

## SUSTAINABLE URBAN DEVELOPMENT IN RELATION WITH THE ECONOMIC DIMENSION IN PIATRA NEAMȚ MUNICIPALITY

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### **Abstract**

*The urban environment, by its complexity, is a system with a multitude of essential functions in social life. The external relations, which are achieved through the representative elements, such as demographic, technological, economic, environmental, architectural, cultural, can provide urban environment to be addressed as a socio-spatial system.*

*Piatra Neamț is a complex system, in which quantitative and spatial relations are defining for urban development. The functional links that are established between these relationships provides details on the process of urban dynamics, urban development, urban decay etc. and contribute to solving social problems of the present, and avoiding future ones. Addressing the economic dimension of sustainable development focuses on systemic analysis of the variables chosen as representative, in a proposed period.*

*The concept of sustainable development can be the solution to the economic problems which the city is faced with and the future generations are being addicted to this action. Addressing a different way of thinking, which have long consequences on the lifestyle, by reducing consumption, by exiting the scope for confusion, it is certainly the manner by which the world can enter into a new stage of evolution, where the moderation to be a priority.*

**Key words:** sustainable development, urban space, economic development, sustainable urban development.

### **INTRODUCTION**

Sustainable urban development is a crucial element in the city's economic development strategy (World Economic Forum, 2003), which sets all the needs of citizens, helping to transform its image so stakeholders to create competitive advantages for the area, and urban development policies to eliminate shortcomings (Dincă, 2010).

This development is mainly intended formation of positive concepts for the community, attracting labor, institutions, various companies that promote sustainable and adopt the beneficial tools to create a "city brand". (Stănciulescu, 2008). Partnership between public and private sector plays a key role in urban economic development, by which to achieve conservation and potential development of natural, economic, human and man of the local community (Bueren et al., 2012).

Economic dimension plays an important role in quantifying the level of sustainable development of an area, the balance between economic

development, social equity and environmental protection is a key element of sustainable development (Javier Esparcia, 2005).

## **MATERIAL AND METHODS**

The analysis area is represented by the Piatra Neamț Municipality, research is aiming to analyze the economic indicator, which provides important details regarding the degree of development of the territory.

Working methodology used in addressing economic phenomena is based on the interpretation of statistical data acquired from Regional Directorate of Statistics Neamț (population censuses from 1992 and 2002). According to them I realized graphic and cartographic materials, showing more clearly the existing issues in the study area, but also to make comparisons with situations existing at the county level. Cartographic method highlights the best field realities, assuming geographic information processing and cartographic interpretation of the analyses performed (Purvis and Grainger, 2004).

The method used for quantification the economic development index is initiated by Sergio Sepúlveda, from the Inter-American Institute for Cooperation for Agriculture (IICA) in Costa Rica, aimed at assessing the state of sustainable development through economic development index calculation based on variables chosen to be as representative as possible, in a period of time (1992, 2002, 2010): E1- labor force participation rate, E2- inactivity rate, the share of employees according to the three sectors of the economy (E3 – primary sector, E4 – secondary sector, E5 – tertiary sector), E6 – unemployment rate and E7 - aging index.

How these variables affect the development process is denoted with 1 or 0: if variables have a tendency to increase/decrease, which positively affects the process, is noted with 1, and if this increase/decrease has a negative impact on sustainable development, is noted with 0. In Excel, the data obtained are brought to a common scale through the relativization function, followed by calculating an index specific to each time period. Depending on the values obtained (between 0 and 1) it is estimated the system development: 0-0.2 collapse; 0.2-0.4 critic; 0.4-0.6 unstable, 0.6-0.8, stable; 0.8-1 optimally.

## **RESULTS AND DISCUSSION**

The city is a "body" that converts energy, information, and resources, self-organization is a crucial feature in the development process. (Koglin, 2009). It is considered the "center of decision" for the surrounding area, affirming itself as a geographical and economic system (Câdea, 2006).

Between demographic and economic system there is a dynamic interdependence (Polyzos, 2012). Through the involvement degree of the population in economic activities there are two different types of subpopulations: active and inactive.

The labor force participation rate consists in the reporting of the working population to the total population (Vert, 1995). The synthesis of this rate in Neamț County, in the period 1992-2002, show that the population with the highest share is represented in blue zones feature for both 1992 and 2002, the situation in which it is located and the Piatra Neamț Municipality. Since 2002 it is observed a considerable reduction of the active population, by setting up the declining labor, illustrated by increasing the share of the unemployed (Fig.1).

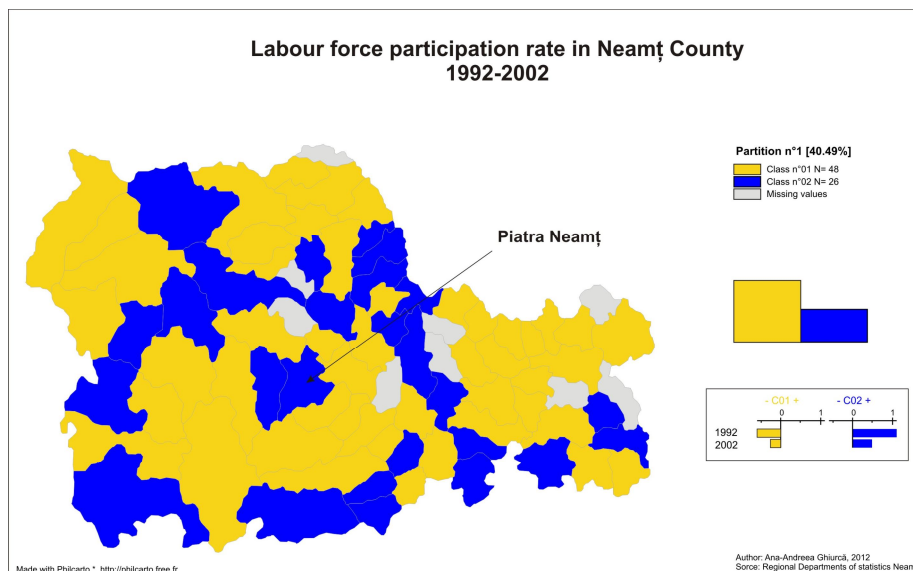


Fig. 1. Analysis of labour force participation rate in Neamț County, 1992-2002

The report of the economic and demographic structure shows a complex process that has direct implications in the results with both sides. The evolution of the population directly impacts on economic development, which also has repercussions on demographic processes and phenomena (Vert, 2000).

The professional structure of the population is an important indicator for economic structure, which reflects the level of development in the area. The three major sectors (primary, secondary and tertiary) constitute the criterion of the profession classification (Ungureanu and Muntele, 2006).

The comparison of data from the census of 1992 and 2002 provides information related to the evolution of the professional structure of the

population, on the basis of which I realized fig. 3, for each year: 1992, 2002 and 2010.

In Neamț County, in 1992, the active population is clasified in the primary and secondary sector, but this situation is changed in 2002, the tertiary sector being the majority, especially in Piatra Neamț and Târgu Neamț City. Thus, in Piatra Neamț Municipality, the orientation of labour force is clear from the primary and secondary sector to the tertiary sector, in the time interval chosen.

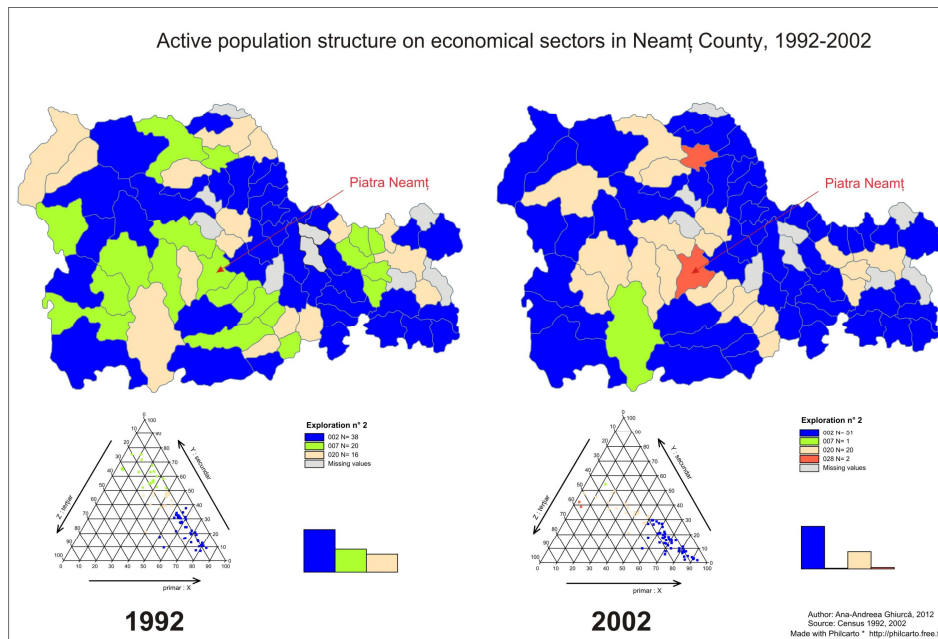


Fig. 2. The evolution of active population in Neamț County, 1992-2002

The share of active population in the total population, in the city Piatra Neamț, decreased from 1992 to 2002, from 51% to 47%, which outlines the fact that the share of inactive population increased, due to the phenomenon of aging demographics, the increasing number of retirees, the emigration of the population.

In Piatra Neamț Municipality, the number of unemployed is declining in 2011 (number unemployed: 1410) to 2010 (number unemployed: 2773) through active measures taken by the authorities in the field, resulting by increasing the period of unemployment compensation, classification, unemployed investment stimulation (Activity Report, County Agency for employment Neamț, 2012).

To quantify the economic dimension index, the time interval chosen overlaps on the years with census population: 1992, 2002, the 2010 year I

have chosen to highlight the evolution of phenomena as recently, analysis of data from the Census of 2011 being underway. The calculation of this index for the Piatra Neamț Municipality, in 1992-2010, show a downward evolution from stable stage in 1992 to the critic in 2002 and a return to the unstable in 2010 (Fig. 3).

This situation is due to the decrease of the labour force participation rate from 1992 to 2010, and the numbers of employees in the primary and secondary sector are disadvantaged by the dramatic increase in the number of employees in the tertiary sector.

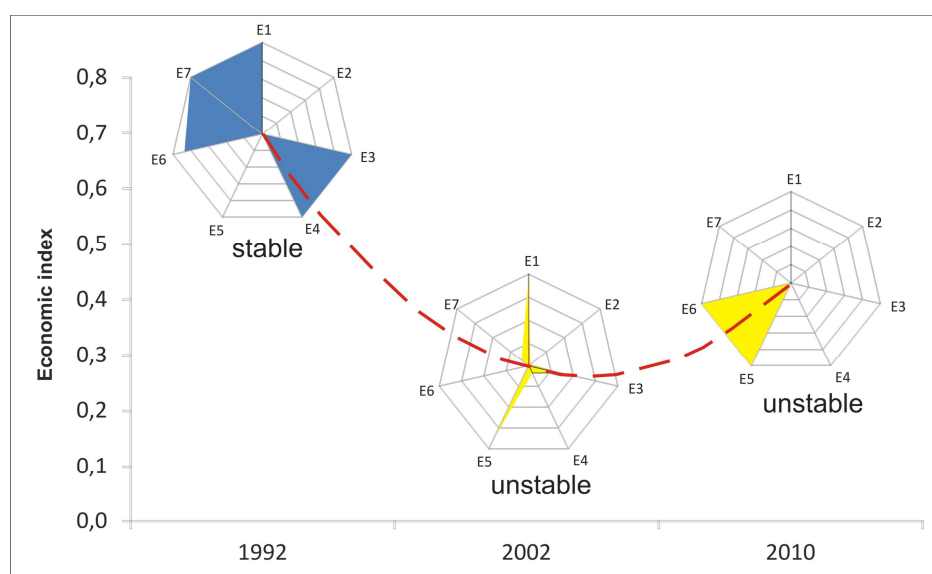


Fig. 3. Development trend of economic dimension

The unemployment rate registered increases until 2002, after which it decreased due to the activities carried out by the authorities to provide citizens with jobs. Another aspect that influence this situation is given by aging index that is growing steadily throughout the period proposed.

## CONCLUSIONS

The economic dimension analysis from the perspective of sustainable development, show a downward evolution in the last 20 years, the deteriorating of the economic system being represented by the decreasing of the labor force participation rate, increasing the aging index and the existence of unemployment.

The concept of sustainable development promotes the relationship between humans and nature by refocusing the socio-economic activities,

opening the way to a new more realistic direction for tackling problems affecting the urban environment (Sepúlveda, 2008). Managing the sustainable development in urban space quantifies its development stage (Bebbington, 2007), identifies the aspects that favor or declines the development, in order to settle the problems encountered and to apply more effective sustainable development strategies.

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