

POPULATION, MUNICIPALITIES AND SETTLEMENTS IN UPPER POLOG

Resul HAMITI^{1*}, Mireme RUSHITI¹, Merime MUSTAFI¹

¹*Department of Geography, Faculty of Natural Sciences and Mathematics, University of Tetova, RNM*

**Corresponding Author: e-mail: resul.hamiti@unite.edu.mk*

Abstract

This paper deals with the population of Upper Polog, comparing municipalities. Particular importance is given to the analysis of the process of population changes during the period 1994-2021/2022. Demographic changes in municipalities have directly or indirectly influenced the emergence of demographic problems. Therefore, through this paper, we aim to highlight the changes in population size in municipalities and the factors that lead to these changes.

The municipalities and settlements of Upper Polog are characterized by relatively good population and dynamic demographic developments. In this context, the study of population and settlements is of great importance for the economic and social development of municipalities, the region, and the state. The methods used in this paper are: descriptive, analytical, comparative, statistical, and cartographic, based on population data obtained from the State Statistical Office of the Republic of North Macedonia.

Keywords: number, population, settlements, municipality, Upper Polog.

1. Introduction

Upper Polog is a region with a relatively dense population and a fast-changing demographic landscape. Understanding these population trends is crucial—not just for local planning, but also for supporting the broader economic and social development of the municipality, the region, and the country.

How many people live in the area, how quickly the population is growing, and how communities are spread across the region all play a role in shaping economic opportunities and improving quality of life. This part of the country includes the urban municipality of Gostivar, along with the rural municipalities of Vrapčište and Mavrovo-Rostuše. Together, they cover about 1352 km², which makes up 5.2% of North Macedonia's total land area and about 4.6% of its population.

The primary objective of this research is to highlight the changes in the total population at both the regional level and among municipalities, as well as to identify the factors contributing to these changes.

The central hypothesis posits that, due to the unfavorable economic and political conditions of the country—particularly of the region in question—there have been significant changes in the total population.

For this reason, the study focuses on demographic changes in Upper Polog, analyzing the overall population trends based on census data, population density, ethnic composition, and the territorial organization of the region.

2. General movement of the population

The Upper Polog subregion stands out from other parts of North Macedonia because of its unique demographic and social features, as well as the way its population has changed over time. The first official population counts in North Macedonia were carried out in 1921 and 1931. More official data for Upper Polog come from later censuses done in 1948, 1953, 1961, 1971, 1981, 1994, 2002, and most recently in 2021 (published in 2022). For the city of Gostivar, there are even older records, with population data going back to 1874. Looking at all this information for both Gostivar and the wider Upper Polog area, it's clear that the population has generally grown over time. However, there have been periods when migration caused notable changes in population numbers.

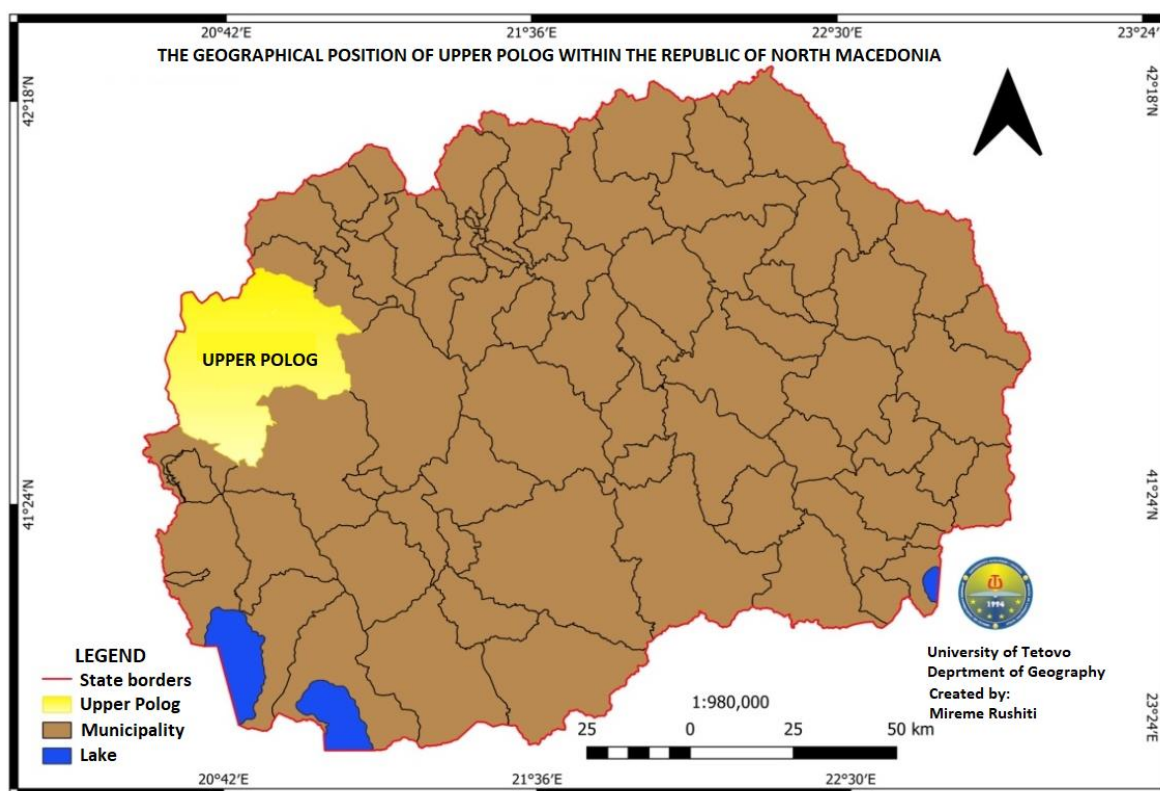


Figure 1. Geographical position of Upper Polog

For this reason, the population size is a crucial factor, as it determines the number of people who are the primary and irreplaceable drivers of any economic development. In other words, they are the main agents behind both the production and consumption of material goods. The primary factors influencing population migration are predominantly economic in nature, including high unemployment rates, the pursuit of improved working conditions, and the desire for enhanced living standards and overall quality of life.

Table 1. Total Population change in the municipalities of Upper Polog, 1948–2022

Total population change in the municipalities of Upper Polog										
R. year	1948	1953	1961	1971	1981	1994	2002	2020	2021	R.2022
Vrapčište	13118	14811	15649	18831	22641	23408	25399	27606	31129	19888
%	21.76	22.01	23.99	24.07	23.27	22.11	22.07	23.01	23.31	23.47
Gostivar	31337	35084	35156	46793	62435	70737	81042	83591	93956	59816
%	51.98	52.14	53.90	59.82	64.17	66.82	70.44	69.68	70.36	70.60
Mavrovo-Rostuše	15834	17388	14420	12601	12222	11715	8618	8769	8457	5024
%	26.26	25.84	22.11	16.11	12.56	11.07	7.49	7.31	6.33	5.93
Upper Polog	60289	67283	65225	78225	97298	105860	115059	119966	133542	84728
%	100	100	100	100	100	100	100	100	100	100%

Source: State Statistical Office of the Republic of North Macedonia, compiled by the author.

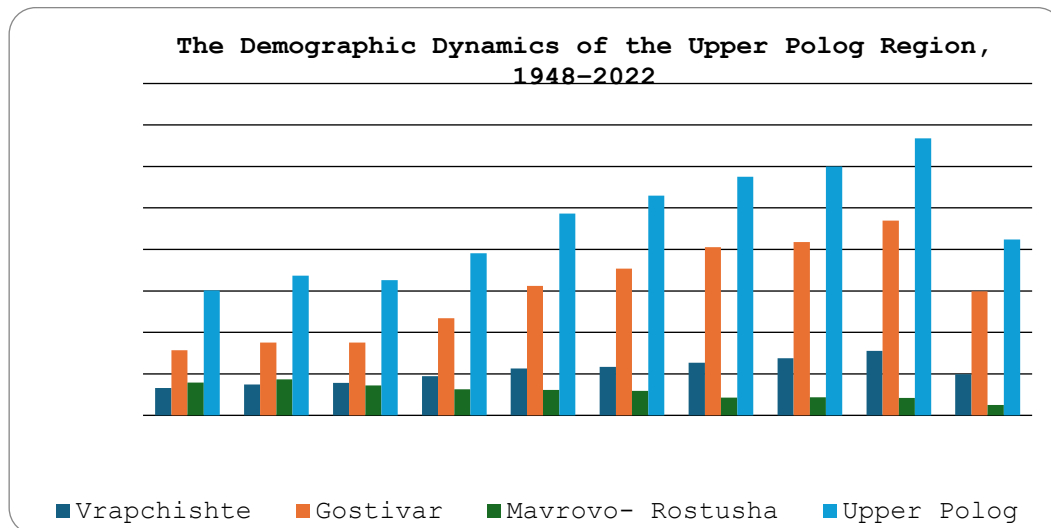


Figure 2. The demographic dynamics of the Upper Polog Region, 1948–2022

In 1948, the Upper Polog region had a population of 60289, which then steadily increased over the following censuses to reach 84728 by 2022. The municipality of Gostivar, as an urban center, had 31337 residents in 1948. This number grew over time, reaching 59816 by 2022—accounting for about 70.60% of Upper Polog’s total population.

Between 1948 and 2022, the population of Gostivar increased by 28479 people, or roughly 1.3 times. This significant growth in the number of residents across the municipalities is mainly due to a high natural population increase, which, prior to 1981, was over 20 %.

3. Administrative-territorial reorganization of Upper Polog

After the administrative division in 1996, which created many municipalities and led to extreme centralization, the system proved to be impractical and inefficient. The constitutional changes that emerged from the Ohrid Framework Agreement became a key condition for a new administrative division and the decentralization of local government.

As a result, in December 2004, the Macedonian Assembly passed a law to reorganize the administrative-territorial structure and redistribute powers, reducing the number of municipalities to 84, and later to 80 after 2014. In the Upper Polog region, the number of municipalities was reduced from nine to just three larger ones. This reorganization aimed to preserve spatial mobility for the population and settlements, maintain traditions, and ensure a balanced distribution of wealth and human resources.

Table 2. Municipalities in the Upper Polog Region

N o.	Municipality	Area in km ²	Population				Settlement	Density inh./ km ²			
			1994	2002	2020	2022		1994	2002	2020	2022
1	Vrapčište	157.98	24465	25399	27550	19888	15	154.86	160.77	174.39	125.89
2	Gostivar	513.39	75080	81042	83847	59816	35	146.24	157.86	163.32	116.51
3	Mavrovo-Rostuše	663.19	10418	8618	8893	5042	42	15.71	12.99	13.41	7.60
	Upper Polog	1334.6	109963	115059	120290	84547	92	82.40	86.21	90.13	63.35

Source: Ministry of Local Government

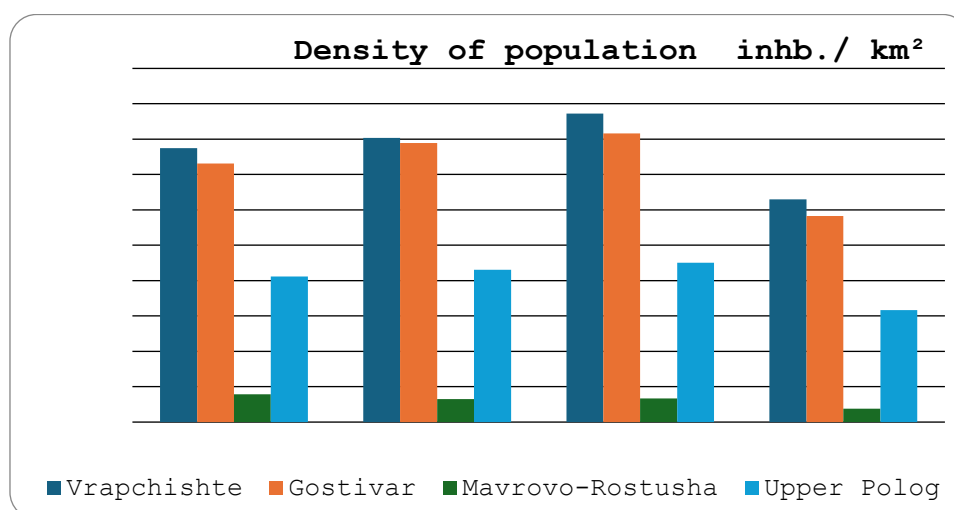


Figure 3. Density of population of the Upper Polog Region, 1994–2022

In 2004, all municipalities changed in area, population, settlements, ethnic composition, and more. The urban municipality of Gostivar was merged with the rural municipalities of Chegrane, Dolna Banjitsa, and Srbinova; the municipality of Vrapčište was joined with Negotino; and the Mavrovo municipality merged with Rostuše, which has a majority Macedonian population and covers a larger area with higher altitude.

The new municipalities in Upper Polog differed significantly in terms of size, number of settlements and population, ethnic makeup, and levels of economic development. Gostivar is a mixed urban-rural municipality, while the other two are predominantly rural.

There are also notable differences in area size: the largest municipalities are Mavrovo-Rostuše (663,19 km²) and Gostivar (513.39 km²), while Vrapčište is the smallest at 157.98 km². The two largest municipalities also have the highest number of settlements—42 in Mavrovo-Rostuše and 35 in Gostivar.

In terms of population, Gostivar is the most populous with 83768 people (59816 residents as of 2021), while Mavrovo-Rostuše has the fewest, with 8893 people (5042 residents in 2021).



Figure 4. Municipalities of Upper Polog

3.1. *Municipality of Gostivar:* The Municipality of Gostivar is one of the largest urban municipalities and is located in the northwestern part of the Republic of North Macedonia. It enjoys a favorable geographic position and good transportation connections, as the main highway E-852 passes through its central area. Together with the municipality of Tetovo and several other municipalities in the western part of the country, Gostivar lies within one of the most fertile valleys not only in North Macedonia but also in the wider region.

Table 3. Geographical characteristics of the settlements of the Municipality of Gostivar

N o.	Municipality and settlements	Elevation (m)	Area in km ²	Population			Agrarian structure (ha)			
				1994	2002	2022	Arable land	Pastures	Forests	Total
	Gostivar	780	408,6	75080	81734	59816	7509	10945	20905	39359
1.	Gostivar	530	7,4	30494	35847	32814	419	410	4	833
2.	Balin Dol	560	4,0	2990	2501	2059	173	12	188	373
3.	Belovishte	580	8,9	2551	2267	1208	276	156	391	823
4.	Brodets	1060	14,9	533	1136	/	279	2436	661	3374
5.	Vrutok	654	10,9	1176	1127	640	344	27	622	993
6.	G. Banjitsa	585	**	1738	4423	3436	**	**	**	**
7.	G. Gjonovica	810	14,3	20	4	40	110	462	835	1407
8.	G. Jelovce	1220	35,4	2	2	4	278	1919	1279	3476
9.	Debreshe	615	10,0	4422	4847	2859	564	134	188	886
10.	D. Banjitsa	543	12,9	5005	4356	3138	193	49	824	1066
11.	D. Gjonovica	680	**	244	242	35	**	**	**	**
12.	D. Jelovce	960	11,4	18	10	3	270	248	593	1111
13.	Zhelezna R.	960	26,2	200	98	37	222	31	2359	2612
14.	Zdunje	590	3,2	1206	2140	1410	163	59	59	281
15.	Korito	1420	31,7	754	675	57	200	1252	731	2183
16.	Kunovo	960	9,5	19	11	6	117	145	684	946
17.	Lakavitsa	540	12,5	955	994	522	176	9	1039	1224
18.	Leshnica	700	2,6	133		128	69	66	120	386
19.	M. Turchane	600	1,4	630	1013	96	56	5	73	134
20.	Mitroj Krsti	840	4,0	87	-	9	56	17	310	383

21 .	Padalishte	840	16,9	1001	721	287	213	378	108 9	1680
22 .	Pechkovo	930	11,2	56	48	21	139	349	566	1054
23 .	Raven	640	4,3	1571	1615	1116	122	47	299	398
24 .	Simnitsa	720	13,1	464	-	183	430	291	775	1302
25 .	Srbinovo	670	17,8	1028	1039	317	157	461	114 1	1759
26 .	Strajane	1100	8,3	354	307	54	144	63	615	822
27 .	Sushitsa	625	10,8	26	8	3	58	172	856	1086
28 .	Trnovo	920	19,5	573	539	137	312	39	157 8	1928
29 .	Tumchevish te	490	3,2	252	235	250	285	11	11	307
30 .	Kjafa	1440	10,4	34	5	/	94	42	902	1038
31 .	Forino	500	11,0	4229	4652	2809	509	42	397	1018
32 .	Chajle	520	18,2	2480	3070	1236	316	1073	388	1777
33 .	Chegrane	498	21,6	7054	6748	4022	716	510	636	1862
34 .	Rechane	740	9.9	1043	1054	683	243	32	692	967
35 .	Mirdita					151				

The municipality includes 35 settlements, of which 9 are hilly, 22 are situated on plains, and only a few—such as Gorno Jelovce, Korito, Strajane, and Kjafa—are mountainous. The total population is 59816, with ethnic composition roughly as follows: 55.3% Albanians, 21.4% Macedonians, 12.7% Turks, among others. The population density stands at 116.45 inhabitants per km², almost twice the national average.

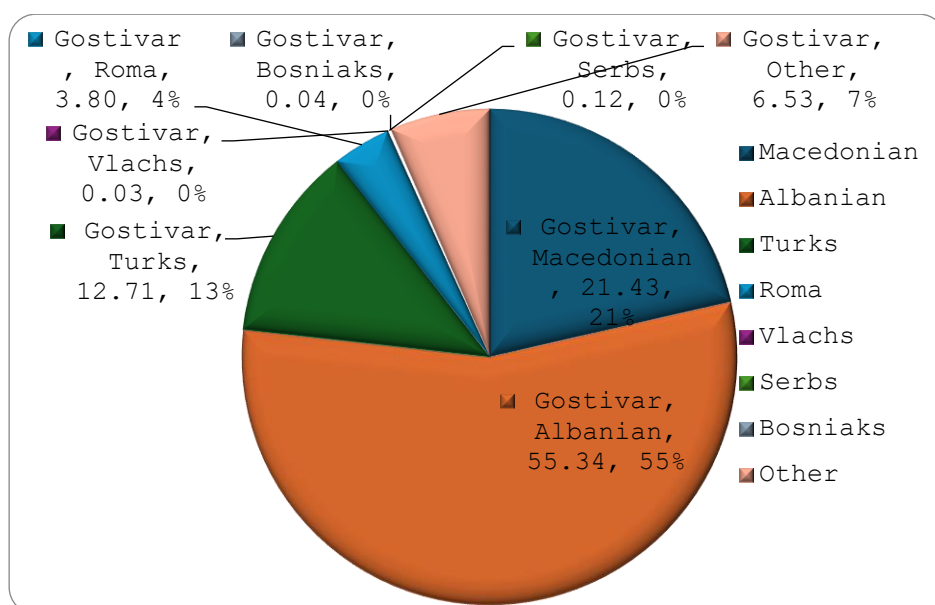


Figure 5. Ethnic Composition of the Population of the Municipality of Gostivar, 2021

There is a total of 20054 families (7136 in urban areas), with an average household size of about 3 members. The total number of housing units is 27945 (9450 urban), which means an average of approximately 2.2 persons per household. These figures indicate significant overcrowding and highlight the difficult economic conditions faced by the local population.

In the central settlement of Gostivar, 32814 residents (35847 total population) live, accounting for 55% of the municipality's total population.

From an agricultural perspective, the land is dominated by forests covering 20905 hectares, pastures spanning 10945 hectares, and arable land of 7509 hectares. The plain settlements offer good conditions for agricultural development, while the hilly and mountainous settlements are more suited for livestock farming and forestry activities.¹

3.2. Municipality of Vrapčište: The Municipality of Vrapčište is a rural municipality of medium size located in the northwestern part of the Republic of North Macedonia. In terms of absolute altitude, it ranks among municipalities with roughly average elevation in the country. Like most other municipalities in the Polog valley, Vrapčište enjoys a favorable geographic position and good transportation connections. The main highway E-852 runs through its eastern peripheral area, connecting Skopje through Tetovo and Gostivar to the popular tourist destination of Ohrid.²

¹Popovski, V. & Selmani, A. & Panov, N. (2006): "Komunat e Republikës së Maqedonisë", Shkup

²Popovski, V. & Selmani, A. & Panov, N. (2006): "Komunat e Republikës së Maqedonisë", Shkup

Table 4. Geographical characteristics of the settlements of the municipality of Vrapčište

N o.	Municipality and settlements	Elevation (m)	Area in km ²	Population			Agrarian structure (ha)			
				1994	2002	2022 ³	Arable land	Pastures	Forests	Total
	Vrapčište	716	185,1	24465	25399	19842	4820	5366	4686	14872
1.	Vrapčište	580	8,5	5235	4874	4003	661	85	32	778
2.	Vranovtsi	800	9,8	670	480	321	150	28	779	957
3.	Galate	600	3,6	970	1151	980	248	43	21	312
4.	Gorjane	940	5,5	100	70	25	198	180	136	514
5.	Gradec	540	10,3	4266	4555	3934	735	47	141	973
6.	Dodri Dol	570	6,4	4199	5223	3546	459	14	111	584
7.	Gjugjeviste	1000	16,1	706	403	198	350	854	267	1471
8.	Zubovce	600	4,0	554	762	844	330	17	25	372
9.	Kalishte	840	22,0	873	681	511	247	832	1107	2186
10.	Llomnitsa	1030	27,6	796	574	118	203	1773	678	2654
11.	Negotino	575	8,0	3331	3673	3068	584	110	23	717
12.	Novo Selo	600	1,7	21	19	6	42	0,8	120	163
13.	Pozharane	920	29,4	58	26	28	318	1362	1176	2856
14.	Sanokos	570	2,3	1404	1634	1351	152	9	49	230
15.	Toplitsa	570	2,3	1282	1274	918	143	11	21	175

The municipality consists of 15 settlements, of which only Gorjane, Gjugjeviste, Lomnitsa, and Pozharane are located in hilly terrain, while the remaining settlements are situated on plains. The total population across these settlements is 19842 residents (25399 inhabitants), of whom approximately 76% are Albanians, 15.6% Turks, 4.4% Macedonians, and others.

³ Residents population

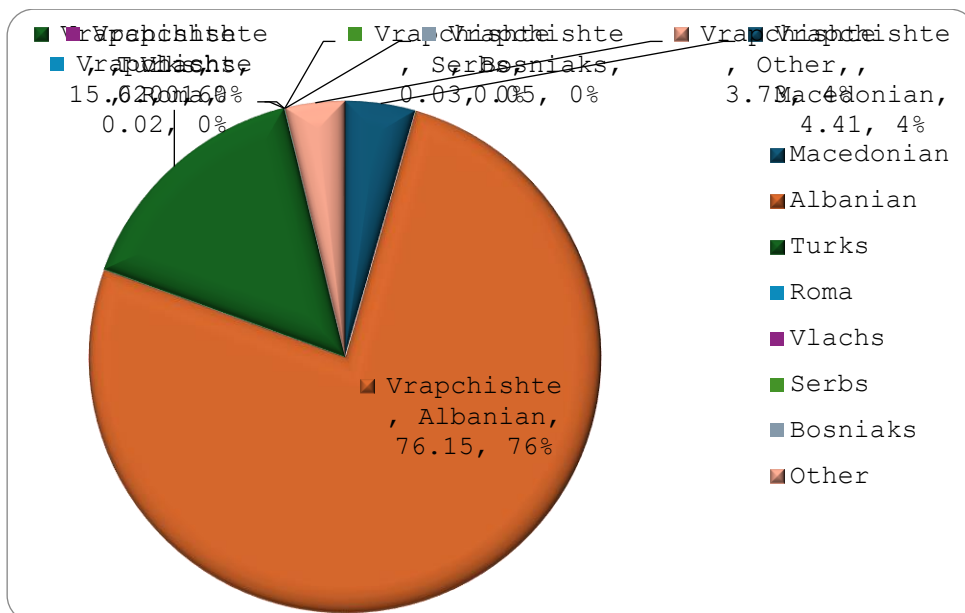


Figure 6. Ethnic Composition of the Population of the Municipality of Vrapčište, 2021

The population density is 126.4 inhabitants per km², which is noticeably below the national average. There are 5225 families in total, with an average household size of about 2.6 members. The total number of housing units is 7509 (5820), meaning an average of 4.4 persons live in each household.

The central settlement, Vrapčište, with 4005 residents (4874), is the largest settlement and accounts for about 6% of the municipality's total population.

3.3. Municipality of Mavrovo and Rostuše: The Municipality of Mavrovo and Rostuše is one of the largest municipalities in terms of area in the Republic of North Macedonia and is located in the western part of the country. It also has the highest average altitude among all municipalities in the country. The municipality comprises 42 settlements, of which 15 are situated on plains, 23 in hilly areas, and 4—Belichica, Kichinitsa, Krakornica, and Sushica—are mountainous. Krakornitsa is the settlement with the highest altitude in the country. In terms of the number of settlements, this municipality ranks among the top ten largest in North Macedonia.

In table below-**No cadastral data. **Together with Grekaj.*

Table 5. Geographical characteristics of the settlements of the municipality of Mavrovo-Rostuše

No	Municipality and settlements	Elevation (m)	Area in km ²	Population			Agrarian structure (ha)			
				1994	2002	2022	Arable land	Pastures	Forests	Total
	Mav. – Rost.	1093	655	10418	8592	5042	3126	24913	30148	8187
1.	Mavrovo	1230	31,1	191	166	212	117	1517	1452	3086
2.	Rostushe	720	15,3	960	872	708	63	261	1197	1521
3.	Adzhievci	760	4,8	213	149	100	31	27	404	462
4.	Belichica	1470	25,0	9	4	2	132	1502	789	2423
5.	Bibaj	1200	3,8	46	31	/	83	3	287	373
6.	Bitushe	954	6,2	180	96	161	70	210	287	567
7.	Bogdevo	1210	11,6	13	5	/	36	584	397	1017
8.	Boletin	820	7,2	-	-	/	*	*	*	*
9.	Velebrdo	840	7,6	899	750	367	61	296	336	693
10.	Vidushe	1110	10,2	216	185	37	52	338	625	1015
11.	Volkovija	1100	10,4	19	89	21	99	198	981	1278
12.	Vrben	1260	25,6	188	142	132	116	1180	1347	2643
13.	Vrbjani	960	14,4	640	625	187	389	79	596	1064
14.	Galichnik	1350	64,4	1	3	48	2	5553	770	6325
15.	Grekaj	1100	18,2	11	20	3	23	681	1112	1816
16.	Duf	1000	25,0	66	39	30	295	525	1660	2480
17.	Zhirovnica	900	33,3	2086	1608	714	195	1361	1364	2920
18.	Zhuzhnje	1140	19,4	6	8	6	85	951	775	1811
19.	Janche	760	4,8	162	146	102	31	27	404	462
20.	Kichinitsa	1420	4,4	-	-	/	*	*	*	*
21.	Krakornica	1530	8,2	28	15	1	92	468	250	810
22.	Lazaropole	1300	45,9	2	0	29	159	1120	3272	4551
23.	Leunova	1260	21,8	38	6	31	63	774	1324	2161
24.	Mavrovi Anovi	1280	*	191	167	121	*	*	*	*

25.	Nivishte	1160	**	-	-	-	**	**	**	**
26.	Nikiforovo	1270	14,6	10	10	59	38	772	638	144 8
27.	Nistrova	1180	15,2	160	121	32	132	114	872	111 8
28.	Nichpur	1150	12,8	16	13	5	60	43	1153	125 6
29.	Novo Selo	820	5,5	35	33	17	87	131	321	539
30.	Orkjushe	940	6,7	24	15	13	77	10	562	649
31.	Prisojnica	820	3,3	347	315	259	39	96	189	324
32.	Ribnica	1110	21,7	65	5	-	58	893	1010	196 1
33.	Rosoki	980	11,1	-	-	1	*	*	*	*
34.	Selce	-	17,0	-	-	4	*	*	*	*
35.	Sence	1180	17,5	88	21	25	84	544	1065	169 3
36.	Skudrinje	940	9,3	2221	211 9	105 5	78	109	617	804
37.	Stretkovo	1000	23,4	28	25	22	90	300	1823	221 3
38.	Sushica	1410	10	-	-	-	*	*	*	*
39.	Tanushe	1200	16,7	93	16	2	43	1204	402	164 9
40.	Trebishte	940	15,4	1157	765	498	120	358	1014	149 2
41.	Tresonche	1000	36,2	9	8	24	26	2684	853	356 3
42.	Cerovo	860	6.1	27	19	14				

The total population is 5042, with 1474 (29.2%) Macedonians, 1555 (30.8%) Turks, 470 (9.8%) Albanians, and 21.3% identified as others, according to the 2021 census. Compared to 1994, the population has decreased by 17.5%, indicating a significant depopulation trend in the municipality. Many residents have migrated elsewhere, and some settlements—such as Boletin, Kichinitza, Nivishte, Rosoki, Selce, and Sushica—are already experiencing or are at risk of this decline.

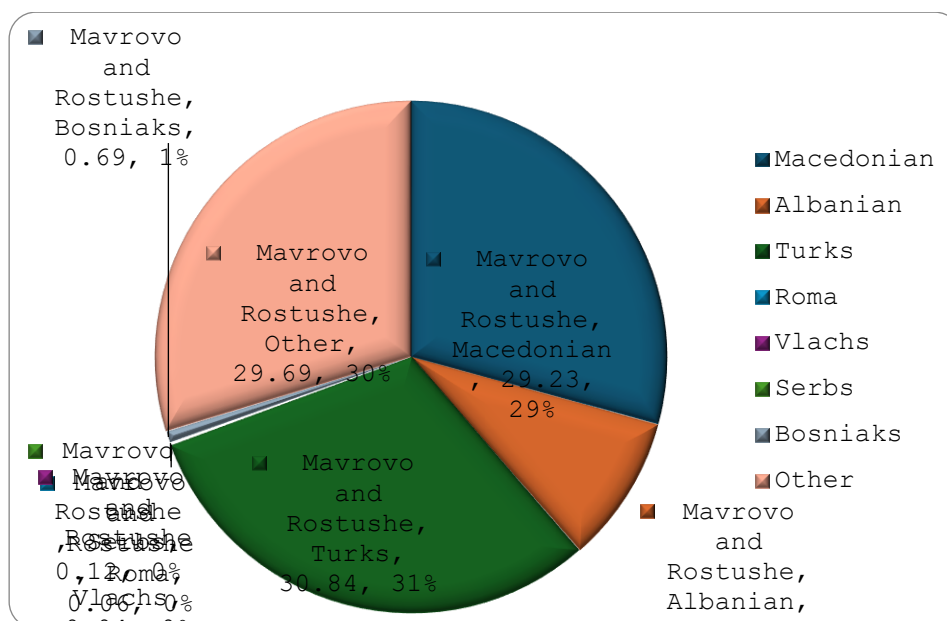


Figure 7. Ethnic Composition of the Population of the Municipality of Mavrovo and Rostushe, 2021

Population density is only 7.6 inhabitants per km², making it one of the least densely populated municipalities in the country. The total number of families is 2315, with an average household size of 3.16 members. There are 5440 housing units in total, but with an average of just 0.88 residents per household, both figures fall below the national average. The low occupancy rate is largely due to the high number of vacation homes built in Mavrovi Anovi and Mavrovo. In the central settlements of Mavrovi Anovi live 121 and Rostushe 708 residents respectively, together accounting for only 6.07% of the municipality's total population. Skudrinje, with 2119 residents, is the largest settlement in terms of population.

Agricultural land is dominated by forests (30148 hectares), pastures (24913 hectares), and arable land (3126 hectares). In terms of forest area, this municipality ranks second in the country, and fourth in terms of pasture area. Here, in the settlement of Volkovija, there is the Zhivko Brajkovski cooperative, one of the largest cooperatives for keeping sheep and goats, then the Kocho Racin agricultural cooperative in the settlement of Lazaropole, as well as the Ar kom economy for keeping cows and producing milk in the settlement of Trebishte. The current municipality was formed through the merger of the former municipalities of Mavrovi Anovi and Rostushe as part of the latest territorial reorganization.

4. Conclusions

According to the latest official data, the resident population of the municipality has increased during the period from 2002 to 2022. The municipalities in Upper Polog are characterized by a relatively strong population base and very interesting demographic developments. Vrapčište experienced a population growth of 1.7%, while Mavrovo-Rostushe saw a population decline of about 3%.

The population distribution across Upper Polog is not uniform. The highest population density is found in the flat areas of the Polog valley, particularly in the municipalities of Gostivar, with 116.45 inhabitants per km², and Vrapčište, with 126.4 inhabitants per km². In contrast, Mavrovo-Rostushe, a largely rural and mountainous municipality, has a much lower population density of only 7.6 inhabitants per km².

From the settlements in these municipalities, it can be concluded that due to spontaneous and expansive urbanization processes, demographic depopulation has occurred, disrupting the socio-economic balance between urban and rural areas. According to the latest census, the

villages that have been depopulated include Brodets and Kjafa in Gostivar municipality, as well as seven villages in Mavrovo-Rostuše: Boletin, Bibaj, Bogdevo, Kichinitsa, Nivishte, Sushica and Ribnica.

References

- [1] Hamiti, R. (2013): Rajoni i Pollogut (Studim fiziko-gjeografik): Gostivar
- [2] Grup autorësh (2004): Gjeografia e Republikës së Maqedonisë, Prosvetno Dello, Shkup
- [3] Jovan Trifunoski, (1976): Pollogu Beograd viti 1976
- [4] Skenderi, F. (2008): Demogjeografia, “Eqerem Çabej”, Tetovë.
- [5] Stojmilov, A. (1996): Gjeografia e Republikës së Maqedonisë, Shkup
- [6] Статистички годишник на Република Македонија, (2014), Скопје.
- [7] Aziri, E. (2002). Proceset dhe lëvizjet socio-ekonomike në Pollog, Shkup, Maqedonia e Veriut.
- [8] Selmani, A.(2004). Popullsia e Maqedonisë, Shkup, Maqedonia e Veriut.
- [9] Hamiti, R. (2010). Numri, dendësia dhe shpërndarja gjeografike e popullsisë në rajonin e Pollogut. Journal Acta Lingua Geographica, Logos 5, Shkup, Maqedonia e Veriut.
- [10] Hamiti, R., & Zhaku S. (2016). Numri, dendësia dhe shpërndarja gjeografike e popullsisë në Komunën e Gostivarit. Albanian Socio Economic Review Vol.86, NO. 1 (95-102) 2016 ISSN 2222-5846, Tirana, Albania.
- [11] Skenderi, F., & Rushiti, M. (2018). Demographic characteristics of the population in Macedonia. Journal of Natural Sciences and Mathematics of UT, Vol.3, No. 5-6 (ISSN: 2545-4072), p. 104-113.
- [12] Republic of North Macedonia State Statistical Office. (2019). Regions of the Republic of North Macedonia 2019. (Регионите во Република Северна Македонија, 2022). Statistical review for the analyzed -2022). Skopje, Republic of North Macedonia: Republic of North Macedonia State Statistical Office. Retrieved May, 2022 from <http://www.stat.gov.mk/PublikaciiPoOblast.aspx?id=32&rbrObl=37>
- [13] Republic of North Macedonia State Statistical Office. (2007-2019).
- [14] Statistical Yearbook 2002-2022. (Статистички годишник 2007-2022).