



REFERENCE METADATA
POPULATION GRID 2022 (1000m)

1. Contact Top	
1.1. Contact organisation	NSI, National Statistical Institute of Bulgaria (NSI)
1.2. Contact organisation unit	Multi-Domain Statistics, Methodology and Registers Directorate
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2. Metadata update Top	
2.1. Metadata last certified	10/09/2024
2.2. Metadata last posted	10/09/2024
2.3. Metadata last update	10/09/2024

3. Statistical presentation Top																																		
3.1. Data description																																		
Population data at 1 km2 grid level (as of 31 December 2022)																																		
3.1.1. Resource title																																		
Population Grid 2022																																		
3.1.2. Resource abstract																																		
<p>This spatial dataset contains population data from the annual demography statistics, produced by NSI Bulgaria, presented at the level of 1000 x 1000m grid cells.</p> <p>The dataset covers the territory of Bulgaria. Population distribution is based on the place of usual residence as of 31 December 2022. Values for the total population and the population categories in grid cells are aggregated from geocoded individual population records.</p> <p><i>Total population in the dataset (allocated on map):</i></p> <table><tr><th>Dataset</th><th>Variable definition</th><th>Field name</th><th>Total population - Number</th><th>% from the total for the country</th></tr><tr><td rowspan="6">Grid 1000mx1000m</td><td>Total population</td><td>T</td><td>6 368 021</td><td>98.8</td></tr><tr><td>Sex– Male</td><td>M</td><td>3 056 836</td><td>98.6</td></tr><tr><td>Sex – Female</td><td>F</td><td>3 311 185</td><td>98.9</td></tr><tr><td>Age – under 15 years</td><td>Y_LT15</td><td>904 177</td><td>99.0</td></tr><tr><td>Age – 15 to 64 years</td><td>Y15_64</td><td>3 966 158</td><td>98.7</td></tr><tr><td>Age – 65 years and over</td><td>Y_GE65</td><td>1 497 686</td><td>98.8</td></tr></table>					Dataset	Variable definition	Field name	Total population - Number	% from the total for the country	Grid 1000mx1000m	Total population	T	6 368 021	98.8	Sex– Male	M	3 056 836	98.6	Sex – Female	F	3 311 185	98.9	Age – under 15 years	Y_LT15	904 177	99.0	Age – 15 to 64 years	Y15_64	3 966 158	98.7	Age – 65 years and over	Y_GE65	1 497 686	98.8
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3.1.3. Resource type																																		
Geodatabase (GDB)																																		
3.2. Classification system																																		
INSPIRE Geographical grid system, Grid_ETRS89-LAEA, resolution 1000m																																		
3.3. Coverage - sector																																		



Not applicable.	
3.4. Statistical concepts and definitions	
<p>'Total population' means all persons permanently living (having current address) in the country as of 31 December of the reference year and who have not been absent for more than 1 year period.</p> <p>'Sex' refers to the biological and physiological characteristics that define men and women.</p> <p>'Age' is the age reached in completed years of age at the reference date.</p>	
3.5. Statistical unit	
Persons.	
3.6. Statistical population	
Persons permanently living (having current address) in the country as of 31.12. of the reference year.	
3.7. Reference area	
The reference area covers Bulgaria's territory.	
3.7.1. Geographic bounding box	
West Bound Longitude:	22.348494
South Bound Latitude:	41.227327
East Bound Longitude:	28.636203
North Bound Latitude:	44.219690
3.7.2. Spatial resolution	
1000 Unit:m	
3.7.3. Coordinate Reference System	
EPSG:3035 - ETRS89 / LAEA Europe	
3.8. Coverage - Time	
The data refer to the situation in the country as of 31 December 2022.	
3.9. Base period	
Not applicable.	
4. Unit of measure Top	
Number of persons.	
5. Reference Period Top	
2022-12-31 T23:59:59	
5.1. Temporal extent	
2022-12-31 T23:59:59	
6. Institutional Mandate Top	
6.1. Institutional Mandate - legal acts and other agreements	
Law on statistics.	
6.2. Institutional Mandate - data sharing	
Data sharing is arranged according to the 2021 Population Census and Housing Census in the Republic of Bulgaria Act and Rules for dissemination of statistical products and services of the National Statistical Institute .	



7. Confidentiality	Top
7.1. Confidentiality - policy	
The data in the 1000m population grid is not sensitive/confidential.	
7.2. Confidentiality - data treatment	
No statistical disclosure control methods are applied to the output.	
8. Release policy	Top
8.1. Release Calendar	
Final data on population and demographic events are made available 4 months after the end of the reference year. Grid data dissemination is currently not included in the release calendar.	
8.2. Release calendar access	
https://www.nsi.bg/bg/node/19795	
8.3. Release policy - user access	
In line with the EU legal framework and the European Statistics Code of Practice. The annual population data and press releases are published on the NSI website and Information System Infostat in accordance with the Law on Statistics (Chapter 5), Rules for dissemination of statistical products and services of the National Statistical Institute. Press releases on different topics (according to the Release calendar) are uploaded to the NSI web page at 11:00 AM. The grid datasets provided (Population Grid 2022, 1000m) are subject to NSI's general license policy: License to use statistical information produced and disseminated by the NSI . The datasets or parts of the datasets may not be redistributed or published online (including in GIS or visualization applications) in their original form distributed by NSI. Analytical developments and mapping products, based on the statistical information in the dataset, can be published, but without showing the original values in the individual grid cells. NSI is not responsible for the quality of the information after its reproduction (interpretation), as well as for the purposes for which it is used by the user; When using this statistical product (the data sets), the user is obliged to indicate NSI as the source of the primary information.	
9. Frequency of dissemination	Top
Final population and demographic data are disseminated yearly. Grid data dissemination frequency is not set.	
10. Accessibility and clarity	Top
10.1. Dissemination format - News release	
News releases are available on the NSI webpage .	
10.2. Dissemination format - Publications	
No publications are available.	
10.3. Dissemination format - online database	
1. Information System Infostat (NSI Bulgaria)	
10.4. Dissemination format - microdata access	
Not applicable.	
10.5. Dissemination format - other	
Other dissemination formats are listed in Rules for dissemination of statistical products and services of the National Statistical Institute	
10.6. Documentation on methodology	
Population - https://www.nsi.bg/en/content/2972/population-and-demographic-projections	
10.7. Quality management - documentation	



Not available.

11. Quality management

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11.1. Quality assurance

https://www.nsi.bg/sites/default/files/files/pages/Policy_NSI_ISM_EN.pdf

11.2. Quality management - assessment

12. Relevance

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12.1. Relevance - User Needs

The census data are addressed to policymakers, researchers, media and the general public.

12.2. Relevance - User Satisfaction

No user satisfaction surveys are carried out.

12.3. Completeness

Data are available for total population, sex and age breakdowns.

13. Accuracy

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13.1. Accuracy - overall

Population records not geocoded to point locations and not allocated on map: 79689 (1.2% of the total population).

13.2. Sampling error

Not applicable.

13.3. Non-sampling error

Not applicable.

14. Timeliness and punctuality

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14.1. Timeliness

Population data as of 31.12 published up to 4 months after the reference date.

Spatial distribution by 1 sq. km reference grid should be transmitted to Eurostat up to 12 months after the reference date.

14.1.1. Date of publication

10/09/2024

14.1.2. Date of last revision

10/09/2024

14.1.3. Date of creation

01/05/2025

15. Coherence and comparability

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15.1. Comparability - geographical

Data are fully comparable between geographical areas. No difference between the production methods used and the definitions applied. No differences in the quality of location data collected.

15.1.1. Geographic information - data quality

Positional accuracy:

Point locations of dwelling units collected by NSI during pre-enumeration and enumeration activities with the requirement to locate within the building footprint. The position of points is verified with the available national cadastral data and high-resolution national imagery.



Locations pinpointed in self-enumeration were checked for consistency with detailed address descriptions provided by respondents; The identified errors in location were reviewed and corrected where possible.

Temporal coherence:

The statistics is based on the same data sources.

Completeness:

Total population for Bulgaria for the year 2022 is 6 447 710. Total population in the grid dataset: 6 368 021. Values for the total population in grid cells are obtained by aggregating from geocoded individual records.

Unallocated population (1000m grid), due to address descriptions that is not sufficient to determine precise location:

Variables	Unallocated population on map	
	Number	% from the total for the country
Total population (T)	79 689	1.2
Sex – Male (M)	42 667	1.4
Sex – Female (F)	37 022	1.1
Age – Under 15 years (Y_LT15)	9 242	1.0
Age – 15 to 64 years (Y15_64)	52 750	1.3
Age – 65 years and over (Y_GE65)	17 697	1.2

15.2. Comparability - over time

Grid population data are available for the reference years 2011, 2021 and 2022. Data for 2011 and 2021 are produced based on Census data, while 2022 is based on the annual demography data. The Census 2011 population grid data was produced using a combination of aggregation and disaggregation techniques, while the Census 2021 grid data is entirely aggregated from point locations. Data for 2011 are not fully comparable with 2021 and 2022.

15.3. Coherence - cross domain

Not applicable.

15.4. Coherence - internal

No differences.

16. Cost and Burden

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The production of the dataset is co-financed by the EU. Project 101101360 — 2022-BG-POP-MIGR

17. Data revision

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17.1. Data revision - policy

National policy allows the revision of already published data if there are serious reasons for doing so. Recalculations of the population at the end of the reference year and for the previous one are done in the census years.

17.2. Data revision - practice

The recalculation of population is based on the census results and the respective calculations of the natural and migration growth for the reference year, received from the current demographic statistics.

18. Statistical processing

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18.1. Source data

The source for population as of 31.12 is the Information system "Demography" (the statistical population register) maintained by NSI Bulgaria. Geospatial location of current addresses in the population records is maintained by NSI.

18.2. Frequency of data collection

Monthly.

18.3. Data collection

Most address locations are collected during the census survey operations and maintained after that by NSI.

18.4. Data validation

Consistency checks on aggregated values by categories.



18.5. Data compilation	
Spatial based criteria used when calculating aggregates. Values for the total population and for the population categories in grid cells aggregated from point locations of individual census records.	
18.6. Adjustment	
Not applicable.	
19. Comment	
None.	

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