

**Démographie spatiale des Balkans : tendances et enjeux**  
**Spatial demography of the Balkans: trends and challenges**

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**SPATIAL ASPECTS OF DEMOGRAPHIC PROCESSES IN**  
**MONTENEGRO**

**(Séance / Session 3)**

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# **Spatial aspects of demographic processes in Montenegro**

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Montenegro's area surface is 13812 km<sup>2</sup>. On that area 21 municipalities are found including 1256 settlements, of that number 40 settlements are of the urban type. With population numbering 628804 for the year 2008 (estimate from the middle of the year) Montenegro is one of the smallest European countries, regarding population.

Montenegro can be divided into northern region (municipalities: Andrijevica, Berane, Bijelo Polje, Žabljak, Kolašin, Mojkovac, Plav, Plužine, Pljevlja, Rožaje, Šavnik), middle region (Danilovgrad, Nikšić, Podgorica, Cetinje) and coastal region (municipalities: Bar, Budva, Kotor, Tivat, Ulcinj, Herceg Novi). Northern region is the most extensive one and it encompasses 52,9% of the entire area. Next in relation to its extensiveness is the middle region with 35,6% and finally coastal region taking up 11,5% of the territory. These three distinctive parts of Montenegro exhibit considerable differences regarding fluctuation of population numbers during previous decades, as well as regarding components of that fluctuation (natural and mechanical fluctuation of the population).



Demographic development of Montenegro after the Second World War is characterized by constant increase in population. Considering period from the 1948 census and 1991 census it is evident that the population increased from 377 305 to 615 035 or by 63,0%. Census from 2003 was done following new methodology, so the population was established to be 620 145 (when applying this methodology to earlier period we conclude that in 1991 Montenegro had population of 593 504).

**Comparative overview of population numbers for the years 1948, 1953, 1961, 1971, 1981, 1991 and 2003.<sup>1</sup>**

Municipalities	Number of inhabitants								
	According to methodology applied for earlier censuses							According to census methodology 2003.	
	1948.	1953.	1961.	1971.	1981.	1991.	2003.	1991.	2003.
Andrijevića	10067	10327	9792	8966	7712	6696	6383	6561	5785
Bar	21487	23009	24587	27580	32535	37321	45246	34463	40037
Berane	27646	30316	34280	40385	42060	38953	40821	37759	35068
Bijelo Polje	36795	41432	46651	52598	55634	55268	57067	54590	50284
Budva	3825	4364	4834	6106	8632	11717	16146	11547	15909
Danilovgrad	16800	17394	17378	15073	14769	14718	16636	14585	16523
Žabljak	5907	6773	6564	6141	5227	4914	4239	4900	4204
Kolašin	14074	14896	14882	13799	12656	11120	10043	11046	9949
Kotor	14124	15436	16642	18917	20455	22410	23541	22137	22947
Mojkovac	5856	7252	8832	9833	10753	10830	10280	10743	10066
Nikšić	38359	46589	57399	66815	72299	74706	76677	73983	75282
Plav	15764	17330	18913	19542	19560	19305	21560	15998	13805
Plužine	8030	8952	9164	9078	6254	5247	4295	5221	4272
Pljevlja	35926	40876	46677	46843	43316	39593	36913	39405	35806
Podgorica	48599	55669	72319	98796	132290	152025	179401	146121	169132
Rožaje	11047	12668	14700	16018	20227	22976	27559	22474	22693
Tivat	5030	5432	5974	6925	9315	11429	14006	11186	13630
Ulcinj	12861	14080	16213	18955	21576	24217	26451	19861	20290
Herceg Novi	12482	13759	15157	18368	23258	27593	34102	27073	33034
Cetinje	25114	25549	23503	22024	20213	20307	18754	20171	18482
Šavnik	7512	7847	7533	6842	5569	3690	2974	3680	2947
Crna Gora	377305	419950	471994	529604	584310	615035	673094	593504	620145

Increase in population was the most intensive during the first inter-census period (1948-1953) just after the Second World War and it amounted to 21,6‰ annually. After this period, the numbers started to decline so in the interim census period 1981-1991 it amounted to 5,1‰. From 1948 to 1971 the most intensive increase in population numbers was in the middle region, after that coastal region overtook the leading position. In the period between two censuses 1981-1991, annual rate of population increase in the coastal region was 15,2‰, in middle region 8,9‰. At the same time, population of the northern region was in decline for 4,6‰ annually.

<sup>1</sup> Comparative overview of population numbers in 1948, 1953, 1961, 1971, 1981, 1991 and 2003; data per settlements; Census of population, households and apartments in 2003 ; Population; Book 9; Podgorica, September 2005; page 14.

**Rates of population change by regions of Montenegro since 1948. until 1991;  
average annual rates (in promilles)<sup>2</sup>**

Period	Montenegro	Northern region	Middle region	Coastal region
1948-1953	21,6	21,5	24,1	17,4
1953-1961	14,7	11,7	20,4	11,6
1961-1971	11,6	5,4	17,4	15,1
1971-1981	9,9	-0,5	16,8	18,0
1981-1991	5,1	-4,6	8,9	15,2

From census of 1948 to census of 1971, population of the northern region was increased from 178 624 to 230 045, and then by the year 1991 it was decreased to 218 592. From 1948 to 1991 the middle region saw population growth from 128 872 to 261 756, for coastal region this growth was from 69 809 to 134 687. By comparing the state from the years 1991 and 1948, it is evident that the population of the middle region increased for 103,1%, in coastal region for 92,9%, and in northern region for 22,4%.

**Comparative overview of population by regions of Montenegro for the years 1948, 1953, 1961, 1971, 1981, 1991 and 2003.**

Regions	Number of inhabitants								
	According to methodology applied for earlier censuses							According to census methodology 2003.	
	1948.	1953.	1961.	1971.	1981.	1991.	2003.	1991.	2003.
Northern region	178624	198669	217988	230045	228968	218592	222134	212377	194879
Middle region	128872	145201	170599	202708	239571	261756	291468	254860	279419
Coastal region	69809	76080	83407	96851	115771	134687	159492	126267	145847
Montenegro	377305	419950	471994	529604	584310	615035	673094	593504	620145

Similar tendencies of demographic development were continued after 1991. If we apply definition of population number from 2003 onto census from 1991, then it is evident that in the interim census period from 1991 to 2003 the population number grew for 26 641 inhabitants. This growth was the result of increase in population of the middle region for 24 559, and in the coastal region for 19580 inhabitants, but also decreases in population of northern region for 17 498 individuals. Annual rate of Montenegro population growth of 3,5‰ in this period, was the result of different regional rates. Population of coastal region was increased for 11,5‰, and middle region for 7,3‰ annually. At the same time (1991-2003.), in the northern region number of inhabitants was decreasing at annual rate of 6,8‰.

<sup>2</sup> Goran Penev, Demographic trends in Montenegro from the middle of the 20<sup>th</sup> century and perspectives until 2050, Montenegro Institute for Statistics, 2009, page 20.

**Increase/decrease of Montenegro population in intercensal period 1991-2003, by regions**

	31.03.1991.		31.10.2003.		
	def. 1991.	def. 2003.	def. 1991.	def. 2003.	def. 2006.
<b>Montenegro</b>					
Total population	615035	593504	673094	620145	633985
Increase – decrease in intercensal period			58059	26641	40481
Average annual increase rate (in promilles)			7,2	3,5	5,3
<b>Northern region</b>					
Total population	218592	212377	222134	194879	198647
Increase – decrease in intercensal period			3542	-17498	-13730
Average annual increase rate (in promilles)			1,3	-6,8	-5,3
<b>Middle region</b>					
Total population	261756	254860	291468	279419	285643
Increase – decrease in intercensal period			29712	24559	30783
Average annual increase rate (in promilles)			8,6	7,3	9,1
<b>Coastal region</b>					
Total population	134687	126267	159492	145847	149695
Increase – decrease in intercensal period			24805	19580	23428
Average annual increase rate (in promilles)			13,5	11,5	13,6

Differences between the said regions related to fluctuations in population numbers during the period from 1948 to 2003 also changed the participation of these three regions in total population numbers for Montenegro. Quota of northern region population as per census of 1948 was 47,3%. Later, upon brief stagnation, it decreases until 1991 to 35,5%, and census of 2003 puts it at barely 31,4%. Middle region showed constant increase of this quota from 34,2% in 1948 to 45,1% in 2003. Coastal region, in the period between 1948-1961 showed mild decrease of its quota in total Montenegro population from 18,5% to 17,7%, and that constant growth to 23,5%.

**Share of the three regions in total Montenegro population, 1948-2003.**

	Number of inhabitants								
	According to methodology applied for earlier censuses							According to census methodology 2003..	
	1948.	1953.	1961.	1971.	1981.	1991.	2003.	1991.	2003.
Northern region	47,3	47,3	46,2	43,4	39,2	35,5	33,0	35,8	31,4
Middle region	34,2	34,6	36,1	38,3	41,0	42,6	43,3	42,9	45,1
Coastal region	18,5	18,1	17,7	18,3	19,8	21,9	23,7	21,3	23,5

Population decline of the northern region is possible to follow through relatively speedy decrease of annual number of live births in this region. In 1961 this region had 6919 live births which made up for 53,2% of the total Montenegro population. In 1981 there was 4121 live births in the northern region, and in 2008. year 2347 or just 28,4% live births of Montenegro. On the other hand, number of live births in the rest of

Montenegro during the same period 1961-2008 demonstrates certain stability and significantly less fluctuations.

### Changes in the number of live births by region of Montenegro, 1961-2008.

	Live births					
	1961.	1971.	1981.	1991.	2003.	2008.
Northern region	6919	5111	4121	3396	2673	2347
Middle region	4398	4065	4306	4334	3974	4036
Coastal region	1677	1690	1908	1876	1697	1875
Montenegro	12994	10866	10335	9606	8344	8258

In 2007 birth rate in Montenegro was 12,2‰. This rate was rather uniform for all regions of Montenegro. In middle region it was 12,9‰, and in southern and northern one it was 11,7‰. In the same year, total fertility rate of Montenegro population was 1,64 and it resulted from extremely low rates in three regions: middle region 1,67, northern region 1,62 and southern region 1,59.<sup>3</sup>

### Migration balance per regions 1981-1991. and 1991-2003.

Region	Inter-census period 1981-1991.				Inter-census period 1991-2003.			
	Total population		Migration balance (1981-1991)		Total population (def. 2006)		Migration balance (1991-2003)	
	1981.	1991.	Number of inhabitants	Rate (‰)	1991.	2003.	Number of inhabitants	Rate (‰)
Montenegro	584310	615035	-33387	-5,6	593504	633985	-9645	-1,6
Northern region	228968	218592	-34800	-15,6	212377	198647	-31780	-15,5
Middle region	239571	261756	-7327	-2,9	254860	285643	5635	2,1
Coastal region	115771	134687	8741	7,0	126267	149695	16499	12,0

Migration balance of Montenegro in all inter-census periods after the Second World War was negative. Within Montenegro itself, between the regions there are considerable differences in migration balance. The northern region is characterized by pronouncedly negative migration balance rate. This rate in interim census period 1981-1991 amounted to -15,6‰, and in the period from 1991 to 2003 it was -15,5‰. Middle region for the period between 1981 to 1991 saw annual migration balance rate of -2,9‰, and in the period from 1991 to 2003 this rate became positive and it was 2,1‰. During the both aforementioned census periods, coastal region had positive migration balance rate. In the first period (1981-1991.) this rate was 7‰, and in the second (1991-2003.) it was increased to 12‰. Having in mind rather homogeneous birth and fertility rates, and not so significant differences in natural increase rates it can be concluded that the

<sup>3</sup> Goran Penev, Demographic trends in Montenegro from the middle of the 20<sup>th</sup> century and perspectives until 2050, Montenegro Institute for Statistics, 2009, page 28.



migrations were the major factor of quota fluctuations of certain regions reflecting in total population of Montenegro during previous decades.

Differences in demographic trends are even more obvious when we consider municipalities or group of municipalities in Montenegro. Although from all Montenegro municipalities tempo of population increase in the period between 1948-2003 was the most intensive in Budva municipality, due to its population size increase in population in Podgorica municipality is of the exceptional importance. From 1948 to 2003, number of inhabitants<sup>4</sup> in the area of Podgorica municipality grew from 48599 to 169132. At the same time participation of inhabitants of Podgorica municipality in the total number of inhabitants of Montenegro was increased from 12,9% to 27,3%.

**Comparative overview of population numbers for region consisting of the group of 6 chosen municipalities and Podgorica municipality, 1948-2003.<sup>5</sup>**

Area	Number of inhabitants								
	According to methodology applied for earlier censuses							According to census methodology 2003	
	1948.	1953.	1961.	1971.	1981.	1991.	2003.	1991.	2003.
Podgorica	48599	55669	72319	98796	132290	152025	179401	146121	169132
Group of 6. Municipalities	51446	56047	56767	54659	48171	42497	38214	42151	37223

**Comparative overview of population numbers for region consisting of the group of 6 chosen municipalities and Podgorica municipality, 1948-2003. (%)**

Area	Number of inhabitants								
	According to methodology applied for earlier censuses							According to census methodology 2003.	
	1948.	1953.	1961.	1971.	1981.	1991.	2003.	1991.	2003.
Podgorica	12,9%	13,3%	15,3%	18,7%	22,6%	24,7%	26,7%	24,6%	27,3%
Group of 6. Municipalities	13,6%	13,3%	12,0%	10,3%	8,2%	6,9%	5,7%	7,1%	6,0%

In 2008, Podgorica municipality recorded 2789 newborns and 1412 deaths, as well as natural increase of 1377 individuals. That year, data for Podgorica municipality represent approximately one third (33,8%) of live births in Montenegro, approximately one quarter of dead people (24,7%) and over half (1377 from 2550 or 54%) of the total amount of positive natural increase for Montenegro. From different other municipalities in Montenegro, 1065 individuals moved to Podgorica, and 481 individuals moved from Podgorica (30,1% moved in and 13,6% moved out in inter-municipal migrations in Montenegro).

<sup>4</sup> According to methodologies applicable at the time of the censuses

<sup>5</sup> Comparative overview of population numbers in 1948, 1953, 1961, 1971, 1981, 1991 and 2003; data per settlements; Census of population, households and apartments in 2003 ; Population; Book 9; Podgorica, September 2005; page. 14.

## Population natural change and internal migrations of Montenegro in some municipalities of Montenegro<sup>6</sup>

Municipality	Population natural change			Internal migrations of Montenegro		
	Live births	Deaths	Natural increase	Moved in	Moved from	Migration Balance
Podgorica	2789	1412	1377	1065	481	584
Andrijevića	43	72	-29	34	61	-27
Žabljak	25	46	-21	30	57	-27
Kolašin	87	131	-44	38	108	-70
Mojkovac	80	99	-19	40	95	-55
Plužine	24	51	-27	11	86	-75
Šavnik	14	21	-7	3	86	-83
Crna Gora	8258	5708	2550	3535	3535	0

In contrast to Podgorica as one of focal points of Montenegro population growth, we can separate a belt of 6 small (population regarding), sparsely inhabited and depopulated municipalities consisting of the following : Andrijevića, Žabljak, Kolašin, Mojkovac, Plužine and Šavnik. These municipalities take up 3399 km<sup>2</sup> (24,6% of Montenegro area). Number of inhabitants in this area, according to census from 1948 was 51 446 (5,9% higher than in Podgorica municipality), after that population grows to 56 767 in 1961, and after that we see constant fall until it amounted to 37 223 in 2003 (according to this census Podgorica municipality had 4,5 times bigger population than the area of all 6 aforementioned municipalities). Quota of population participation of said municipalities in total number of Montenegro inhabitants was decreased from 13,6% in 1948. to 6,0% in 2003. In 2008 number of live births in this group of municipalities was 273 (3,3% of Montenegro newborns), number of deaths was 420 (7,4% of Montenegro deaths), so the natural population increase was negative by 147 inhabitants. In the same year, in the area of all 6 municipalities by the way of internal migrations from the rest of the country 156 individuals moved in, and 493 individuals moved away. Example of fast depopulation in the course of last few decades is Šavnik municipality. After the period between 1948 – 1953 when population grew from 7512 to 7847, this municipality was affected by depopulation so that the census of 2003 recorded only 2947 inhabitants. Having in mind the area surface of the municipality of 553 km<sup>2</sup> population density in 2003 was barely 5,3 inhabitants per km<sup>2</sup>. Dispersal of population potential of Šavnik municipality in the course of few decades is mirrored by decrease in number of newborns. That number fell from 164 in 1961 to 55 in 1981 and then to 14 in 2008. Apart from 14 live births in 2008 there were 21 deaths, 3 individuals moved in and 86 individuals moved away.<sup>7</sup> All this points to a very intensive depopulation process. According to this data (negative natural population increase by 7 individuals and negative migration balance of internal migrations by 83 individuals) and based on estimated number of inhabitants of 2 651 in 2008, in the course of that single year municipality population decreased for 3,39%.

<sup>6</sup> Statistical Yearbook 2009, Statistical Office of Montenegro, 2009, page. 266-276.

<sup>7</sup> Migrations within Montenegro

### Population natural change of the Šavnik municipality, 1961-2008.

	1961.	1971.	1981.	1991.	2003.	2008.
Live births	164	102	55	40	19	14
Deaths	42	49	39	27	34	21
Natural increase	122	53	16	13	-15	-7

Long-term demographic processes also caused significant differences in population density between the regions and municipalities of Montenegro. From 620 145 inhabitants according to census of 2003 and with territory of 13 812 km<sup>2</sup>, Montenegro had population density of 44,9 inhabitants per km<sup>2</sup>. When considering regions, the highest density was in coastal region (91,7 inhabitants per km<sup>2</sup>), than in middle region (56,8 inhabitants per km<sup>2</sup>), and finally significantly lower density in northern region (26,7 inhabitants per km<sup>2</sup>). Some municipalities exhibited exceptionally low population density, especially municipalities Plužine (5 inhabitants per km<sup>2</sup>) and Šavnik (5,3 inhabitants per km<sup>2</sup>).

Apart from difference evident in demographic fluctuations between individual municipalities and groups of municipalities, there is a difference in population fluctuation between urban and other settlements. After the Second World War, simultaneously with industrialization and deagrarization, concentration of population in urban settlements intensified. Within the area of present 40 urban settlements of Montenegro in 1948 there were 79 196 inhabitants, and in 2003 there were 383 808 inhabitants. At the same time, quota of these settlements in total Montenegro population was increased from 20,99% to 61,89%.

### Population of urban and rural settlements of Montenegro, 1948-2003

Area	Number of inhabitants								
	According to methodology applied for earlier censuses							According to census methodology 2003.	
	1948.	1953.	1961.	1971.	1981.	1991.	2003.	1991.	2003.
Urban	79196	98774	144128	215116	292060	353505	403199	347192	383808
Rural	298109	321176	327866	314488	292250	261530	269895	246312	236337
Total	377305	419950	471994	529604	584310	615035	673094	593504	620145

Population of other settlements grew from 1948 to 1961 from 298 109 to 327 866 inhabitants, and then in 2003 it decreased to 236 337 individuals. From 1948 to 2003 participation quota of this settlements in total Montenegro population exhibited constant decrease from 79,01% to 38,11%.

### Share of urban and rural population in total population of Montenegro, 1948-2003 (%)

Type of settlements	Share ( %)								
	According to methodology applied for earlier censuses							According to census methodology 2003.	
	1948.	1953.	1961.	1971.	1981.	1991.	2003.	1991.	2003.
Urban	20,99	23,52	30,54	40,62	49,98	57,48	59,90	58,50	61,89
Rural	79,01	76,48	69,46	59,38	50,02	42,52	40,10	41,50	38,11

Depopulation of rural area of Montenegro affected the structure of rural settlements according to size. From 1948 to 2003 number of villages with 25 or less inhabitants was increased from 7 to 260, and their participation in number of villages from 0,6% to 21,4%. This period saw decrease in number of village settlements (ranging from 101 to 500 inhabitants) from 879 to 450, and increase in number of village settlements with up to 100 inhabitants from 212 to 659 (%). Number of villages with over 1000 inhabitants grew from 4 in 1948 to 31 in 2003. This data shows that smaller (regarding population) and more remote villages lose their inhabitants, and average size of village settlement in Montenegro is decreasing. On the other hand, smaller number of villages manages to increase the number of their inhabitants (mainly coastal, suburban and village settlements with favorable traffic positioning).

### Comparative overview of rural settlements categories according to number of inhabitants (1948/2003)<sup>8</sup>

Number of inhabitants	1948.		2003.	
	Number of villages	Participation in number of settlements in Montenegro (u %)	Number of villages	Participation in number of settlements in Montenegro (u %)
0-25	7	0,6	260	21,4
26-50	31	2,6	165	13,6
51-100	174	14,5	234	19,3
101-200	400	33,3	236	19,4
201-300	260	21,7	112	9,2
301-500	219	18,2	102	8,4
501-1000	105	8,8	76	6,2
Over 1000	4	0,3	31	2,5
Total	1200		1216	

The existing population projections for Montenegro until the year 2050 point to expected continuance of certain present tendencies in demographic development. Considering the variant of medium fertility (representing the moderately high fertility, expected death rate and expected migrations) in the period from 2005 to 2050 the population of Montenegro will increase to 783 479 inhabitants or to 23% as a result of population increase of 7,1% in the northern region, 28,3% in middle region and 33,5% in

<sup>8</sup> Spatial plan of Montenegro until the year 2020, Ministry for economical development, Podgorica, 2008, page 55.

coastal region. As a result of these tendencies, ratio of middle region participation in total Montenegro population in 2050 would increase to 47,3%, coastal region to 25,7%, and participation of northern region would be decreased to 27,0%.

**Medium variant of population projection by regions of Montenegro, 2010-2050.**

	Year				
	2010.	2020.	2030.	2040.	2050.
Northern region	191624	192779	199667	205949	211286
Middle region	295408	313772	334218	352987	370703
Coastal region	154934	166135	178707	189794	201490
Montenegro	641966	672686	712592	748730	783479

In hypothetical constant variant of the projection (constant fertility, death rate and migration levels), population of Montenegro would in 2050 (when compared to 2010) be lesser for 15,5% as a result of increase of 1,7% in middle region, decrease of 7,9% in coastal region, and decrease in 48,2% in northern region. In this case in the year of 2050 participation of northern region in total population of Montenegro would be only 18,3%, participation of coastal region would be 26,1%, and middle region of 55,6%.

**Constant variant of population projection by regions of Montenegro, 2010-2050.**

	Year				
	2010.	2020.	2030.	2040.	2050.
Northern region	191282	174860	153500	127621	98995
Middle region	296357	306704	310574	307882	301476
Coastal region	153659	156393	155042	149367	141571
Montenegro	641298	637957	619116	584870	542042

It can be stated that Montenegro is an area of complex demographic processes. Zones of population growth and zones of depopulation are clearly pronounced. Difference in population fluctuations for certain Montenegro regions originate more from differences in migration balance than from differences in natural population increase. In the course of last few decades, northern region lost its leading position in population potentials between Montenegro regions. Further demographic development will increase population concentration in some municipalities. On the other hand, in certain mostly mountain and sparsely populated municipalities fast depopulation trend will continue. All projection variants until the middle of this century foresee increase in participation of middle and coastal, and decrease in participation of northern region in total Montenegro population. Apart from that, further increase of urban population participation in the total Montenegro population is expected.