



## The conception of inter-communal structures in the urban-rural relations of Bihor County, Romania

Valentin Nemes<sup>1</sup>

<sup>1</sup>Departement of Geography, Tourisme and Territorial Planning, University of Oradea, Romania

Correspondance: Valentin Nemes (e-mail: nemes\_vali@yahoo.com)

### Abstract

Urbanisation or urban drift often results in imbalanced regional development where the urban thrives and the rural becomes deprived. Efforts to correct this imbalance in the form of growth pole models rarely met with success because of many factors, not least, political. There are nevertheless growth pole models of polycentric development which can foster harmonious relationships between urban and rural areas. This paper illustrates this point with special reference to the conception of eleven Territorial Planning Units (TPU) in the Romanian county of Bihor. The hallmark of the TPU is the establishment of inter-communal structures which manage to circumvent the unhealthy polarisation of conventional urbanisation, reduce regional disparities and strengthen rural-urban relationships because they pay due attention to the needs and interests of local communities.

**Keywords:** growth poles, inter-communal structures, polycentric development, regional disparities, territorial planning units, urbanisation

### Introduction

Urbanization or urban drift (Roussel, 1970) is a natural growth of urban areas as a result of global change (Alpopi, 2005). Urbanization means a process of intense development and growth of existing cities in an accelerated rate of the number of cities and urban population, which is based on socio-economic and political development of the country (Candea, 2001).

Urbanization, or the shift of population from rural to urban environments, is typically a transitory process. It moves populations from traditional rural environments with informal political and economic institutions to the relative anonymity and more formal institutions of urban settings. That in itself requires institutional development within a country. It spatially separates families, particularly inter-generationally as the young migrate to cities and the old stay behind (Henderson, 2005).

Rural areas under urban pressure face many claims on their rural land for housing, transport infrastructure, economic and tourist activities. Ideally, land use planning could act as a tool to deal with the various, often conflicting, demands for rural space. However, power imbalances among rural and urban municipalities, regional authorities, real estate planners, nature organisations and other stakeholders may hinder a proper use of this tool, usually in favour of urban claims on rural space. In this context, the question arises how a fair relationship could be established between consumers of the rural landscape (tourists, day trippers and new residents) and the original users/producers of the rural landscape (rural population and farmers) that results in a sustainable rural landscape (Overbeek & Terluin, 2006).

In Romania, regional development had been extremely varied in the last century as it was heavily influenced by political regimes which succeeded to power. The legacy of the communist period in which the village was entirely under the dictates of the cities had hampered the transition of rural areas to emerge from the shadow of the cities. The subsequent European integration of Romania, nevertheless, has witnessed a change in that new sources of funding for rural areas had

led to the reinforcement of rural-urban and village-city cooperation in line with the principle of polycentric development. The objective of this paper is to present the basic highlights of the Territorial Planning Units (TPU) which were the hallmarks of this polycentric development.

### Materials, methods and the study area

Materials were obtained from the combination of field observation, field analysis and GIS application. Background maps used were the topographic maps of Marghita section at 1:25,000 (DTM, 1977). Data were processed with special softwares which allowed for graphical representation of the population dynamics and other relevant demographical indicators in this study.

Bihar County is located in the north-west part of Romania, between 46°23' and 47°35' north latitude and between 21°26' and 22°48' east longitude . It shares some 150 km of border area with neighbouring Hungary and on which are located the border crossing checkpoints of Valea lui Mihai, Bors, Episcopia Bihor, and Salonta (PDJ Bihor, 2007). In the northeast it borders Satu-Mare, in the east the counties of Salaj, Cluj and Alba, and in the south the Arad County (Figure 1).

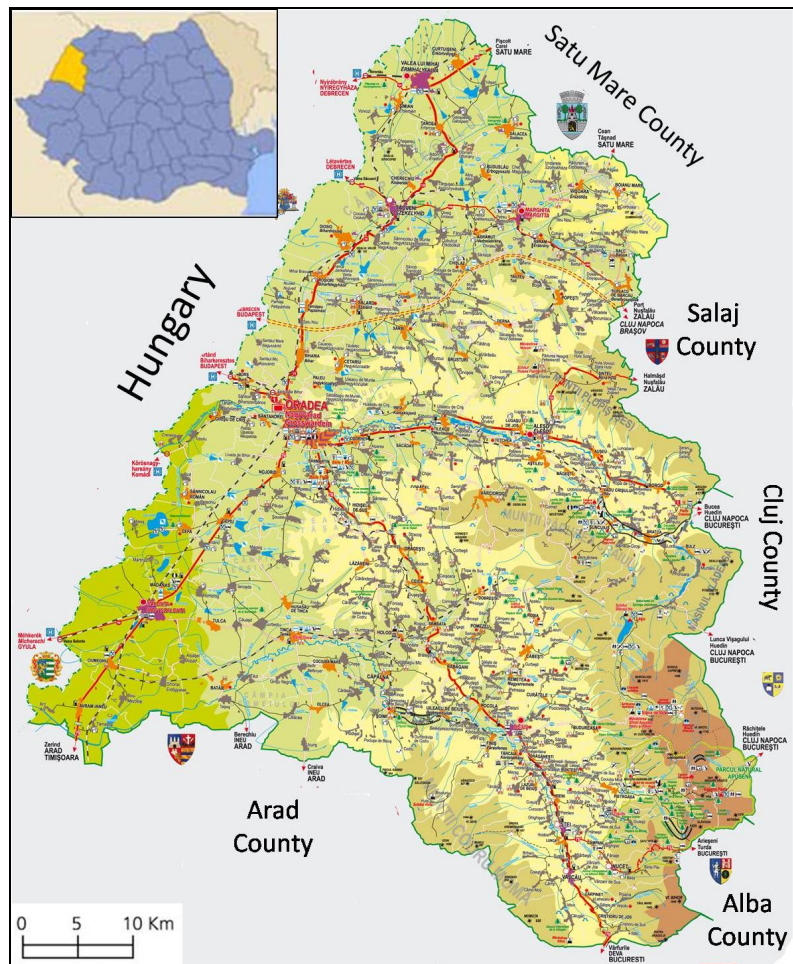


Figure 1. Location of Bihar County

### Settlements network in Bihor County

In terms of network locations, Bihor county comprises 10 cities, four municipalities, 90 communes and 429 villages (Figure 2).

In accordance with the categories considered in the PATN (Section 4: The network of settlements), the hierarchy of settlements in Bihor County depicts the following rankings:

Rank	Territorial function	Settlement
I	County capital	City of Oradea
II	Municipalities	Marghita, Salonta, Beiuş
III	Cities/ towns	Aleşd, Stei, Nucet, Sacuieni, Valea lui Mihai, Vascau
IV	Villages as centres of commune administration	
V	Villages	

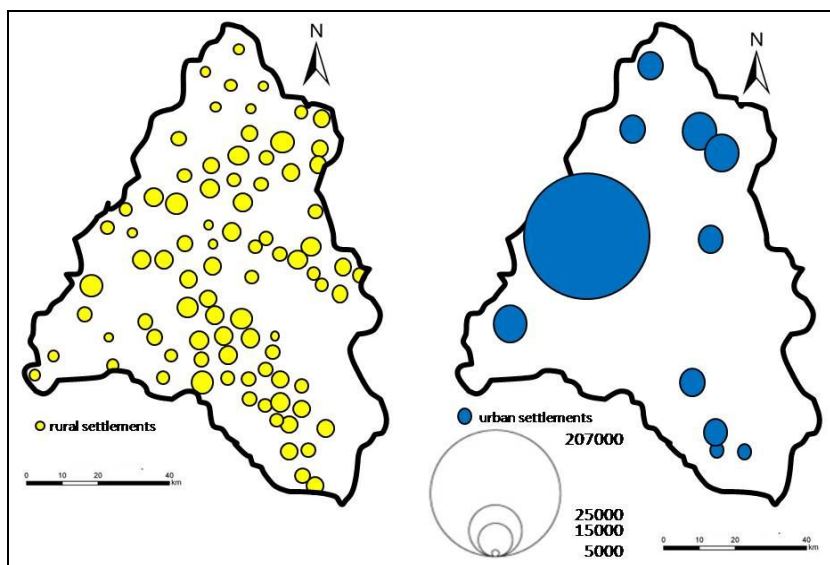


Figure 2. Rural and urban settlements in Bihor County

### The state of rural-urban relations in Bihor County

Disparities between rural and urban areas have generated specific problems for the Romanian rural space (Nemes, 2010). A total of 300,514 persons live in urban areas and 295,171 people in rural areas or 50.4% and 49.6% respectively of the total population. As a result of accelerated depopulation rural Romania is now characterised by an aging population (high percentage of the population aged over 60), aging workforce, high mortality (15.2 % as compared with 9.7 % in urban areas) with very high infant mortality rates, and low birth rates (Nemes, 2011). These certainly bear potentially negative impacts on the economic development of the rural areas.

It should be noted that, on average, the current (2010) demographic dependency ratio of Bihor county is in decline when compared with that of 2005 but the larger decline was recorded in urban areas (from 37% to 34.2% ) compared to that in the rural areas (58.3% to 56.2%) (INS Bihor, 2010).

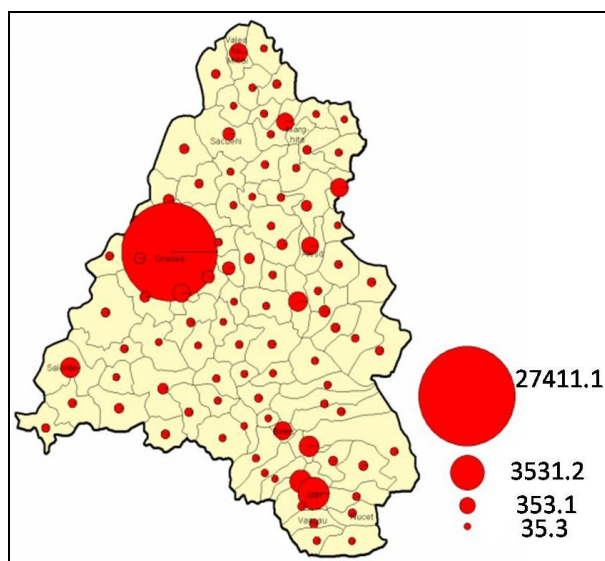
**Table 1. Bihor County: Declining demographic dependency ratios\***

Bihor County	2005	2006	2007	2008	2009	2010
<b>Total</b>	46,9	46,4	46,3	45,7	45,1	44,3
<b>Urban</b>	37,0	35,9	35,6	34,9	34,9	34,2
<b>Rural</b>	58,3	58,9	58,1	57,6	57,1	56,2

Source: INS, Bihor County Statistics

\*represent the ratios between the dependents population (0-14 years and 65 years and over) and the population between 15-64 years.

Analysing the economy of the Bihor County, disparities may be observed not just between the rural and urban areas but also between rural-rural areas and urban-urban areas. In 2005, the turnover rates of economic establishments in the cities of Salonta, Marghita, Beiuș, Aleșd and Stei had surpassed those in the communes of Rieni, Drăgănești, Astileu, Suplacu the Barcau, Sanmartin, Bors, Sacadat as can be seen in Figure 3. In fact after Oradea, Stei has the most significant economic development in Bihor County.



Source: PDJ Bihor

**Figure 3.** The turnover ratio of economic establishments in Bihor County (2005, millions US\$)

More than three quarters of enterprises operating in Bihor in 2005 were in the tertiary sector, 20% in manufacturing and construction, and only 3% in agriculture, forestry, fishing and hunting. Sectoral division of enterprises varied according to the hierarchy of the settlements with the agricultural predominating in the cities/towns and trade and the services most conspicuous in Oradea. In 2004, the secondary sector had an important presence in nine towns in the county (Table 2).

A significant change is observed in the importance of enterprise branches in terms of revenue size: there is a strong equalization at the county level between secondary and tertiary sectors while the position of agriculture still weakens. Industry and construction absolutely take the leading role in both small towns and municipalities, constituting almost 70% of their total revenues. Services are pertinent only in Oradea where they contributed two thirds of the capital's total firm revenues.

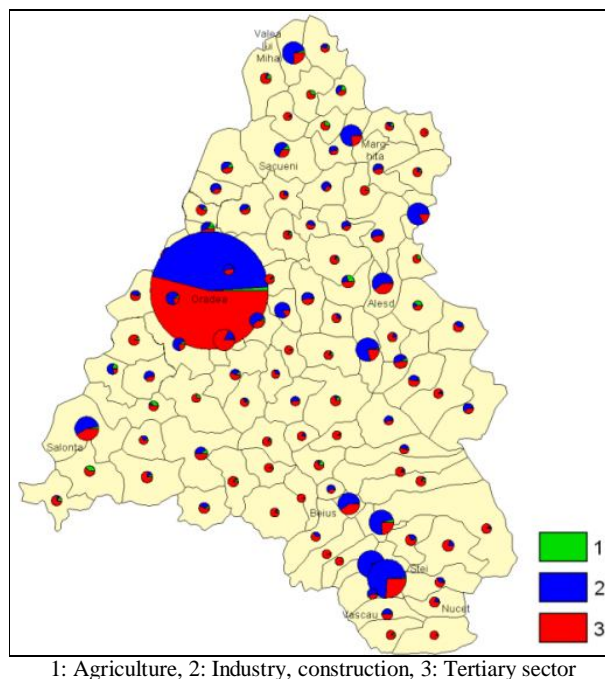
The economic structures of localities in the county show significant differences. While 2.7% of the entire enterprises in the district are linked to agriculture, 19.5% to industry and construction and 77.8% to trade and services, different sectoral dominance characterises the turnover ratio of enterprise branches. For instance, in the localities of Buduslău, Ciumeghiu, Tarcea and Sălacea

the turnover ratio of agricultural enterprises exceeds 70% of the total enterprise turnover ; in the settlements of Olcea, Suplacu de Barcau, Sacadat, Stei the construction and industry predominates with 90% turnover ratio ; and in Căbești, Tarcăia, Cociuba de Jos, Răbăgani, Simian, Lazuri de Beiuș and Holod, the tertiary sector represents more than 95% turnover ratio.

**Table 2. The economic sectors of Bihor County according to enterprises, turnover ratio and employees in 2005 (%)**

	Number of enterprises		
	Agriculture	Industry, Construction	Commerce, Services
Oradea	1,0	18,6	80,4
Other cities / towns	3,2	22,6	74,2
Communes	8,1	20,0	71,9
Total	2,8	19,5	77,7
	Turnover ratio		
	Agriculture	Industry, Construction	Commerce, Services
Oradea	1,0	31,5	67,5
Other cities/ towns	1,8	67,8	30,4
Communes	5,9	54,4	39,7
Total	2,1	41,7	56,2
	Employees		
	Agriculture	Industry, Construction	Commerce, Services
Oradea	1,0	43,0	56,0
Other cities/ towns	1,7	62,8	35,5
Communes	5,6	41,5	52,9
Total	2,1	47,3	50,6

Source: INS, Bihor County Statistics



**Figure 4. Occupational structure of localities in Bihor County (2005)**



## Polycentric development and the emergence of Territorial Planning Units as inter-communal structures

Polycentric development implies supporting the development around a network of development poles which involves the following elements:

- (1) The consolidation of a network of influence centers which would be nurtured to take over the role of growth poles;
- (2) The priority given to the allocation of resources that would strengthen the role of growth poles, primarily those activities which provide services to the population, the local economies and their influence areas; and
- (3) The priority given to the orientation of rural development resources to those interventions which promote rural-urban development bond so that the two spaces can be mutually supportive throughout the development process (Petrea *et al.*, 2009a).

In order to identify the potential network growth poles (Petrea *et al.*, 2009b) and influence zones at the county level a method of zoning known as Territorial Planning Units (TPU) was developed. This represents a new orientation of the European Commission with regard to rural development which was included in the forthcoming Rural Development Operational Programme (e.g. LEADER + Programme).

TPU sites correspond to areas with certain common characteristics and a single functionality. As such a TPU may be distinguished by a common cultural identity which gravitates around influence centers through close economic cooperation between the component localities (Nemes, 2010b). A TPU is composed of several administrative units (communes and cities) which are not necessarily limited by a county's borders. In fact, TPUs may be different with respect to the number of population or territory size that they delimit. Some TPUs may have already established associations between components of the administrative-territorial units while others may have only informal associations or interactions (Figure 5).

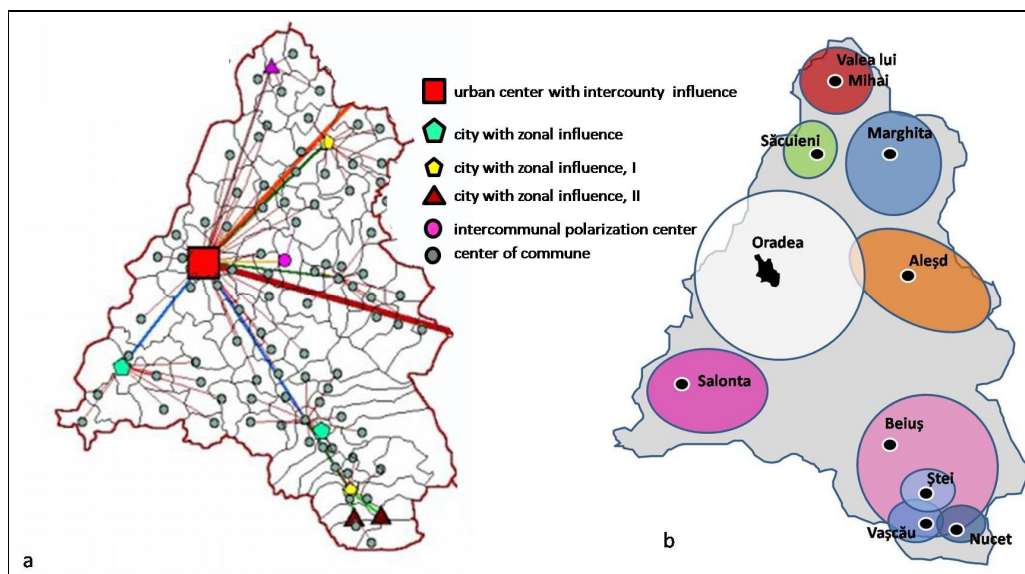


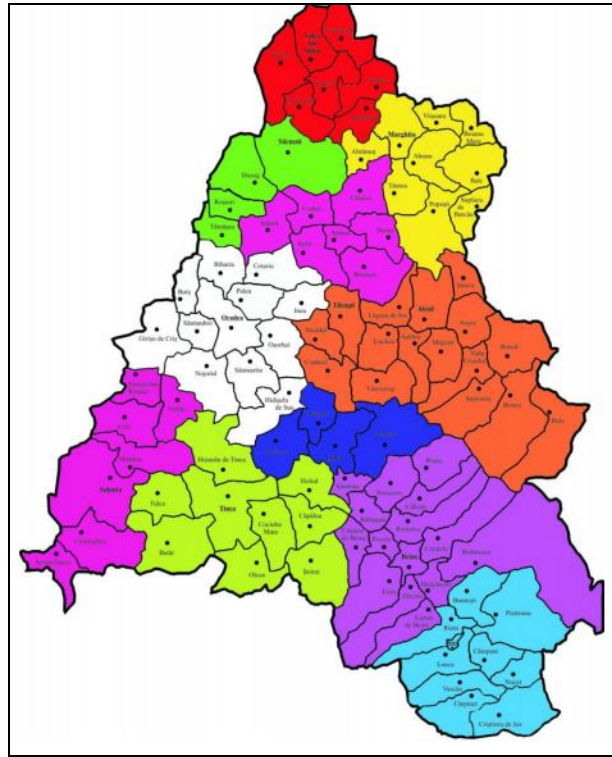
Figure 5. a) Settlements network in Bihor County; b) Polarized area by urban settlements in Bihor County

Based on these criteria a total of 11 TPU sites could be established whereby within each TPU at least one potential pole of development could be identified. This is an urban center in which economic evolution could mean growth or decline for the entire areas of influence (Figure 6). Interventions are then to be directed primarily to these potential growth poles on the assumption that they induce effects on the whole (or sometimes even a larger) influence area of the TPU.

There are six conditions underpinning the sustainable development of any Territorial Planning Unit: (1) the integration and harmonization of the development strategies with the needs, wishes

and desires of the local community ; (2) the development and improvement of rural infrastructures; (3) the development and diversification of economic activities, in particular, the development of tourism; (4) the development of human resource which leads to greater employment generation and less social exclusion; (5) the promotion of local community; and (6) the development agriculture that would attract farm investors.

The TPUs may be ranked according to their polarisation capacity in line with the concept of growth pole development identified in the County Planning Plan.



**Figure 6.** TPU sites in Bihor County

## Conclusion

The establishment of Teritorial Planning Units which focused on the realities of the existing natural (Nemes, 2011b), human and economic environment could provide a revival of local communities. However, this can be achieved only in accordance with the needs of the local of the communities and with the opportunities that they have and not merely by means of legislation and directives by the Romanian state. Instead, this goal of balanced rural-urban development could be achieved through the promotion of intercommuality structures facilitated by good cooperation between the rural and urban parties (Robien and Parisot, 2009), a process that may well avoid certain territorial malpractices.

## References

- Alpopi C (2005) *Consecințele economic-sociale ale urbanizării*. Administrație și management public, nr.5, p.25-28.
- Cândea M, Bran F (2001) *Spațiul geografic românesc*. Editura Economică, București.
- Henderson Vernon J (2005) Urbanization and growth. In: Philippe Aghion, Steven N Durlauf (eds) *Handbook of economic growth*, 1543-1591. Elsevier, Volume 1, Part 2.

- Nemes V (2010) *Crasna – Studiu geographic*. Edit. Univ. din Oradea, 116 pg, Oradea.
- Nemeş V (2010) Marghita. Aspects of geomorphological implications in the organization of urban space with special attention on the road infrastructure. *NATURAL SCIENCES*, 107-111. Published by University of Miskolc, Innovation and Technology Transfer Centre, Miskolc.
- Nemes V (2011) Relația dintre expansiunea urbană și utilizarea terenurilor în Marghita. The International Symposium “Calitatea mediului și utilizarea terenurilor” Suceava.
- Overbeek G, Terluin I (2006) Rural areas under urban pressure - Case studies of rural-urban relationships across Europe. *LEI Wageningen UR*, The Hague.
- Petrea R, Blaga L, Filimon L, Chiriac C, Nemes V, Olau PE, Marusca A (2009) *Unitatea teritoriala de planificare valea crisului repede – Studiu preliminary*. Edit. Univ. din Oradea, pp. 170 Oradea.
- Petrea R, Olău PE, Blaga L, Nemeş V (2009) Alesd-Issues of organization, town planning and geospatial integration. *Annals of University of Oradea*, seria Geografie, TOM XIX, pp. 183-190.
- Robien G, Parisot JC (2009) Pour ou contre l' intercommunalite? *CURAPP*, pp. 183-188. Picardie.
- Roussel L (1970) Measuring rural-urban drift in developing countries: A suggested method. *Journal of International Labour Review* **101** (3229), 229-246.
- \*\*\* DTM – Directia Topografica Militara, Harta topografica, scara 1:25000, Bucuresti, 1977
- \*\*\* INS – Insitulul National de Statistica Bihor, Anuarul Statistic, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010
- \*\*\* PATN – Planul de Amenajare a Teritoriului National, sectiunea IV „Rețeaua de localitati”
- \*\*\* PDJ – Planul de Dezvoltare a judetului Bihor 2007-2013, 2007