

Development of Local Communities in the Eastern Rural Periphery of Botoșani County

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ABSTRACT

In this article we describe a fast assessment method of the development potential of local communities which jots down the main strategic socioeconomic development directions based on a set of indicators revealing aspects related to existing facilities, demographic and social implications, social infrastructure, economic dimension and investments in building new dwellings. In order to exemplify this method, we conducted a case study on the local communities included in a Local Action Group located in the north-eastern periphery of Botoșani County, 37 km from Botoșani Municipality and 45 km from Dorohoi Town. The analyzed region is a socially disadvantaged agrarian area, located on the outskirts of the farming and woody regions, relatively far from any purchase and sale facilities due to the poor state of road infrastructure. From the viewpoint of the indicators we analyzed, the localities under survey face considerable disparities as they are deeply rural subzones, which require specific strategic development directions.

1. INTRODUCTION

Since 1989 we have witnessed the attempts of the European policies to target particular, the 'most in need', rural regions. The development of these regions was pursued through a territorial approach involving partnership both between sectors and between the levels of government. According to Shucksmith (2010), 'unusually, actors and organizations from the target areas themselves were invited to contribute to the design of the strategy and towards its implementation' [1]. This incorporation of local knowledge would avoid errors of diagnosis and would create a network of rural development agents which could play a stimulating, mobilizing and coordinating role.

This approach was followed by the LEADER Community Initiative. The declared objective was for local actors to work together to find innovative solutions to rural problems which could reflect what is

best suited to their areas. Local Action Groups (LAG) were created as partnerships between private, public and rural society organizations, in a rural area, the purpose of which being the implementation of LEADER (*Liaison Entre Actions pour le Développement de l'Économie Rurale*) rural development methods based on a rural development strategy and budget from the European Agricultural Fund for Rural Development.

Nowadays we are speaking about a rural Europe influenced by a range of different processes of regional differentiation. There is an emerging spatial diversity classified in extreme poles such as: specialized agricultural areas, peripheral areas, new rural areas, segmented areas, new suburbia and the dreamland [2]. This 'ideal types' are theoretical guidelines but very rarely clearly identified in reality due to the many different forms rurality takes.

Our research study consists of a case study of a LAG located in the North-Eastern Region of Romania,

in Botoșani County, one of the poorest regions in the European Union. Botoșani County includes 6 Local Action Groups (fig. 1).



Fig. 1. LAGs in Botoșani County.

The LAG of Valea Bășeului de Sus is located in the north-eastern part of Botoșani County and takes up to 15.11% of the whole county area, with a total area of 753.25 km² [3]. This LAG includes 11 localities, namely Avrămeni, Dângeni, Drăgușeni, Hănești, Havârna, Manoleasa, Mileanca, Mitoc, Ripiceni and Vlăsinești Commune, and Săveni Town.

The analyzed region is located on the outskirts of the farming and forestry regions. It fully overlaps the Moldavian Plateau unit and it has a relatively simple geological composition, with low tectonic mobility and rather even structure and lithology. The morphology of the region reveals a large low area resembling a hilly 100-150m high plain in the northern and north-eastern regions. The dominant landscape includes agricultural land, few strongly altered steppe meadows and meadows with halophilic plants and groups of pedunculate oaks and Tatar maples. It is a typical plain-like landscape specific to the Moldavian Plain [3]. The area is bordered by the Prut River in the east, the main tributary streams of which are: the Bășeu River, which flows into it near Ștefănești locality, and the Jijia River, which flows into it in Iași County. The Bășeu River springs from Cristinești commune, crosses Hudești commune and flows into the Prut River near Ștefănești. Hudești commune includes the ponds of Bășeu (former Velnița), Axânte and Cal Alb, which are rich in fish, as well as the barrier lakes of Cal Alb, Negreni and Hănești on the Bășeu River and the Mileanca barrier lake on the Podriga River. The vegetation is extremely diverse and rich in flowers of different origins, due to the interference between the Central-European Eastern-Carpathian Province and the Pontic-Sarmatian Province.

On December 31st, 2011, the total population of Botoșani County was of 444,804 inhabitants (i.e. 2% of the total population of the country) and the density was of 91 people/sq km. About 63% of the population lives in rural areas and 37% in urban areas [4]. In 2011,

about 37,901 people lived in the LAG of Valea Bășeului de Sus and the population density was of 53.69 inhabitants/km². Between the two recordings of people and dwellings conducted in 2002 and 2011, the number of LAG inhabitants underwent an absolute decrease of 4,272 people (namely from 41,468 people in 2002 to 37,901 people in 2011) and a relative decrease of about 9% (-8.60%), i.e. over 2 times more than the county mean and over 6 times more than the region mean. The LAG population has suffered a slightly ageing trend due to the negative population growth rate (of -12.58/1000 inhabitants), and also due to the continuous decrease of the number of young people (only 25.92% of the population was younger than 20 in 2011) [4].

In 2010, the active population included 2,094 people, most of whom were employed in the services business (58%), 25% in the industrial and handicraft sectors, 11% in trade, 6% in agriculture. Most of the population is declared active in agriculture. The LAG comprises 15,165 households, most of them being subsistence households. The average number of family members is 2.5. Economy is mainly agrarian and combines crop farming and animal husbandry, as the total agricultural area of the LAG is 65,366 ha, 79.35% (51,869 ha) of it being arable land, which exceeds the county average (76.06%) and the regional average (65.00%) [4]. In this LAG, grass lands and meadows take up to 13,277 ha (20.31%), which is below the county average of 22.86%, vineyards take up 181 ha (0.28%), below the county average – 0.43%, and orchards 39 ha (0.06%), way below the county average of 0.65%. The hilly areas include orchards (apple, pear, plum, sour cherry and apricot trees) and vineyards and grapevine nurseries, but they are generally old. The LAG includes 26.1 ha of orchards, i.e. about 1% of the orchard area of Botoșani County [4]. The arable land (79.35% of the total agricultural area) is predominant in the LAG of Valea Bășeului de Sus. Fruit-growing and grape growing are below the county average.

The most representative crops are cereals, oleaginous plants and fodder plants. There is medium and high natural potential for most of the species grown in the area. Therefore, the «*Study for the Determination of High Potential Areas, of Geographical Areas and Gross Standard Unit Margins for Projects Funded by Measure 3.1 "Investments in Agricultural Holdings"*» [5] reveals the following agricultural potential of the crop farming areas in the 11 localities making up the LAG of Valea Bășeului de Sus:

a). *High potential crops:*

- pulse vegetables: peas, beans;
- oleaginous plants: rape;
- fodder plants: alfalfa, clover;

- horticultural crops: table wine vineyard, plum trees, cherry trees, sour cherry trees.

b). *Medium potential crops:*

- cereals: wheat/rye, barley/two-row barley, corn;

- pulse vegetables: soya;
- oleaginous plants: sunflower;
- fiber plants: linen, hemp;
- technical crops: sugar beet;
- fodder plants: meadows and grass lands;
- others: potatoes, tobacco;
- horticultural crops: table wine vineyard, plum trees, cherry trees, sour cherry trees, vegetables, wine vineyard, apple trees, pear trees, walnut trees, fruit-bearing shrubs.

c). *Low potential crops: peach, apricot and quince trees.*

Animal husbandry is based on the meadows owned by the communes, on fodder crops, on vegetable by-products, and also on some of the large field crops, such as whole corn (which takes up 38.59% of the arable land in the county). About 18,236 cattle, 11,324 of which are milk cows, are bred in the LAG's farms and households [4]. The LAG includes 11 business facilities operating in the animal husbandry sector. All 11 companies breed cattle, and two of them also breed sheep and goats [4]. Only 11% of the cattle bred in this LAG are raised in farms incorporated as businesses, whereas the other cattle are raised in small households. The LAG of Valea Bășului de Sus also has high and medium potential for the animal species bred in the farms in existing in that area. Therefore, cattle, pigs, sheep and goats have high potential, whereas poultry have medium potential [5].

The degree of rural socio-economic development was assessed by means of indicators which reflect the local specificity of the natural environment, of economic resources, of the network of localities, of the transportation and communication infrastructure, of the living conditions, of the degree of social public endowment, as well as social aspects related to demography, education, social services, employment rate, personal aspirations, etc. The analysis of this phenomenon from a territorial point of view, focusing on rural areas, revealed considerably varied economic and social disparities at regional level.

2. THEORY AND METHODOLOGY

The "Economic-Social Models of Rural Inequalities Attenuation on Regions" MESAIR Project, coordinated by the Institute of Agrarian Economy of Bucharest (PNI, Partnerships in priority fields, 2008-2011, project no. 92072.2/2008), was designed to provide the theoretical grounds of a set of functional models of attenuation of the rural economic-social inequalities on regions. 19 relevant economic-social indicators were chosen within the MESAIR Project, and they were grouped according to 5 criteria (social public endowment, demo-social dimension, social infrastructure, economic dimension, and investments), which enabled us to determine the aggregate inequality index of each commune [6].

Here are the indicators that we considered:

- inhabitable area /inhabitant (m^2 /inhabitant);
- quantity of drinking water supplied to private consumers (m^3 /inhabitant);
- simple length of the drinking water supply network (km);
- simple length of the sewage network (km);
- simple length of the natural gas supply pipes (km);
- population growth rate /1000 inhabitants;
- divorces/1000 inhabitants;
- balance of domicile changes/1000 inhabitants;
- balance of residence changes /1000 inhabitants;
- balance of foreign migration /1000 inhabitants;
- enrolled pupils /teacher;
- inhabitants/doctor;
- PC/1000 inhabitants;
- number of remunerated employees/1000 inhabitants;
- share of arable land in the whole agricultural land;
- share of vineyards and orchards in the whole agricultural land;
- average number of beds/accommodation establishment;
- number of nights spent in accommodation establishments in 2008/bed;
- dwelling units completed in 2008/1000 existing dwelling units.

The indicators chosen for each of the five criteria were determined for each commune in Romania. The information was taken from the Localities Database (BDL 2008) [7]. The data series underwent cluster analysis, the purpose of which was to establish the typology of rural Romania. Therefore, based on this cluster analysis, the data are grouped in clusters according to the proximity criterion, by using the hierarchical agglomerating grouping, in which individual cases are successively combined to form groups the core of which are remote. The algorithm is designed to group a high number of cases.

The analysis comprises two stages [8]:

- the first stage consists of initial data scanning in order to identify the core of each cluster. Observations are grouped to build a data structure that includes the cluster cores;

- the second stage relates each unit to a cluster. The values of each indicator, which characterizes the units under survey depending on their proximity to the core of the cluster, are grouped around the cores.

Commune classification on clusters for each indicator was carried out considering certain intervals. The information was processed on clusters, for each commune, county and region.

3. RESULTS AND DISCUSSION

The diagnostic analysis of the rural component of the North-Eastern Development Region, depending on the degree of economic-social disparity, based on

commune classification according to the aggregate index of 19 indicators grouped according to 5 criteria, revealed three types of major rural areas with various disparity degrees [9]:

a). Type I, the low economic-social disparity group, including the rural areas running the lowest inequality risk (communes in cluster 1);

b). Type II, the moderate economic-social disparity group, including the areas that are moderately vulnerable to inequalities (communes in cluster 2);

c). Type III, the high economic-social disparity group, including the areas that are most vulnerable to inequalities (communes in cluster 3).

In Figure 2 we present the typology of the rural space from the North-Eastern Development Region of Romania according to the socio-economic disparities.

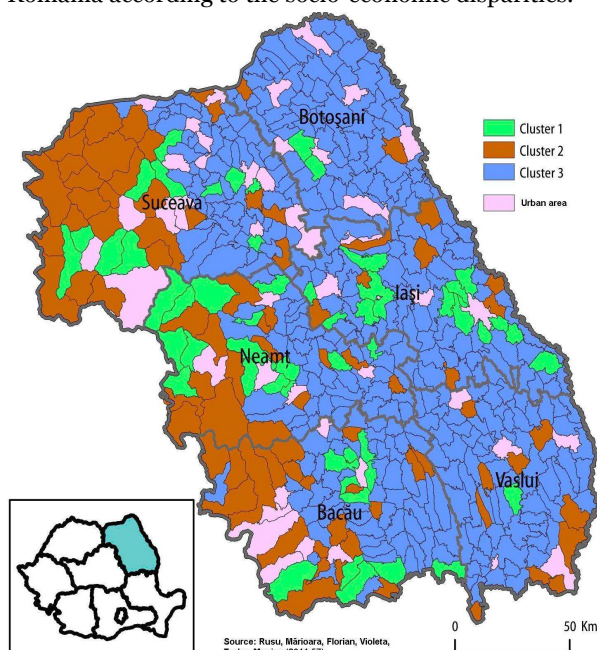


Fig. 2. Typology of the rural space from the North-Eastern Development Region of Romania according to the socio-economic disparities [6].

The conducted research revealed that indicators aggregation variability in the region depends on the following macro-regional influence elements:

- relief (mountain, hill, plain and grazing land, wetlands);
- degree of polarization of large urban centres;
- major road, railway and maritime transport infrastructures;
- specificity of rural areas (deeply rural areas, poorly developed areas, rural areas with high agricultural potential and privileged rural areas);
- demographic characteristics (population density, spatial mobility, occupancy rate, etc.).

The North-Eastern Region includes three zone subtypes: i. mountain and foothill subzones, running moderate disparity risks, specific to the mountain and foothill zones of Suceava, Neamț and Bacău Counties; ii.

peri-urban subzones, running moderate disparity risks, specific to areas enjoying strong urban polarization (Suceava, Botoșani, Piatra Neamț, Târgu-Neamț, Iași, Bacău, Onești, Vaslui); iii. deeply rural subzones, running high disparity risks, on large compact areas in the eastern areas of Suceava, Neamț and Bacău Counties, and entirely in the Botoșani, Iași and Vaslui areas.

As we already have the broad picture of commune classification on clusters and of the hierarchy of the economic-social disparity indicators chosen for the development of strategic rural disparity control plans to implement in the North-Eastern Development Region, we may compare the role played by economic-social disparity indicators and criteria in order to account for the general inequality variation in this region as compared to the mean countrywide levels. The importance of the economic-social disparity indicators and criteria in explaining general disparity variation in the North-Eastern Region is different, which suggests different assessment criteria hierarchies [9]. Social public endowment disparities make up 30.95%, followed by the economic dimension (26.7%) and the demo-social dimension (21.68%). Social infrastructure has a 14.41% influence on the total disparity variation, whereas investments rank last (6.9%) [9].

4. CONCLUSION

From the typology point of view, according to their vulnerability to economic-social disparities, the localities included in the LAG of Valea Bașeului de Sus belong to type III, i.e. deeply rural and high disparity subzones.

Here are the first seven indicators according to rank, in cluster 3 [9]:

- a). Simple length of natural gas supply pipes.
- b). Number of nights spent in accommodation establishments in 2008/bed.
- c). Quantity of drinking water supplied to private consumers.
- d). Average number of beds/accommodation establishment.
- e). Enrolled pupils /teacher.
- f). Simple length of the sewage network.
- g). Number of remunerated employees /1000 inhabitants.

The first two relevant criteria according to rank in cluster 3 are the social public endowment and the economic dimension.

The development opportunities of the Valea Bașeului de Sus LAG, specific to localities included in cluster 3, might be:

- a). Development of strategies meant to attenuate any social public endowment disparities, applicable in most rural areas in the region.

- b). Infrastructure development and agricultural undertaking modernization.
- c). Better use of local natural, traditional and cultural resources.
- d). Development of social programs.
- e). Development of producer groups, agricultural associations and cooperatives.
- f). Rural migration mentality changes.
- g). Development of entrepreneurial skills.
- h). Preservation of a high number of young people living in the countryside.

We also recommend some specific development objectives that should be considered for the LAG of Valea Bașeului de Sus:

- extension of the technical planning infrastructure;
- diversification and development of public services;
- development of transportation and communication infrastructures;
- improvement of the business environment;
- sustainable rural development;
- agricultural undertaking performance increase;
- better agricultural produce processing opportunities;
- diversification of non-agricultural economic activities;
- social infrastructure development;
- improvement of dwelling conditions;
- improvement of social services;
- higher economic-social attractiveness of rural areas.

Therefore, the strategic specific development directions of the localities included in Valea Bașeului de Sus LAG are as follows: technical planning development, territorial convergence, economic growth, social development and territorial cohesion.

The mere attaining of these development objectives will enable these peripheral rural regions to overcome the specific problems that socially disadvantaged agricultural areas are faced with.

In our opinion, the model described above may be successfully used by rural local government bodies, and especially by the Local Action Groups, as they may quickly diagnose, based on the existing statistical information, the problematic fields requiring special tackling within local development strategies.

According to Dax (2014), it is the role of the research to grasp the full set of relevant actors and to assess the spatial dynamics that are changing and to understand trends taking into account economic and social activities for further local and regional development [10].

Furthermore, the changes in the nature and pattern of rural development have profound implications for rural analysis and policy evaluation [11] and there is a need for relevant indicators to measure efficiency, equity and viability in the rural diversity.

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