

## WAYS OF MANAGING THE URBAN-RURAL INTERFACE. CASE STUDY: BUCHAREST

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**Abstract:** Management of the urban-rural interface is a challenge at European level, in the context of the current concerns about optimizing urban-rural linkages. In this context, the present article analyzes the characteristics of the urban-rural interface of the city of Bucharest (tackled at a mid-territorial scale) and the ways its sustainable and equitable management can be accomplished. At the same time, the article also analyzes the post-1990 changes that occurred inside that interface, under the influence of various forces and actors, with varied interests, which brought about a certain manner of structure and functional organization.

**Key words:** urban-rural interface, Bucharest, territorial relations, space, management

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### INTRODUCTION

In the context of the current urban expansion, „rural areas are no longer outside the city, but become an area „*in-between*” urbanized spots (Horlings and Marsden, 2010). „*Whilst the physical and functional boundaries of urban and rural areas are becoming ever more blurred, the interdependencies are simultaneously becoming more complex and dynamic, containing structural and functional flows of people, capital goods, information, technology and lifestyles*” (CURS, 2004, quoted in Smith and Courtney, 2009). „*These areas are characterised by a wide variety of land uses expressed in a complex, diverse and highly fragmented morphology*” (Antrop, 2004, quoted in Madsen et al., 2010).

In this context, urban-rural ties are under the scrutiny of European decision-making institutions, this concern being emphasized within documents such as ESDP (European Spatial

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Development Perspective, adopted in 1999 by the ministries of the 15 states that were EU members at that time), the Lisbon strategy, the Territorial Agenda of the European Union (2007), or the Green Paper on territorial cohesion (2008). In May 2011, the ministers responsible for Spatial Planning and Territorial Development in the EU adopted Territorial Agenda of the European Union 2020, which revised the 2007 document. According to that document „*urban-rural interdependence should be recognised through integrated governance and planning based on broad partnerships*” (Territorial Agenda of the European Union 2020).

Simultaneously, „*The CAP towards 2020*”, „*proposes improving the links between rural and urban areas as a means of contributing to the balanced territorial development of rural areas*” (Talbot and Courtney, 2011). „*In EU discourses, urban-rural linkages are usually constructed from an urban perspective, with rural areas conceptualised as residuals between dynamic urban growth nodes. References to urban-rural linkages, where in evidence, have generally been confined to the domain of Spatial planning and Cohesion policy*” (Talbot and Courtney, 2011). Thus, their inclusion in the CAP toward 2020 is a signal concerning the rethinking of urban-rural linkages from the point of view of rural policies.

„*However, while there have been various studies concentrating on certain aspects of rural-urban linkages such as employment, migration, commuting and landscapes, there are few academic theories and concepts concerning rural-urban relationships per se*” (Davoudi and Stead, 2002, quoted in Smith and Courtney, 2009). The current study’s approach is the analysis of the linkages and interdependences that are established between the two types of spaces.

In Romania’s case, several types of linkages can be established across the land, depending on the size of the polarizing city and the characteristics of the surrounding rural space. Linkages can therefore be:

**- *dynamic interaction linkages***

The polarizing city brings about a ***radical transformation*** of the surrounding rural space (Bucharest, or other large cities, such as Cluj Napoca, Iași, and others), by means of gradual expansion into that space, alongside the emergence of new residential spaces and the conduct of various economic ventures. In this context, the rural area is an outlet for the overcrowded urban space. Initially, in the first phase, several activities start to be concentrated from the urban area, punctually, and new residential spaces are built, which brings about the development of basic infrastructure. In the second phase, one notices an increase in the attractiveness of the respective area in the land and the development of certain activities on bigger surfaces, around the areas developed initially, or individually, in their vicinity. Later on, companies begin to be attracted by that space where a general well-defined infrastructure is available, lower costs of buildings or tracts of land, so that some of the operations in the urban space are relocated. At the same time, the benefit is that they can resort to the specialized workforce in the urban space. Gradually, this space sees its development level rising close to the urban one, and it can even be incorporated into that, administratively. At the same time, the development of the adjacent rural territory leads to the strengthening of the ties with the urban environment.

**- *stable interaction linkages***

The city lacks the necessary force to bring about massive changes, and its influence is only visible on limited spaces, and the impact on the rural space is quite limited. Thus, the city supplies to the rural area a range of services (commercial, educational, medical, cultural, and others) and jobs. At the same time, the urban sector is supplied with resources from the rural sector. In this case, in some situations a range of activities begin to be located in the interface, as well as a series of buildings with residential purposes, located in a diffuse manner. In Romania, this situation is typical of medium-sized cities, whose interface is usually represented by the first ring of administrative-territorial units.

**- *indifference linkages***

The city determines isolated changes, with a limited or insignificant impact, as it lacks the capacity to bring about transformations in the rural space. In general, in this situation, the degrees

of development of the two types of environments are close, so that the interface is all but inexistent, as the characteristics are relatively the same. The difference is determined by the concentration in the urban space of certain administrative, commercial or educational services. This situation is in general typical of small towns in Romania.

The ties existing between the two types of spaces can change in time, depending on a series of catalyst factors, which may bring about their consolidation or stabilization. „However, rural-urban linkages also vary according to local historical, political, socio-cultural and ecological factors” (Tacoli, 1998).

„Rural-urban interactions can be divided into two categories: 1. linkages across space (such as flows of people, goods, money and information and wastes); and 2. sectoral interactions, which include 'rural' activities taking place in urban areas (such as urban agriculture) or activities often classified as 'urban' (such as manufacturing and services) taking place in rural areas” (Tacoli, 1998).

The whole of the urban-rural flows transiting the area between the two spaces make up a transcalar field, which represents the urban-rural interface. This actually represents a transition zone, created at the intersection of two entities with distinct characteristics and which are in constant transformation, by means of the acquisition of characteristics, especially, from the adjacent urban space.

This zone is „no longer seen as just a boundary 'in-between' the city and the country; the interface is characterized as a process where identification and location, place and identity, are being contested and reconfigured” (Kaiser and Nikiforova, 2006, quoted in Masuda et al., 2008, quoted in Stoica et al., 2010).

## MATERIALS AND METHODS

In the context of the current concerns about the way to approach the urban-rural interface, this study sets the goal of analyzing - by way of a case study - the characteristics of the interface and the way a sustainable and equitable management could be achieved, for the benefit of the communities involved.

The urban-rural flows that transit and shape the interface determine the differentiated organization of its structure, depending on their volume and intensity. Thus, across the territory, the interface can be approached on three levels of analysis, as follows: micro-territorial, mid-territorial and macro-territorial (Stoica et al., 2011).

The micro-territorial level can be assessed by means of an analysis of the modifications that emerge in the structure of the land use. This represents the territory next to the border separating the urban and rural areas, and it is included in both types of spaces, as a transitional strip.

The mid-territorial level can be considered - in case of the Romanian space - the first ring of administrative-territorial units around the urban area. In some cases it can be expanded to the second ring, too, depending on local particularities.

The macro-territorial level consists in the administrative-territorial units adjoining the urban center that can make up an urban-rural association complex. Its borders depend on the degree of complexity of urban-rural linkages and it can be determined by means of quantitative and qualitative criteria.

As far as the urban-rural interface is concerned, approached on any of the three levels of analysis, the question arises concerning the way its sustainable management could be accomplished. This is a challenge, as, although a change of direction is attempted at the level of European policies in the sense of reconsidering urban-rural linkages, the process is a difficult one because of the diversity of the types of flows transiting different spaces, characterized by a certain level of development and interacting in different ways, bringing about a certain manner of structure of the land. „Spatial development policies which have attempted to integrate rural and urban dimensions have often failed because they were based on inaccurate generalisations about the relationship between the two” (Tacoli, 1998). We consider a model of management has to be created, on the basis of the results of studies

conducted punctually, with the purpose of identifying those successful scenarios, which would allow the later use on large areas, according to the principle of good practices.

To that goal, in the current work an analysis will be conducted of the manner management of the interface can be achieved, by a means of a case study, covering Bucharest, whose interface is approached at mid-territorial levels, that is the first ring of administrative units. Choosing the mid-territorial level is motivated by the fact that it represents the space where the action of urban-rural linkages is at its most visible. Its borders were considered from the administrative point of view, as it was the only way to conduct quantitative analyses in addition to the qualitative ones, which allow the study of the evolution of the characteristics of that space.

At the same time, the micro-territorial level is difficult to quantify across the land, as the statistical data do not allow a dynamic analysis. Instead, a limited analysis is rather easier to conduct of the changes occurred in the manner of use of the tracts of land.

The quantitative analyses (conducted at mid-territorial level), are used with the goal of identifying the way the analyzed area's structure was organized post-1990, as a result of the changes brought about by the legislative changes, which influenced the volume and type of the flows transiting that area. Special attention must also be paid to understanding the mechanisms that determined a particular type of evolution.

### CASE STUDY

As far as the urban-rural interface of the city of Bucharest, at mid-territorial level, it consists, across the territory, in a first ring of localities, comprising 16 administrative-territorial units (figure 1). Circa 175,000 inhabitants live in that area (National Institute of Statistics, 2009).

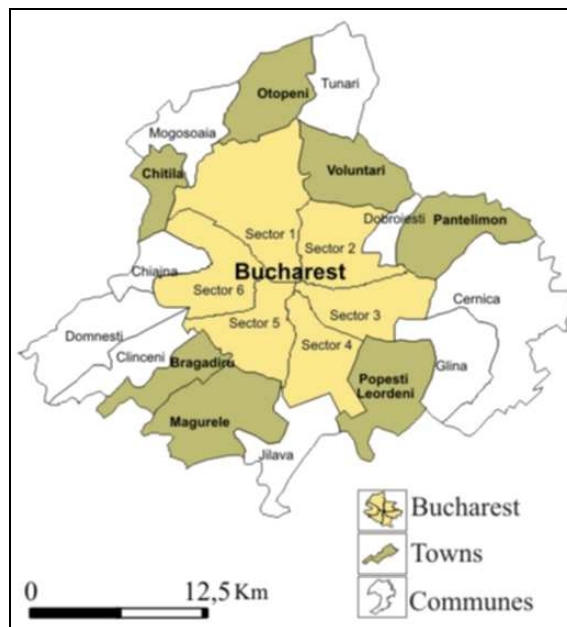


Figure 1. The urban-rural interface of the Bucharest (mid-territorial level)

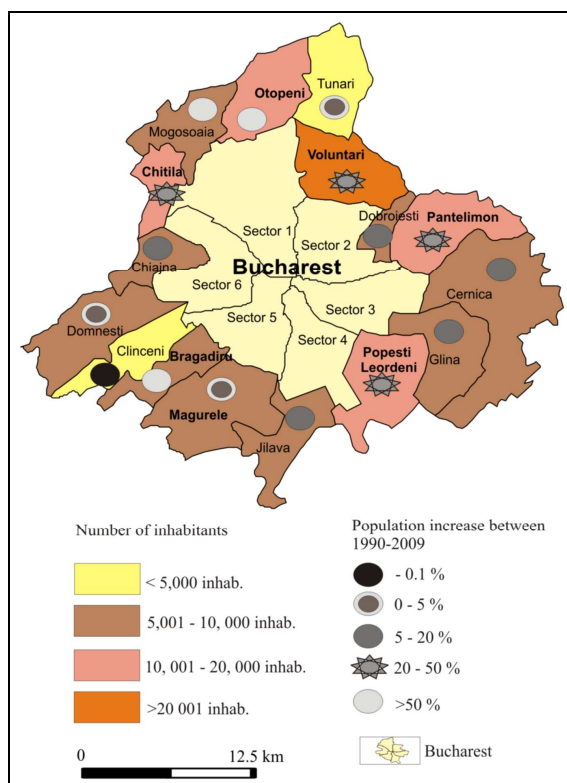
The evolution of these administrative-territorial units was heavily influenced by their proximity to Bucharest, especially in the post-1976 period, when a law was passed that banned the population from settling in Romania's big cities. In that context, these served as „dormitory” towns for the population attracted by the numerous jobs, the result of the intense process of forced industrialization the capital city was subjected to. Thus, by 1989, their population rose a lot,

because of the high rate of immigration (some settlements actually saw the number of inhabitants double - Voluntari, Pantelimon, Cernica, Glina, Măgurele) (Ianoş, 1990).

„However, immediately after the change of the communist regime, the rules concerning the unique property, the restriction of urban housing as well as the one regarding the sprawl of the built space of cities and towns have been abrogated” (Suditu, 2009).

As a result, in the first few years of the transition, the population settled directly in the capital, so that the rate of immigration dropped. Later on, overall, one can notice the general evolution of the rate of immigration relatively stagnated, with slight fluctuations, followed, starting 2003, by a visible increase in values. While, before 1989 immigrants to these townships were people wanting to settle as close to the capital as possible, after 1989 there is a noticeable reversal of flows, the trend being that of the migration of the Bucharest population with high and medium income, wanting to buy homes close to the capital city. The highest values were registered in 2008. In all, during 1990 - 2009, more than 74,000 people settled in the communities analyzed, 49.7% of them heading for Otopeni, Popeşti-Leordeni, Pantelimon and Voluntari.

An analysis of the evolution of the number of inhabitants inside the urban-rural interface, starting 1990 and up to the present, reveals that the steepest growth rates were registered in Bragadiru (103.5%), Otopeni (59.7%) and Mogoşoia (53.4%), and the lowest was registered in Măgurele (0.8%).



**Figure 2.** The number of inhabitants (2009) and population increase between 1990 - 2009

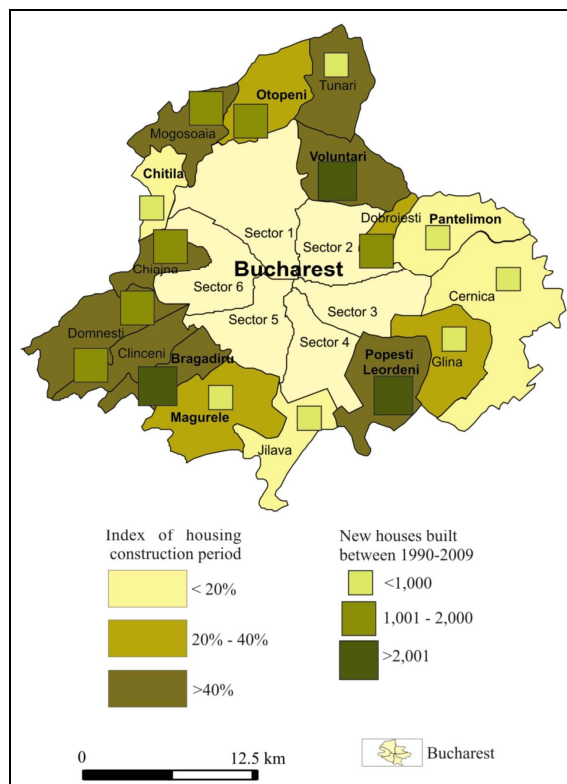
An involution as far as the number of inhabitants is concerned was registered only in Clinceni, whose population dropped by 2.3%. By 2009, the biggest number of inhabitants was registered in Voluntari (more than 33,000 inhabitants) (figure 2), followed by Pantelimon and Popeşti-Leordeni. Nevertheless, the biggest part of the administrative-territorial units (68.8%), feature populations of less than 10,000 inhabitants, who account for 46.5% of the total population

between them. Thus, while in the communist time the interface was in general „static”, with borders clearly defined across the landscape, and very difficult to change (against the background of socio-economic restrictions), in the post-1989 years the mechanisms used to modify the limits of the interface were no longer enforced by a central authority, but influenced by regional and local factors (Stoica et al., 2010). These factors determine the organization of the interface structure across the land and the fluctuation of its limits.

In this context, the proximity to the city of Bucharest and the position of certain settlements along the main access routes brought about their rapid development, and they were declared towns, which can be considered an intermediary stage between the big metropolis and the adjacent rural area. Thus, 7 towns are located in the first belt of administrative-territorial units, Otopeni acquiring that quality in 2000, Popești - Leordeni and Voluntari in 2004, and the others in 2005 (Pantelimon, Măgurele, Bragadiru, Chitila). These towns registered a strong development, marked by an important increase in the number of inhabitants and the built-up stock, under the impact of pressure generated by the location in the close proximity of a big urban center.

Declaring those urban settlements in a manner of managing urban-rural linkages by way of a specific policy, as those towns represent an intermediary stage between Bucharest and the deep rural.

The increase in the number of inhabitants of the administrative units analyzed occurred simultaneously with an increase in the number of dwellings and the improvement of social and town infrastructure. As far as houses are concerned, their number increased (figure 3), as a result of the completion of several real-estate projects, in the context of high demand coming from the inhabitants of the city of Bucharest. Thus, new residential areas emerged on the border with the metropolis, especially along the road transport routes, as a bridge linking the metropolis and the surrounding space, areas that practically confirm the phenomenon of urban expansion.



**Figure 3.** Index of housing construction period and the number of new houses built between 1990 - 2009

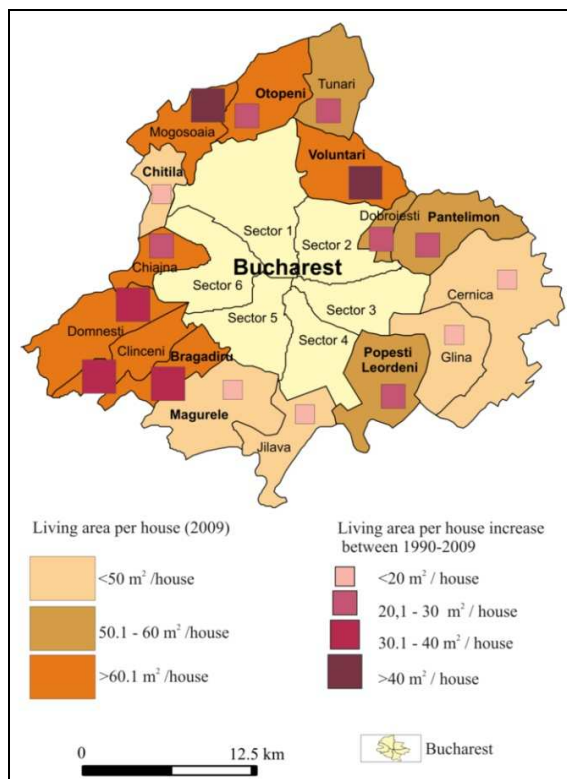
Thus, more than 23,500 new houses were completed during the 1990 - 2009 interval, most of them in Voluntari (more than 5,400) and in Popești-Leordeni (more than 3,200). At the opposite end, there are less attractive areas (with less than 1,000 new homes built), located in the South-East (Pantelimon, Cernica, Glina), South-West (Măgurele, Jilava), and in addition in Chitila and Tunari.

In order to determine the ratio of new dwellings in the stock of buildings in the analyzed area, an index of housing construction period was calculated, matching the number of new houses built during 1990 - 2009 against the total number of extant houses by 2009.

The results reveal that in all 34.6% of the current volume of constructions was built after 1990 (figure 3). Moreover, values exceeding 40% are registered in half of the administrative units. The first townships to be attractive for real-estate investors were Otopeni, Mogoșoaia and Voluntari, before 2000, and then later on, as the degree of interest across the land increased, and the price of land rose, the center of attraction gradually spread to the other townships, too.

In order to highlight the characteristics of the new dwellings, the dynamics of living area per house and per person were analyzed. As far as the *living area per house* is concerned, one noticed that by 2009 it featured values ranging from 46.1 sqm per house to 80.6 sqm per house. The highest values were typical for Mogoșoaia and Voluntari, and the lowest values for Chitila and Glina, respectively (figure 4).

In the past 19 years there was a noticeable increase in the living area per house in all administrative-territorial units, with the highest values (above 40 sqm per house) being typical of Mogoșoaia and Voluntari, and the lowest typical of Glina and Măgurele.



**Figure 4.** The evolution of living area per house (sqm per house)

As far as the *living area per person* is concerned, it can be noticed that by 2009 it registered values ranging from 12.2 sqm per person to 36.2 sqm per person. The highest values (above 30 sqm per person) are typical of the south-western area (Domnești, Clinceni, Bragadiru), as well as



Otopeni and Voluntari. Starting 1990 and up to 2009, the living area per person rose by the highest rates (more than 20 sqm per person) in Voluntari, Domnești and Clinceni (figure 5). Living area per person rose by low rates - less than 5 sqm per person - in Pantelimon, Cernica, Chitila and Jilava.

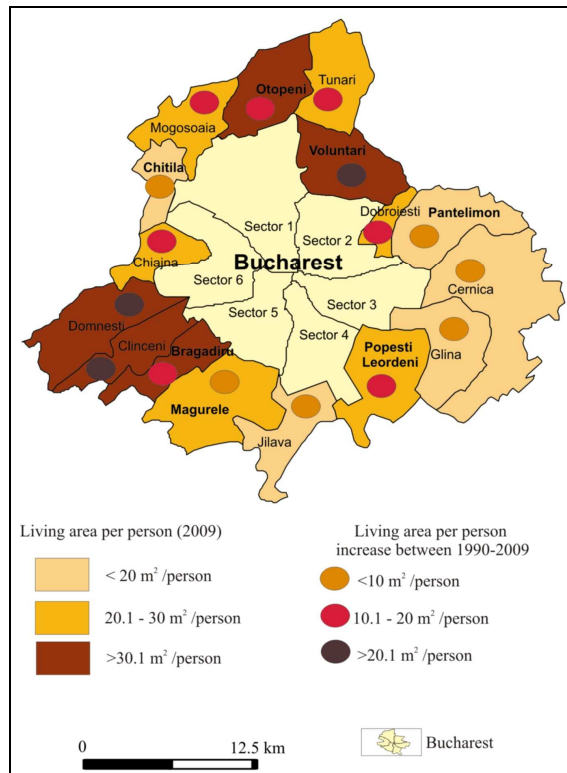


Figure 5. The evolution of living area per person (sqm per person)

As a result of the changes brought by the legislative modifications of December 1989, in the area analyzed, the economic profile of the settlements underwent a series of transformations. Thus, „the communist period was characterized by forced industrialization in the first belt of localities around Bucharest and by excessive ruralization of the localities placed outside that belt” (Ianoș et al., 2010). As a result, on the border between Bucharest and those settlements, heavy industrial areas developed gradually, especially machine construction or chemicals industrial facilities. This also had an effect on the structure of the active population of those communities, in terms of the increase of the ratio of the population employed in the secondary sector. At the same time, the development of those industrial facilities brought about the establishment and consolidation of production and human-resource ties with the metropolis.

Under the new social-economic conditions of the post-1990 years, the old industrial facilities, bound to the city’s economy, changed the field of activity, significantly downsized operations and/or, for the most part, went bankrupt. „The free-space stock favored the development of varied service activities (finance-banking, social headquarters for companies, business centers, technological parks, a.o.). Gradually, some decision centers of foreign capital companies moved or settled from the very beginning in the Bucharest periphery or even in the metropolitan area” (Ianoș et al., 2010). A significant development was registered by those companies that operate in the field of trade, or in the foods industry. The location of certain commercial services on the border of the city of Bucharest gradually won over other



investments, as well, which concentrated especially close to the main access routes. As a result, there was an increase in the ratio of the employed population working in the tertiary sector.

At the same time, the normal connections between the city and the surrounding area continued as far as services and supplying the city with agri-foods products was concerned, given the high ratio of farmland in the territorial structure of the rural communities, as well as the extant demand for agri-foods products on the market of a city with more than 2 million inhabitants. This situation also influenced preserving a part of the population employed in the primary sector.

## RESULTS AND DISCUSSIONS

Nowadays, in Romania, the urban-rural interface zone, no matter the size of the polarizing city, registers management deficiencies, as, typically, local authorities in the rural space are willing to accept any type of investment coming from the urban area that would lead to boosting the rural space by means of the creation of new jobs, an increase in local tax revenue collected, and the possibility of an increase in attractiveness across the land. On the other hand the urban space considers the rural area as a „*pressure valve*” it can use, either for new constructions, or for relocation of certain activities. At the same time, there is a clear influence felt of the agents in urban areas, whose organizational capacity and financial means are much higher than those of the entities in the neighbour area. In this context, the development of this space is chaotic, without very clear norms and without apparent benefits for the local population.

How can be managed a space, with a complex structure, located near the biggest city in Romania, a space where new residential areas have developed in the past 20 years, and a space where various enterprises located chaotically across the area conduct operations? The particular manner of the current urban expansion determined the apparition of certain dysfunctions that prevent the normal functioning of the ties between Bucharest and the adjacent urban area. Nowadays, the deadlocks are obvious and they are apparent in the field of transportation, the unfolding of infrastructure works or leisure spaces, among others. In this context, it is obvious this area must be approached in an integrated manner, as the degree of interdependence of the linkages between the two areas is significant.

However, the sustainable management of the urban-rural interface is dependent on the attitude of local authorities, who issue distinct local strategies and policies, which may generate cooperation ties or, on the contrary, conflicts, which shape the interface’s development patterns later on. At the same time, the local authorities’ actions are subordinated to the regional and national policies that determine specific directions for development, which are supplemented by local policies. A full spectrum of actors is at work in this area of interference (starting from local communities and through to various institutions), with varied interests as far as the interface’s later features are concerned. The sustainable management of such an area involves those actors’ cooperation, by means of the presence of joint approaches of matters of mutual interest (Stoica et al., 2011).

In this context, in the case of the urban-rural interface of the city of Bucharest, too, a development strategy is necessary, that would allow the working together of the actors involved, with a view to identifying a way for joint management. Its goal is to optimize the extant ties and achieve a sustainable structure of the interface proper. Declaring some of these settlements towns was a means of managing this interference space, but that led to the creation of a degree of independence of those communities, which practically led to a fragmentation of the urban-rural interface.

At the same time, the challenge that arises is that of identifying means to manage a space structured beforehand, which features a certain functional organization. In this context management can only lead to optimizing the extant ties and suggest directions for later development.

## CONCLUSIONS

While in the communist period, in Romania, the urban-rural interface may be considered to have been „*static*”, that is with all but unchanged limits, in the context of certain very strict laws, which

enforced certain restrictions, in the context of the abrogation of those laws after 1989, limits become dynamic.

The urban-rural interface of the city of Bucharest was structured in the past 20 years, under the impact of various forces and agents that brought about a specific functional organization. Urban expansion occurred in the absence of clear regulations, which brought about the random emplacement of certain residential complexes and certain economic ventures. The result was the emergence of certain dysfunctions as far as the unfolding of urban-rural linkages is concerned, which stands out in the field of transportation, certain infrastructure works and waste storage, among others.

In this context, managing it is a difficult but necessary process, which ought to lead to the collaboration of local authorities in the direction of identifying an integrated approach to that interference space. The enforcement of such a direction must lead to optimizing the extant linkages between Bucharest and the adjacent rural area and to identifying the actions to take at a later time with a view to clearly regulating the manner urban expansion will unfold.

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