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# THE SOCIO-ECONOMIC CONDITIONS OF THE DEVELOPMENT OF RURAL BORDER AREAS

# SPOŁECZNO-EKONOMICZNE UWARUNKOWANIA ROZWOJU PRZYGRANICZNYCH OBSZARÓW WIEJSKICH

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Streszczenie. Celem przeprowadzonych badań było ustalenie wpływu społecznoekonomicznych czynników, w aspekcie transgraniczności, na rozwój lokalnej gospodarki wschodniego pogranicza oraz na aktywizację społeczno-gospodarczą obszarów wiejskich. Obszarem bezpośredniego zainteresowania był pas przygraniczny północno-wschodniej Polski, który terytorialnie pokrywa się z obszarem Euroregionu "Niemen". Badania zostały przeprowadzone w latach 2007-2010 w 30 gminach wiejskich i miejsko-wiejskich Euroregionu "Niemen". Zakres tematyczny i wieloaspektowość problematyki badawczej wymagała łaczenia analizy ilościowej i jakościowej. W związku z tym zastosowano szereg metod i technik badawczych, pozwalających osiągnąć postawiony cel. Należy w szczególności podkreślić, że przeprowadzone zostały badania ankietowe wśród rolników, przedsiębiorców oraz przedstawicieli samorządu terytorialnego. Obiekty do badań dobrano w sposób celowy. Rezultaty przeprowadzonych badań i analiz pozwoliły na sformułowanie szeregu wniosków i spostrzeżeń. Po pierwsze, lokalizacja gmin w Euroregionie "Niemen", przy granicy północnej lub wschodniej kraju, ma wpływ na rozwój przedsiębiorczości w przygranicznych regionach wiejskich. Po drugie, uwarunkowaniem rozwoju obszarów wiejskich jest czynnik ludzki, a w szczególności poziom wykształcenia i wiek. Po trzecie, ekorozwój Euroregionu "Niemen" jest wymuszony niedoinwestowaniem gmin i pauperyzacją społeczeństwa, a nie świadomością ekologiczną mieszkańców, przedsiebiorców i rolników. Po czwarte, gminy powinny wykorzystać fakt, że coraz więcej ludzi (zwłaszcza zamożnych), stara się osiedlać z dala od centrów miast, w pięknych okolicach cennych przyrodniczo, których jest sporo w Euroregionie "Niemen". I wreszcie po piąte, na rozwój obszarów wiejskich pozytywnie wpływają takie czynniki makroekonomiczne jak prawodawstwo unijne i zwiększony dostęp do nowych rynków zbytu oraz do nowych technologii, natomiast negatywnie wpływają takie czynniki społeczno-ekonomiczne jak sytuacja gospodarcza na świecie, prawodawstwo krajowe, słaba dostępność wykwalifikowanej kadry, czy ograniczona dostępność do zewnętrznych źródeł finansowania.

**Key words:** border areas, rural areas, socio-economic development. **Słowa kluczowe:** obszary przygraniczne, obszary wiejskie, rozwój społeczno-gospodarczy.

### INTRODUCTION

When Poland acceded to the European Union the importance of border areas increased since they have become the border of the EU. These areas have had socio-economic problems for a long time which are reflected by low incomes, poor enterprise and an aging population (Szamrej-Baran 2010, Final report 2012). These conditions are very dangerous for development and as such there have not been any technological processes undertaken.

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There is a threat that the eastern areas of Poland will continue to be left at the margin of main developmental changes (Report 2012). Most of the concerns are about the country and agriculture. These are being solved by local authorities but specific national policy toward agriculture and the country development is essential. It is also necessary to ensure greater coherence at international, national, regional and local level, mainly through the development of technical, social and touristic infrastructure (Siekierski 2006).

Simultaneously, the importance of eastern border areas is increasing since they have become an important space between the European Union and Eastern Europe, which involves special organisational and political solutions. The European Union attaches significance to stimulation of cross-border cooperation and to the elimination of the syndrome of peripheral location (Szczegłowa 2010). Therefore it is worth examining the backwardness of eastern border areas and identifying the conditions of their development.

## The aim, the scope of research and methodology

The fundamental aim of research was to identify the influence of socio-economic conditions, relating to cross-bordering, on the development of the eastern borderland's local economy, and on socio-economic activation of rural areas; on the development of enterprise based on local sources in particular. The area of north-eastern borderline of Poland, which covers the area of "Niemen" Euro region, was of special interest. This Euro region constitutes, on the Polish side "Niemen" Euroregion Association and local governments who declared their participation, encompassing the regions of Podlasie and Warmian-Mazurian voivodeships; on the Lithuanian side Alytus, Mariampol and Vilnius regions; on the Belorussian side the grodzienski; on the Russian side Czernichowski, Gusiew, Oziorsk, Krasnoznamiensk and Niestierow regions (Kaliningrad region) – Fig. 1.

The research was carried out between 2007–2010 in 30 rural and urban-rural communes of "Niemen" Euroregion. The subject was broad and the problem multi-faceted therefore both qualifying and quantifying analyses were necessary. As a result various methods and techniques were used to achieve the aim. It should be underlined that the survey was carried out among agriculturalists (408 farm owners), entrepreneurs (228 firm owners) and representatives of local authorities (30 voyts and mayors).

The individual questionnaires with vivid and hidden questions, taking into account experience gained from previous pilot studies, were prepared for each group of respondents. The questionnaire for the farm owners from the area municipalities of the Euroregion "Niemen" included the following issues: information about the respondent and the farm, assessment of running the farm, sources of financing of the business, opinions about farms' development opportunities, the issues of the border areas and natural environment. The questionnaire addressed to the owners of the companies operating within the Euroregion was divided into the following thematic categories: information about the respondent, the company and its business activities, assessment of running the company, issues of the bor-

der areas and the protection of the environment. The questionnaire to the local authorities included general information about the commune, opinions on the state and development potential of the commune and entrepreneurship development issues, evaluation of the cross-border cooperation, issues of environmental protection.

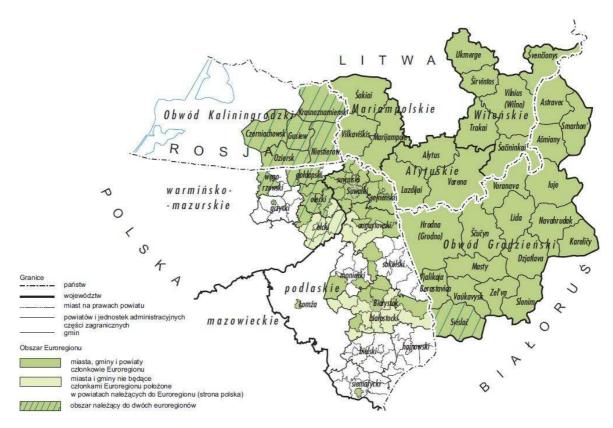


Fig. 1. The map of the Euroregion "Niemen" Source: Euroregions within Polish borders in 2007, Statistical Office in Wroclaw, Wroclaw, 2007.

The data was analysed with appropriate statistical tools. The analysis of variance, Kruskal-Wallis analysis of variance by ranks, gamma rank correlation were used as well as and post-hoc test of last significant differences (Aczel 2000, Luszniewicz, Słaby 2001). If a question in the questionnaire was worded so that individual responses were laid in a graduate order (ascending or descending), or the numerical data did not meet the condition of homogeneity of variance, the non-parametric analysis based on a comparison of ranks was used. In such cases other possible answers were accepted (e.g. for the question "how do you assess...", there were choices: a) excellent, b) good, c) satisfactory, d) bad, each respectively assuming the following grades: 4, 3, 2, 1). The analyses based on ranks test were chosen because they are equivalent to parametric tests, which in this case could not be used because of non-parametric test assumptions. In the analysis of rank tests the two kinds were used: the Kruskal-Wallis Rank analysis (the equivalent of a parametric one-way

ANOVA) and gamma rank correlations (a parametric equivalent of the product-moment correlation Pearson coefficient).

The subjects of the survey (farm owners, firm owners, voyts and mayors) were chosen deliberately. As far as the farm owners are concerned, the farms with the best development and products which are related to agribusiness, which have successful cross-boundary cooperation with Lithuania, Russia, and Belorussia were chosen. In case of entrepreneurs, the firms located in rural areas were selected first and those located in towns second, both of these being in agribusiness or closely related to it; and all of which cooperate successfully with Lithuania, Russia and Belorussia. As far as the voyts and mayors are concerned, 30 representatives of communes located in "Niemen" Euroregion took part in the survey. The communes, however, have been divided by location into northern (the influence of northern border with Lithuania and Russia) and eastern (border with Belorussia and some area of Lithuania). Although in the case of intentional selection of respondents it is difficult to talk about the representativeness of the sample, however, according to the authors it does not rule out the credibility of the essential conclusions of the research survey. In addition to the survey a wide range of the available documentation from the municipalities, banks and agricultural advisory centres was used for the analysis. In addition, a number of observations, interviews, conversations and discussions with farmers, advisors in the field of agriculture and agricultural market experts, etc., were conducted that allowed the formation of an opinion on the phenomena, and thus supplementing the information obtained as a result of the survey.

## The location and its influence on the development of border rural areas

The results of the survey show that the location at the northern or eastern borderline of the country has a significant influence on the economic development of border rural areas. It can be stated that in the northern area bordering with the Kaliningrad region and Lithuania public limited companies were established much earlier than in the area at the eastern borderline where the first companies were created after 1990. In the northern area, production and trade companies slightly dominate whereas in the eastern area service companies prevail. The production companies were established mainly in the 1980s and 1990s. Later chiefly trade and service companies were created (Fig. 2).

The significant disproportion between the two regions in question is related to the location scope of the companies. Almost 29% of the companies in the northern area declared their territorial scope as being the whole country and abroad, but in the eastern area only 6.45% made this declaration. The fact is that in the eastern area there were more service and trade companies, performing locally to fulfil the needs of residents and agriculturalists in the region. However, in the northern area production companies did business both domestically and internationally. Compared to the eastern area there were more companies established by a natural person (90% of all companies).

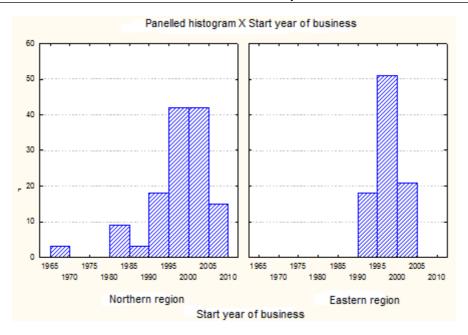


Fig. 2. The start year of business by firms included in the study Source: Data obtained in the survey.

# The influence of cross-border cooperation on the development of border rural areas

It would seem that the boundary location is a major asset for the residents of border areas. Especially for those entrepreneurs who want to enter new markets which are more attractive than the Polish market. They have mentioned the issue in the survey themselves, planning to go outside Poland with their business. Whereas as the results show only 18.86% of respondents think that boundary location influences their business. They only mention new foreign clients, less aggressive competition and possibility of trading their products and services abroad. Other entrepreneurs could either not answer the question or think that bordering with Lithuania, Belorussia, and Kaliningrad has no effect on their business. The results show that every fifth entrepreneur has some connections with foreign partners. The small group of people declaring their willingness for cross-boundary cooperation are those located in the northern area.

As far as the agriculturalists are concerned only 40.20% think that euroregions should be created. An interesting thing is their opinion on the local authorities' cooperation with bordering countries. Most respondents (57.84%) consider the cooperation to be wrong. The respondents from the northern areas assess cross-border cooperation the worst. Only every third agriculturalist discerns positive aspects of the boundary location. Other merits of such location can be better trade, cheaper product availability (including production resources) and cultural cooperation.

To sum up, in light of the survey cross-border cooperation has had little effect on the socio-economic development of border rural areas.

## The influence of human factor on the development of border rural areas

Many authors dealing with issues of local development draw attention to the role of human resources as a key and often underestimated factor of local development (Kozera 2006). This is confirmed by studies conducted in "Niemen" Euroregion. The results show that people constitute an important factor determining the development of the area in question especially the entrepreneurs' and agriculturalists' age and education. The analysis of the data indicates a relationship between the age and education of respondents and their opinions on possibilities of expanding their business across the border of Poland. Investments in bordering countries are planned mostly by young respondents, however, the owners with higher education are more expansive (Fig. 3). Moreover, a higher education affects respondents' plans related to an increase of their business profitability. A positive attitude can be seen in educated owners who graduated from agricultural or non-agricultural schools (Fig. 4).

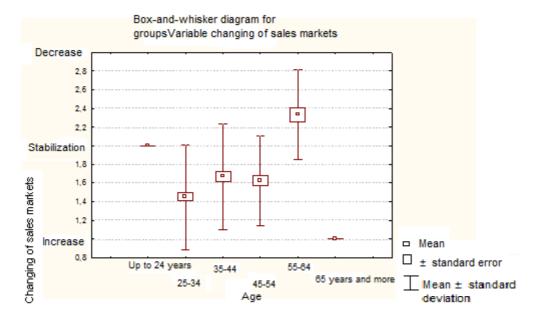


Fig. 3. The influence of the respondents' age on the activity plans outside Poland Source: Data obtained in the survey.

Higher education also determines respondents' beliefs about green development of rural areas. The results indicate that ecological awareness is identified with entrepreneurs with a higher education<sup>1</sup>. Education of agriculturalists also significantly affects their interest in non-conventional production methods. The higher the education respondents have the higher their interest in integrated agriculture is.

Education significantly influences the way of raising money for environmental investments. As the results show only educated respondents collect money from various sources and do not only use their reserves. The level of education also determines the development

<sup>&</sup>lt;sup>1</sup> The results are amazing due to the fact that most environmental investments were made by the group of the oldest respondents, and later by a bit smaller group of people at the age of 35–44.

of farms thus the better educated and more enterprising, enlarge their farms instead of only inheriting them from their parents. The level of education also influences the way in which they take over a farm. The results show that educated respondents became farm owners through purchase or lease. Education also influences diversification of the family income. Additional activities are undertaken by all educated respondents, especially non-agricultural graduates. Education is an element stimulating the development of rural areas and enabling changes in income system so as that agriculture is not its main source.

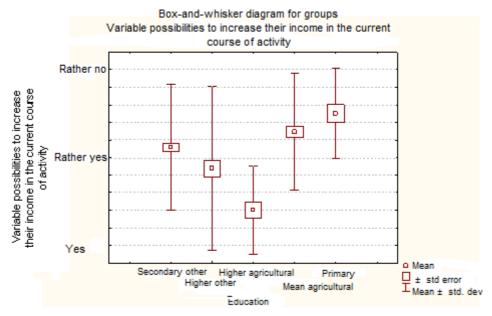


Fig. 4. The influence of the respondents' education on opinions concerning the possibility of increasing profitability of firms

Source: Data obtained in the survey.

Generally, younger and better educated people are more enterprising and willing to take advantage of the benefits of cross-bordering of "Niemen" Euroregion. It can be stated that education and access to education are significant favourable elements in the development of border rural areas (Czerna-Grygiel 2010).

### Balanced development of border rural areas

According to local authorities the "Niemen" Euroregion aims to develop (balanced development) as a result of its natural value. The voyts and mayors indicate the following advantages: landscape and natural values and tourism (natural opulence and farm tourism). It should be underlined that the local authorities appreciate the existence of areas of great natural interest. They are aware of the fact that restrictions imposed on users of this natural asset are not a barrier but an unquestionable advantage. It has to be noticed that many communes became popular only when a restricted area had been appointed there. For many of them a national park has become a flagship of the area as well as free promotion.

According to the survey, the majority of the agriculturalists (87.75%) run traditional, conventional farms. Only 9.31% of respondents are engaged in ecological organic farming, crucial in terms of environmental preservation and green development. Only 16.91% are willing to shift to organic production and most are from the eastern border areas. The overwhelming majority is not interested in any change at all. They mention the barrier of low profitability. Additionally, only 5.39% of respondents have implemented some of the packages of the environmental management scheme and 9.80% were interested in them. The others can be divided into those who have knowledge about the scheme but are not interested in it (30.64%) and those who know nothing about the scheme. Unfortunately, the last group is the largest.

The fact that the "Niemen" Euroregion is heading slowly towards green development is confirmed by data obtained from the agriculturalists. Little more than a half of the respondents were planning investments on their farms. Most of the changes are related to environmental preservation and they include firstly, building manure pads and; at smaller range farm tourism development, building an onsite sewage treatment plant and then buying agricultural equipment.

## Barriers to the development of border rural areas and methods of their overcoming

Development of any area depends on its opportunities as well as problems it deals with. According to the voyts and mayors the main barrier in the communes is a lack of financial sources (40%) – Table 1. An administrative reform set local authorities new tasks. The condition of education, health service, and local development will depend on the budget of a particular commune. A deficit in the budget will be reflected in low expenditure on the technical infrastructure. The conclusion can be drawn that the green development of the "Niemen" Euroregion is the result of the underfunding of communes and poor population rather than ecological awareness of the residents, entrepreneurs and agriculturalists. Another problem is caused by unemployment. The problem is very serious in the area. The communes are characterised by greater unemployment due to relatively small (or non-existent) job market other than in agriculture. This problem has already been noticed by many authors who believe that the issue of utilisation of surplus labour that cannot be adequately managed in efficient agricultural production is the most important challenge of the Polish rural areas (Spychalski 2005).

Another important issue is the policy of commune authorities aimed at overcoming existing barriers and stimulating the development of rural areas. The fundamental task of a commune is, according to respondents, to raise money from outside sources. The authorities want to achieve it by attracting investors from outside offering them tax relief and exempting them from some payments. Other actions (ideas) are related to the creation and modernisation of technical infrastructure and better expenditure of financial resources coming from foreign financial aid programmes. The improvement of infrastructure is strictly related to attracting new

investors. The improvement of infrastructure depends on raising financial resources, which again is related to new investors who will not appear without infrastructure (Table 2).

Table 1. Barriers to the development of the communes according to the voyts and mayors

Specification	Response rate			
Lack of developed infrastructure	22.2			
Lack of land development plan	4.4			
Financial barriers	40.0			
Lack of stabile economic policy	2.2			
Unemployment	13.3			
Lack of tourism base	4.4			
Lack of investors	2.2			
Environmental preservation	4.4			
Ineffective condition of agriculture	4.4			
Lack of promotion of communes	2.2			

Source: Data obtained in the survey.

Table 2. The methods of overcoming barriers to the development of the communes according to the voyts and mayors

Specification	Response rate
Gaining new outside financial sources	32.2
Farm tourism	5.4
Implementing financial aid programmes	13.5
Modernization of technical infrastructure	16.2
Change in systems of funding communes	5.4
Exempting from taxes and payments	2.7
Promotion of landscape and natural values	5.4
Development of specialist agriculture	5.4
Creating new jobs	2.7
Attracting investors	10.8

Source: Data obtained in the survey.

Table 3. Evaluation of influence of macroeconomic conditions on the commune development according to the voyts and mayors

Specification	Positive influence (response rate)	Negative influence (response rate)
Economic condition in the world	1.06	19.80
Qualified staff availability	6.38	16.44
EU legislation	20.21	7.53
National legislation	2.13	19.18
Access to new markets	26.60	3.42
Access to new technologies and innovations	20.12	7.53
Access to outside financial sources	8.51	15.07
Institutions supporting business	14.89	10.96

Source: Data obtained in the survey.

Commune authorities believe that the macroeconomic conditions in most cases negatively influence the local development except for European Union legislation and a greater access to new markets and new technologies (Table 3).

### **CONCLUSIONS**

The results of the survey and the analysis have enabled the authors to formulate a number of conclusions and observations. The most important are presented below:

- Localisation of communes in the "Niemen" Euro region at the northern or eastern border line has an influence on the development of enterprise in border rural areas; in the northern areas production and trade are slightly dominant whereas in the eastern areas service and agriculture prevail;
- Cross-bordering does not greatly affect the development. According to residents of bordering areas cross-border cooperation is not good; in the areas in question the worst level of cooperation is with bordering countries in the northern areas; the advantages of the location of the "Niemen" Euro region are better trade, cheaper products (including production resources) and cultural cooperation;
- The human factor is one of the conditions of development, especially the level of education and age; people with higher education are more enterprising, more willing to use rent possible to gain from cross-bordering; education and access to education is an important condition stimulating development of border rural areas; a greater interest in integrated agriculture and organic farming is determined by the level of education of agriculturalists; education significantly influences the diversification of family income;
- The "Niemen" Euroregion's aim to develop (stable development); the green development of the "Niemen" Euroregion is the result of underfunding communes and pauperisation of residents rather than their ecological awareness;
- The commune authorities take care of the environment, attract investors from outside offering them tax relief or exempting them from some payments; the communes should benefit from the fact that more and more people (especially wealthy people) are trying to settle down far away from city centres in beautiful, valuable in terms of nature areas, which are so common in the "Niemen" Euroregion;
- Macroeconomic factors which positively influence commune development are: EU legislation, greater access to new markets and new technologies; negative effects on the rural areas development are caused by; socio-economic conditions namely economic situation in the world, national legislation, no qualified staff available, limited access to outside financial sources.

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