

**FORMS OF URBAN
G R O W T H I N
SOUTHEAST EUROPE:**

**TRANSITIONING
TOWARDS URBAN
RESILIENCE AND
SUSTAINABILITY**

VOLUME 2

Edited by

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3.1. Indicators of sprawl in relation to residential preferences

Jasna Petrić, Tanja Bajić and Nikola Krunić

Urban sprawl can be measured in multiple ways. This is primarily a consequence of a number of different definitions (or the lack of cohesive definition) of urban sprawl (Petrić et al., 2012). Here we adopt a definition of urban sprawl by Bourne (2001:26), as the type of development which is “haphazard, disorganized, poorly serviced, and largely unplanned.” Additional elaboration may derive from the definition of urban sprawl by Galster et al. (2001:685) as “low levels of some combination” of “density, continuity, clustering, centrality, nuclearity, mixed uses, and proximity” in the urban area and at the commuting distance from the urban area.

In the literature, among the simple measures of urban sprawl, there can be identified: population density, density of dwelling units, and decentralization of jobs. With focus on residential preferences towards (sub)urban areas, simple measure of urban sprawl also includes cohorts of population in these areas.

For the purpose of monitoring spatial development patterns, the determination of urban sprawl indicators which are influenced by residential preferences presumes a pragmatic control system with a limited number of key indicators. The use of appropriate indicators allows identification of the main issues as well as of the comparative advantages within a sprawling urban area (Petrić, 2004). In this way, it is possible to detect in which spheres there have been improvements and which have been lagging behind. Also, it is possible to make comparison between different urban areas (horizontal comparison), and likewise in relation to adopted standards and norms.

The organizational scheme of indicators of urban sprawl follows the thematic areas which were identified from the literature sources. For the indicators to be appropriate for measuring the urban sprawl, the following conditions need to be addressed: (1) indicators should allow objective, clear and reliable measuring; (2) they should be comparable with other indicators with least possible overlaps; and (3) they need to be in accord with international (European) system to monitor the social, economic, environmental and territorial impacts and perspectives of urban development.

With that in view, a list of 27 selected indicators of urban sprawl has been made in relation to residential preferences, and these indicators are grouped according to 10 issues.

| Thematic field | Issue | Number of indicator |
|---------------------|--|------------------------|
| Density | Population dynamics | 1 |
| | Higher residential densities | 2, 3, 4 |
| | Higher intensity of land-use | 5 |
| Land-use mix | Mixed-use pattern of public/core/housing uses | 6, 7, 8 |
| | Proximity of jobs | 9 |
| Degree of centering | Decline in density from city centre (density gradient) | 10, 11 |
| | Ownership of home and its size and quality | 12, 13 |
| | Convenience of location | 14, 15 |
| Accessibility | Spatial proximity of facilities and amenities | 16, 17, 18, 19, 20, 21 |
| | Time proximity of facilities and amenities | 22, 23, 24, 25, 26, 27 |

The list of indicators:

- 1) Population profiles in urban and suburban areas (age structure; household structure; education and professional structures)
- 2) Gross residential density
- 3) % of population living in low density areas
- 4) % of population living in high density areas
- 5) Ratio between the population growth and the area of new lands consumed for urban uses
- 6) % of public uses
- 7) % of core/ employment uses
- 8) % of housing use
- 9) % of employees with jobs at walking, public transport and car travel distances from home
- 10) % of population living within 5km from the CBD
- 11) % of population living more than 15km from the CBD
- 12) % of home owners in urban and suburban areas
- 13) Average size of home in urban and suburban areas
- 14) Variety of choice for public transportation and reduced car dependency

- 15) Presence of required facilities
- 16) Average distance to the nearest commercial premises
- 17) Average distance to nurseries and schools
- 18) Average distance to health facilities and daily care centres
- 19) Average distance to sports and recreation facilities and green/open spaces
- 20) Average distance to administration services (post office, bank, etc.)
- 21) Average distance to cultural and leisure facilities (theatres, museums, restaurants, pubs, bars and cafes)
- 22) Average time needed to reach commercial premises
- 23) Average time needed to reach nurseries and schools
- 24) Average time needed to reach health facilities and daily care centres
- 25) Average time needed to reach sports and recreation facilities and green/open spaces
- 26) Average time needed to reach administration services (post office, bank, etc.)
- 27) Average time needed to reach cultural and leisure facilities (theatres, museums, restaurants, pubs, bars and cafes)

Description of indicators

1) Population profiles in urban and suburban areas (age structure; household structure; education and professional structures)

This indicator is important for monitoring the change in the main age cohorts of population, and implications of the process of ageing on the household structure, which is also related to the typical life-cycle of a family, accompanied by education and professional attributes of the adult representatives of the household.

Multi-family households (with two or more generations living in the same house) are likely to settle in the areas with less density due to the type of housing they are looking for. Inner urban living with higher densities generally attracts younger population as well as people with higher education.

2) Gross residential density

Gross residential density is one of the basic indicators on any list of measurements of urban sprawl. This indicator is calculated in persons per square kilometre. Census is the main source of population data for different administrative areas, with records once in every 10 years. Gross residential density offers a relatively simple measure for instant comparison between different territories as well as for density change of a single territory over the analysed period of time (Bajat et al., 2013).

3) % of population living in low-density areas

This indicator refers to percentage of population living in low-density areas, which include residential densities of less and equal to 3,000 residents/ square kilometre.²⁷

4) % of population living in high density areas

Accompanying the previous indicator, the % of population living in high density areas has a threshold of residential densities that are more than or equal to 8,000 residents/ square kilometre.²⁸

5) Ratio between the population growth and the area of new lands consumed for urban uses

One of the key indicators of sprawl takes into account the ratio between the population growth in suburban areas and new lands which are consumed for built-up areas, i.e. Corine Land Cover (CLC) urban area (Krunić et al., 2014). Since the CLC data are available for the years 1990, 2000, 2006, and 2012, the change of built-up area can be measured in these time intervals, related to the corresponding population data change.

6) % of public uses

The share of public uses (e.g. parks, plazas, greens, public buildings and public services) in the total land-use of an area relates to one of the measurements of land-use mix. This indicator should be observed at the neighbourhood level, i.e. the area which covers approximately 600m radius (or the “comfortable walking distance” of 10 minutes). For the optimum land-use mix, the values of this indicator should be between 5 and 15%.²⁹

7) % of core/ employment uses

This indicator refers to the percentage of core/ employment uses (major supermarkets, restaurants, commercial services, entertainment uses, employment-intensive office and light industrial uses) in the total land-use of an area. This indicator should be observed at the neighbourhood level, i.e. the area which covers approximately 600m radius (or the “comfortable walking distance” of 10 minutes). For the optimum land-use mix, the values of this indicator should range between 10 and 40%.³⁰

²⁷ This value is derived from the empirical study in the City of Belgrade. However, in some other studies pertinent to the US (Hamidi et al., 2015), this figure is 5 times smaller, i.e. it equals 1500 residents/square mile, or 6 residents/hectare.

²⁸ This is derived from the empirical study in the City of Belgrade. However, in some other studies pertinent to the US (Hamidi et al., 2015), this figure is 1.5 times smaller, i.e. it equals 12500 residents/square mile, or 48 residents/hectare.

²⁹ see: Calthorpe, P. (2003).

³⁰ see: Calthorpe, P. (2003).

8) % of housing use

At the neighbourhood level, housing should be within a convenient walking distance from public and core/employment areas. For the optimum land-use mix, this indicator should take values between 50 and 80%.³¹

9) % of employees with jobs at walking, public transport and car travel distances from home

This indicator serves to measure the share of local residents – employees who work in the same area where they reside and of those who have to commute for this purpose either by the means of public or private transport. The indicator calculates the share of employees who commute one way to their jobs at distances of: 1) up to 1km; 2) 1-5km; 3) 5-10km; 4) 10-20km; and 5) more than 20km.

10) % of population living within 5km from the CBD

When rating a decline in density from city centre to periphery (density gradient), the indicator of the % of population living within 5km from the CBD shows the degree of centring.

11) % of population living more than 15km from the CBD

Accompanying the previous indicator, the % of population living at more than 15km from the CBD depicts a level of urban decentralisation.

12) % of home owners in urban and suburban areas

Ownership of a house or a flat may influence the actual decision of residents to move to one location or another. Therefore, suburban preferences may be stimulated by home ownership, and the indicator on the % of home owners in urban and suburban areas of a city may serve to portray a degree of centring.

13) Average size of home in urban and suburban areas

In addition to ownership of a home, people tend to position the size and quality of the home among the key motives to settle in an urban or suburban area. The indicator on average size of home thus explains a degree of centring.

14) Variety of choice for public transportation and reduced car dependency

The convenience of residential location largely depends on the transportation options to the city centre. With better organisation of public transport system and possibility to manage without a car, suburban locations may also look favourable as places of residence. This indicator measures the share of population who primarily use the public transport (one type or multiple options) for daily commuting, as well as the share of households with private automobiles and their number.

15) Presence of required facilities

Residential choice and the degree of centring correlate with the provision of complete infrastructure and social facilities that people would require at the time. This indicator measures the presence of adequate roads, streets, organised water and energy supply systems, sewage, waste disposal, retail, child-care and education

³¹ see: Calthorpe, P. (2003).

facilities, health and daily care centres, sports and recreation facilities, administrative facilities, leisure and cultural facilities.

16) Average distance to the nearest commercial premises

This indicator measures the spatial proximity of commercial (retail) facilities as the component of accessibility. The average distance to the nearest commercial premises can be monitored according to the parameter of 1km radius from resident's home.

17) Average distance to nurseries and schools

The spatial proximity of nurseries and elementary schools also represents a basic component of accessibility to facilities. The average distance to the nearest nurseries and elementary schools can be monitored according to the parameter of 1km radius from resident's home.

18) Average distance to health facilities and daily care centres

The spatial proximity of health facilities and daily care centres is an important component of accessibility to facilities. The average distance to the nearest health facilities can be monitored according to the parameter of 1km radius from resident's home.

19) Average distance to sports and recreation facilities and green/open spaces

The spatial proximity to the nearest sports and recreation facilities (including green/open spaces) is an additional component of accessibility to facilities. The average distance to the nearest sports and recreation facilities and green/open spaces can be monitored according to the parameter of 1km radius from resident's home.

20) Average distance to administration services (post office, bank, etc.)

The spatial proximity to administration services is also regarded as a component of accessibility. The average distance to the nearest post office or bank can be monitored according to the parameter of 1km radius from resident's home.

21) Average distance to cultural and leisure facilities (theatres, museums, restaurants, pubs, bars and cafes)

The spatial proximity to the nearest cultural and leisure facilities (theatres, museums, restaurants, pubs, bars and cafes) is an additional component of accessibility to facilities. The average distance to the nearest cultural and leisure facilities can be monitored according to the parameter of 1km radius from resident's home.

22) Average time needed to reach commercial premises

This indicator measures the average time needed to reach commercial premises from resident's home when walking or public transport system are applied as the means of transportation. The optimum time for reaching commercial premises would be that of a comfortable walking or public transport use in duration of 10–20 minutes.

23) Average time needed to reach nurseries and schools

This indicator measures the average time needed to reach nurseries and elementary schools from resident's home when walking or public transport system

are applied as the means of transportation. The optimum time for reaching nurseries and elementary schools would be that of a comfortable walking or public transport use in duration of 10–20 minutes.

24) Average time needed to reach health facilities and daily care centres

This indicator measures the average time needed to reach health facilities and daily care centres from resident’s home when walking or public transport system are applied as the means of transportation. The optimum time for reaching health facilities and daily care centres would be that of a comfortable walking or public transport use in duration of 10–20 minutes.

25) Average time needed to reach sports and recreation facilities and green/open spaces

This indicator measures the average time needed to reach recreation facilities and green/open spaces from resident’s home when walking or public transport system are applied as the means of transportation. The optimum time for reaching recreation facilities and green/open spaces would be that of a comfortable walking or public transport use in duration of 10–20 minutes.

26) Average time needed to reach administration services (post office, bank, etc.)

This indicator measures the average time needed to reach administration services from resident’s home when walking or public transport system are applied as the means of transportation. The optimum time for reaching administration services would be that of a comfortable walking or public transport use in duration of 10–20 minutes.

27) Average time needed to reach cultural and leisure facilities (theatres, museums, restaurants, pubs, bars and cafes)

This indicator measures the average time needed to reach cultural and leisure facilities (theatres, museums, restaurants, pubs, bars and cafes) from resident’s home when walking or public transport system are applied as the means of transportation. The optimum time for reaching cultural and leisure facilities would be that of a comfortable walking or public transport use in duration of 10–20 minutes.

The use of indicators for examining residential preferences of people in Belgrade’s suburban settlement Kaluđerica

The indicators of urban sprawl in relation to residential preferences have been applied accordingly via questionnaire survey that was conducted in Kaluđerica as a suburban settlement of Belgrade. According to the methodology of social science research, survey consists of asking a sufficiently large number of people some specific questions, or of collecting data about a large number of statistical units (Antonius, 2003). In the research on residential preferences in Kaluđerica, this method refers to gathering data or information from a sample via questionnaire, where the researchers do not manipulate independent variables or apply control conditions to the subjects under study.

The questionnaire survey on residential preferences of people in Kaluđerica was conducted in the February/March 2014 period from a representative sample of 90 households, which accounts for approximately 1% of the total number of registered 8,800 households in Kaluđerica, according to the latest Census (2011) (Bajić et al., 2016). This approach is based on taking a fixed proportion of households. As Gardner (1978:111) suggests, there is no universally given prescription of ideal size of a sample; however, one thing is accorded – a minimum sample size. Among different interested parties there is a consensus that there should not be less than 30–40 subjects in the sample if we want to use them for an adequate statistical analysis. For the survey which was performed in Kaluđerica, a random sample was used, and when choosing a household whose representative would respond to the questionnaire, the criterion was to apply a balanced distribution of households at the territory of the settlement, according to previously determined spatial zones. A respondent was always just one member of the household – its representative, whose anonymity was respected, and who would give some general household information alongside stating his or hers own opinion on neighbourhood attachment, socio-environmental context, physical planning issues, and residential mobility in relation to Kaluđerica as a residential neighbourhood, including the observation on various issues and lacks of this area.

The general goal of the conducted research in this distinctive, informally developed settlement was to analyse residential preferences as a factor of urban sprawl in post-socialist Belgrade. The specific goal was to substantiate motives and aspirations of people to live in this suburban neighbourhood, their satisfaction with their residential neighbourhood, as well as to identify potential compromises that choice required. Since the last systematic research of the motives, causes and actors of illegal construction in Kaluđerica was performed in the 1980s by Saveljić (1989), almost 3 decades after that it was important to conduct a new questionnaire survey, especially because the socio-economic conditions and housing needs have changed, characterised by post-socialist transition and mass immigration of refugees and population displaced from the parts of Yugoslavia affected by the civil wars during the 1990s (Bajić, Basarić, 2014; Bajić, Manić, 2013).

Both in the literature and in wider professional circles, Kaluđerica is often mentioned as the infamous example of illegal construction at the periphery of Belgrade, and it is considered the largest completely developed “wild settlement”, not only in Serbia, but in the Balkans and in Europe (Saveljić, 1989). The main reasons for the intensive physical and demographic growth of Kaluđerica after 1966 are identified as: 1 – shortage of available dwellings in the city due to the pressure of mechanical inflow of the population; 2 – proximity of Kaluđerica to the inner urban area of Belgrade (its location is approximately at 10km from the city centre); 3 – good traffic connections; and 4 – lack of adequate planning treatment (Bajić et al., 2016). Unofficially, it is estimated that the number of people in Kaluđerica exceeds 45,000, whereas the official Census from 2011 reports the figures of 26,904 people, 8,831 households, and 10,866 dwellings in Kaluđerica. The average dwelling size is 75m², which is 9m² more than the average dwelling size at the territory of the city, and 12m² more than the average dwelling size in the urban part of the city (SORS, 2013).

Design of the Questionnaire

The questionnaire on residential preferences was designed to guide the investigators in the process of collecting, analysing, and interpreting observations.

The questionnaire on residential preferences of people in Kaluderica was structured in 6 sections, which included the following main topics:

1 – neighbourhood attachment (including community sentiment and community evaluation);

2 – elements of the Neighbourhood Satisfaction Scale;

3 – social and environmental context;

4 – physical planning issues; and

5 – residential mobility.

The first part of the questionnaire treated the profile of households through the categories of age and gender structure, whereas the respondents – household representatives, apart from the above mentioned information on the respective age and gender, also gave the information on their marital status, education level, and current occupation.

The second part of the questionnaire analysed the elements of the residential environment, satisfaction with residential facilities, and attachment to Kaluderica as a residential neighbourhood. The applied indicators of relevant physical characteristics of the analysed suburban living considered the type and number of floors of the residential dwelling under the proposed categories (detached house, semi-detached house and flat in a multi-family building) and the plot-size of the family dwelling. Here we took into account the ownership of the house or flat (relevant for the indicator 12), duration of living in the present dwelling, and the total duration of living in Kaluderica. As additional indicators of residential preferences of respondents towards their present type of housing and residential environment, we analysed the respondents' previous residential experience, i.e. the type of housing and the type of environment (urban, suburban, or rural) in which they spent the most part of their childhood. The level of residents' satisfaction with neighbourhood qualities was determined according to their choice of one of the levels of attachment to the residential neighbourhood and through a quantitative evaluation on the scale from 1 to 7 of the defined neighbourhood attractions ('likes'). The Neighbourhood Satisfaction Scale (NSS) for the measurement of residents' community evaluation consisted of 7 items – likes (LIK) of: 1) convenient location; 2) 'village feel'; 3) presence of facilities and amenities; 4) quietness and safety; 5) good neighbours; 6) transport system; and 7) environmental quality and cleanliness, each one ranked from: 1=strongly disagree to 7=strongly agree. The reliability of the NSS was checked by calculating *Cronbach's alpha coefficient*, which was above 0.7, therefore the NSS proved to be reliable for our sample. Total neighbourhood satisfaction in Kaluderica might take values from 7 (because this was the number of variables forming the NSS) to 49 (since each variable of the NSS could also range from 1 to 7, where 1 is "strongly disagree" and 7 is "strongly agree"). Following this,

we also analysed the perception on quality of social ties in the neighbourhood, issues of security and safety, and neighbourhood pollution.

The third part considered the aspect of transportation related to the conduction of everyday activities and use of facilities. The most frequently used modes of transportation were analysed, as well as the proximity (time and physical distance) to the place of work or to the place where people conduct their everyday activities (indicators 9 and 14); then the frequency of use of the public transport system and the frequency of private car use; ownership and number of private cars, and perception of the need to use a car with regard to their place of living. For households with children of pre-school or primary and secondary school age, we analysed the indicator of proximity of the nurseries or of the school attended by those children to home, both in terms of time and physical distance (indicators 17 and 23).

In the fourth part, we analysed the use of various facilities, either within the suburban neighbourhood or outside of it, as well as the total satisfaction with facilities provision in Kaluderica (relevant for the indicator 15). Among the analysed facilities we considered those of the city centre, retail facilities (for the provision of everyday or bigger/weekly supplies), health facilities and day care centres, sports and recreation facilities and green/open spaces, administrative services (post-offices, banks, etc.), cultural and leisure facilities (cinemas, theatres, museums, restaurants, pubs and cafes). Instead of measuring the distance (physical and temporal), the idea was to analyse the frequency of attending the aforementioned facilities and the way to access them (by private car, public transport, walk, etc.) in order to have the insight not only into their accessibility but also into the residents' requirements for their use regardless of their objective insufficiency.

In the fifth part, we analysed the aspect of attractiveness of Kaluderica as the residential neighbourhood. The focus was on examining the key motives that influenced the choice of Kaluderica for the residential neighbourhood (the size and quality of the house/flat; property values/ re-sale values and lower maintenance costs; property in ownership; lower living costs; etc.), as well as the variability of suburban residential preferences in terms of perceived potential advantages of living in some other parts of the urban area, and further explanation of the reasons for such choice (relevant for the indicator 15).

In the sixth part of the questionnaire, the respondents were left a possibility to make any additional comments regarding the covered themes.

The use of indicators for examining residential preferences of people in Belgrade's suburban settlement of Kaluderica, according to relevant issues, is structured as follows:

| No. | Part of the questionnaire on residential preferences of people in Kaluderica | Relevant issue | Number of relevant indicator |
|-----|--|---|------------------------------|
| 1 | General profile of respondents | Population dynamics | 1 |
| 2 | Housing environment, attachment and neighbourhood satisfaction | Ownership of home and its size and quality | 12 |
| 3 | Transport and amenities | Proximity of jobs | 9 |
| | | Convenience of location | 14 |
| | | Spatial proximity of facilities and amenities | 17 |
| | | Time proximity of facilities and amenities | 23 |
| 4 | Perception on qualities (attractions) of the settlement | Convenience of location | 15 |
| 5 | Motives for settling in Kaluderica and variability of suburban residential preferences | Convenience of location | 15 |

A brief overview of the main survey research findings

1) General profile of respondents

Of the total number of respondents, more than a half are aged 20–39, while the share of male and female respondents is almost equal. Concerning the dominant education level, most of respondents have completed high school as the highest level of achieved formal education. More than one half of the surveyed are employed. The average household size of respondents is 4 people per household which is above average compared to Serbia as a whole (2.9 people/hhld.) and Belgrade Metropolitan Area (BMA) (2.7 people/hhld.), and there are also cases of households with up to 9 members and three generations living “under one roof”. The dominant type of the observed households is one wherein parent(s) of one or more generation live with at least one child, 19 years old and under.

2) Housing environment, attachment and neighbourhood satisfaction

The majority of the surveyed households reside in detached family houses with two or three floors on average. Over 90% of the respondents are homeowners of the houses in which they live. About one half of the respondents have been residing in their present home for more than 20 years, and nearly 60% have been living in Kaluderica for as long, which indicates a significant share of the indigenous population. The majority of respondents resided in individual family house in suburban or rural environment in childhood, while less than 20% of them spent their childhood in an urban environment.

The survey results show that the attachment of the inhabitants to this area is divided. On the one hand, 47% of respondents intend to live in Kaluderica for many years or are unwilling to live anywhere else. On the other hand, 29% of respondents feel that they are presently attached to Kaluderica, while 24% of respondents would like to move to another location if they had financial resources.

The residents expressed most of positive attitudes (satisfaction) toward well-organized public transport system, good neighbours and the convenient location of the settlement. Negative attitudes (dissatisfaction) predominate regarding the environmental quality and the level of cleanliness. As the most common sources of pollution residents identified incomplete and inadequately developed draining and sewage networks in the settlement; Kaluderica stream flowing through the settlement, which represents a burning issue because it is contaminated by the inflow of faecal matter making it a source of disease spread; unsuitable waste disposal – irregular transport of waste, insufficient number of garbage bins and containers and their inadequate arrangement, burning of waste; air pollution, especially during the winter due to private boiler rooms; the vicinity of the landfill site at Vinča; and the like (Bajić et al., 2016: 7).

3) Transport and amenities

Even though Kaluderica is a suburban neighbourhood, the residents do not dominantly rely on private car transportation, but they substantially commute by public transportation. Yet, as much as one third of respondents feel that they could not manage without a car in Kaluderica.

As authors have previously shown (ibid.), the average distance one third of the respondents cover while performing their daily activities ranges from 6 to 10km, while 9% of the respondents cover the distance greater than 21km daily. Concerning the modes of transportation, public transport is primarily used for travelling to the city centre, visiting health facilities and other social and administrative facilities, while on the other hand, the usage of individual car transport is predominant in large scale weekly shopping for supplies, use of sports and recreational facilities, green areas and open spaces, and restaurants, pubs and cafes. Both means of transportation are used in equal share when visiting cultural facilities, while walking is predominant only for everyday shopping.

4) Perception on qualities (attractions) of the settlement

When analysing the perception of residents on the overall qualities (attractions) of the settlement of Kaluderica, most respondents expressed relative and absolute satisfaction (42%), mainly due to: convenient location of Kaluderica, which is close to the city, but still far away from the noise; well-organized public transport system; and having a plot and a garden in ownership. Neutral attitude / indifference in this regard was expressed by 30% of the respondents, with comments that in today's Kaluderica "it is, nevertheless, better than it was", while 28% of the respondents were not satisfied with the overall qualities of their area of residence. As the key reasons for dissatisfaction they stated narrow streets and other infrastructural deficiencies, lack of facilities for the youth, lack of sports and cultural facilities, etc. On the Neighbourhood Satisfaction Scale (NSS), the respondents expressed the highest level of satisfaction with public transport system organization (74%), good

neighbours (68%) and convenient location of Kaluđerica (60%), while the most pronounced dissatisfaction was expressed towards environmental quality and cleanliness (76%) (Petrić and Bajić, 2015).

5) Motives for settling in Kaluđerica and variability of suburban residential preferences

The key motive to settle in Kaluđerica for most of the surveyed residents was **property in ownership**, followed by **size and quality of the house and property values/ re-sale values** and **affordable maintenance costs** (Petrić and Bajić, 2015). Among other factors, **organized public transport system** has shown significant influence regarding their residential choice, as well as other factors: household size (new-born member or change of marital status), availability of certain services or facilities, change of job or retirement.

With the exception of about 37% of respondents who would not like to change Kaluđerica as a place of residence, those who are likely to move to another part of Belgrade prefer Zvezdara Municipality because of: previous living in that area; its proximity to the city centre; proximity of social facilities and good transport connections. Among the preferred destinations for relocation are Stari grad Municipality (Dorćol) and Vračar Municipality, which the respondents find attractive because of their proximity to all services and facilities; ability to walk or use multiple options for the public transport system instead of a private car; presence of cultural facilities; etc. Voždovac (Banjica), Košutnjak, and Beli potok are attractive because of the perceived quality of air, while Mirijevo and Konjarnik are attractive because of their proximity to Kaluđerica. Zemun is deemed attractive because of family ties and previous living in that area, whereas, on the other hand, Dedinje is attractive as a leafy neighbourhood of Belgrade.

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