THE DEGREE OF DEVELOPMENT OF BOTOŞANI COUNTY

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Abstract

The study aims to identify the socio-economic development of Botosani County and to differentiate the basic administrative units according to their degree of development. In a county, the spaces are differentiated according to their degree of development, so statistical methods are used to standardize the indicators and create aggregate indices in order to obtain the proposed results. The socio-economic development of Botosani County is an important subject for a territory that is often confronted with negative stereotypes and which, through statistical data and complex methods of analysis, must highlight its real status. Botoşani County is a complex area facing demographic problems, existing at European level (demographic aging), and which has a space with a few main lines of development. The degree of development is influenced by natural factors as well as by social, economic or political factors, the study revealing a synthesis of several socio-economic indices and the level of development according to the urban-rural relationship and the accessibility to the main ways of communication.

Key words: nivel de dezvoltare, metode statistico-cartografice, spaţiul rural, relaţia rural-urban.

The study is a continuation of the vulnerability analysis, which has highlighted its emphasis on demography and a reduction for the social and economic spheres. Thus, the previous study (Botosani County, Romania, Cuciureanu MS, Iaţu C., 2014) has an important role to play because it represented the scientific basis for the realization it.

The studies conducted by the European Union to develop the theoretical framework of its territory draw attention to concepts such as: vulnerability and development. The territory of the European community is affected by a high demographic, social and economic vulnerability, the prospects and scenarios being grim for the demographic, which poses the risk of depopulation of the area. Territorial development is also closely related to these vulnerabilities, as it may create conditionality, such as socio-economic development, depends on demographic potential (Cuciureanu M.S., Iaţu C., 2014). The studies are interdisciplinary in order to integrate the visions of complementary domain researchers in an integrated way.

Society is vulnerable, as a whole, due to the grouping of factors in three classes: natural factors; demographic and social issues; economics and politics.

Statistical and cartographic methods make a considerable contribution to highlight the current situation and prospects of the European area. This study has the role of applying statistical methods and proposing for analysis other visions of statistical indicators that have the primary purpose of highlighting the degree of development and differentiation of territorial administrative units.

Land surveys that focused on the analysis of disparities and the degree of development are geographic (C. Vert, 2001; C. Iaţu, 2009; I. Muntele, 2010, 2012; D.Tudora, 2012) and in the social field (D. Sandu,2011; I.Bădescu, 2011).

MATERIAL AND METHOD

The degree of socio-economic development is identified by the use of normalization on some indices and then their average. The indices used are: specific rate of higher education, housing growth rate, economic dependency ratio, company growth rate, income / capita, literacy index, employee growth rate in companies, car rental rate at 1000 persons, persons benefiting from social assistance per 1000 persons and number of newly created jobs per 1000 persons. Identifying the degree of development was achieved by using the statistical data transformation, standardization or

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normalization method. This statistical method offers the possibility of transforming the data into a common scale and a comparison can be made between them, giving the analysis credibility and the possibility to validate / invalidate a hypothesis. In the vulnerability studies, the transformation method is preferred because the statistical data are standardized by standardization, and they lose their size and unit of measurement. Normalization is calculated as follows:

$$xij = \left(Xij - Min\{Xij\ \} / Max\{Xij\ \} - Mi\{Xij\ \} \right)$$

when: **xij** = normalization of the statistical indicator; **Xij** = the value of the statistical indicator for each basic administrative unit (LAU 2);

The score of a data string falls between 0 and 1, the values near zero pointing out a negative situation, while the values close to 1 a positive situation. When using a larger number of indicators, after normalizing each indicator, their average is calculated, resulting in an aggregate index. Thus the values between 0 and 1 of the aggregate indices will highlight the degree of development

This general classification has the role of highlighting the general characteristics of the degree of development. Using the Philcarto program offers the opportunity to differentiate between territorial administrative units. Thus, the statistical and cartographic approach has the role of highlighting the degree of socio-economic development and of characterizing the basic administrative units of the Botosani county by differentiating them.

REZULTATS AND DISCUSSIONS

Socio-economic development can be characterized by the level of training, the income / head per capita or the purchasing power / building of a new home. Without a prior analysis there is a tendency to create some preconceived ideas such as: the proximity of the cities is more developed, the western part is more developed due to the proximity of Suceava County and the road accessibility and the quality of the infrastructure have an important role in the hierarchy of the developed areas. It can be seen that the degree of development is between 0.54-0.87, from medium to very low. At the county level there is a very low and very low level of development in the central and the central-southern part. There are three distinct areas with a medium but high level of development: the area of Darabani, Bucecea and Ştefăneşti, Dorohoi and Botoşani, the axis comprising the town of Săveni and the communes of Vlăsineşti, Dângeni and Truşeşti; and the communes of Manoleasa and Santa Mare. It can be noticed that urban areas play an important role in

determining the degree of socio-economic development, showing a positive influence on rural areas. The Bucecea and Ştefăneşti cities have a high degree of development due to the fact that they were raised to the city in 2004 and benefit from the advantage of attracting investors and creating urban development poles, although they still have a specific behavior in an area rural.
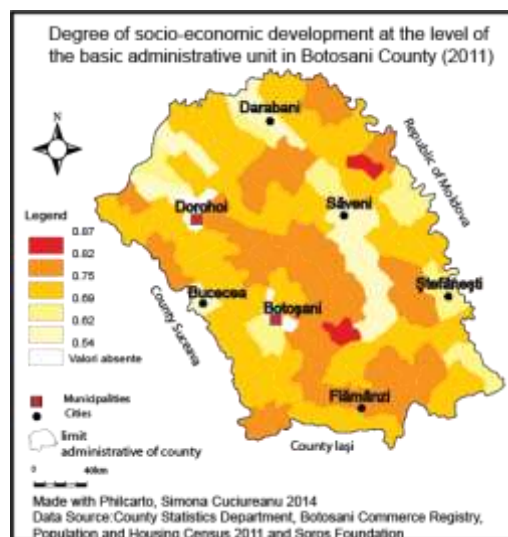

Figure 1 **Degree of socio-economic development at the level of the basic administrative unit in Botosani County (2011)**

Differentiation of the basic administrative units in Botosani County is made according to the degree of socio-economic development through the use of the hierarchically ascending classification in the Philcarto program. The indexes used for chart plot No. 3 were those that provided support for identifying socioeconomic development and for making a comparison between the results obtained.
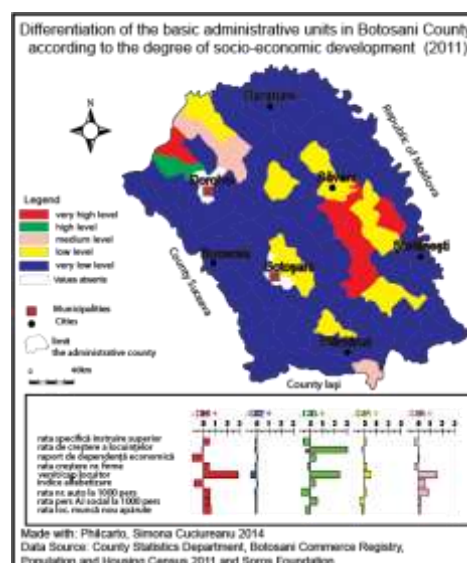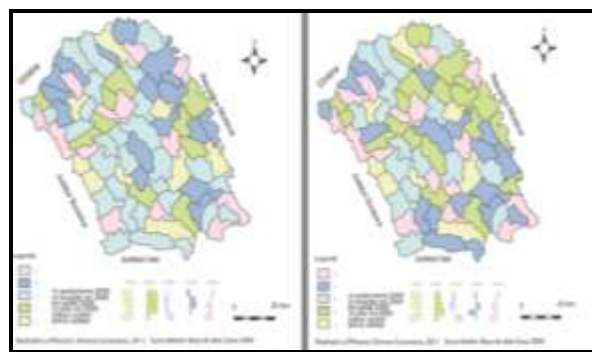

Figure 2 **Differentiation of the basic administrative units in Botosani County according to the degree of socio-economic development (2011)**

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Classification was achieved in 5 grades, but one class predominates, which shows a very low level of development, which shows the negative deviation of income / head, which shows a low living standard. The very low level of development is the consequence of reduced economic competitiveness. There are two areas that focus a significant number of basic administrative units and highlight territorial differentiation. Thus the northern part of the county, the communes situated to the north of Dorohoi municipality, is characterized by all levels of development grouped from west to east, which shows a higher development towards the western part (a high and very high level of development (Hilişeu Horia and Pomarla respectively), medium level (Cristinesti, George Enescu) and low level (Suharău)).

The central-eastern part is characterized by a very high level of development (Vlăsineşti, Dângeni, Truşeşti, Mihălăşeni) and low level (Săveni, Drăguşeni, Hăneşti, Dobârceni, Albeşti). The grouping of highly developed and underdeveloped areas shows that for the time being, the neighborhood does not act in a positive, constructive way to create county development councils, in a group of 8 administrative units that are found to be both developed and poorly developed. Prăjeni commune has an average development, which has a high income per capita and a high rate of growth of the high enterprises, which ensures for the analysis performed a coefficient above the county average, which has a very low development. The level of development of administrative units in Botosani County is difficult to quantify and analyze. An analysis will be carried out, with a complementary role, which is a synthesis of some indicators for 2006 and 2009. It aims to highlight the differences in development and the influence of integration in the European Union.

In 2006, it can be noticed that the territories, which have the highest level of development, are represented by the towns and municipalities of Botosani county (Botoşani, Dorohoi, Darabani, Bucecea, Ştefăneşti, Săveni) and Trusesti (which is insignificant for rural areas), then the communes with a vulnerable situation with a very low level of development, with no positive values of the analyzed indicators, can be remarked and indicate an incipient level of development (Manoleasa, Dersca, George Enescu, Băluşeni, Hăneşti, Dobârceni). It identifies the communes that have an early stage of development, but have low values of the urban technical comfort index (Mihăileni, Suharău, Prăjeni, Tudora), the same category are the villages

in the fifth class, which have a small number of registered cars (Vorona, Răuseni). There is also a fourth class, which includes the communes with a high number of cars registered in the year 2006, but they have low values for the other variables, which gives these areas a poor development (Todireni, Conceşti, Albeşti). The number of registered cars can be picked up due to the fact that some of the population in these areas is abroad, often investing in cars.

Figure 3 Development level in Botosani County in 2006 and 2009

In 2009 it is noticed that the developed areas with the indicators above the county average are the same as in the previous year, the poorly developed communes remain in the eastern part of the county, and Unteni, Nicşeni, fourth class has common ones, an early stage of development, but with very low comfort (Cuciureanu M.S. 2012).

Thus it can be said that the areas in the western part which were poorly developed in 2006 have progressed, being in the category of the developing ones in 2009 and having only some deficiencies, such as the technical-urban comfort (Şendriceni) or have few paved streets (Vlăsineşti).

It can be noticed that in Botosani County, during the period 2006-2009, only the cities have a higher level of development, the rural environment being very poor, which presents problems especially regarding the technical-urban comfort, the paved streets or the new dwellings builded. What is remarkable is the increased number of cars purchased in the countryside, which indicates that the population emigrated for work, and when they returned they either returned by car or bought from Romania.

A high level of development exists in Botoşani, Darabani and Stăuceni, and the average level of development is the town of Dorohoi and the commune Curteşti, Havârna, Copălău, Lunca, and a small level of development is found in Săveni, Conceşti, Tudora, Frumuşica, Todireni, Hlipiceni, Româneşti. The mentioned areas represent a minimal level of development, but

considering in the map of Figure 3 we can see that these are a small part of the entire county.

Approximately 80% of the communes in Botosani County are underdeveloped, these being found in the central-eastern and western part of the county.

The influence of the cities on the development of the areas in their neighborhood is low, this being limited to a common one, with rural space being deficient in urban influence. The poor development of this county is highlighted mainly by the very low technical and public comfort, paved streets and new jobs, sometimes even housing. The number of cars is less representative in the development of the county because they do not represent the living standards of the inhabitants or the comforts of the communes.

The rural area is underdeveloped, but neither the cities or communes in their vicinity are in a more prosperous situation. For example, the town of Flămânzi or Ştefăneşti in 2006-2009 is very poorly developed, due to the authentication as cities in 2004, as they are in the process of development, manifesting their influence on the rural space in perspective. The unemployed highlight the communes that have a high population of skilled workers, but do not have jobs, and the areas where they do not appear as a representative number of unemployed, but they are going to work abroad. The analysis carried out shows some important aspects: the urban-rural relationship plays an important role in rural development, so major investments are made in cities and 1-2 nearby communes, informing about European funding opportunities first takes place in urban areas, and then in the rural one, the lack of interest of the county and national institutions for informing the poor communes in rural development for obtaining European funds etc. There is a risk that, when municipal / city information is included, rural analysis is inappropriate and does not confirm working hypotheses due to higher values than in rural areas and cities that have achieved this status since 2004.

CONCLUSIONS

Statistical-cartographic methods are applicable to datasets of administrative units in a given area to highlight similarities and differences, to classify administrative units according to the values of the indicators by realizing spatial typologies and visual indication by mapping, differentiations of a given area . The area proposed

for analysis by the statistical and cartographic methods presents many problems at territorial level from the demographic, social and economic point of view, often the methods used tend to exaggerate certain deviations to the average, when they are positive.

Although Botoşani County faces demographic and social problems, it tends to improve the economic situation through a high number of trained or employed people in some basic administrative units. Due to the fact that the degree of socio-economic vulnerability is diminishing, we can observe the increase in the level of development, which is a positive aspect for the rural environment. Increasing the degree of development is an improvement of the intra-county territorial disparities and an improvement of the quality of life. The study can be further explored by updating the data date and improving statistical-cartographic methods.

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