

POPULATION MOBILITY AND ITS IMPLICATIONS IN TERRITORIAL RECONVERSION. A CASE STUDY: THE CRISUL REPEDE VALLEY TPU (TERRITORIAL PLANNING UNIT)

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Zusammenfassung: Beweglichkeit der Bevölkerung und ihre Auswirkungen zur territorialen Rekonversion. Fallstudium: (T.P.) Territoriale Planungseinheit - das Tal Crișul Repede. Vorliegende Forschung setzt sich es vor, die Verhältnisse unter dem sozial-ökonomischen Zustand eines Territoriums und der Beweglichkeit der Bevölkerung hervorzuheben. Die Analyse wurde zur Niveaulage der territorialen Planungseinheit: das Tal Crișul Repede realisiert. In diesem Zweck ist für den Zeitraum 2000-2006 eine Reihe der Kennziffer gerechnet worden, die die Charakteristiken der Wanderung der Bevölkerung kennzeichnen: bzw. *rohe Wanderung, die Rate der rohen Wanderung, die Auswanderungs-, Einwanderungsrate, das wandernde Saldo*. Unsere Untersuchung tritt die Tatsache hervor, dass dasselbe Areal wegen der wirtschaftlichen Schwierigkeiten die Verminderung der Bevölkerung aufnimmt, insbesondere aus dem Bergsraum. Eine relativ bessere Situation haben die Gemeinden in der Nähe der Achse Oradea-Cluj dank dem Vorteil ihrer Raumlage. Das Studium empfiehlt zum Schluss auf das Aufsuchen mancher Lösungen, die nicht nur zur Stabilisierung der aktuellen Bevölkerung, sondern auch insbesondere zur Anziehung einer jungen Bevölkerung beitragen, weil das ländliche Habitat aus diesem Areal schon ein altes wurde.

Schlosswörter: Wanderung, Territorialen Rekonversion, Territoriale Planungseinheit

The purpose of this study is to outline the relationship between the social and economic situation and the populations mobility. A series of indexes were calculated, indexes which define the populations migration characteristics: the gross migration, the gross migration rate, the emigration rate, the immigration rate, the migratory balance. This analysis outlines the fact that due to economic difficulties there are population losses, especially in the mountain area. On the other hand, the communes that are close to the Oradea-Cluj axes have a better situation due to their position. As a conclusion, the study recommends the finding of solutions that would contribute, not only to the stabilization of the actual population, but also to attract young population because the population of this area is beginning to become a rather aged one.

In Bihor County were established 11 TPU, our study referring to one of these, respectively the Crișului Repede Valley TPU. The analysed area, geographically overlapped to Vad-Borod Depression, partially to the Plopiș and Pădurea Craiului Mountains, is consisted of 15 communes (Bulz, Borod, Bratca, Șuncuiuș, Aușeu, Vadu Crișului, Măgești, Aștileu, Lugașu de Jos, Țețchea, Vîrciorog, Tileagd, Săcădat, Copăcel, Șinteu), with the polarised centre in Aleșd town. Compound part of a larger project, unit's territorial reconversion, the study proposes to analyse the spatial mobility of population.

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Our objective is to outline the migration's particularities as of spatial mobility and its implication to the future development of the analyzed territory.

Territorial planning units are instruments created because of the need to impel the territorial development through the association of many public administrations, in order to constitute new, more effective administrations and managerial structures, for a more efficient absorption of the European funds.

They are constituted from groups of administrative territories (villages, communes and towns), which have the same features, cooperation relations and commune interests, where the local communities planning the development together, proposing the development projects through a down-up approach, from local, micro regional to county and regional level.

In Romania this new types of territorial cooperation are incipient, prevalent manifested as metropolitan zones. For the Northern-West Region, where Bihor County belongs to, the TPU delimitation was done in 2005, being established 41 such territories. Inside every TPU was identified a pole of development, an urban centre of which economical evolution is defining for the whole TPU and which will have the local development coordinator's role.

To relieve the migration's particularities we used statistic data offered by the Statistic County Direction for the 2000-2006 periods. Using this data, a series of indexes were calculated which define the features of migration within the Crișului Repede Valley TPU: the gross migration, the gross migration rate, the emigration rate, the immigration rate, the migratory balance. Unfortunately, the statistical data are only available on commune level, as far as the data for its composing villages are not available. This short come can trigger the omission of some existing realities within the villages.

The human component of the analyzed space is the most dynamic element and through its manifestation leaves its imprint on the future evolution of these units. For the territory and the time period we analyzed the populations' spatial mobility were determined, mostly, by the socio-economical factors. For the studied area, the political factors had influences in older times and contributed to the appearance of some distinct ethnic groups: the Hungarians and Slovaks.

In what regards the inner and outer migrations, the latter has insignificant values and for this reason we didn't analyze it any further. The Șinteu commune is an exception because the presence of a numerous number of Slovaks increases the migration's values.

The gross migration, a volume indicator which reflects the intensity of this phenomenon, is the outcome of the population incomings and outgoings registered along the seven years that we analyzed. This indicator reflects the social and economical transformations of an area, as the main cause of people's mobility at the present time.

For the whole period the gross migration registered a value of **10196** persons, which means an average of 1456 persons per year. As compared to the population number we can say that in seven years the population that moved within this areal equals Alesd town population number.

As one can see (Fig.1.) the reduced number of persons that moved corresponds to year 2000, namely 759 persons, the maximum value is registered in 2004, 1938 persons. In 2004 there are several communes with high values of migration- Bratca, Lugasu de Jos. Suncuius, Tileagd, Vadu Crisului and Alesd town (Table.1.). For the communes Suncuius, Bratca and for the town Alesd the most important numerical contribution is of the people who left and in the case of Lugasu de Jos and Tileagd is of those who entered.

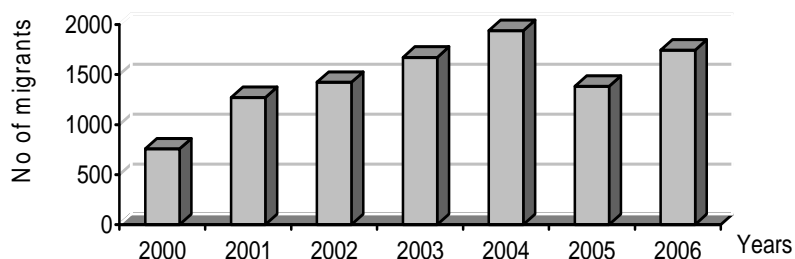


Fig.1. The evolution of the gross migration in UTP Crisul Repede Valley.

The high migration values can be explained by the presence of mining and processing industrial units within the territory of the communes, units that were either restructured or closed. The most eloquent case is of Alesd town that lost a large number of population due to the asbestos panel factory closing at the beginning of 2005.

The gross migration of years level of the communes

Table 1

Nr. crt.	Communes	Year	I	E	M.B.	Nr. crt.	Communes	Year	I	E	M.B.
1	Aleşd	2000	27	93	120	9	Măgeşti	2000	14	13	27
		2001	102	126	228			2001	16	23	39
		2002	143	141	284			2002	18	37	55
		2003	107	172	279			2003	24	57	81
		2004	146	208	354			2004	50	45	95
		2005	99	138	237			2005	23	40	63
		2006	149	161	310			2006	36	35	71
2	Aştileu	2000	9	29	38	10	Săcădat	2000	41	11	52
		2001	32	51	83			2001	33	30	63
		2002	43	44	87			2002	34	19	53
		2003	34	58	92			2003	39	25	64
		2004	59	56	115			2004	58	28	86
		2005	42	40	82			2005	39	31	70
		2006	51	57	108			2006	53	30	83
3	Auşeu	2000	21	12	33	11	Şuncuiuş	2000	14	34	48
		2001	19	39	58			2001	26	70	96
		2002	27	38	65			2002	26	73	99
		2003	61	38	99			2003	44	66	110
		2004	50	45	95			2004	36	97	133
		2005	36	25	61			2005	16	52	68
		2006	49	48	97			2006	38	69	107
4	Borod	2000	9	41	50	12	Şinteu	2000	6	15	21
		2001	22	47	69			2001	8	32	40
		2002	21	56	77			2002	9	46	55
		2003	32	59	91			2003	10	55	65
		2004	41	60	101			2004	5	25	30
		2005	36	40	76			2005	3	15	18
		2006	36	66	102			2006	7	23	30
5	Bratca	2000	8	37	45	13	Țețchea	2000	14	17	31
		2001	27	69	96			2001	48	25	73
		2002	35	65	100			2002	27	43	70
		2003	36	77	113			2003	43	36	79
		2004	48	85	133			2004	55	35	90
		2005	43	73	116			2005	34	46	80

		2006	49	68	117			2006	50	43	93
6	Bulz	2000	5	25	30	14	Tileagd	2000	36	42	78
		2001	13	25	38			2001	66	67	133
		2002	18	22	40			2002	26	81	107
		2003	17	33	50			2003	116	63	179
		2004	26	33	59			2004	143	98	241
		2005	10	36	46			2005	103	71	174
		2006	25	33	58			2006	114	96	210
7	Copăcel	2000	68	26	94	15	Vadu Crișului	2000	9	34	43
		2001	36	39	75			2001	28	34	62
		2002	55	39	94			2002	30	58	88
		2003	55	41	96			2003	33	76	109
		2004	45	41	86			2004	66	66	132
		2005	27	50	77			2005	37	65	102
		2006	40	39	93			2006	41	89	130
8	Lugașu de Jos	2000	11	11	22	16	Vârciorog	2000	1	26	27
		2001	39	41	80			2001	9	30	39
		2002	54	37	91			2002	23	56	59
		2003	62	64	106			2003	32	29	61
		2004	63	54	117			2004	35	36	71
		2005	42	30	72			2005	15	26	41
		2006	51	42	93			2006	21	37	58

(I = imigration; E= emigration; M.B.= gross migration, source: DJS Bihor)

In case of Lugașu de Jos and Tileagd communes an important role played the Rroma population displacement from Vadu Crisului and Suncuius.

These displacements are the result of the deterioration of the social and economical framework in the communes mentioned and the possibility of finding a safer life source (the presence of agricultural exploitations or units of processing industry) in Tileagd and Lugașu de Jos communes.

Regarding the percentage of gross immigration and emigration, except for Săcădat commune where each year the number of population that entered exceeded that of the people that left Tileagd and Lugașu de Jos where the immigration exceeds emigration in 2004, and in the other communes the highest values belong to the emigrants. This fact will be reflected as we will see in the migratory balance sheet of those communes.

The gross migration rate, the second indicator which was analyzed, highlights the ratio between the displaced population and the total number of population.

For the analyzed period (2000-2006) for the entire area it has a value of **164.6%**. At commune level it can be noticed (Fig. 2) that the ones with values over the average are concentrated in depression's precinct, where the economic dynamics favored a demographic one: Săcădat 262.1‰, Copăcel 258.7‰, Lugașu de Jos 177.9‰ and the ones with lower values are concentrated in the mountain area, a less dynamic space: Bratca 130.6‰, Bulz 135.1‰ and Vârciorog 149.9‰.

The analyses for each year shows the fact that this value exceeded constantly from **12.1%** in 2000 to **28.7%** in 2006. In this period the maximum value was recorded in 2004, being of **31.4%**. Compared to the value recorded at the level of the entire analysed area the values of the administrative units values present different situations. So, no matter the year, a few communes with values over that recorded for the whole area appear. Such communes are Săcădat, Copăcel and Șinteu.

For gross migration of communes Copăcel and Săcădat the inner migration is that that determined the value, and for Șinteu is the emigration, especially the outer one.

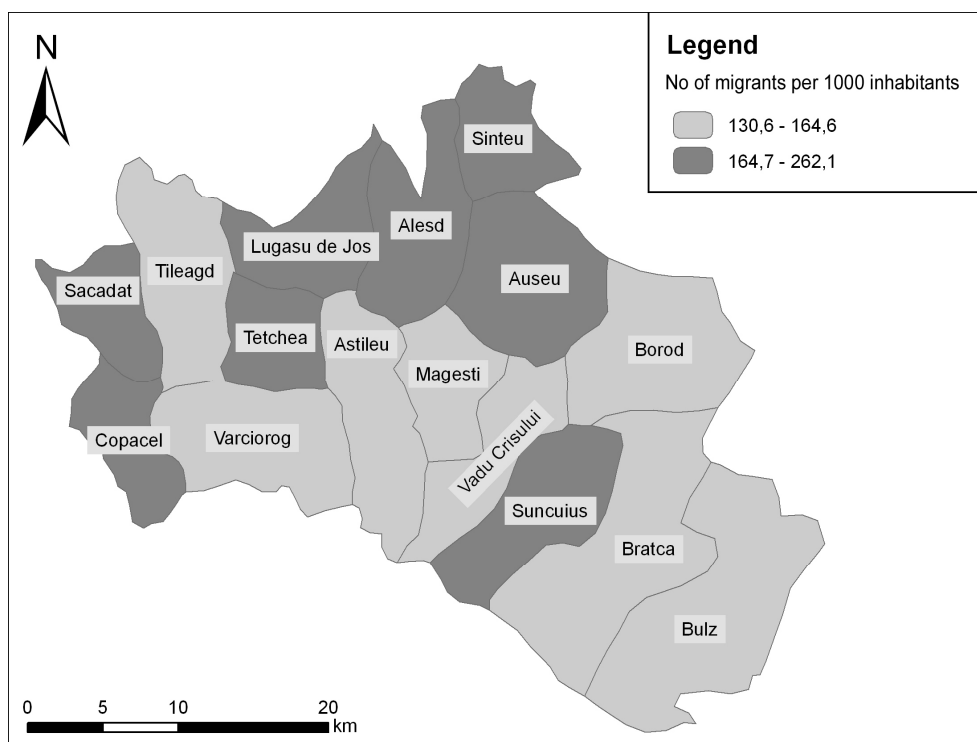


Fig.2. The gross migration ratio at commune level.

The emigration rate expresses the intensity of the departs from a certain space, related to the total population, being also, one of the most important indicators for the diagnostic of the territory. Being the expression of the restrictiveness of the space, the intensity of the emigration rate increases proportionally with the deterioration of the socio-economical situation.

The emigration rate for the 2000-2006 periods recorded a value of **92.6%** for the whole analysed unit (Fig.3). The highest values are presented in communes as Șinteiu 156.5%, Șuncuiș 128.3% and Copăcel with 118.4%. The most reduced values are met in communes such Tileagd 74.5%, Lugașu de Jos 79.3%, Aușeu 85.9%.

Through the years, this indicator increased constantly the whole analysed period from a value of 7.4‰ in 2000 to 15.4‰ in 2006. The maximum value of 16.4‰, was recorded in 2004. At commune level it can be noticed the fact that the highest population losses are recorded in Șinteiu, Șuncuiș, Copăcel, Vadu Crișului, Bratca, and Aleșd town. For Șinteiu the high values of emigration are determined by the Slovaks' leaving, but also the inner migration of a certain number of persons towards the communes situated inside depression.

The town Aleșd owns its population's losses through migration by the restructures that happened in this town's economy.

The immigration rate, as a ratio between the number of incomers and the total population, can be considered an indicator of the attractiveness of a space, being, as the emigration rate, a diagnostic value. The relation between the attractiveness of a space and the immigration rate is one of direct dependency: the immigration rate increases proportionally with the attractiveness of that territory.

The value of this indicator for the Crișlui Repede Valley TPU is of **72.5%**. The highest population entrances are noticed for the following communes: Săcădat 165.3%, Copăcel 140.3%, Lugașu de Jos 98.6%, Țețchea 88.5%, and Tileagd 86.9%.

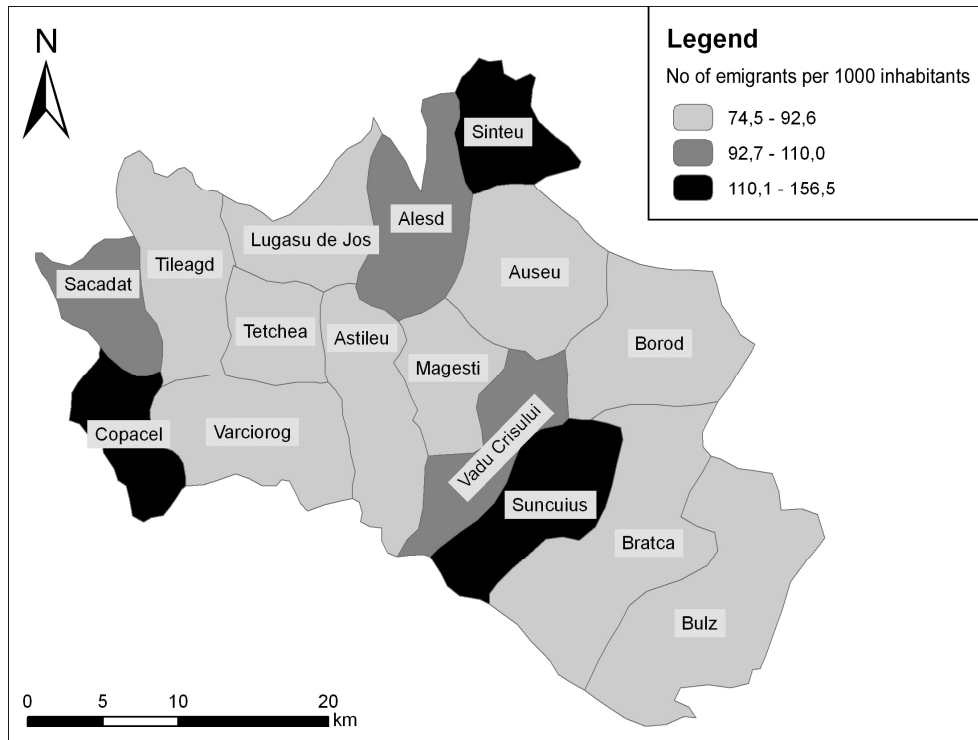


Fig.3. The emigration rate at commune level.

Separately analysed for each year this index presents the same features as the emigration rate, its values exceeding from 2000 (**4.7%**) to **13.3%** in 2006. The moment of maximum value is also recorded in the year 2004, of **15.0%**.

Inside this area a few communes, where values of immigration are more over the average, are individualised (Fig.4.). If we take into consideration their position in the territory, we can notice that they are in the depression's precinct and at the same time relatively close to the main localities of the area, Aleșd town and Oradea city, becoming attractive due to the advantages that this proximity offers.

The communes with reduced values are situated at depression's contact to the mountain frame or inside the mountain unit.

The migratory balance defined as the difference between the system's entrances and leavings, correlated to the area's total number of population, offers a clearer image of population mobility, as a direct expression of the socio-economic situation.

The analysis of the indicator for the whole area and the entire period, shows that its value is a negative one, being of **-19.6%**, thus, the territory records demographical losses. Nevertheless, the detailed analysis of migratory balance's values shows the existence, within the Crișlui Repede Valley TPU, of a few attractive areas, where entrances are higher than leavings: Săcădat 68.5%, Copăcel 22.0%, Lugașu de Jos 19.3%, Tileagd 12.4%, Țețchea 8.5%, and Aueșu 5.9% (Fig. 5). This is the communes that are close to towns or cities or that are on the Oradea-Cluj axes, with certain position advantages.

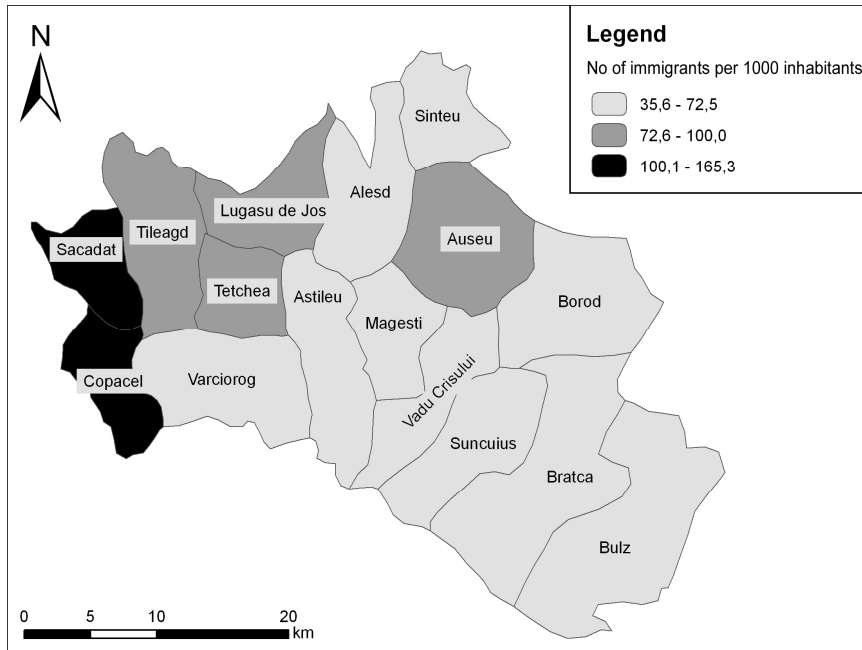


Fig.4. The immigration rate at commune level.

At the opposite pole are situated communes as Şinteiu, where the migratory balance recorded a value of -120.9%, Şuncuiuş -72.7%, Bratca and Borod -41.0%. For Şinteiu the negative value is the result of inner emigration, but of outer, too. The inner emigration is due to the movement of the population from the communes area, a mountain in are difficulty, towards the communes situated in the depression and the outer emigration is owed mainly to the Slovakiens, who moved to Slovakia or the Czech Republic.

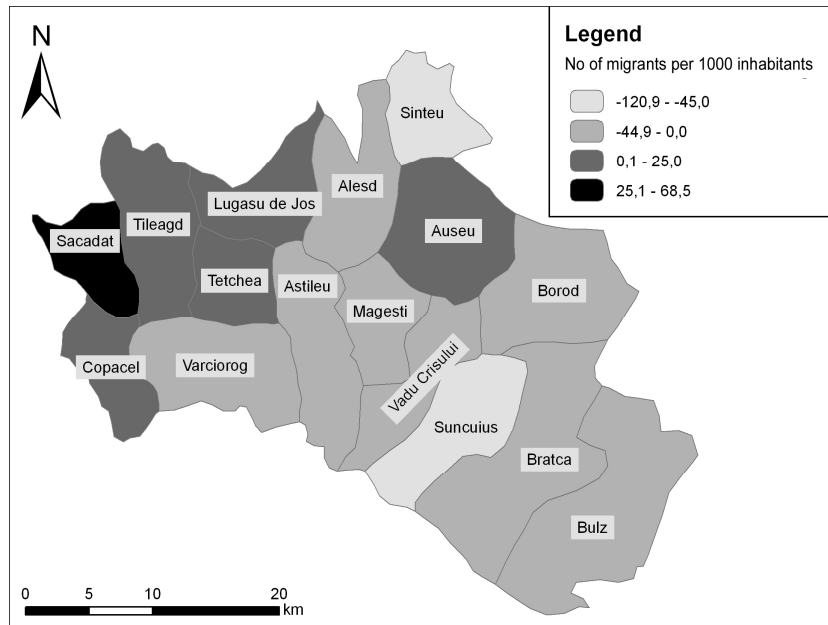


Fig.5. The migratory balance at commune level (2000-2006).

The values of this index varied during the analysed period between **-1.4‰** in 2004 and **-3.9‰** in 2002.

Even for the town of Aleșd, the values of the migratory balance are generally negative, reflecting a bad socio-economic situation, only the year 2002 having positive values (0.2‰).

Conclusions

Several conclusions could be depicted after analyzing the Crișului Repede Valley TPU populations:

- the causes that generated population's migration are of social and economical nature (some industrial units' closing, the absence of perspective in the mountain areas);
- the outer migration presents insignificant values inside this territory;
- exception being Șinteu commune, where because of the Slovaks these values are higher;
- the negative values of migratory balance are met in communes situated in the mountain area and Aleșd town;
- the migratory flux is orientated from the mountain region to the depression one, and from the urban space to rural space;
- the positive values are met in communes situated in depression's precinct and in the vicinity of Oradea city;
- the migratory balance, even if it is positive, does not compensate the losses determinate by the natural balance, this fact driving us only to a conclusion, meaning that the population who entranced is a grown old one, no any commune with positive migratory balance recorded exceed of population;
- the policies in population's stability and in the same time of manpower did not succeed in the realising of this aim;
- in the future, it is recommended to find some optima solutions (the development of ecological agriculture in the mountain area, the agro tourism) which have to be a part not even in the actual population stability, but especially in the attraction of young population, because the rural habitat from this area is already a grown old one.

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