the multitude of conflicts that arise in PA. They point to conflicts of space, function and use, caused by overlapping (co-existence of resources and values) and bordering interests (the use of resources of one area limiting the use of the land neighbouring the area) between the protective, tourist and economic functions, and concerning landscape, ecological, economic, and social issues, as well as competences¹¹.

Although the range of businesses options in PA is not limited to tourism and recreation (for example, crafts or trade are also allowed¹²), these service sectors are perceived as integral elements of business in protected areas. This is due to the specific links between natural and tourist assets, but also the growing role of tourism in national economies, and its relatively low negative impact on the natural environment.

Socio-economic conditions for the development of municipalities in Lubuskie province

Lubuskie province has one of the largest shares of protected areas in Poland, and in 2014 it was 39% (fourth place after Świętokrzyskie – 65%, Małopolskie – 52%, Warmińsko-Mazurskie – 47% and Podkarpackie – 45%), and the largest, 49%, share of forest areas (followed by Podkarpackie with about a 38% share)¹³. Lubuskie province also has poorly developed road infrastructure (including bridges), because for many years the state border there was mostly closed. In addition, significant economic decline is seen in this region due to the high proportion of natural and military areas, which today require a new way of management. Lubuskie province is divided into 83 municipalities, of which about half (41) have rural status, and the remaining 33 have rural-urban status. Some of these municipalities have about an

¹⁰ A. Hibszer, op. cit., p. 581.

¹¹ I. Miedzińska, J. Styperek, B. Kaczor, *Konflikty w systemach rekreacyjnych obszarów chronionych na wybranych przykładach*, in: A. Hibszer, J. Partyka (eds), op. cit., p. 130.

¹² Ł. Popławski, *Szanse rozwoju usług w opinii mieszkańców obszarów chronionych województwa świętokrzyskiego – wnioski*, in: *Konkurencyjność i usługi w zrównoważonym rozwoju obszarów wiejskich*, „Zeszyty Naukowe Uniwersytetu Szczecińskiego” 2012 No. 705, Vol. 89, p. 267.

¹³ *Leśnictwo i ochrona środowiska w województwie lubuskim w latach 2012–2014*, Zielona Góra 2015, pp. 79, 61.

80% share of PA, and Dobiegniew municipality has as high as 99% of the total area. Lubuskie is one of the least populated provinces in Poland (about 1 million people)¹⁴. Because of this, chances for local development are seen in tourism and recreation, and preservation of the existing natural assets¹⁵. It should be emphasized that in the past the development of tourism in Lubuskie was usually seen from the perspective of temporarily lost potential¹⁶, which is reflected in difficulties with the stimulation of business activity. Experts pointed to the low quality of accommodation, and even the lack of characteristic regional tourism products that would match modern trends¹⁷.

In order to achieve the study objective municipalities were classified depending on the share of PA and/or forest cover in their total area. In municipalities with a high share of protected areas (GODU) particularly negative phenomena were measured by economic activity of the local community (e.g. the number of employed people per 1000 people or the number of enterprises, particularly large and medium-sized) (Table 1). At the same time these municipalities are characterised by a relatively low share of people of non-working age per 100 persons of working age.

Although GODU are characterized by relatively low employment rates, they also have a much more stable demographic situation, which explains the greater dependence of people livings in these municipalities on social assistance (Table 1). The total balance of the population (the natural movement of people and migration) in relation to the population size in a given group, as well as the share of the population of working age shown in Figure 1, confirms the favourable demographic conditions (higher share of the population of pre-working age and the relatively lower share of those of post-working age) in GODU.

The higher income of green municipalities per capita, compared to GONU, is in fact negligible when we compare them, for example, to the cost of construction and maintenance of the technical infrastructure in areas managed by the municipalities. The construction costs of municipal infrastructure (such as roads or water and sewerage) are disproportionately higher in GONU if we consider the number of local residents financing their construc-

¹⁴ *Statystyczne vademecum samorządowca. Województwo lubuskie 2015*, Zielona Góra 2015, p. 1.

¹⁵ *Lubuska strategia rozwoju turystyki na lata 2006–2013/Strategy for tourism development in Lubuskie province for 2006–2013*, Zielona Góra-Warszawa 2005, p. 6; *Program Rozwoju Lubuskiej Turystyki do 2020 r./Tourism development programme for Lubuskie province until 2020*, Zielona Góra, Landbrand, 2014, p. 43

¹⁶ K. Cheba, J. Hołub-Iwan, A. Świadek, op. cit., p. 18.

¹⁷ *Lubuski Regionalny Program Operacyjny na lata 2007–2013/Regional Development Programme for Lubuskie Province for 2007–2013*, pp. 47–48; Z. Świątkowski, *Tendencje zmian na rynku turystycznym województwa lubuskiego*, in: R. Pawlusiński (ed.), *Współczesne uwarunkowania i problemy rozwoju turystyki*, Kraków 2013, p. 348.

Table 1. Municipalities of Lubuskie province grouped by the share of valuable natural areas (protected areas and/or forest cover) in 2014

Parameter	GONU (<30%)	GOSU (30-60%)	GODU (>60%)
Number of municipalities	12	43	28
Mean share of areas protected by law [%]	10	31	58
Mean forest cover [%]	17	45	54
Mean income of municipality [million PLN]/income of municipality per capita [PLN]	140/3750	32/3407	22/3464
Mean number of people of non-working age per 100 people of working age	57	55	54
Mean number of working people per 1,000 people	201	155	121
Mean share of people using social benefits in municipality [%]	10	11	12
Mean share of enterprises registered per sector (REGON number) [%]			
• agriculture	3	6	8
• industry	9	10	9
• construction	13	15	13
Mean number of enterprises per 10,000 people of working age:			
• very small (0–9 employees)	144	47	76
• small (10–49 employees)	55	48	49
• medium-sized (50–249 employees)	11	7	6
• large (250 and more employees)	1,4	0,6	0,4
Mean percentage of population with access to:			
• sewerage discharge system [%]	56	27	15
• pipeline (natural gas) [%]	80	49	48
• water supply system [%]	97	91	93
Mean natural migration of people	-14	6	-1
Mean migration balance	-43	-17	-4
Total balance of changes in the population of municipalities vs population size [%]	-0,15	-0,10	-0,07

Notes: GONU – municipalities with a low share of PA and/or forest cover in the total area; GOSU – municipalities with a moderate share of PA and/or forest cover in the total area; GODU – municipalities with a high share of PA and/or forest cover in the total area.

Source: authors' own analysis based on reports for individual municipalities: Statistical Office in Zielona Góra, *Statystyczne vademecum...*; BDL, Central Statistical Office, 13 June 2016, www.bdl.stat.gov.pl [13/06/2016].

tion, which translates into a much lower share of people with access to sewage or natural gas pipelines (Table 1).

In view of demographic forecasts, which point to a significant increase in the proportion of people of retirement age (double the share in 2080 compared to 2013)¹⁸, it seems that ‘green’ municipalities can be a valuable resource of human capital. Reports have also indicated an about 50% increase in the share of retired people in Lubuskie province in the 2010–2020 period, while in Poland, projections indicate only a 35% increase in the share of this demographic group¹⁹. Despite positive trends in GODU the population of these municipalities makes up only a small part of the regional population. Therefore, labour resources should be activated in these areas, mainly in tourism and leisure, agriculture (organic) and crafts.

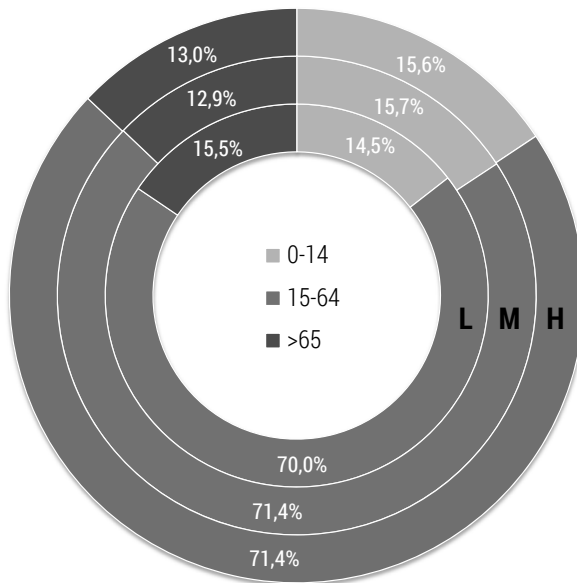


Figure 1. Share of individual demographic groups (aged 0–14, 15–64 and over 65) in the total population and municipalities with low (L), moderate (M) and high (H) shares of protected areas and high forest cover rate.

Source: BDL, Central Statistical Office, „Stan ludności”, www.bdl.stat.gov.pl [13/06/2016].

The role of European Union funds in the operation of ‘green municipalities’ in Lubuskie province

¹⁸ European Commission, Demography and Migrations, www.ec.europa.eu [30/05/2016].

¹⁹ K. Malczyk, J. Kwiatkowski, W. Odzimek, *Prognozy demograficzne i gospodarcze dla województwa lubuskiego do roku 2020*, Kraków 2011, pp. 5–6.

Some publications indicate that GODU can still be trapped in a kind of vicious circle, because the relatively low income of GODU prevents tourist development in these areas, and thus municipalities are unable to create jobs for the available human capital, which results in a negative balance of the population in the municipality and its poor economic status. European Union funds and other forms of assistance can be an opportunity for municipalities and can help to overcome this self-perpetuating problem with the depopulation of local communities and the lack of capital for investment disabling the sustainable development of these protected areas²⁰.

Rural areas and protected areas can benefit from European Union funds which can be used as an effective tool to overcome the persistent problems with underinvestment. EU funds can be used for building a model of development based on local natural resources, which will no longer be a burden for local communities, but the source of their economic wealth. However, this requires the environmental awareness of local communities created, for example, through participation in planning the establishment of protected areas and financial support, and good ideas on how to turn this advantage into an attractive tourist product.

Table 2. Municipalities of Lubuskie province grouped by the share of protected areas and forest cover in 2014 vs expenditures under projects co-financed with European Union funds for 2007–2013 National Strategic Reference Framework (NSRF): Operational Programme Infrastructure and Environment (PO IiŚ), Innovative Economy (PO IG), and Human Capital (POKL)

Parameters/Expenditure	GONU (<30%)		GOSU (30-60%)		GODU (>60%)	
	total	per capita	total	per capita	total	per capita
NSRF	8677	4747	13723	7874	6875	3607
NSRF PO IiŚ	4048	2466	7810	4654	2902	1551
NSRF POIG	942	439	1187	540	1095	512
NSRF POKL	333	277	255	212	256	215

Notes: GONU – municipalities with a low share of PA and/or forest cover in the total area; GOSU – municipalities with a moderate share of PA and/or forest cover in the total area; GODU – municipalities with a high share of PA and/or forest cover in the total area.

Source: authors' own analysis based on reports for individual municipalities: Statistical Office in Zielona Góra; *Statystyczne vademecum...*; BDL Central Statistical Office, EU Funds, www.bdl.stat.gov.pl [13/06/2016].

²⁰ M. Lusarczyk, op. cit., p. 172.

As shown in Table 2 expenditure under EU programmes per capita in GOSU was significantly higher compared to other municipalities. Even in the operational programmes related to environmental protection (POIiŚ) the budget was relatively the lowest in GODU. This may be a consequence of limited investment opportunities in this type of area and insufficient funds to cover the required municipality's own contribution. This suggests that the greatest chance for development exists in municipalities where the share of PA and business opportunities is more balanced.

Conclusions

This article presents a preliminary assessment of conditions for the development of GODU. The study focused on the identification of problems and directions for further research. The analysis of conditions in Lubuskie province pointed to the following issues:

1. In general, urban areas are characterised by a lack of balance in favour of business activity to the detriment of PA, while in municipalities with the high share of PA conflicts arise because of restrictions in running businesses. It does not mean that such antagonisms are unavoidable, but actions and support instruments (also financial) relevant to socio-economic and environmental conditions to prevent conflicting interests are required.
2. The perception of advantages from PA is determined, among other things, by the approach to their analysis. The role of these areas may be perceived very differently at the regional and local levels. To balance the regional situation it is therefore necessary to take relevant actions at higher levels supporting such areas and the needs of the local community, which is an inherent element of the local environment.
3. In Lubuskie province municipalities with a high share of PA despite their low level of economic activity are characterised by more positive demographic trends. Unfortunately, the local population is relatively small compared to other urban areas, but offers a valuable labour resource which can be activated for the creation of tourism products relying on the natural and cultural assets of the municipality.

European Union funds can provide significant capital for the activation of people in GODU, but it appears that GOSU offer the most balanced conditions for the socio-economic development of municipalities and the investment of these funds.

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