

THE METROPOLITAN AREA OF THE MUNICIPALITY OF BUCHAREST. PRESENT-DAY FEATURES RELATING TO SOME ENVIRONMENTAL ISSUES IN AN INTERNATIONAL CONTEXT

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ABSTRACT - The development of metropolitan areas represents the main characteristic of today's urban evolution trends. The first initiatives to delimitate and define metropolitan areas have been in the United States since 1910. In Europe, this concept was adopted at the beginning of the 1990s when the United States had already had 250 metropolitan areas. Romania adopted the concept of metropolitan area in the late 1990s, namely in 1997 when a study on the *Directions, Ways, and Intensities of Development in the Municipality of Bucharest and its Metropolitan Zone. Environmental protection politics* appeared. This made public a point of view about the Bucharest metropolitan area, which was legally defined by Law no. 351 of July 6th 2001 regarding the *National Territory Management Plan, Section IV – Settlements*. But many other limits of this area were also taken into account. The uncontrolled evolution of the Bucharest Metropolitan Area as well as of many other European capital cities can be stopped or stabilized by developing green belts or green areas.

Key words: metropolitan area, urban sprawl, urban planning, green - yellow belt, environmental planning.

INTRODUCTION

Metropolitan regions are becoming the dominant human habitat. Already nearly one billion people – almost one in five of the world's population – live in fewer than 350 metropolitan areas with populations of more than one million. It was estimated that by the end of the 20th century, over one in three North Americans would live in 41 “millionaire” cities and in Australasia five or six such cities would accommodate over half the population (*United Nations, 1993*).

The environmental and social results of this concentration of population are physical congestion, pollution, and social conflict (*World Commission on Environment and Development, 1987*). These problems are extremely acute for most developing nations, which have the fastest urbanization rhythm.

The metropolitan area is an American term for a very large urban settlement or an extended urban area. The concept of MA was first given an operational definition by the United States Bureau of the Census in delimiting “*Metropolitan Districts*” in 1910. The term was changed to *Standard Metropolitan Area* in 1950, a concept based on the functional urbanized area, which became the *Standard Metropolitan Area* in 1960 (*Goodal B. 1987*).

MODELS OF METROPOLITAN AREAS

Metropolitan areas on the North American Continent

The United States Office of Management and Budget (OMB) defines the metropolitan and the micropolitan statistical areas according to the standards published by the Census Bureau and applied to its data. The metropolitan or the micropolitan statistical area is a *core area containing an important population nucleus and adjacent communities with a high degree of economic and social integration*.

In June 2003, the White House Office of Management and Budget published a list of the all-new 362 *Metropolitan Statistical Areas*, 560 *Micropolitan Statistical Areas*, and 116 *Combined Statistical Areas*, as defined in 2000.

The *Metropolitan Statistical Area* must have, at least, one urbanized area of 50,000 or more inhabitants. A *Micropolitan Statistical Area* must have, at least, one urban cluster with a population between 10,000-

50,000 inhabitants. A *Combined Statistical Area* consists of neighbouring metropolitan and micropolitan statistical areas.

Models of Metropolitan Areas in Europe

Urban and rural development in the metropolitan zones exists mainly in developed countries. At the beginning of the 1990s Europeans adopted a strategy for developing metropolitan zones, it was much later than the United States, which at that time had already had 250 metropolitan areas.

In Europe there are 119 metropolitan zones or areas and some authors hope that the 120th European metropolitan zone will be the Bucharest Metropolitan Area.

Among these European metropolitan structures, 33 are *METREX* (European Metropolitan Areas and Zones Network) members. Analysts consider that the EU expansion to 28 countries will increase the EU community population to 480 million inhabitants. 50-60 % of them will live in metropolitan regions or zones (table 1).

Table 1. European Metropolitan Zones

European Metropolitan Zones	MZ	METREX Members
EU (15)	80	26
Germany, UK, France	43	5
Italy, Spain	18	11
The other EU countries	19	10
Non EU (2) - Norway, Switzerland	4	0
Candidate countries (3)	23	7
Baltic countries	3	1
Poland	8	3
Central-European States	7	3
East-European States	5	0
Other European States (9)	12	0
Russia, Ukraine, Belarus, Moldova	7	0
Balkan States	5	0
Total European Countries	119	33

Source: METREX, 2004

As far as the metropolitan level is concerned, *van den Berg et al. 1982 and Petsimeris, 2003*, proposed the city cycle model in order to analyze the evolution of a single functional urban region in time. The urban area is called the *Functional Urban Region* (FUR) and it is composed of a core (city centre) and a periphery (ring) between which there are very close relationships. According to this model, there are four main stages in the life of a city: urbanization, sub-urbanization, de-urbanization, and re-urbanization.

Urbanization is characterized by the rapid expansion of urban zones. This is also the phase of industrial urbanization. During this, phase most of the population concentrates in the core. The origin of this population is the hinterland, the rest of the region, or other regions.

Sub-urbanization is characterized by intense deconcentration of both the population and the economic activities from the centre towards the hinterland, which triggers a process of urban diffusion. In addition, we may witness increasing interactions between the urban zone in terms of mobility, migrations, and innovations.

De-urbanization is characterized by a decrease in population and employment, which affects the whole agglomeration (FUR). During this phase, small neighbouring centres experience an increase in economic activities and population.

Re-urbanization is characterized by the regeneration of the centre. In this phase, there is again a growth of the core due to the rehabilitation or the renovation of the historic central area.

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According to the above definitions, there is a process of decentralization in Italy, Spain, and Greece.

In **Italy**, the study of the metropolitan areas relied on five main metropolitan areas: Rome, Milan, Turin, Naples, and Genoa. Each metropolitan area has a core and a ring, which are interdependent in terms of *residential* and *job location*. Rome represents a unique phenomenon in terms of the structure of its metropolitan space. Within its administrative limits, (the core), Rome also contains what in other metropolitan areas is called the ring. This means that the centre is very heterogeneous in terms of land use and urban form. Because of this anomaly, the ring of Rome is less important in terms of size and concentration than the ring of other Italian cities. Rome covers a surface of 182 sq. km and its metropolitan area covers 1,052 sq. km. (Petsimeris, 2002), while Milan has a population of 1.3 million inhabitants and its metropolitan area has 2.8 million inhabitants.

The study of the dynamics of these metropolitan areas between 1971-1999 shows that their rings increased while their cores decreased. However, the rings did not grow enough to catch up with the losses of the cores. This means that the metropolitan areas of Italy are in the phase of de-urbanization. The population changes during the last century affected the metropolises and their cores and rings differently and there is an important differentiation between the Northern, the Central and the Southern agglomerations. This does not allow us to forecast a process of quantitative re-urbanization according to the prediction of the city life cycle model (Petsimeris, 2002).

In **Spain**, the dynamics of the metropolitan areas is far from being uniform. During the first period, there was positive population growth in the core areas of *Madrid*, *Barcelona*, and *Bilbao* and negative population growth during the second period. During both periods (1960-1975), there were important population changes. The rings, especially those of *Madrid* and *Barcelona* registered very important growth during the first period and a slowdown during the second period. In *Malaga*, *Seville* and *Valencia* the core areas recorded population growth in both periods.

The most mature urban area is *Barcelona*, which is very similar to the Italian industrial triangle. In fact, this area is in the process of de-urbanization. *Madrid* and *Bilbao* are in a process of mature sub-urbanization, while *Malaga*, *Seville* and *Valencia* are in a core and ring growth stage.

New land classification according to the ecological interests of the Barcelona Metropolitan Area, as found in the Metropolitan Territorial Planning Scheme, includes *open spaces* (10% of the population) and *compact metropolitan islands* (90% of the population on 20% of the territory) (figure 1).

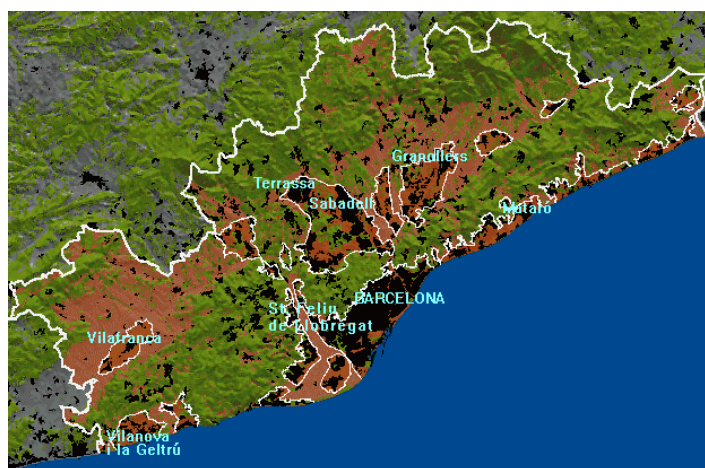


Fig. 1. Proposal for open spaces and metropolitan islands (urban and forest spaces included)
Source: The Metropolitan Territorial Planning of Barcelona (2004).

In **Greece** the study of urban deconcentration (sub-urbanization) in two of the largest metropolitan areas gives us the population distribution towards the outer urban rings. In Attica (Greater Athens Prefecture), sub-urbanization has been ongoing at least since the 1970s, whereas this is a more recent phenomenon in *Thessaloniki*. In *Athens*, there was rapid growth and very high densities of the ring (Tsoulouvis, 1998; Petsimeris, 2002). Between 1981-1991, sub-urbanization began in the metropolitan areas of *Athens* and

Tessaloniki. The 2001 census estimations showed that sub-urbanization had increased simultaneously with a process of core depopulation.

After 1950 and, particularly, after 1960, there was a rapid outward population growth in *Athens*. This resulted in the linear expansion of urban development along the major traffic axes, especially in northern Athens where residential areas appeared. At the same time, almost all the coastal sections witnessed extensive building of holiday homes and tourist facilities. Soaring land prices and the absence of efficient housing programs made many people move to cheaper land areas where there were no municipal planning regulations. This uncontrolled development led to severe abuses in land dealings. In addition, residential settlements expanded in areas, which should have been reserved for other purposes. These practices were greatly facilitated by legislation, which allowed the parcelling of large tracts of land into small plots, and by the absence of any zoning or other effective controls over land speculation and building designs (*Psomopoulos, 1977, Petsimeris, 2002*).

Isolera described the evolution of the urban sprawl of Rome between 1960-1980 according to aerial photographs. This became a general practice in urban development. The Roman hilly countryside landscape was affected by the housing rush, sometimes represented by individual, small-scale houses (*villini* and *palazzine*), at other times by continuous and intensive building (sprawls). Another characteristic of the Roman urban sprawl is the division of urbanization into two types. In one type the street shape predominates, in the other there is no distinguishable pattern (*Isolera, 1980, Petsimeris, 2002*).

Taking into account Athens and *Rome* as models of territorial expansion analyzed by the above mentioned authors, *Petsimeris 2002*, described a general model of development of the Southern European metropolis in terms of urban sprawl. After 1990, we witnessed the same spatial dynamics in the Bucharest Metropolitan Area because of uncontrolled urban sprawl.

Another Western European metropolis, *London*, has a residential population of 6.4 million inhabitants, and its immediate sphere of influence for employment opportunities, goods, and services extends to the whole of Southeast England, an area with a population of 17 million inhabitants. The city's more specialized services, such as finance and insurance, cover even a greater geographical sphere of influence. The city began its large-scale expansion with the development of suburban railways and underground transportation. High-density housing in the historical core was replaced by low-density sub-urban housing for most of its metropolitan area residents. Wealthier citizens chose the outer areas of the city so that higher income groups would leave the city for the suburbs. The interaction between land use and transportation in London and in the Southeast of England is typical to many major cities in Europe. The decentralization trend has also been observed in Paris, Madrid, and their surrounding regions (*Wu Liangyong, 1997*).

Models of Metropolitan Areas in Asia

In the large metropolitan areas of Japan, people live in rather small structures either in individual houses or apartment buildings. Even if the Japanese have always lived in small houses, now they have become even smaller. The only solution for the city dwellers is to acquire vacation homes in the countryside. In this way, they may enjoy life in nature and contribute to the revitalisation of the countryside at the same time. This may also constitute an effective government policy to revitalise the Japanese economy and to increase the volume of carbon dioxide as a huge amount of carbon remained in the timber used to build wooden vacation homes (*Takashi Doi, 2002*). In this way, proper city redevelopment based on the decrease of population pressure in metropolitan areas and on countryside development may possibly turn the Japanese Megalopolis into a *Garden Megalopolis*. This will also help revive the Japanese urban tradition that people live in nature and with nature.

In 1997 the total population of *Osaka Metropolitan Agglomeration* was over than 17 million inhabitants in an area of over de 7.800 sq. km. Other settlements are, on an average, 50-60 km from downtown Osaka. The agglomeration totals 128 municipalities. 29 of them are 20 km away from the downtown area and they are the first zones. Geographically, socially and economically, they are in direct relationship with Osaka. The other 98 settlements are situated on a large average and they are the second zones.

In the 1980s, landscape architects and other specialists formed a committee in order to look for solutions for urban development. Their solution was: "Urbanization and Parks for a Landscape of Greenery" which was presented at the 1990 International Exhibition of Gardens and Greenery in Osaka. Taking into account

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the great success of that event, landscape planning for 2010 is considering the concept of “Osaka Metropolis within Greenery.”

In Japan, the population density in 2000 (inh./sq. km) was: (*Haruhiko, 2002*): 13,000 in Tokyo Metropolitan area; 8,000 in urban areas; 330 in suburban areas (national average), 80 in agricultural villages, and 1.4 in forest villages.

In *China*, the *Beijing Metropolitan Area* covers 16,808 sq. km. and consists of four urban districts, four inner suburban districts, two outer suburban districts, and eight rural counties. By the end of 1994, the total residential population of the metropolitan area was 10.6 million, of which 6.8 million were non-agricultural residents and one million temporary residents. The rural population totalled 3.8 million inhabitants. In addition, there were three million people living in Beijing who were not officially registered as residents; they stayed in the city for at least part of the year for employment, personal business, and tourism. The development of the modern metropolis began in September 1949 when Beijing was declared the capital city of the People’s Republic of China. At that time, the administrative area of the city was 707 sq. km. with a build-up area of 109 sq. km. The urban residential population was 1.65 million inhabitants. (*Qizhi, Ying Jin, 1997*).

Between 1958-1964, the Beijing Metropolitan Area expanded to 16,808 sq. km. while maintaining its population at 10 million inhabitants. Urban land use was influenced by the political objective of “integrating the rural and the urban” and “integrating workers and farmers.” The idea was to integrate the countryside into the city and the city into the region.

Since 1964, government resources had been insufficient to meet urban infrastructure needs. In 1967, the Cultural Revolution began and the Master Plan was suspended as well as most of government involvement. During this period, roads and public transportation, housing, water supply, and the sewerage system were deficient.

The Beijing Master Plan for 1991-2010 was approved in 1993. Its overall objective was to turn the “*historic city into a modern, economically prosperous and socially secure international metropolis with first class, world standard services, infrastructure, and environmental quality*” (*Qizhi, Ying Jin, 1997*). The total population in 1991 was about 12 million, which was significantly higher than the figures anticipated in the previous Master Plans. Over 50 % of the population had concentrated in the central urban areas, which represented only 1,040 sq. km.

Urban development in the *Trans-Pacific Region* is different from that of the Western developed countries mainly because of the peculiarities of Asian urbanization. For instance, in Indonesia, the relationship between rural and urban areas develops into a new spatial system in which both areas are integrated.

Such a regional development phenomenon is called Extended Metropolitan Region (EMR) or Mega-Urban Region (MUR). The Jakarta Metropolitan Area and the Bandung Metropolitan Area have been identified as the fastest growing MURs in Indonesia (*Pradono, 1997*).

The Bandung Metropolitan Area is part of Greater Bandung, one of the five development regions of Indonesia’s Java province. It covers an area of about 236,700 ha, of which 22 % is urban area. In 1994, the municipality’s population density was 13,414 inhabitants per sq. km. The district of Bandung has a population density of only 1086 inh./sq. km. (*Pradono, 1997*).

Models of Metropolitan Areas in Central America

Responding to the imperative need to change the negative impact of the overwhelming growth of large cities, planners and other experts have developed concepts and ideas in order to define criteria and methods to solve these problems.

In Mexico, as well as in many other countries, the major obstacle to apply the urban planners’ proposals successfully has been the absence of a global, dynamic vision of the authorities.

The spatial expansion of Mexico City may be better understood today considering the following concentric areas (*Voula Mega, 1996*): the central city, that contained 80 % of the total population in 1950 and only 35 % today; the Federal District covering 1,498 sq. km; the Metropolitan Zone of Mexico City including the Federal District, and 17 municipalities of the state of Mexico, with a surface area of 4,636 sq. km and over 17 million inhabitants. This constitutes the world’s third largest metropolitan zone, after Tokyo and New York. The poli-nuclear metropolitan region (the megalopolis) includes the metropolitan areas of Mexico, Toluca, Cuernavaca, and Puebla and covers a total surface area of 8,163 sq. km.

Another most important Mexican metropolitan area is Guadalajara, the capital of Jalisco State, the second largest city with a population of approximately 4,000,000 inhabitants in five municipalities, the metropolitan area currently covers 321 sq. km. The city's profile has always been commercial. Initially there was agricultural trade and now there is all kind of trade.

The *Regional Green Plan* offers adequate criteria to deal with open spaces and promotes balanced socio-economic regional development, which turns into account the region's natural heritage whether it is the landscape or the quality of the ecosystem. In France and in England (London) there are many Green Plan approaches. Initially, the Green Plan was applied in England. Most of the Green Plans in France are inspired from *Le Plan Vert Regional de l'Île de France*. Before proposing this Regional Green Plan to the government and to the community, several European and Northern American cases and experiences were studied. The most important features of such spaces as woods, agricultural lands, parks, and gardens, are analysed as links or unifying elements with the urban areas and from an economic perspective (Aldana, 1997).

The Green Plan identifies vulnerabilities, analyses threats to the integrity, the conservation, and the development of space and the natural heritage. The plan points to the parcelling of woodlands and transition areas, and also shows the scarcity of recreational areas. It relies on natural features: square metres of space per inhabitant, hiking trails, etc. which offer the basic elements for a truly harmonious and sustainable development.

EVOLUTION TRENDS OF THE BUCHAREST METROPOLITAN AREA

The perspectives of Bucharest in the next 20–25 years are mostly influenced by its own geographical location and by Romania's geographical location in Europe. The location of Bucharest is favourable to the development of TransEuropean and intercontinental connections. Romania is included in three of the 10 TransContinental Road, Railroad, and Shipping Corridors (road and railroad corridors Nos. 4 and 9, and the Danube Corridor) as well as in the Crete and Helsinki Corridors. At the same time it is part of the Europe – Asia "Transport Corridors Europe – Caucasus - Asia" programme (TRACECA).

In this region of Central Europe the Otopeni-Henri Coandă International Airport (which is about to be extended and modernized) could represent a potential development factor as well as the possibility of linking Bucharest to the main navigable European network (Rhine – Maine - Danube).

Romania was accepted to negotiate for EU membership. Romania's future role within the OSCE, the support Romania receives from EU institutions in order to implement its development strategy and the EU future financial assistance also for the building of the transport corridors, all these represent favourable elements for Bucharest's development so that by 2025 it should resemble EU cities (*The Bucharest Urban Management Plan, 1999 – 2000*). At the same time *Law 71/1996 about the National Territory Management Plan – Section "Transport Network,"* stipulates important actions to develop the national and international transport network.

In Romania, the initiative of developing and planning integrated metropolitan areas has relied on international documents, such as: *The European Charter of Territory Planning, Agenda 21, The Urban European Charter, The Final Documents of the United Nations Conference on Urban Settlements – Habitat II, The European Conference on Sustainable Cities and Municipalities, etc.*

Law no. 351 of July 6th, 2001 about the National Territory Management Plan, Section IV – Settlements, defines the metropolitan area as *the area realized by partnership through the voluntary association of the main urban centres (the capital city of Romania and the first-rank municipalities) and the adjoining urban and rural settlements up to 30 km which cooperate at different levels* (figure 2).

According to this definition, besides Bucharest, other cities tried to develop metropolitan areas in Romania: Oradea, Iași, Brăila – Galați, Constanța. The city's sphere of influence, namely its surrounding territory, the settlements directly influenced by the city's evolution, and the relationships developed through economic ties, commodities exchange, access to social, commercial, and infrastructure facilities, leisure and tourism have an important role in the geographical delimitation of the metropolitan area. The size of the influence area is connected to the dimension and functions of the urban centre.

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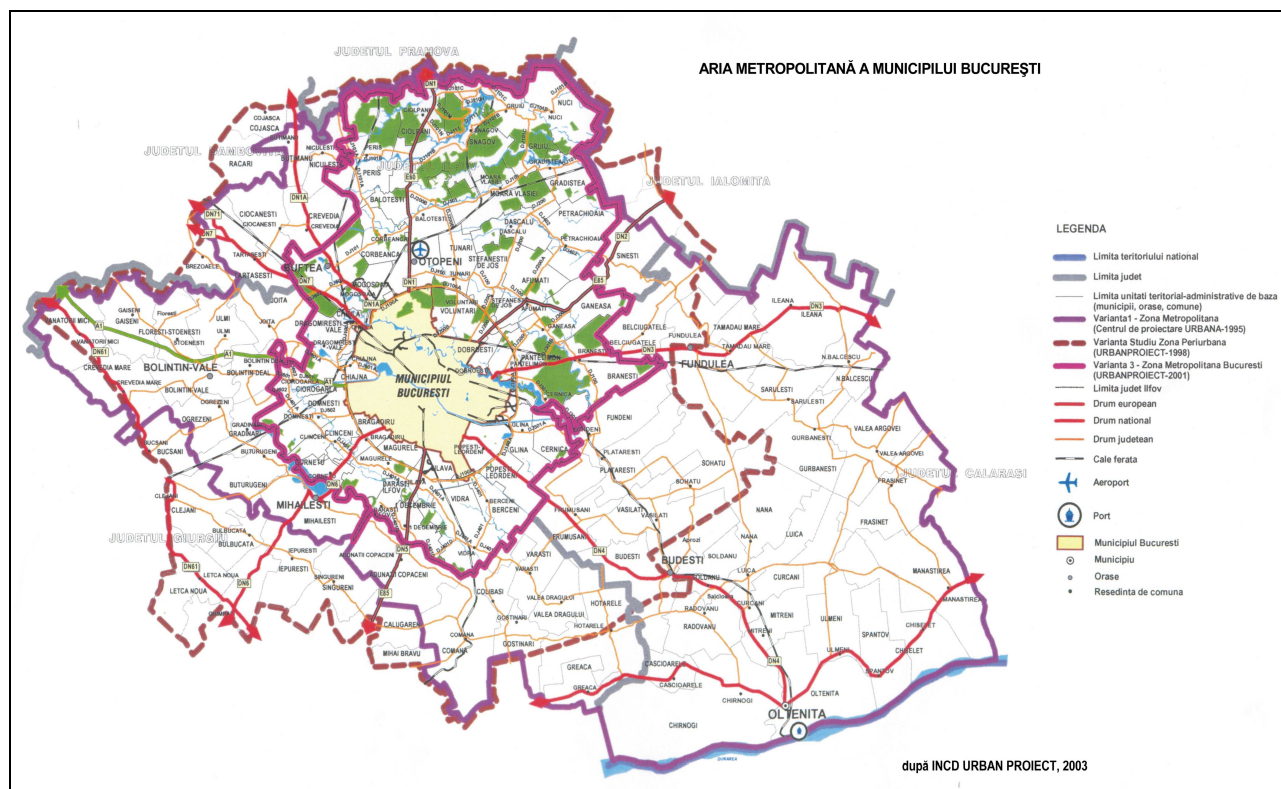


Fig. 2. Bucharest Metropolitan Area

Source: Research – Development National Institute Urban Proiect, 2003

From the geographical point of view, (Erdeli et al. 1999), the term metropolis is used for any big city, but especially for the urban centres which are regional or national capitals from the economic, cultural, administrative, etc. point of view. The metropolis is a higher level in the urban hierarchy and it must have a population of over one million inhabitants. The same authors consider that a metropolitan area is, according to the American definition of this term: “an urban settlement with big dimensions or formed by the expansion of urban territory. The concept was first given an operational definition by the United States Bureau of the Census in 1910 under the name of the metropolitan district. In 1950 the term was changed to standard metropolitan area, which represented a functional urbanized area. In 1960 the concept became the standard metropolitan statistical area.”

In 1998, Ion Iordan defined the metropolitan zone as “a large territory where a city’s (metropolis’) influence is felt in several areas. This is what professor V. Mihăilescu considers to be the “urban region.” Its influence affects the agricultural structures, the transport network, services, tourist activities, trade, and educational structures.” The metropolitan area includes both the suburban and the periurban zones (the surrounding ones).

According to the delimitation made by Professor N. Rădulescu (Jordan, 1998), if we take into account the source of the agricultural consumption products, there are three zones: the immediate zone, the neighbouring zone, and the remote zone. I. Jordan includes them into the suburban, the periurban and the metropolitan zones and these zones represent the three rings surrounding the capital city.

The first zone is very close to the urban space and consists of the outer neighbourhoods of the city (periurban zone).

The second zone (periurban ring) surrounds the periurban zone.

In the third zone surrounds the periurban zone and includes the other two areas (the metropolitan zone).

In 2003, the same author defined the metropolitan zone as: “the territory and the settlements situated near the main cities having different and temporary relations and constituting a relatively large influence area of the city.”

In the study entitled “The Community Development of the Bucharest Metropolitan Zone,” the Life Quality Research Institute analyses the demography, the economy, and the services and comes to the

conclusion that the Bucharest Metropolitan Zone is composed of 6 units (*Buftea* – Ilfov county; *Oltenița, Fundulea, Budești* – Călărași County; *Bolintin-Vale*, and *Mihăilești* – Giurgiu County) and 88 villages (38 villages in Ilfov County which is completely in the zone, 25 in Călărași County, 18 in Giurgiu County, 6 in Dâmbovița County, and one in Ialomița County). Three other units were then added: *Otopeni, Voluntari* and *Popești – Leordeni* in Ilfov County. In 1996 the metropolitan area covered this territory and had about 571,817 inhabitants. Its rural population was 85% (485,692 inhabitants) (*Chiriac, Stănculescu, Humă, 1999*).

In the 1997 study *Development Directions, Ways, and Intensities of the Municipality of Bucharest and Its Metropolitan Zone. Environmental Protection Politics*, the concept of metropolitan area takes into account two levels: a periurban level and a metropolitan level.

According to a Pilot study of the *Bucharest Metropolitan Zone Management Plan, 2001*, the metropolitan area covers the following counties (table 2):

Table 2. Metropolitan areas within counties

No	County	Area (hectares)	Percent
1	Ilfov	159,298	100 %
2	Ialomița	6,689	1.50 %
3	Călărași	179,608	35.30 %
4	Dâmbovița	23,332	5.75 %
5	Giurgiu	98,352	27.89 %

The above-mentioned study discusses the complex role of Bucharest (at the international, national, regional, and local level) and its potential as a European metropolis.

Between 1998-2003 the researchers from the Urban and Regional Sociology Centre worked on the Bucharest Metropolitan Zone project, which offers a different approach to the limits of the metropolitan area.

The project had the political support of the then ruling party and of Vasile Gherasim, former mayor of Bucharest’s Sector 1, one of the initiators of the project, who believed that the Bucharest Metropolitan Zone could become functional already in 2004 or at least in 2005. In order to become a reality, the project should first have the governmental approval as the draft of the Bucharest Metropolitan Zone Bill.

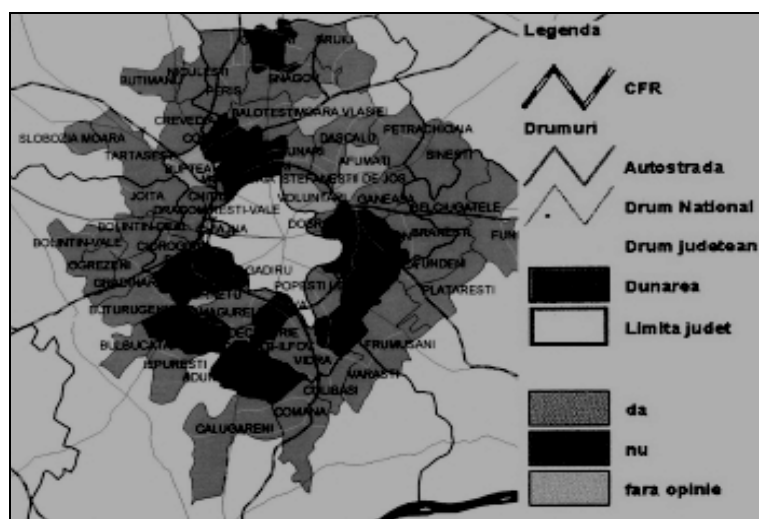


Fig. 3. The local councils that agreed to be included into the Bucharest Metropolitan Zone. Source: Regional and Urban Sociology Centre (Legend: Railway, Motorway, National Road, County Road, the Danube River, County Border, Yes, No, No viewpoint)

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The Urban and Regional Sociology Centre studied the dimensions and the limits of the metropolitan zone whose core was Bucharest and the units with which the capital city had direct, permanent, and diverse relations capable to a function in a local and regional system. The Metropolitan Zone was to include four urban units and 58 villages within 40 km from the capital. The 58 villages were selected according to several indicators: number of persons working in Bucharest; the improvement of the sewage system and of other facilities by the Bucharestians building a house in this area; the amount of fresh agricultural products brought to Bucharest's markets; the tourist potential of the area; the distance measured in isochrones (the distance in time between Bucharest and any other unit must not be more than 60 minutes). In order to collect these data, the researchers from the Urban and Regional Sociology Centre consulted the local councils about their inclusion in the metropolitan zone (figures 3 and 4).

Planners had in mind the building of the biggest recreational park, *The Metropolitan Park*, at Snagov and a theme park "Dracula Park" on 500 hectares. Another attraction was to build a small delta of about 1500 ha near the village of Comana. In its vicinity was planned the only European village on the Continent: about 100 plots of land for each European country to build a traditional house of its own. Another attraction should have been a railway between the Snagov Park and the Comana European Village on the North – South Axis. Under these circumstances, the Bucharest Metropolitan Zone could have had 2,300 sq. kilometres and a population of over 2.4 million inhabitants compared to the 225 sq. km of the city of Bucharest. This metropolitan zone was to be administered by a General Council, similar to the present General Council of the Municipality of Bucharest. The General Council of the zone was to be made up of city council members and council members from the 4 towns and the 58 villages according to a representation percentage. The Council of the Municipality was to be led by a president. The Council of the metropolitan zone was to be led by a governor with the same attributes as the governors of the Danube Delta and the Jiu Valley.

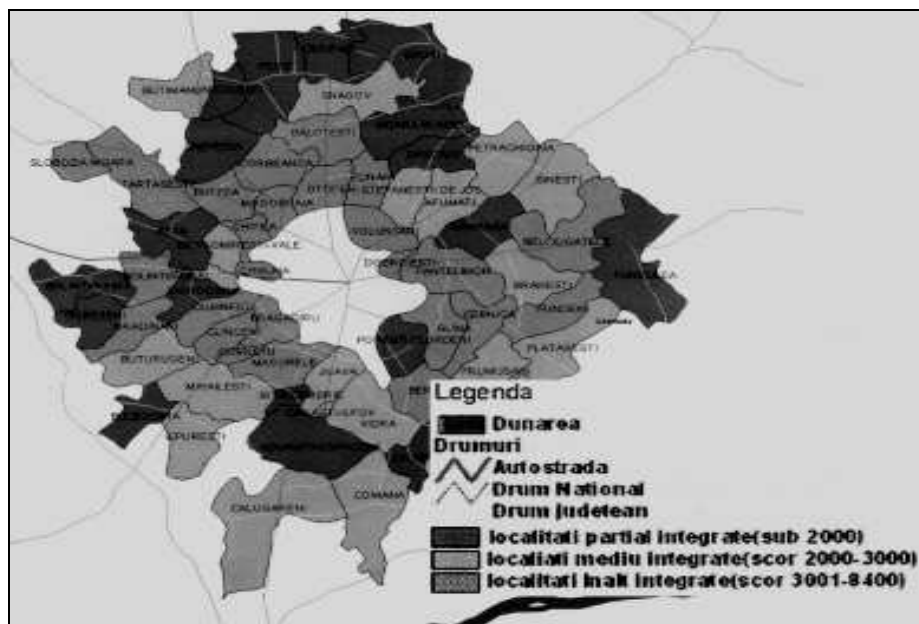


Fig. 4. The villages included in the Bucharest Metropolitan Zone according to the integration index.

Source: Regional and Urban Sociology Centre (Legend: the Danube River, Motorway, National Road, County Road, Partially integrated localities under 2000, Moderately integrated localities between 2000 and 3000, Highly integrated localities between 3001 and 8400)



Fig. 5. Two models of the Bucharest Metropolitan Area

Before 1981, the whole space known today as the Bucharest Metropolitan Area belonged to the Ilfov County. In 1981, the Ilfov County became the Ilfov Agricultural Sector and Ialomița County changed its boundaries, two new counties (Giurgiu and Călărași) emerged (Jordan, 2003). Because of these changes, until 1987 several villages were “moved” from one county to another, especially to the Ilfov Agricultural Sector, and some villages also changed their names.

The “Regional Development” (1996–1998) PHARE programme led to a regionalization of the country. Counties were grouped into 8 development regions. Among these regions, the Bucharest– **Ilfov Region** (made up of the Municipality of Bucharest and Ilfov County) covers the whole Metropolitan Area and the **South – Muntenia Region** covers some areas of Călărași, Dâmbovița, Giurgiu, and Ialomița Counties.

The General Urban Plan of the Municipality of Bucharest (1999 - 2000) envisages the possible transformation of the city into a dynamic metropolis as well as its development trends for the next 20 – 25 years according to major international documents: *The European Charter of Territory Planning, Agenda 21, The Urban European Charter, The Final Documents of the United Nations Conference for Urban Settlements – Habitat II, The European Conference for Sustainable Cities and Municipalities, the Rio Declaration.*

They define the main objectives of territorial planning and management policies: the harmonious development of settlements, the sustainable development of the settlements’ network, and environmental protection.

As we have shown, there were several opinions about the development of a metropolitan area or zone of Bucharest. Some of them are presented in this paper.

According to the European strategies for the balanced development of the metropolitan zones and the prevention of uncontrolled urbanization, some policies have great impact on development, in general. This is the case of the *green belts* successfully used in many European countries in order to control the expansion of the building areas, prevent the merging of neighbouring cities, protect valuable rural traditional areas, ensure the leisure activities. All over the world, green belts or green areas are the most efficient way both to stop the uncontrolled urban development and protect the environment.

The *green belt* concept comes from the mid 1950’s British planning. It is an *area or zone surrounding the existing major urban areas and which is not necessarily continuous. The green belt has several distinct purposes: to contain an urban area lest it should become too big, to prevent the coalescence of neighbouring urban areas, to provide land for recreational opportunities outside the town, and to protect agricultural land in use* (Goodall, 1987).

According to the British approach, developing green belts and areas could stop the uncontrolled urban sprawl of Bucharest as well as of other European important cities (figure 6).

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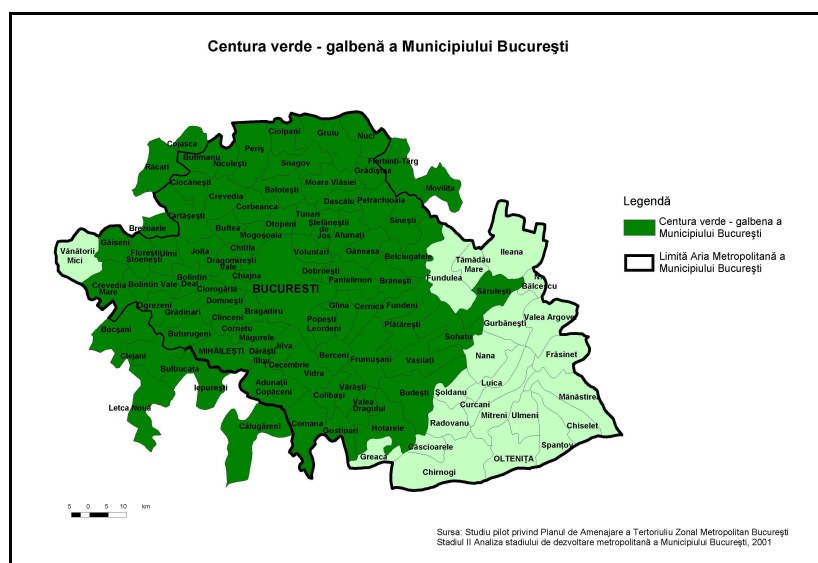


Fig. 6. The green – yellow belt of the Municipality of Bucharest
Source: Pilot study of the Bucharest Metropolitan Zone Management Plan, 2001

The necessity of creating green belts or areas in Bucharest is stipulated by *Law 351 of July 6th, 2001* whose provisions are the National Territory Management Plan, Section IV – Settlements network, Article 10. “In order to protect the natural elements, prevent the uncontrolled sprawl of urban settlements, and include leisure spots inside the Urban Plans, the law requires the creation of green belts or green areas around the capital city and the first rank municipalities.” In order to obtain the balanced development of the territory, which surrounds the capital, the law suggests the possibility of creating metropolitan areas, development zones, and green belts or green zones in order to protect nature, prevent the uncontrolled expansion of the settlements, and satisfy leisure demands. Under these circumstances, environmental planning seems to be the main solution in order to preserve and protect both the man-made and the natural characteristics of the urban or the rural areas.

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