

FUNCTIONAL AND SIZE TYPOLOGY OF THE VILLAGE SETTLEMENTS IN THE CITY OF NIŠ TERRITORY

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Abstract. *The paper gives an analysis of the functional and size typology of the village settlements in the city of Niš territory. It also presents the review of the development and demographic tendencies of the spatial distribution of the village settlements, as well as the categorization of the village settlements in the city of Niš territory. The paper was done in the framework of the scientific and research project "Sustainable development of the village settlements in the city of Niš territory" at the Faculty of Civil Engineering and Architecture of Niš.*

1. INTRODUCTION

The problems of the rural areas occur as a different category in terms of the contents, size and quality because of the diversity of natural and socio-economic conditions, complexity and mutual interdependence of the problems and their causes. Apart from all the differences in the initial conditions, the village and the rural space in the developed and developing countries have equally important life functions – providing the fundamental goods and services necessary for the survival of the mankind, above all. For these reasons, it is understandable that the approaches and the dilemma about how to regulate the development of the rural areas, and how to treat it in theory and practice, are very numerous and topical. The understanding of the importance of village for the survival of mankind and favoring its development and renewal in the closing decades of the 20th century attained worldwide proportions. Deterioration of the village and the rural space has been identified as a global problem, so the struggle against the poverty, marginalization and depopulation of the village, as well against the low quality of life in the village and rural areas in the majority of countries became dependent on the political decisions and the priority development goal that is facilitated through the stimulation of the quality development options, strategies and programs.

While in the developed countries (EU, USA, Canada) the differences in the quality of life between the village and town areas are greatly reduced, and the peculiarities of the village areas in respect to towns shrink down to several characteristics such as (1) extensive usage of the soil and the activities related to the usage of the soil, and (2) the low density of population (Mormont, 1990, Petovar Vujosevic, 2000), in the developing countries these differences are more pronounced. The static quality and the traditionalism of the village communities and social relations, low level of spatial and social equipment and access to the public services and utilities, lack of infrastructure and underdeveloped labor market, unfavorable demographic structure, with the dominant position of agriculture within the occupational structure, remain the main attributes of the village areas in the non-developed countries and countries in transition.

The research indicates that one of the basic characteristics of the village and the rural areas in them is the insufficiently developed and articulated network of settlements in respect to its spatial and functional aspect of development. The reasons for this are numerous, and apart from those global ones, related to the social-economic development degree, the other basic ones are:

- 1) lack of the appropriate number of low order centers; (most of the village population lives in the small villages distant from one another, spatially isolated, without the minimal threshold for providing of the basic technical and social infrastructural equipment)
- 2) the inappropriate distribution of the services and utilities among the smaller towns in the rural region; (bad connection of the towns and the rural hinterland)
- 3) lack of or bad spatial and functional links among the village settlements in the rural area (Lazarević, Bajić-Brković, 1990)

Having in mind the importance and complexity of the settlement system on one hand, and the fact the different characteristics of the villages and rural areas require solving of the specific development problems, on the other hand, the formation of the functional and size typology of the village settlements within one area may become an important factor in the planning and management process of the development regulation, by providing the appropriate inputs for:

- identification of the development potentials and limits;
- rationalization of the spatial and settlement organization and the reduction of the total costs of the development
- creation of the activity structure favorable for the stimulation and direction of development;
- stopping of the negative migration and depopulation tendencies;
- that is, forming of the synchronized network of settlements.

Serbia is, in relation to the characteristics and the structure of the rural space, a prominently heterogeneous area. Because of that, it is necessary to include more criteria – typologies of the village settlements to the analysis and village areas development planning. The following typologies are characteristic in our practice:

- 1) Typology by size
- 2) Typology by genesis
- 3) Typology by town and morphological structure
- 4) Typology by functions

The subject of interest in this paper is the functional and size typology of the village settlements in the city of Niš area.

2. SIZE TYPOLOGY OF THE VILLAGE SETTLEMENTS – GENERAL DIVISION

The basic criterion for the size typology of the village settlements is the number of inhabitants. In some analysis, apart from this basic indicator, the demographic development and the belonging territory surface are included.

There are all the sizes of the village settlements in Serbia, ranging from those with several tens of people to those with several thousand inhabitants. The situation is similar when it comes to the village settlements in the city of Niš area. Due to the great diversity of the settlements, the following typological scale was adopted and applied (1):

- A) Small village settlements, with the 0-500 inhabitants
(in further analysis marked as M)
This category may be divided in two groups:
 - too small villages, 0-100 inhabitants (marked as M1)
 - small villages, 100-500 inhabitants (marked as M2)
- B) Medium sized village settlements, with 500-2000 inhabitants (marked as C)
This category can also be divided in two groups:
 - 500 – 1000 inhabitant villages (marked as C1)
 - 1000 – 2000 inhabitant villages (marked as C2)
- C) Big village settlements, with over 2000 inhabitants (marked as B)
This category may also be divided in two groups:
 - bigger villages, 2000-3000 inhabitants (marked as B1)
 - very big villages with more than 3000 inhabitants (marked as B2)

For the territory of Serbia, it is characteristic that the most numerous are the village settlements, having up to 1000 inhabitants, then those having up to 5000 inhabitants, while the big villages are the rarest.

The number of inhabitants is the variable category, and the observation of the change of the number of inhabitants is required to identify the developmental tendencies and undertake certain planning activities.

The following convention is adopted and applied for the village settlements (2):

- if between two censuses the index of the inhabitants is higher than 100%, the settlement in that period had the positive demographic development. (+)
- if between two censuses the index of the inhabitants is between 80% and 100%, the settlement in that period had the zero development. (0)
- if between two censuses the index of the inhabitants is lower than 80%, the settlement in that period had the negative demographic development. (-)

2.1. Size typology of the village settlements on the city of Niš territory

On the territory of the city of Niš, by the census result from 2001, there are 250 180 inhabitants, which is 78,7% of the Niš district population. The territory surface is 596,71 km².

The city of Niš consists of two municipalities – Niš and Niška Banja. In the municipality of Niš, also by the census result from 2001, there is 234 836 inhabitants, or 93,5% of the city population, while in the municipality of Niška Banja there are 15317 inhabitants, or 6,5%.

In the territory of the city of Niš, 70 settlements are registered, out of which two are urban (Niš and Niška Banja) and 68 are suburban.

Out of this number, in the territory of the Niš municipality 53 settlements are registered (1 urban and 52 suburban) while in the territory of Niška Banja, there are 17 settlements (one urban and 16 suburban).

All the suburban settlements in the territory of the city are treated as village settlements in this study. This decision was made under the influence of the vagueness and indistinctness of the classification of settlements and their statistical observation, as well as the available information basis. For these reasons, one of the objectives of further research of these issues is the determination of the criteria for classification of village and suburban settlements.

On the basis of the official statistical data, the slight growth of the population on the observed are in the last 20 years can be perceived, both totally and in the individual categories of city and suburban areas (Table 1). The intensity of the population growth is higher in the suburban-village settlements.

Table 1. Presence of city and village population in the total population – city of Niš territory

Settlement type	Number of settlements	Population			% of presence in the total population		
		1981	1991	2002	1981	1991	2002
Urban settlements	2	165 230	177 326	177 823	71,6	72,4	71,0
Village settlements	68	65 481	67 569	72 357	28,4	27,6	29,0

Source: Census of population, households and dwelling places 2001. The first results of the census in the municipalities and settlements of the Republic of Serbia, Bulletin no. 422, Belgrade, June of 2002; Statistic Yearbook of the city of Niš, 1999,2000, Niš, 2001.

The ratio of the city and non city population in the last twenty years is relatively stable, with an almost imperceptible increase of village population in total population. In 2002, in the city settlements, there is almost two thirds of the total number of population (Fig. 1). The degree of urbanization is much higher than the republic average which was 56,3% in 2002. Such concentration of population is characteristic for the developed areas with high level of urbanization, but it also indicates the developmental tendencies and directions, that is the concentration of developmental processes in the city settlements, and primarily in Niš.

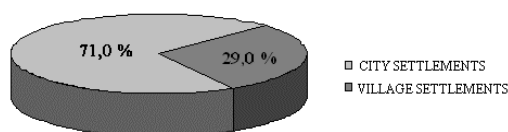


Fig. 1. Presence of city and village population in total population in 2002 - city of Niš territory
Source: Census of population, households and dwelling places 2001. The first results of the census in the municipalities and settlements of the Republic of Serbia, Bulletin no. 422, Belgrade, June of 2002; Statistic Yearbook of the city of Niš, 1999,2000, Niš, 2001.

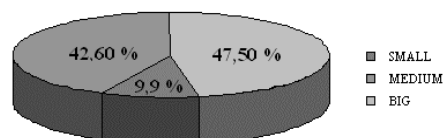


Fig. 2. Presence of the population of the basic categories of village settlements in the total village population in 2002 - city of Niš territory.

Source: Census of population, households and dwelling places 2001. The first results of the census in the municipalities and settlements of the Republic of Serbia, Bulletin no. 422, Belgrade, June of 2002; Statistic Yearbook of the city of Niš, 1999,2000, Niš, 2001.

The table 2 displays the number and percentage presence of the different size categories of the village settlements. Till the census of 2002, one out of 69 settlements, statistically registered in 1991, became extinct (Koritnjak, municipality of Niška Banja).

In respect to the numerical presence and mutual relations of the different size categories of the village settlements, a conclusion, that the situation in the last twenty years has been relatively stable, may be drawn.

The relative values imply that biggest changes considering the decrease of the number of settlements occurred in the medium sized villages, those having 1000-2000 inhabitants – their presence in the total number has fallen from 24,2% to 20,3%. In the last 10 years, the group of small villages, sized 100-500 inhabitants, and the group of medium sized villages, 1000 – 2000 inhabitants, has decreased their presence in the total number of villages for around 3%. The big villages with over 3000 inhabitants demonstrate the highest increase of presence in the total number.

Table 2. Size categorization of the village settlements and their presence in percents in the total number of the village settlements – city of Niš territory

Settlement size (By population)		Mark	Number of settlements			% of presence in the total number of the settlements		
			1981.	1991.	2002.	1981.	1991.	2002.
Small	Up to 100	M1	2	3	3	3	4,3	4,3
	100-500	M2	24	27	25	36,4	39,1	36,3
Medium	500-1000	S1	15	15	17	22,2	21,7	24,7
	1000-2000	S2	16	15	13	24,2	21,7	20,3
Big	2000-3000	V1	6	5	5	9,0	7,2	7,2
	Over 3000	V2	3	4	5	4,7	6,0	7,2
Total:			66	69	68	100,0	100,0	100,0

Source: Census of population, households and dwelling places 2001. The first results of the census in the municipalities and settlements of the Republic of Serbia, Bulletin no. 422, Belgrade, June of 2002; Statistic Yearbook of the city of Niš, 1999,2000, Niš, 2001.

In respect to the basic division of the village settlements, the most numerous nowadays are the villages of medium size – their presence in the total number is 45%. The small villages are following with 40.6%, while the big villages are the least present with 14,4%. Such ration is identical to the situation in the entire territory of Serbia.

When the matter is considered by the subgroups, the most numerous are the small villages with 100-500 inhabitants – their presence amounts to 36,3%. They are followed by

the medium sized villages with 500-1000 inhabitants, and then with the big villages.

The comparative analysis of the data on the number of the village settlements inhabitants in the observed period indicates the positive tendency of increase of the total number of the village inhabitants for 10,59% (Table 3). Out of the total number of the village inhabitants in 2002, almost one half (47,7%) lives in big villages (Fig. 2), and even one third in the villages with over 3000 inhabitants. That the very small villages are an anachronism is confirmed by this example – only 101 inhabitant lives in them, which is 14% of the total number.

Table 3. Category of the number of inhabitants in the village settlements – size distribution of the village population.

Settlement size (By population)		Population			% of presence in the total village population		
		1981.	1991.	2002.	1981.	1991.	2002.
Small	Up to 100	18	83	101	0,02	0,12	0,14
	100-500	8 281	8 657	7 06	12,64	12,80	9,76
Medium	500-1000	10 373	10 738	12 277	15,84	15,90	17,00
	1000-2000	21 252	19 697	18 558	32,45	29,15	25,65
Big	2000-3000	15 292	12 734	12 194	23,35	18,86	16,80
	Over 3000	10 315	15 660	22 164	15,70	23,17	30,65
Total:		65 481	67 569	72 357	100,00	100,00	100,00

Source: Census of population, households and dwelling places 2001. The first results of the census in the municipalities and settlements of the Republic of Serbia, Bulletin no. 422, Belgrade, June of 2002; Statistic Yearbook of the city of Niš, 1999,2000, Niš, 2001.

Detailed analysis of the data also indicates that the big villages with over 3000 inhabitants were very attractive over the last 20 years – they doubled the number of inhabitants and doubled the percentage of presence. Having in mind their position, that is that they are in the immediate proximity to the city, it is almost certain that the increase of the population is a result of the mechanical growth, that is permanent migrations.

The data in the table 4 illustrate the inter-relationships of the settlement size, settlement area surface and the density of population. The data indicate two characteristic occurrences. The first one relates to the relative uniformity of the area surface of all the village settlements categories, that ranging between 7,9 and 9,0 square kilometers. The only exception is the big village (over 3000 people) category – the average area surface of their territory is twice as small and is about 3,8 square kilometers. Therefore, in terms of the territory, two categories of settlements are present – small and very small settlements. For the sake of comparison, the average size of the settlements at the level of the Republic is 13 km².

In respect to the density of population, there are three categories: low density, to 50 people/km², characteristic for the small settlements, medium density for more than 100 p/km², characteristic for the medium size settlements, and high density over 300 p/km², characteristic for the big settlements.

The average density of population in the entire territory of the city of Niš in 2002 is 420 p/km², which is much more than the average density at the level of the Republic which is 98 p/km². This piece of information indicates the higher intensity of space usage.

Table 4. Area surface and density of population by the village settlements category – city of Niš territory

Settlement size (By population)		Average area surface (km ²)	Average density of population (inhabitants/km ²)
Small	Up to 100	8,0	7
	100-500	7,9	40
Medium	500-1000	8,4	97
	1000-2000	8,7	160
Big	2000-3000	9,0	328
	Over 3000	3,8	1 180

Source: Census of population, households and dwelling places 2001. The first results of the census in the municipalities and settlements of the Republic of Serbia, Bulletin no. 422, Belgrade, June of 2002; Statistic Yearbook of the city of Niš, 1999,2000, Niš, 2001.

The density of the settlement network in the city of Niš territory is 12H/100 km² and belongs to the high density category, which also mean comprises a higher settlement dispersion in space. E.g. the average settlement network density in Serbia is around 7,5 H/100 km². The higher settlement network density also must be linked to the geomorphology of this area.

Table 5. Development tendencies 1991-2002 – city of Niš territory

Size category of villages		Number of villages with +, – or 0 growth			% of presence		
		+	–	0	+	–	0
Small	Up to 100		1	2		33	67
	100-500		18	7		72	28
Medium	500-1000	6	10	1	35,2	58,9	5,9
	1000-2000	7	6		53,8	46,2	
Big	2000-3000	3	2		60	40	
	Over 3000	4	1		80	20	
Total:		20	38	10	29,4	35,9	14,7

Source: Census of population, households and dwelling places 2001. The first results of the census in the municipalities and settlements of the Republic of Serbia, Bulletin no. 422, Belgrade, June of 2002; Statistic Yearbook of the city of Niš, 1999,2000, Niš, 2001.

The table 5 displays the tendencies in the demographic development of the village settlements in the last ten years. More than a half of the total number of the village settlements has a zero demographic growth, most from the small villages (100-500 inhabitants) group. The positive demographic growth is recorded in 30% of the village settlements, most from the medium villages group.

On the map no. 1, there is the spatial disposition of different categories of the village settlements according to the size typology for the city of Niš territory. The grouping of the certain size categories of villages is very noticeable on the map. The key factors affecting this process are:

- geomorphology of the terrain
- position of the village in respect to the city center
- position of the village in respect to the administrative area.

It may also be noticed, and it is realistic to expect, considering the present development tendencies and directions in the territory of Serbia, that the population is dominantly concentrated in the flat part of the river Nišava and the Danube basins, in proximity of Niš and Niška Banja.

The small villages are predominantly located on the periphery and the rim of the city area border, that is in the hill-mountainous area.

The medium sized villages (500-1000 and 1000-2000 inhabitants) are grouped in the central part to the north of the river Nišava, in the eastern part to the east of Southern Morava river and longitudinally in the Nišava valley.

The biggest villages 2000-3000 and over 3000 inhabitants are located in the suburban zones of Niš and Niška Banja, mostly in the flat parts along the banks of the Nišava and the Southern Morava rivers. In this way, the integrated Niš urban-rural inhabited space is formed, with the tendency of accelerated continual space-functional linking into the integrated inhabited territory.

3. FUNCTIONAL TYPOLOGY OF THE VILLAGE SETTLEMENTS – GENERAL DIVISION

Regarded from the structural/functional aspect, the village was, for a long time, defined uniformly as a human settlement where the population deals with the primary activity – farming, while the secondary sector is non-existing – there are no public services (health protection, education, culture, social security, commerce etc.) or they are insufficiently developed. The village, thus, was most often characterized by the extensive usage of soil and the activities connected to the usage of soil.

However, in the developed countries, the agriculture as the essential determination of the village and as the primary/mono-functional activity is less and less significant. Through the structural changes and the application of multifunctional agriculture concept based on the agricultural multi-role functions of joining and

introduction of the new activities (such as the rural tourism, cultural-educational activities, recreation, preservation and sustaining of resources etc), the importance of agriculture as the main attribute of the village is altered and reduced. Apart from that, there are the villages and rural areas with the very small role of agriculture in their activity structure, that is whose production structure is based on the non-agricultural activities.

The structure of the village settlements is, therefore, very heterogeneous, so nowadays, under the term village not only the most numerous settlements with the dominant agricultural function are comprised but also the settlements acclaimed as tourist places, spa resorts, suburban (peri-urban) settlements, etc. The development and structural characteristics and the rural areas problems are also very different, so except in respect to the population and morphological ones, we may discern various types of rural areas in respect to the structural-functional criteria. For example, The European Union recognizes nine types of rural areas on the basis of their economic-social characteristics. Those are: dominantly agricultural areas; rural areas developing tourism; rural areas with protected natural-cultural heritage and resources; peri-urban areas; rural areas with prominent structural disorders, rural areas with small enterprises and firms etc.

Heterogeneous of the functional structure of the village and their different position and role in the settlement network require certain typology and categorization. In the

foreign and national literature, one may find the national typology of the village settlements with basic and special function (Dj. Simonović, M. Ribar, 193). In respect to the basic functions of the village settlements the most often applied is the three-stage categorization of the village settlements and they are divided into :

- Primary village settlements
These are most frequently the small villages, residential-economic in character, with the dominant participation of the agricultural population, with no external functions or influences on the neighboring villages.
- Villages with village center
Those are the villages which on the basis of the presented functions unify two or more primary villages into a spatial-economic unity that counts 1000-3000 inhabitants.
- Centers of the village settlement communities
Those are the highest order settlements, most often the most numerous (4000 inhabitants) – they gather several villages with the village center into one spatial unity. As opposed to the preceding categories, these villages contain a larger proportion of the non-agricultural inhabitants. Their gravity zone in local terms is 3000–12 000 inhabitants and the mutual distance 2-20 km.

Such manner of functional categorization is applied on the example of the village settlements in the city of Niš territory. The more detailed explanations pertaining to the functional characteristics and categories of the villages in this area are given in the following text.

3.1. Functional typology of the village settlements in the territory of the city of Niš

Functional typology of the village settlements in the territory of the city of Niš, is based on the analysis and valorization of the basic structural characteristics of the settlement, and primarily on the analysis of the: (1) role; (2) function and (3) activities that characterize an individual settlement. On the basis of functions, positions, size, character of the settlement as well as the intensity of the spatial and functional connections - the category and the role of the individual village in the settlement network, influence zone and gravity zone are considered.

It should be noted that within each of three basic categories, there are the settlements with different functional characteristics, tempo and dynamics of development, so for some of the village settlements the said division cannot be properly applied. Some settlements have functions which are characteristic for the category they belong to, but also the development stagnation tendency (often followed with the population stagnation), while the other settlements also belong to the same category but the dynamics and directions of development changes are positive. The can be said to be in the transition phase from one to another category - this statement especially applies to a number of primary village settlements with a large number of inhabitants, which have some of the functions characteristic for the higher category developing. On the other hand, there is a group of small villages that have developed functions characteristic for the villages with the village center, but their population size is insufficient to form the functional zone of influence within the settlement network, that is to get a role of the village center. Because of the present differences, and because of the more comprehensive presentation of the current status, the table 6 gives the functions of all villages in the city of Niš territory in detail, with definitions of functional and size category of the villages. The table is in the appendix.

On the basis of the conducted analysis, it may be concluded that the largest number of villages in the city of Niš territory, more than 50% of the total number, belongs to the second category of the village settlements – category of villages with village center, which is atypical in respect to the pyramidal model of the functional organization of the village settlements. Yet, having in mind the fact that one quarter of those villages are the ones with the small number of inhabitants, that is the villages with insufficient generic power to take on such role, this statement is to be taken as conditioned. The present relationship between the functional categories of settlements, that is a higher presence of the villages with the village center, can be considered a positive change and the result of continuous development of the existing functions and the onset of new functions in the total social and economic development process.

The table 6 gives the number and presence of the village settlements in the city of Niš territory in respect to the basic functional categories of the village settlements, while table 7 contains the data on the number and presence in percents of the village population in all three functional categories.

Almost one third of the total number of village settlements is made by the primary village settlements, lowest in rank. Yet, there lives the smallest number of population, only 8% (Table 7). Almost all the settlements from this group belong to the smallest size category – 18 villages belong to the category of small villages (up to 500) inhabitants, and only 3 settlements are from the medium sized villages category (see table 8). In respect to the spatial distribution of the primary village settlements the situation is typical for the bigger part of Serbia – in the city of Niš territory these villages are mostly in the hill-mountainous and border area, they are isolated, poorly interconnected with also poor spatial and functional connections with the higher order centers (map 2). The high presence of this category of the village settlements is especially characteristic for the Niška Banja municipality territory, which indicates the presence of structural problems in its settlement network, as well as the insufficient social and spatial provision and accessibility of the public services, that is, at last, the reduced quality of life in the villages in this part of the observed area (Bancarevo, Kunovica, Ravni Do, Radikina Bara, Rautovo villages).

Table 6. Basic functional categories of the village settlements in the city of Niš territory – number of settlements and their presence.

Functional type	Number of village settlements	% of presence in the total number of the village settlements
Primary village settlements	21	30,9
Villages with the village center	38	55,9
Centers of the village communities	9	13,1
Total:	68	100,0

Table 7. Basic functional categories of the village settlements in the city of Niš territory – number of inhabitants and their presence in 2002.

Functional type	Population	% of presence in the total village population
Primary village settlements	5704	7,9
Villages with the village center	49688	68,7
Centers of the village communities	16965	23,4
Total:	72357	100,0

The villages with the village center (the second functional category villages) have the highest presence, both in respect to the number of the village settlements and in respect to the total village population. In respect to the size structure, the medium sized villages constituted more than the half of the total number. They are followed by the small villages (25%), while there is 18% of the big villages (Donji Komren, Popovac, Trupale etc, see Tables 6 and 8). Some villages from the last size category are in transition phase into the higher functional category (table 8) so in further analysis may be treated as the centers of the village communities. The villages with the village centre are located mostly in the more developed area of the Morava river (Mezgraja, Lalinac, Trupale) as well as in the immediate proximity and the in the zone of influence of the city (suburban settlements of Brzi Brod, Donja Vrežina, Pasi Poljana). In the most cases, especially in the western and central part of the area, the villages of this category have the individual character – they do not unify several primary villages, but are only linked to the centers of the village communities or the city (see the maps 2 and 3).

The centers of the village communities category is the least present in the number of the village settlements (13%), while in the number of the village population it has 25% presence. This category is comprised of the big and medium sized villages – three big (Gornji Matejevac, Deveti Maj and Medoševac) and six medium villages (Gornja Vrežina, Donji Matejevac, Malča, Kamenica, Mramor and Jelašnica). In the settlement network in the city of Niš territory, there are two types of these villages – (1) those unifying lower categories and (2) those that are linked only to the city. Having in mind the spatial distribution of this functional category of the village (maps 2 and 3) it can be concluded that the second category is more numerous. Namely, almost all the centers of the village communities' have the character of the suburban villages or are in the immediate proximity of influence of the city settlements of Niš and Niška Banja. Such disposition of the village communities centers can be characterized as negative, since they cannot adequately fulfill their role in respect to the lower categories of the villages, which because of that, have the obstructed spatial and social accessibility to the numerous public services that the centers of the villages have or can offer. The centers of the village settlements communities have the passive role in the settlement network – they receive the developmental influence of the city but do not pass it on. Because of that, the villages of the lower categories are forced to satisfy the needs (they could otherwise satisfy in the centers of communities) in the remote city settlements.

Table 8. Relation of the functional and size categories of the village settlements in the city of Niš territory – number of settlements

Functional type	Number of settlements	Size category of the village settlements	
		number of settlements	% of presence in the category
Primary village settlements	21	18 small villages	85,7
		3 medium villages	14,3
Villages with the village center	38	10 small villages	26,3
		21 medium villages	55,3
		7 big villages	18,4
Centers of the village communities	9	6 medium villages	66,7
		3 big villages	33,3

4. FINAL CONSIDERATIONS

On the basis of the preceding analysis, one can observe the following developmental tendencies in the city of Niš territory:

- The ratio of city and non-city population has been relatively stable in the last 20 years, with a slight increase of the presence of non-city population in the total population.
- The presence of village population in the total population is 30%, which is significantly less than the Republic's average and indicates strong urban concentration.
- In the total number of the village settlements, medium-sized settlements are most frequent, then small ones, while the least present are the big villages. Such relationship corresponds to the Republic's average
- The largest part of the village population, around one half, lives in big settlements, slightly less in the medium, while only 10% of the population lives in small settlements.
- Even though the presence of the population living in big and medium sized settlement is approximately equal, the developmental tendencies are the opposite - the presence of the population living in the big village settlements is increasing while in the medium sized villages it is constantly decreasing. Spatial distribution of the different size categories of the village settlements indicate grouping of the certain size categories.
- In the city of Niš territory there are all three basic functional categories of the village settlements – primary village settlements, village settlements with the village center and the village community centers. The existing functional categories and their mutual relationship are more the result of the spontaneous and uncontrolled development and natural conditioning (limits and potentials) than of the action of the social development regulation mechanisms.
- Most frequently village settlements have the village center – 56% of the settlements and 69% of the village population. This statement is conditioned, since one quarter of the village settlements from this group is constituted by the small villages, and their population threshold is not sufficient for the adequate functional development.
- Most of the primary village settlements are located in the eastern – hill-mountainous and border area, mostly in the Niška Banja municipality territory. The bigger part of the primary village settlements in this area is isolated and insufficiently linked to the higher order centers.
- The majority of the villages with the village center is located in the western – Morava area, and the central area. These settlements mostly have the individual character and are connected to Niš or Niška Banja.
- The centers of the village communities are located in the influence zone of the city settlements – more of Niš, and partly of Niška Banja. Because of their position and connection to the city, they cannot take on their function in the settlement network.
- The final consideration of status and development problem will ensue only after the detailed analysis of the remaining factors is accomplished. The
- preliminary conclusion is that the settlement matrix of the city of Niš territory is not adequately formed and sufficiently integrated (regarded from the spatial-functional aspect), so that at this moment the settlement network may not be considered a development resource.

SUPPLEMENT 1. THE DATA ON POPULATION TRENDS IN THE VILLAGE SETTLEMENTS
IN THE CITY OF NIŠ TERRITORY

MUNICIPALITY OF NIŠ

SETTLEMENT	SIZE CATEGORY	POPULATION		
		2002.	1991.	INDEX 1991=100
BERBATOVO	M2	364	367	99,3
BERČINAC	M2	123	158	77,8
BRENICA	S1	552	600	92,0
BRZI BROD	V2	4422	3589	123,2
BUBANJ	S1	517	435	118,9
VELE POLJE	S1	524	652	80,4
VRELO	M2	287	288	99,7
VRTIŠTE	S2	1051	1020	103,0
VUKMANOVO	M2	388	406	95,6
GABROVAC	S2	1184	1162	101,9
GORNJA VREŽINA	S2	1189	1277	93,1
GORNJA TOPONICA	S2	1562	1298	120,3
GORNJA TRNAVA	M2	309	356	86,8
GORNJE MEĐUROVO	S2	1022	1015	100,7
GORNJI KOMREN	S1	952	713	133,5
GORNJI MATEJEVAC	V1	2646	2891	91,5
DEVETI MAJ	V2	4319	3615	119,5
DONJA VREŽINA	V2	4167	2654	157,3
DONJA TOPONICA	M2	287	312	92,0
DONJA TRNAVA	S1	697	723	96,4
DONJE VLASE	M2	149	182	81,9
DONJE MEĐUROVO	S2	1417	1458	97,2
DONJI KOMREN	V2	5714	4787	119,4
DONJI MATEJEVAC	S1	851	875	97,3
JASENOVIK	M2	415	456	91
KAMENICA	S2	1657	883	187,7
KNEZ SELO	S1	929	925	100,4
KRAVLJE	M2	421	530	79,4
KRUŠCE	S1	875	878	99,7
LALINAC	S2	1843	1831	100,7
LESKOVIK	M2	299	342	87,4
MALČA	S2	1200	1245	96,4
MEDOŠEVAC	V1	2707	2533	106,9
MEZGRAJA	S1	571	600	95,2
MILJKOVAC	M2	246	301	81,7
MRAMOR	S1	708	672	105,4
MRAMORSKI POTOK	M2	312	327	95,4
OREOVAC	M2	369	449	82,2
PALGRACE	M2	364	422	86,3
PALJINA	M2	276	328	84,1
PASI POLJANA	V1	2148	1695	126,7
PASJAČA	M2	297	385	77,1
POPOVAC	V1	2591	2487	104,2
RUJNIK	S1	567	575	98,6
SEČANICA	S1	874	1018	85,9
SUVI DO	S1	930	801	116,1
SUPOVAC	M2	376	425	88,5
TRUPALE	V1	2102	2169	96,9
HUM	S2	1442	1490	96,8
CERJE	M2	306	386	79,3
ČAMURLIJA	S1	544	557	97,7
ČOKOT	S2	1402	1422	98,6

MUNICIPALITY OF NIŠKA BANJA

SETTLEMENT	SIZE CATEGORY	POPULATION		
		2002.	1991.	INDEX 1991=100
BANCAREVO	M2	116	164	70,7
GORNJA STUDENA	M2	394	422	93,4
DONJA STUDENA	M2	323	370	87,3
JELAŠNICA	S2	1688	1702	99,2
KORITNJAK	extinguished	0	8	0,0
KUNOVICA	M2	101	176	57,4
LAZAREVO SELO	M2	159	159	100,0
MANASTIR	M1	2	2	100,0
NIKOLA TESLA	V2	3533	3669	96,3
OSTROVICA	S1	592	754	78,5
PRVA KUTINA	S2	1901	1061	179,2
PROSEK	S1	603	470	128,3
RAVNI DO	M2	102	147	69,4
RADIKINA BARA	M1	63	108	58,3
RAUTOVO	M1	36	73	49,3
SIĆEVO	S1	991	1003	98,8
ČUKLJENIK	M2	280	316	88,6

Source: Savezni zavod za statistiku - Republički zavod za statistiku, The first results of the census in the municipalities and settlements of the Republic of Serbia, Belgrade, 2002.

SUPPLEMENT 2. FUNCTIONAL STRUCTURE OF THE VILLAGE SETTLEMENTS
IN THE CITY OF NIŠ TERRITORY

MUNICIPALITY OF NIŠ

VILLAGE NAME	FUNCTION	CATEGORY	SIZE TYPOLOGY
BERBATOVO	1, 2, 8a, 10, 11a	B	M
BERČINAC	1, 2, 5, 8a	A	M
BRENICA	1, 2, 3, 5, 8a, 9, 11a, 12	B	S
BRZI BROD	1,2,3,4b,5,7,9,10,11a,12	B	V
BUBANJ SELO	1, 2, 11a	A	S
VELEPOLJE	1, 2, 5, 7, 9, 10, 11a	B	S
VRELO	1, 2, 8a, 11a	A	M
VRTIŠTE	1, 2, 3, 4b, 5, 9, 10, 11a, 12, 15	B	S
VUKMANOVO	1, 2, 4a, 5, 11a, 12	B	M
GABROVAC	1, 2, 3, 4a, 7, 8a, 9, 11b, 12, 14	B	S
GORNJA VREŽINA	1, 2, 3, 4b, 5, 8a, 9, 10, 11b, 12, 13	V1	S
GORNJA TOPONICA	1, 2, 5, 6, 8, 9, 10, 11a, 13, 14	B	S
GORNJA TRNAVA	1, 2, 3, 5, 11a	B	M
GORNJE MEUROVO	1, 2, 3, 7, 9, 11a, 12	B	S
GORNJI KOMREN	1, 2, 3, 4a, 5, 8a, 10, 11a, 12	B	S
GORNJI MATEJEVAC	1,2,3,4b,5,6,7,8,9,10,11b,12,13	V	V
DEVETI MAJ	1,2,3,4b,5,6,9,10,11a,12,13,15	V1	V
DONJA VREŽINA	1,2,3,4b,5,9,10,11b,12	B	V
DONJA TOPONICA	1, 2, 3, 4a, 5, 10, 12	A1	M
DONJA TRNAVA	1, 2, 4a, 5, 9, 10, 11b, 12	B	S
DONJE VLASE	1, 2, 4a, 5, 8a	A	M
DONJE MEĐUROVO	1, 2, 3, 6, 7, 10, 11a, 12	B	S
DONJI KOMREN	1,2,4b,9,10,11a,12	B	V
DONJI MATEJEVAC	1,2,3,4b,5,6,7,8,9,10,11a,12,13,15	V	S
JASENOVIK	1, 2, 3, 4a, 5, 8a, 10, 11a, 12	B	M
KAMENICA	1,2,3,4b,5,8a,9,11b,12,13,14,15	V	S

VILLAGE NAME	FUNCTION	CATEGORY	SIZE TYPOLOGY
KNEZ SELO	1, 2, 3, 4a, 5, 8a, 9, 10, 11a, 12	B	S
KRAVLJE	1, 2, 8a, 9, 10, 11a	B	M
KRUŠCE	1, 2, 4a, 5, 9, 10, 11a	B	S
LALINAC	1, 2, 3, 5, 6, 8a, 9, 10, 11a, 12	B	S
LESKOVIK	1, 2, 3, 4a, 5, 8a, 11a, 12	B	M
MALČA	1,2,3,4b,5,6,7,8,9,10,11b,12,14	V	S
MEDOŠEVAC	1, 2, 3, 4b, 6, 9, 10, 11b, 12, 13	V	V
MEZGRAJA	1, 2, 3, 4b, 5*, 9, 10, 11a, 12	B	S
MILJKOVAC	1, 2, 5, 8a, 9, 11b, 12	B	M
MRAMOR	1,2,3,4b,5,6,8a,9,10,11a,12,13,14,15	V1	S
MRAMOR. POTOK	1, 2, 8a, 11a	A	M
OREOVAC	1,2,4a,5,7*,8a,9,10,11a	B	M
PALIGRACE	1,4a,5,10,11a,12	A1	M
PALJINA	1,2,5*,11a	A1	M
PASI POLJANA	1,2,8a,9,10,11b	B	V
PASJAČA	1,2,4a,5,7,8a,11a	A1	M
POPOVAC	1,2,3,7,9,10,11a,12	B	V
RUJNIK	1,2,3,4b,5*,8a,11a,12	B	S
SEČANICA	1,2,3,4a,5,8a,9,10,11a	B	S
SUVI DO	1,2,3,4a,5,8a,10,11a,12	A1	S
SUPOVAC	2,4b,5,7,8a,9,10,11a	B	M
TRUPALE	1,2,3,4a,5,6,7,8a,9,10,11b,12	B	V
HUM	1,3,4b,5,6,7,9,11b	B	S
CERJE	1,2,4a,5,11a	A	M
ČAMURLIJA	1,2,3,4b,5*,8*,9*,10,11a	B	S
ČOKOT	1,2,4a,5,9,10,11b,12	B	S

MUNICIPALITY OF NIŠKA BANJA

VILLAGE NAME	FUNCTION	CATEGORY	SIZE TYPOLOGY
BANCAREVO	1	A	M
GORNJA STUDENA	1,2,3,4a,5,8a,10,12	A1	M
DONJA STUDENA	1,2,3,4a,5,8a,9,10,11a,12	B	M
JELAŠNICA	1,2,3,4b,5,6,7,8,9,10,11b,12,15	V1	S
KORITNJAK	/	/	/
KUNOVICA	1,4a	A	M
LAZAREVO SELO	1,2,3,4b,8a,10	A1	M
MANASTIR	/	/	M
N. NIKOLA TESLA	1,2,3,4b,6,9,10,11b,12	B	V
OSTROVICA	1,2,4a,5,6,7,8a,9,11a,11b,12	B	S
PRVA KUTINA	1,2,3,4a,5,7,8a,9,10,11a,12	B	S
PROSEK	1,2,3,5*,8a,10,11a,12	A1	S
RAVNI DO	5	A	M
RADIKINA BARA	5	A	M
RAUTOVO	/	/	M
SIČEVO	1,2,3,5,6,7,8a,9,10,11b,12,13	B	S
ČUKLJENIK	1,2,5*,11a	A	M

*object under construction

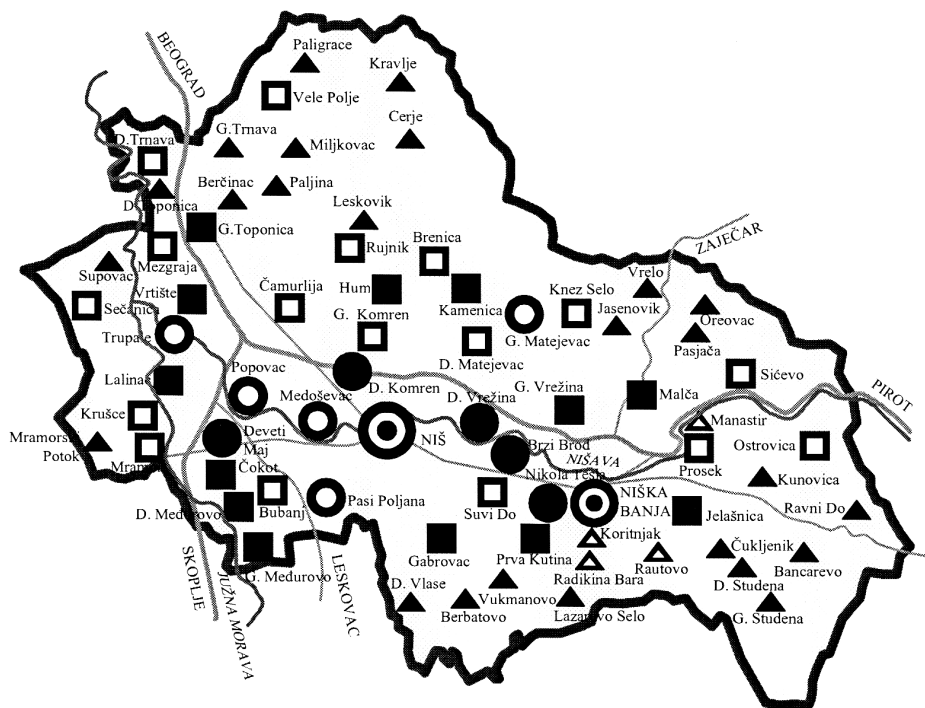
Basic functional categories of settlements:

A. PRIMARY VILLAGE SETTLEMENT – 1. bus stop; 2. store; 3. inn

B. VILLAGE WITH THE VILLAGE CENTER – 1. bus stop; 2. store; 3. inn; 4a. seat of the organizational unit of agricultural

C. production (farming cooperative); 5. community center; 6. post office; 7. outpatient clinic; 8. veterinarian clinic; 8a. field veterinarian; 9. MZ (local administrative office); 10. crafts workshop; 11a. school detachment; 12. club

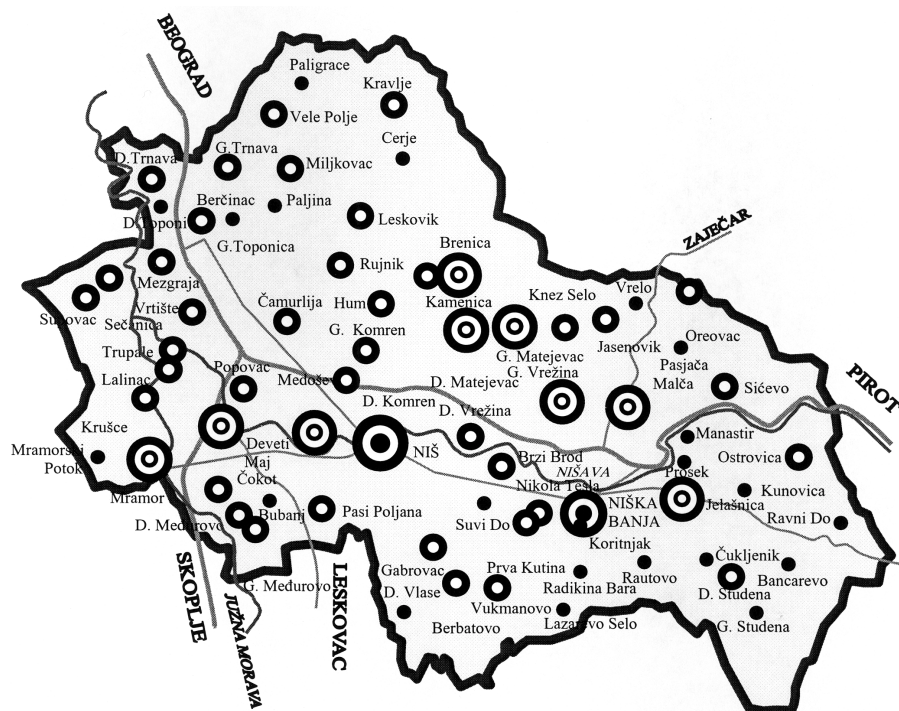
D. VILLAGE SETTLEMENT COMMUNITY CENTER – 1. bus stop; 2. store; 3. inn; 4a. seat of the organizational unit of agricultural production (farming cooperative, primary processing of the agricultural products, small industrial facility, warehouse); 5. community center; 6. post office; 7. outpatient clinic; 8. veterinarian clinic; 8a. field veterinarian; 9. MZ (local administrative office); 10. crafts workshop; 11b. primary school; 12. club; 13. health care clinic; 14. chemist's shop (drug store); 15. green market



LEGEND:

- | | | | |
|---|-------------------------------------|----|---------------------|
| ● | PRIMARY VILLAGE SETTLEMENT | — | BORDER OF TERRITORY |
| ● | VILLAGE WITH THE VILLAGE CENTER | == | MAJOR ROADS |
| ⊙ | VILLAGE SETTLEMENT COMMUNITY CENTER | ~ | RIVERS |

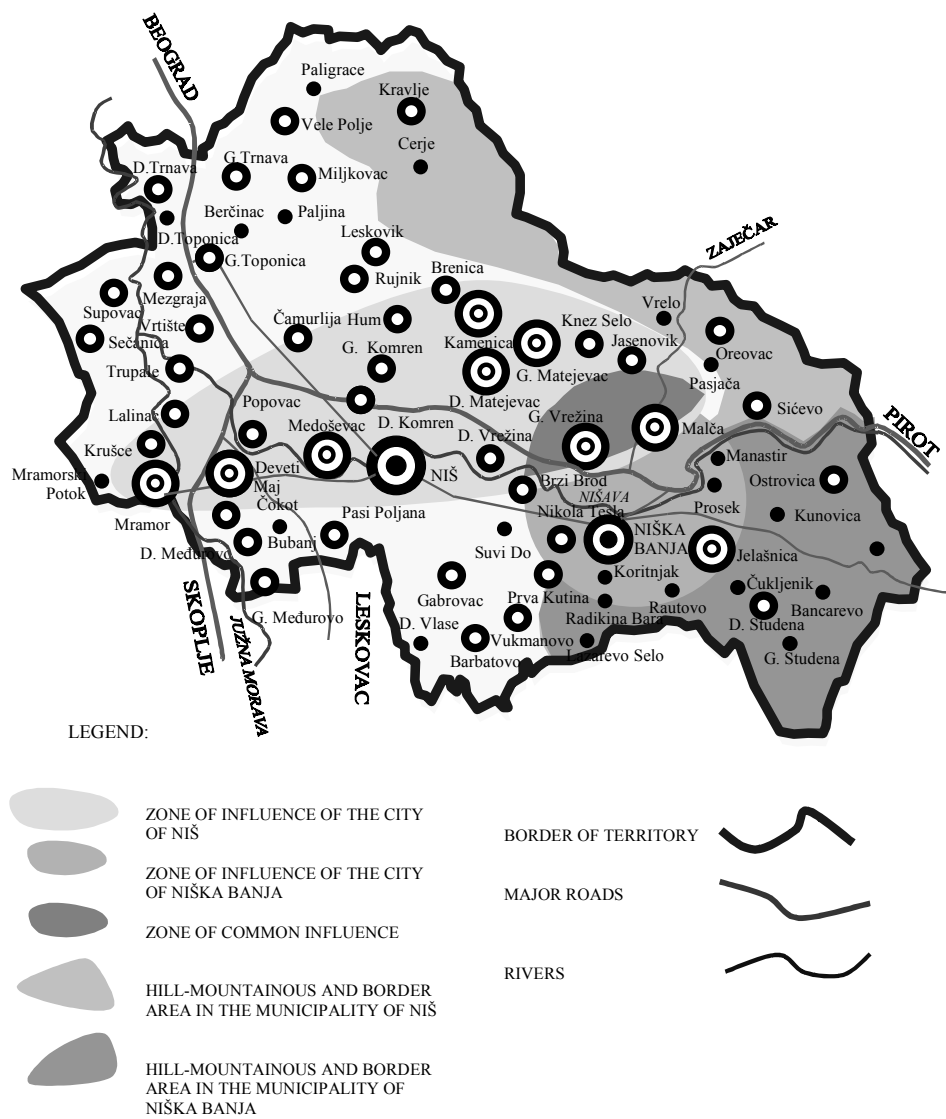
Map 1. Graphical presentation of the spatial distribution of the village settlements in the city of Niš territory



LEGEND:

- | | | | |
|---|-------------------------------------|---|---------------------|
| ● | PRIMARY VILLAGE SETTLEMENT | — | BORDER OF TERRITORY |
| ○ | VILLAGE WITH THE VILLAGE CENTER | — | MAJOR ROADS |
| ⊙ | VILLAGE SETTLEMENT COMMUNITY CENTER | — | RIVERS |

Map 2. Spatial distribution of the functional types of the village settlements in the city of Niš territory



Map 3. Zones of influence of city and village settlements in the city of Niš territory

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FUNKCIONALNA I VELIČINSKA TIPOLOGIJA SEOSKIH NASELJA NA TERITORIJI OPŠTINE NIŠ

Petar Mitković, Ljiljana Vasilevska, Ivana Bogdanović, Milena Dinić

Rad sadrži analizu veličinske i funkcionalne tipologije seoskih naselja na teritoriji grada Niša. U njemu je dat pregled razvojnih kretanja i demografskih tendencije, kao i u prostorne distribuciju seoskih naselja, kao i kategorizacija seoskih naselja na teritoriji grada Niša na osnovu njihovih funkcionalnih karakteristika. Rad je rađen u okviru naučno-istraživačkog projekta "Održivi pravci razvoja seoskih naselja na teritoriji grada Niša" na Građevinsko-arhitektonskom fakultetu u Nišu.