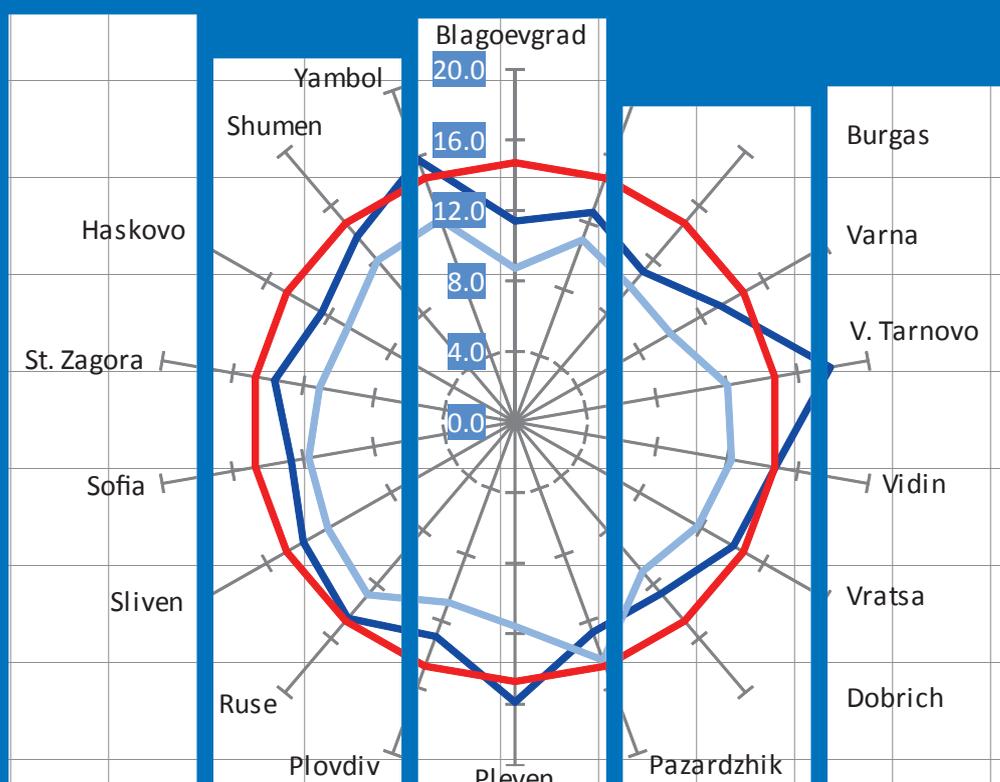


# CITIES AND THEIR URBANISED AREAS IN THE REPUBLIC OF BULGARIA





# **CITIES AND THEIR URBANISED AREAS IN THE REPUBLIC OF BULGARIA**

**SOFIA, 2016**

Decorative wavy lines at the bottom of the page, consisting of several black, curved lines that sweep across the width of the page.

This publication has been produced by the National Statistical Institute with the financial support of Eurostat/EC according to Grant agreement No. 08141.2013.001-2013.646.

NATIONAL STATISTICAL INSTITUTE

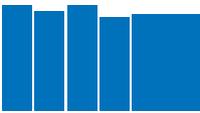
**CITIES AND THEIR URBANISED AREAS IN  
THE REPUBLIC OF BULGARIA**

Responsible editor: Antoaneta Ilkova

Authors: Bogdan Bogdanov, Ph.D.; Ass. Prof. Yordan Kalchev, Ph.D.;  
Valeria Angelova; Ivaylo Gavazki

Graphs and Maps: Irena Dudova, Arslan Ahmedov

Pre-print processing and printing:  
Education and Science inc. Co.  
Format: 205x290  
Circulation 100



Dear readers,

I had the pleasure to be a leader of the first Urban Audit Project in the beginning of 21<sup>th</sup> century. I appreciate the fact that the title was well chosen by the Eurostat colleagues, although we could not suggest an appropriate equivalent in Bulgarian. 'Overview of cities' seems to be acceptable, but it does not reflect precisely enough the project's content and objectives that converge rather to 'Comparison of cities and areas around them.' But the last is not short. That's why we left the original title, although it is in Latin.

Since it's commencing the project passed through six (for the time being) phases with an expanding list of observed cities and number of variables/indicators used for their description. To a certain extent the project dynamics reflexes the development of the European statistical system.

Statistics is a comparison. And what could be more interesting than to compare your own location and living conditions with those of the rest the EU countries. Of course, based on what the official statistics can provide, which is far from insignificant. Most importantly, information is comparable to a maximum extent for all the cities and areas and has passed through the strict review of an army of statisticians from the 28 EU member states.

The book offers review and comparison of 17 cities and their functional areas in the Republic of Bulgaria. They have been selected in accordance to the common project methodology. Following the Urban Audit criteria, the areas cover 27 914 sq. km, representing  $\frac{1}{4}$  of the country's territory.

I would like to congratulate the authors of the publications and wish the readers to experience pleasure from the acquaintance with unknown facts and the colourful picture of the cities and urban areas in Bulgaria.

Sergey Tsvetarsky

President of the National Statistical Institute

## CONTENTS

	Стр.
<b>INTRODUCTION</b> .....	5
<b>I. METHODOLOGICAL NOTES</b> .....	7
1. Functional urban areas .....	7
2. Selection of cities and FUA in the Republic of Bulgaria .....	9
3. Methodology for production of estimates of sample surveys data at municipal and settlement level .....	10
<b>II. DEMOGRAPHIC TENDENCIES IN BULGARIA</b> .....	14
<b>III. DEMOGRAPHIC AND SOCIO-ECONOMIC DEVELOPMENT OF AREAS</b> .....	18
Area with centre city of Blagoevgrad .....	19
Area with centre city of Burgas .....	25
Area with centre city of Varna .....	31
Area with centre city of Veliko Tarnovo .....	37
Area with centre city of Vidin .....	43
Area with centre city of Vratsa .....	49
Area with centre city of Dobrich .....	55
Area with centre city of Pazardzhik .....	61
Area with centre city of Pleven .....	67
Area with centre city of Plovdiv .....	73
Area with centre city of Ruse .....	79
Area with centre city of Sliven .....	85
Area with centre city of Sofia .....	91
Area with centre city of Stara Zagora .....	98
Area with centre city of Haskovo .....	104
Area with centre city of Shumen .....	110
Area with centre city of Yambol .....	116
<b>IV. COMPARATIVE DEMOGRAPHIC AND SOCIO-ECONOMIC ANALYSIS OF AREAS AND CITIES</b> .....	122
1. Differences in coverage and demographic situation of the areas .....	122
2. Differences in the demographic development of cities. Cities and their areas .....	131
3. Main aspects and differences in the areas socio-economic structure .....	141
<b>CONCLUSION</b> .....	146
<b>URBAN ATLAS</b> .....	147
Figure A.1. Land use and land cover for area of Blagoevgrad. Urban Atlas 2012.....	149
Figure A.2. Land use and land cover for area of Vidin. Urban Atlas 2012.....	150
Figure A.3. Land use and land cover for area of Vratsa. Urban Atlas 2012.....	151
Figure A.4. Land use and land cover for area of Dobrich. Urban Atlas 2012.....	152
Figure A.5. Land use and land cover for area of Pazardzhik. Urban Atlas 2012.....	153
Figure A.6. Land use and land cover for area of Pleven. Urban Atlas 2012.....	154
Figure A.7. Land use and land cover for area of Ruse. Urban Atlas 2012.....	155
Figure A.8. Land use and land cover for area of Sliven. Urban Atlas 2012.....	156
Figure A.9. Land use and land cover for area of Sofia. Urban Atlas 2012.....	157
Figure A.10. Land use and land cover for area of Haskovo. Urban Atlas 2012.....	158
Figure A.11. Land use and land cover for area of Shumen. Urban Atlas 2012.....	159
Figure A.12. Land use and land cover for area of Yambol. Urban Atlas 2012.....	160



## INTRODUCTION

Urban Audit is the European Commission project co-financed by the participating countries. The project purpose is to ensure reliable and comparable in respect geography and time information on cities and their functional urban zones using indicators on their demographic, social-economic and ecologic status. Urban audit is one of the few sources of official statistics at city level. In Europe, main data user is the DG 'Regional and Urban Policy' and at national level such are government and local authorities, researchers and public organisations working in the field of spatial development and planning.

The project started with a pilot survey conducted in 1999. The first full coverage Urban Audit is conducted in 2003, incorporating the 15 member states at that time. In 2004 ten new member states started their activities on the project, as well as Bulgaria, Romania and Turkey. Statistical data characterising the urban life on 336 variables is collected and as a result about 270 indicators are calculated by Eurostat.

The second exhaustive data collection Urban Audit 2006/2007 covers 321 European cities within EU-27 (8 of these are the largest Bulgarian cities) and 36 cities in Norway, Switzerland and Turkey. The choice is done based to a great extent on the concepts used in Urban Audit 2003/2004. Changes that were done aimed at optimization of the comparability, quality and availability of data. In addition some new information needs are reflected, part of the EU urban, regional and cohesion politics. New 93 variables are added, others are removed and the final list contains 338 variables.

There are some slight changes in Urban Audit 2009. Data were collected on 329 variables and on 323 cities in the EU, as well as 47 in Norway, Switzerland, Turkey and Croatia.

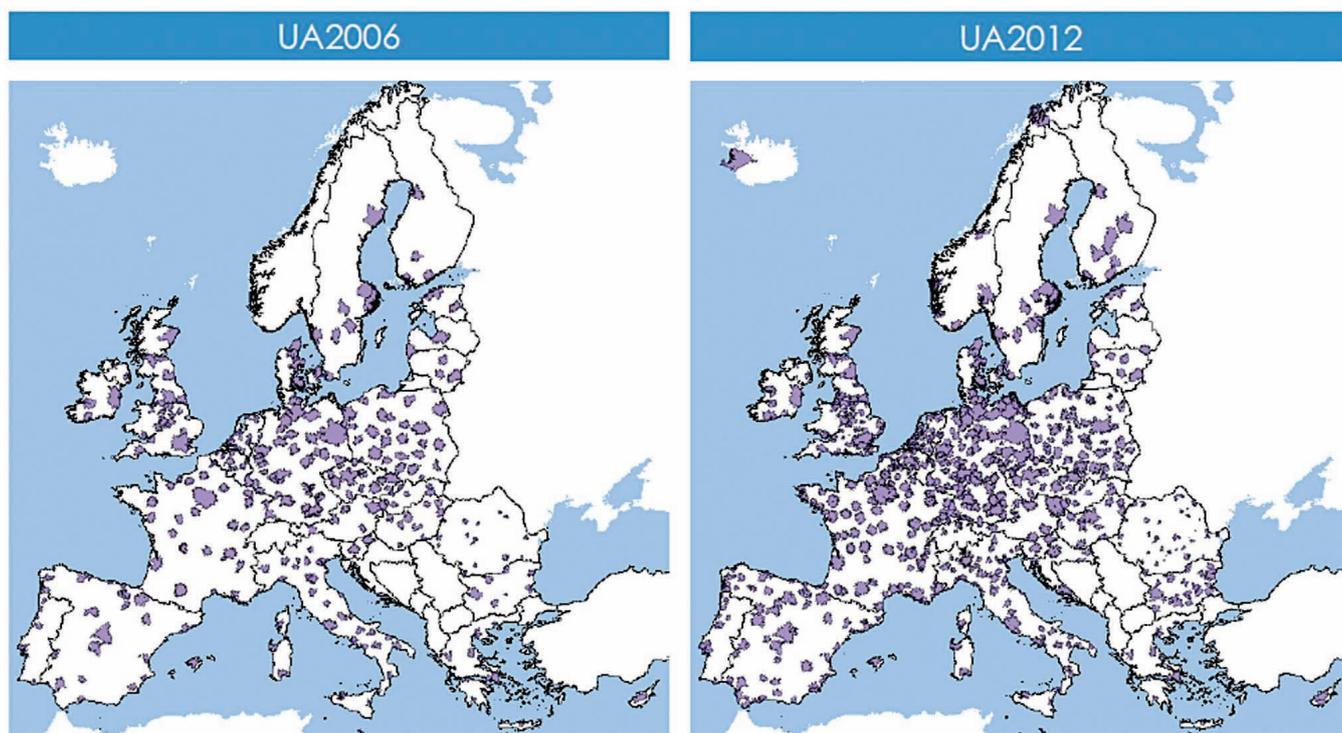
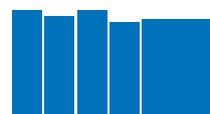


Figure I.1. Urban Atlas<sup>1</sup>: Urban Audit and Urban Atlas provide harmonised statistical and geographic data on European cities.  
Source: EEA, Copernicus Land Monitoring

In Bulgaria, after improvements done in the methodology by Eurostat and the National Statistical Institute of Bulgaria (BNSI), during the next project phase (Urban Audit data collection 2012) data was collected on 190 variables for the reference year 2011 (called exhaustive in the project frame), of which 78 were for the period 2010 - 2012 (called annual in the project frame). Data refer to 18 cities and 17 territorial units, covering 58 municipalities creating their hinterland.

<sup>1</sup> Urban Atlas provides harmonized geographical data to monitor land cover and land use over European cities and their areas defined by the Urban Audit. This is the local component of the program Copernicus, focused on 'hotspots' (in this case, urban areas) and coordinated by European Environmental Agency (EEA).



## I. METHODOLOGICAL NOTES

### 1. Functional urban areas

The country economic development and regional demographic processes strongly influence the territorial and town/village distribution of population. The development of production and social infrastructure, the population territorial dislocation and concentration led to creation of new units named Functional Urban Areas (FUA) or a territory influenced by larger cities.

In principle Functional urban areas:

- emerge based on large cities or complex disposed cities (conurbation) and create significant urbanization zones;
- are distinguished for territorial concentration of different production activities, infrastructure and higher population density;
- influence the transformation of surrounding territory, change its economic structure and social life of population;
- show higher level of complexity and integrity of economic activities;
- connect to the sub-urbanisation processes (ruralisation) of surrounding territories of cities.

To summarise, in these units function number of interrelations (exchange of functions) between the nuclei and periphery - demographic, economic, social, transport, ecological and with an everyday character. That is why they are characterised by concentration of qualified labour force and diversification of production aiming increase of their effectiveness and full use of the production and social infrastructure. In parallel to emergence of these areas, negative consequences can also emerge - pollution (destruction) of the environment, overburden of transport connections (internal and international), shortage of territory and water resources, problems with usage of labour force, depopulation of neighbouring territories. Therefore different methodological approaches and techniques should be searched to ensure (through direct observations or estimates) and analyse territorial information in order to limit negative effects. The present project is the first one in Bulgaria that provides such information.

Subjects of survey in the present analysis are FUA as a whole and the cities (nuclei) creating their areas. The term 'areas' is used here, as the last denote chronologically closed geographic location of points, for which one taxon criterion is used and there is no another points that are not part of the so created taxon between these points. In other words, areas represent bounded multitudes according to the mathematical typology. It is preferable to use the term 'area' instead of term 'zone' because the last represents geotopia created under influence of external factors and synonymous intensity (with a variation in definite boundaries) of the surveyed indicators is observed within its boundaries. In this context, the term 'areal' satisfies the criteria settled in the project methodology at phase Urban Audit data collection 2012<sup>2</sup>.

<sup>2</sup> Similar considerations (Functional Urban Area - FUA) exist also in the National Concept for Spatial Development of Bulgaria in the period 2013 - 2025. The EU project Urban Audit uses the term Functional Urban Zones (FUZ). The two terms should be considered identical in present report.

Urban Audit cities and Functional urban areas, 2012

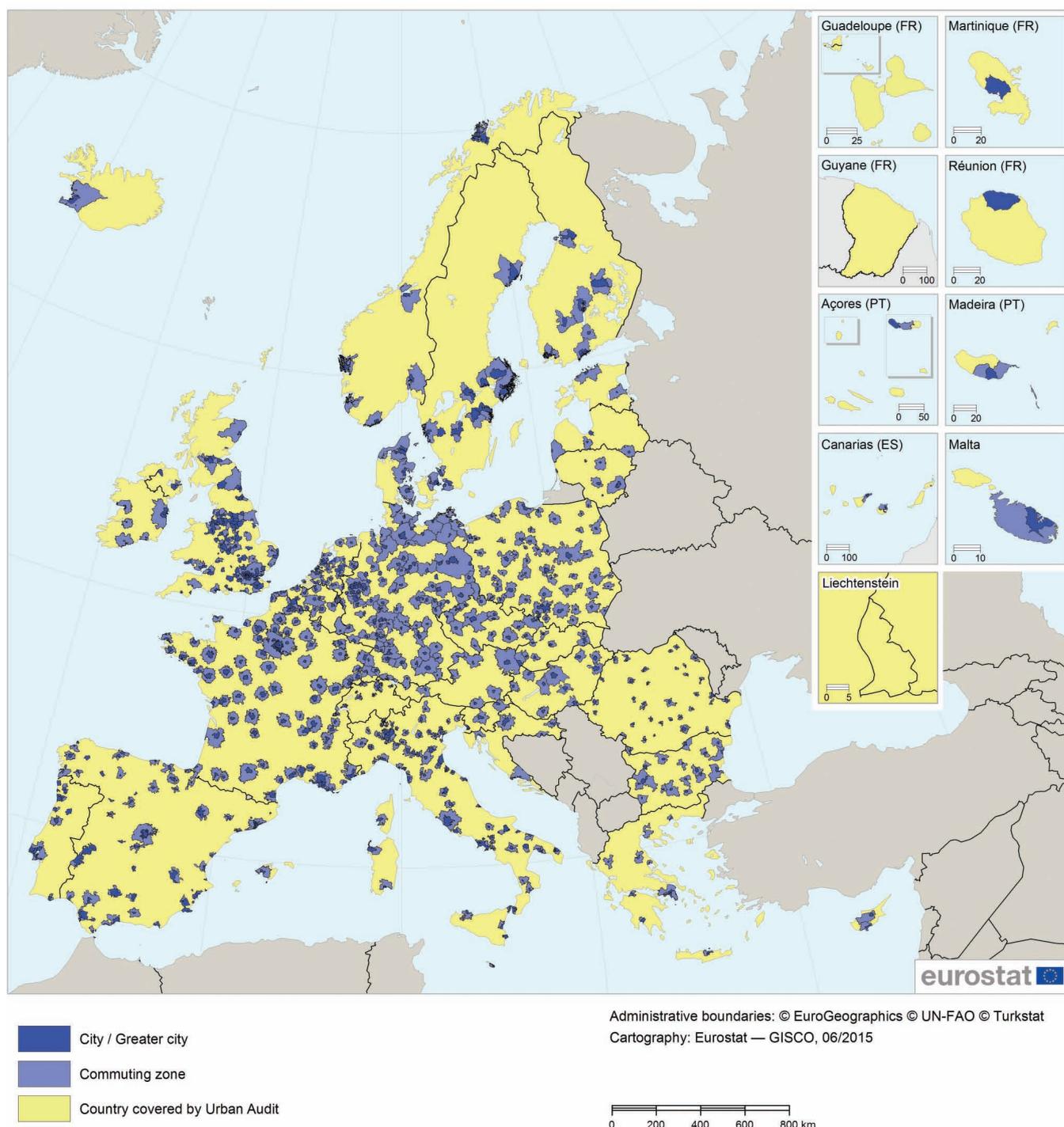
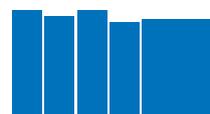


Figure I.2. European cities, Urban Audit 2012. Source: Eurostat - GISCO, 2015

Areas and their centres - cities in the country are empirically defined, based on the fixed criteria. Basic idea of the regional analysis is to display the emerging area compact territories and the differentiation between the central points (city, nuclei) and the connected to it periphery (out-of-city zone of influence, hinterland), based on interpretation of well-grounded connected facts. The last are collected for the population and demographic processes, for some economic and social activities. The project is the starting point for filling in the areal with facts and considering their functional content.



Each type of agglomeration unit at different levels participates in the creation of national and regional economic and demographic systems. Recognition and understanding of these units is important for the territorial planning and management, for elaboration of effective urban and regional politics. Strengthening of a moderate polycentric net of cities-centres, having improved city environment quality, contributing to balanced territorial development and decrease of inequalities between the central urban and peripheral rural regions is one of the goals settled in the National Concept for Spatial Development of Bulgaria in the period 2013 - 2025.

## 2. Selection of cities and FUA in the Republic of Bulgaria

Selection of the cities and territorial units in Bulgaria respects the new spatial concept on 'city'. The last is based on joining grid-cells with high population density. The purpose is a unified approach to be accepted to all spatial units included in the Urban Audit. Defining of cities is done at four steps:

1. All grid-cells with a population density over 1 500 persons per 1 sq. km are selected.
2. The cells with high population density are clustered so as to avoid space gaps and the clusters with minimum 50 000 population are defined as an 'urbanised centre'.
3. Settlements (LAU 2) for which at least half of the population inhabits 'urbanised centre' are selected as urban area.
4. A spatial unit is defined as a city if at least 50% of the population is living in 'urban centre' and at least 75% of the 'urban centre' population is living in a city.

In most of the cases the last condition is not necessary, because the city usually consists of only one settlement (LAU 2), covering the urban centre as a whole and bigger part of the city population is living there. This concerns all Bulgarian cities. As a result of application of the new city definition and for the Urban Audit purposes, the following were identified as cities in Bulgaria: Sofia, Plovdiv, Varna, Burgas, Pleven, Ruse, Vidin, Stara Zagora, Sliven, Dobrich, Shumen, Pernik, Yambol, Haskovo, Pazardzhik, Blagoevgrad, Veliko Tarnovo and Vratsa.

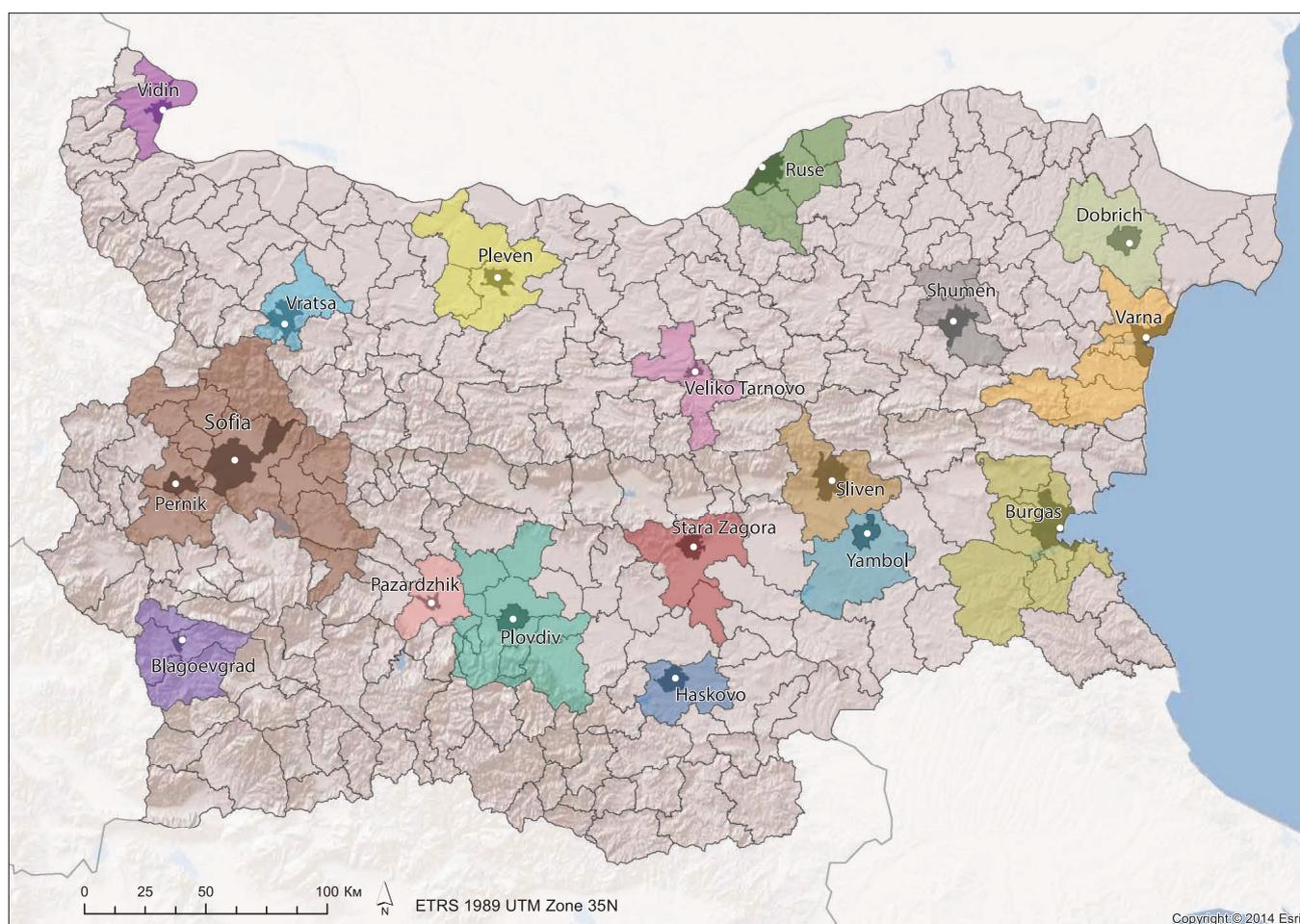


Figure I.3. Cities and functional urban areas - Urban Audit 2012, Bulgaria

By definition, the municipalities and respectively settlements in which 15% of their employed residents commute daily to the city-nuclei are included in commuting areas. Following the Eurostat instructions, the boundaries of these territories are defined based on 2011 Population Census data on everyday commuting from the 264 municipalities to the 18 cities. The agglomeration areas vary between 1 municipality for cities Veliko, Tarnovo, Vratsa, Pazardzhik, Sliven and Haskovo to 12 municipalities for Sofia so being an indicator of differences in the attractiveness of the biggest Bulgarian settlements. Pernik is seen as a part of commuting area of Sofia as it does not form own one according to the criteria adopted. Pernik can be referred to the category 'related cities'.

### 3. Methodology for production of estimates of sample surveys data at municipal and settlement level

In the project execution at stage Urban Audit data collection 2012 data from the 2011 Population and housing census were used for bigger part of the indicators as well as data from the current demographic statistics. Data on 33 variables related to employment, economic activity of population, education and households' income is collected by the statistical system based on sample survey only - SILC (Survey on Income and Living Conditions), LFS (Labour Force Survey), and HBS (Households Budget Survey). The direct provision of data from these surveys for separate cities and the settlements part of their area is impossible due to lack of observations within their boundaries or quite small number of surveyed sample units and as a

result unreliability of information produced. Thus an appropriate mathematics and statistics tool have to be elaborated to produce estimates of the target variables at municipal and settlement level.

The idea for solution of the problem pointed is based on the hypothesis that heterogeneity exists between the administrative districts (NUTS 3), as well as within them, in respects the demographic, social and economic development of settlements. The approach is based on clustering of the settlements in Bulgaria using some auxiliary variables in four thematic directions: demography, economic activity, education and economy. Data from 2011 Population census are used as well as data from current exhaustive surveys and mainly from the demographic statistics. Based on these data and specific method elaborated for the purpose, estimates were produced at municipal and settlement level. The method includes the following steps:

**A)** Auxiliary variables have to be so selected that to have good 'prognostic' capacity. Suitable for clustering are: age structure, fertility, mortality, immigration, emigration, number of employed (aged 15 and more, distributed by 5 years age groups), number of employed by sectors (NACE, Rev.2), level of education completed and net sales revenue per capita. Most important are the demographic data since they are qualitative auxiliary information. The last are particularly suitable if there are strong fluctuations in the population number and demographic composition of the small territorial units.

**B)** Measuring the distances between the structures in the population age profile (where available) on its basic characteristics listed above through the formula:

$$\cos \alpha = \frac{\sum_{i=1}^n p_{i1} p_{i2}}{\sqrt{\sum_{i=1}^n p_{i1}^2 \sum_{i=1}^n p_{i2}^2}},$$

where:

$\{p_{i1}\}_{i=1}^n$  is the structure of the surveyed indicator in a given settlement;

$\{p_{i2}\}_{i=1}^n$  - the structure of same indicator to the country average;

$p_{i1}$  и  $p_{i2}$  - the respective shares of the two structures;

$i$  - the serial structure interval;

$n$  - the number of shares;

$\alpha$  - angular distance between two vectors, which are points of the normalized Euclidean space and represent the compared structures;

$\cos \alpha$  - a standardized measure functionally dependent on the Euclidean distance between two structures.

This general formulation of the question is specified by the substitution of the national averages, calculated by the above presented formula with the reference structure. Such actually is not observed in the demographic and social processes, but in this case it acts as a starting point of origin of the coordinate system. Using the reference structure increases the analytical capacity of the model, allowing comparisons to be made between countries - EU member states. This approach was used in the calculations following specific measure reflecting the Euclidean distance between the structure  $\{p_{ij}\}_{i=1}^n = \{p_{ij}, i = 1, \dots, n\}$  of  $j^{\text{th}}$  settlement and the

hypothetic reference (uniform) structure  $\{e p_i\}_{i=1}^n = \left\{ e p_i = \frac{1}{n}, i = 1, \dots, n \right\}$ :

$$\cos \alpha_j = \frac{\sum_{i=1}^n p_{ij} e p_i}{\sqrt{\sum_{i=1}^n p_{ij}^2 \sum_{i=1}^n e p_i^2}} = \frac{\sum_{i=1}^n p_{ij} \frac{1}{n}}{\sqrt{\sum_{i=1}^n p_{ij}^2 \sum_{i=1}^n \left(\frac{1}{n}\right)^2}} = \frac{\frac{1}{n} \sum_{i=1}^n p_{ij}}{\sqrt{n \frac{1}{n^2} \sum_{i=1}^n p_{ij}^2}} = \frac{1}{n \sqrt{n \frac{1}{n^2} \sum_{i=1}^n p_{ij}^2}} = \frac{1}{\sqrt{n \sum_{i=1}^n p_{ij}^2}},$$

where:

$$\sum_{i=1}^n p_{ij} = 1;$$

$p_{ij}$  are the shares of units in the different sub-populations  $i$ , ( $i=1, \dots, n$ ) to the total number of units in the population ( $j^{\text{th}}$  settlement);

$n$  is the number of all shares.

C) Definition of homogeneous groups of settlements with the lowest possible intra and highest inter-group variance. Intra and intergroup variance is determined by the formulas:

$$\sigma_{\text{intra-group}}^2 = E(\xi_i - \mu)^2 \approx \frac{1}{n-k} \sum_{i=1}^n (\xi_i - \mu)^2 \approx \frac{1}{n-k} \sum_{i=1}^n \left( \cos \alpha_i - \frac{1}{n-k} \sum_{j=1}^n \cos \alpha_j \right)^2 = \hat{\sigma}_{\text{intra-group}}^2$$

and

$$\sigma_{\text{between-groups}}^2 = E(\xi_i - \mu)^2 \approx \frac{1}{k-1} \sum_{i=1}^n (\xi_i - \mu)^2 \approx \frac{1}{k-1} \sum_{i=1}^n \left( \cos \alpha_i - \frac{1}{k-1} \sum_{j=1}^n \cos \alpha_j \right)^2 = \hat{\sigma}_{\text{between-groups}}^2$$

where:

$\sigma^2$  is the theoretic -‘true’ variance;

$E$  - mathematical expectation symbol;

- the theoretic -‘true’ value of the mathematical expectation;

$\xi_i$  - random values;

$\cos \alpha_i$  - realizations of random values measuring the distances between structures;

$\alpha_i$  - angles between the respective structures;

$i, j$  - indicate the intervals;

$n$  - number of groups;

$k-1$  and  $n-k$  - correspond to the degrees of freedom.

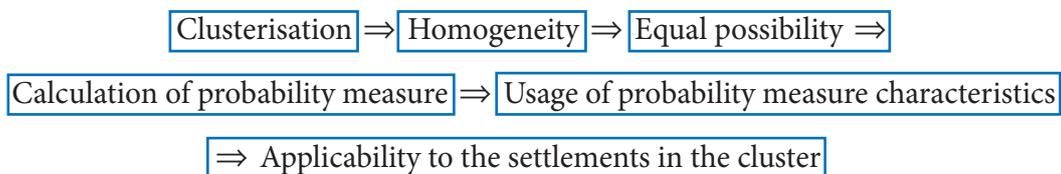
$$\text{If } \hat{F}_{\text{empirical}} = \frac{\hat{\sigma}_{\text{intra-group}}^2}{\hat{\sigma}_{\text{between-groups}}^2} > F_{\text{theoretical}},$$

it is considered that the difference between the group averages is statistically significant, wherein the theoretical value  $F_{\text{theoretical}}$  is taken from the table of the F distribution at a level of significance  $\alpha = 0.05$  and degrees of freedom  $k-1$  и  $n-k$ .

The selected clustering approach included all settlement, not only the included in Urban Audit project. It was done to ensure production of small area estimates at the next project stage, when the list of settlements, object of survey, will be probably extended. Moreover, working with all settlements allows surveying the whole population as well as supervising the reliability of the produced estimates.

D) Non-weighted, aggregated data from sample surveys were used in the model for the settlements included in a specified sample. The homogeneity ensured by clustering allows the application of the theoretical definition of Laplace to calculate the probabilities of occurrence of an event in the implementation of a statistical experiment, which requires the total number of equally possible events to be included in the denominator of this famous formula. The definition is applicable for limited spaces of elementary events. In our case, the denominator is the sum of all units observed in the cluster, and the numerator is the sum of all reported cluster units that satisfy the requirements of the target variable sought. Probability measure as defined by Kolmogorov (which is a generalization of the famous definition of Laplace) has properties like positivity, normativity and additivity, and therefore the calculated probability is the same for all settlements in the cluster. This probability is multiplied by the number of units for each settlement in the selected cluster and as a result the needed estimate for each target variable is produced.

#### *Algorithm logic scheme*



E) The method realization and the analysis of practical use of its application are connected to determination of optimal number of clusters. It is presumed that there should be 3 clusters as a minimum and 15 as a maximum. However, when working with large number of units (5 302 settlements at the 2011 census reference date) and great number of auxiliary variables is used, than clusters became more sensitive, the spectrum of observations is enlarged and a possibility exists to produce more than 15 homogeneity groups.

After number of conducted experiments it was found that for each separate variable the settlements should form 3 clusters with an optimal homogeneity. So produced clusters were 'crossed' for the 9 chosen auxiliary variables. Due to diversity of information used, the clusters were divided into smaller groups of settlements in which the ongoing demographic and social-economic processes have similar parameters values i.e. have the same nature. The theoretical maximum number of clusters is, or it considerably exceeds the number of settlements as well as the real practical needs on one side, but on the other shows that the cauterization has sufficient resolution. The aim was to achieve such a scale in which each cluster to represent a sufficient number of observations from sample surveys. As a result of our work, 16 homogeneous groups of settlements were received. Clusters are presented graphically in Annex.

The offered methodology for estimation of missing data for small territorial units is unimplemented so far in this form. It enables data whose primary source is sample surveys to be produced at settlement level, which is the first such attempt in Bulgaria. The methodology is officially adopted by Eurostat and is given as an example of good practice. Its implementation enables Bulgaria to provide the highest percentage of required data - over 95%.

## II. DEMOGRAPHIC TENDENCIES IN BULGARIA

Tendencies in the demographic processes and changes in the population structures are the basis of important socio-political and economic challenges in modern Bulgaria. The importance of ongoing demographic processes is reinforced by the fact that they strongly influence the main systems of society: economic, educational, health insurance and social protection.

The demographic situation in Bulgaria is characterised by population decrease, decrease of fertility and high levels of total and infant mortality, ageing of population and negative net migration. The life expectancy increases.

**Population number.** At the end of 2012 the population of Bulgaria is over 7 284 thousand. Compared to 2001 the population decreased by 607 thousand or by 7.7%. For the last three years (2010 - 2012) the decrease is by 220 thousand or nearly 3%. As a result the average population number<sup>3</sup> for the period 2010 - 2012 is 7 419 thousand and the population density is 66 persons per 1 sq. km.

*Table II.1. Population as of 31.12.*

Years	Total	Male	Female
2001	7891 095	3841163	4049932
2005	7718750	3743327	3975423
2009	7563710	3659311	3904399
2010	7504868	3629809	3875059
2011	7327224	3566767	3760457
2012	7284552	3545073	3739479

The population decrease is due to the negative natural increase during the last three decades, as well as to the intensive emigration from the country after 1990.

**Natural increase.** There are 69 121 live born children in 2012. Compared to the previous year the number of live births decreased by 1 725 or by 2.4%. The crude birth rate<sup>4</sup> in 2012 is 9.46‰, compared to 9.55‰ and 10.02‰ in 2011 and 2010. The average number of live births during this period is 71 821 and the average crude birth rate is 9.68‰. The crude birth rate in Bulgaria is lower than the EU-27 one - 10.4‰.

In 2012 the number of live births in urban and rural areas is 51 658 and 17 463 respectively. The crude birth rate in urban areas is 9.7‰ and in rural - 8.8‰.

Total fertility rate<sup>5</sup> is quite important for characterising the fertility. The average number of children per woman in 2012 is 1.51. For the 3-years period the TFR is 1.49 children. TFR for EU-27 in 2011 is 1.57.

Main problem in the country demographic development remains the high mortality rate. The average number of deaths for the period 2010 - 2012 is 109 235 and the crude death rate<sup>6</sup> is 14.72‰. There are no considerable differences in the crude death rate for the separate years. The crude death rate in 2011 for EU-27 is 9.6‰. Considerably higher compared to bigger part of EU countries is also the infant mortality rate in Bulgaria. The average infant mortality rate<sup>7</sup> for the period is 8.56‰. The lowest value in the whole demographic history of the country is registered in 2012 - 7.8‰. Infant mortality rate for EU-27 in 2011 is 3.9‰.

<sup>3</sup> Predominantly average data for the period 2010 - 2012 are used in the analysis of population and demographic processes total for the country and by functional areas thus decreasing the influence of chances at calculations especially for smaller areas and towns. In case other data is used the necessary explanation are given.

<sup>4</sup> Number of live born children per 1 000 persons of the average annual population during the year.

<sup>5</sup> Average number of live born children, whom a mother would give birth to during her entire fertile period according to the age specific fertility rates during the reference year.

<sup>6</sup> Number of dead persons per 1 000 persons of the average annual population during the year.

<sup>7</sup> Number of children who die up to 1 year of age per 1 000 live born.

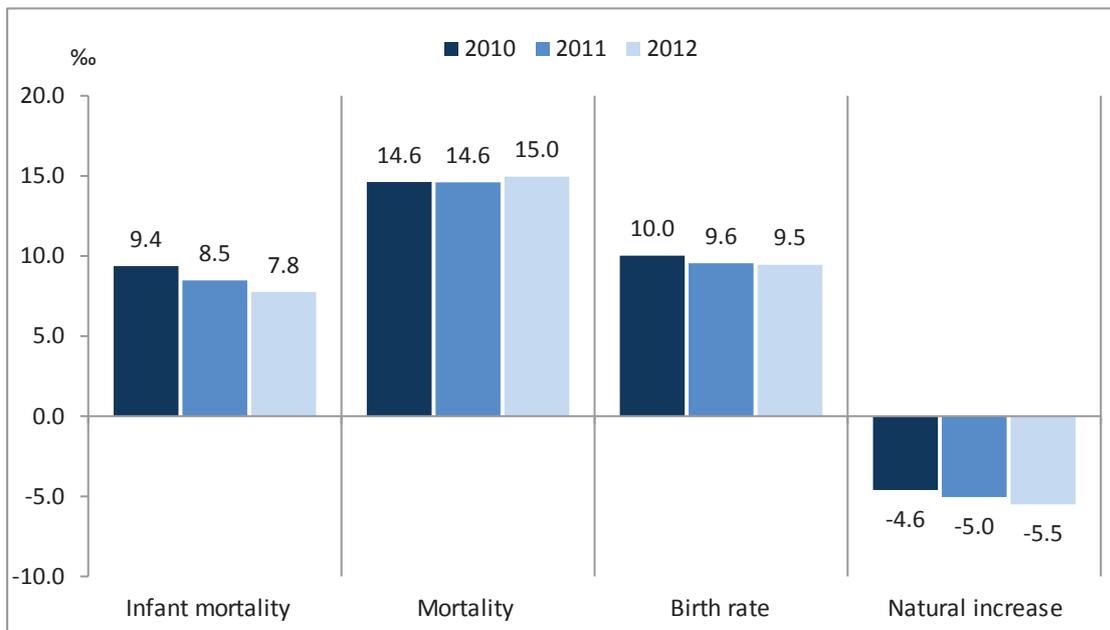


Figure II.1. Crude birth mortality rates and population increase

Mortality rate for male population is higher than for female. In 2012 the mortality rate for male is 15.9‰, while for female - 14.0‰. Nearly twice higher is the premature mortality<sup>8</sup> for male (29.8%) than for female - 14.2%. There is a light tendency of decrease of the premature mortality during the last years.

Due to the ageing of rural population and high number of elderly population there, the mortality in rural areas is quite higher. In 2012 the mortality rate in rural areas is 21.6‰, while in urban is quite lower - 12.5‰.

**International migration.** Emigration from Bulgaria after 1989 - 1990 led not only to decrease of population number, but also to considerable changes in the basic demographic structures. During the observed period, on average the country has been left by nearly 18 thousand Bulgarian citizens or the intensity of emigration per the average population is 2.42‰.

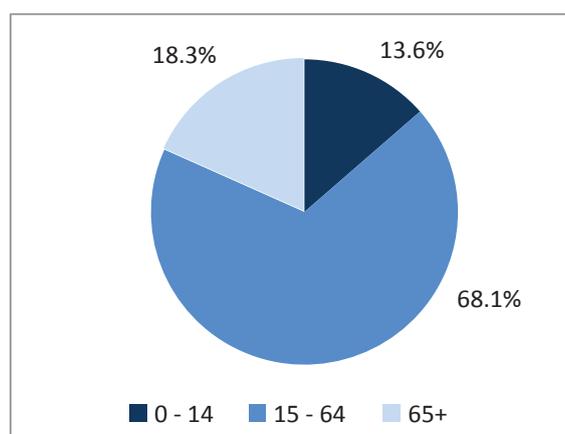
Immigration to the country is considerably lower - 7 500 persons annually as over 40% of them are Bulgarian citizens returning in the country. Due to the higher number of emigrants, the country population has decreased during the pointed period by 10 500 persons on average per year or by minus 1.42‰. The negative influence of international migration on the country demographic development is also expressed by the decrease of fertile contingent and ageing of population since emigration is higher among population in young and middle ages. The last indirectly influences the labour force, functioning of the labour market, the stability of insurance systems, etc. International migration together with the internal migration between the country regions lead to depopulation of some settlements and territories. Decrease of population and the negative changes of demographic structures delay the spreading of urban functions, limit the formation of agglomeration nuclei and areas between the larger cities and weaken the potential of the medium and smaller cities to create compact territories and urban zones of influence.

**Sex.** Female are bigger part of the country population. Their average annual number during the observed period is 3 819 thousand, while male are 3 600 thousand. At the end of 2012 female population is 3 739 thousand or 51.3% of the country population. Male population is 3 545 thousand or 48.7%. Male population prevails up to age of 52 years. Sex ratio is 1 054 female to 1 000 male.

<sup>8</sup> Relative share of dead persons under age of 65 years to the total number of deaths.

**Residence.** At the end of 2012 there are 5 278 settlement in Bulgaria, of which 257 towns and 5 021 - villages. Bigger part of country population lives in towns. Urban population at the end of 2012 is 5 306 thousand or 72.9%. With certain conditionality one can say that this population lives in urban conditions since some zones in towns do not meet the requirements for urbanisation. In rural areas live 1 976 thousand persons or 27.1% of the country population.

**Age structure.** The ageing of population, expressed by changes in the population age structure, continues during the past 10 years of the 21<sup>st</sup> century. At the end of 2001 the share of population aged 65 and over is 16.9%, but in the next ten years it increased to 19.2%. At present its number is 1 395 thousand. For the same period the population in active ages decreased from 68.2% to 66.2%. At the end of 2012 the population aged 15 to 64 is 4 899 thousand. Insignificant is the decrease of youngest population (0 - 14 years) - from 14.9 to 14.6%. At the end of 2012 the population aged 0 to 14 years is 990 thousand.



*Figure II.2. Age structure of the average annual population in 2010 - 2012 period*

Ageing of population is more intensive among female population than among male. Share of female aged 65 and over is 22.2%, while of male - 16.0%. The difference is due to number of reasons, but mainly to the higher mortality among male population and as a result - lower life expectancy among male. Population ageing is also expressed by the increase of population mean age. The last increased from 40.5 years in 2001 to 42.0 in 2010 and reached 42.9 years in 2012. Population ageing is observed both in urban and rural areas. In 2012 the mean age of rural population is 45.8 years compared to 41.7 years of urban.

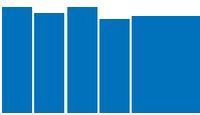
The tendencies in age structure of population are also expressed by the age dependency ratio<sup>9</sup>. As of 31.12.2012 the age dependency ratio is 48.7%, or to each person in dependent ages (under 15 and over 65 years of age) correspond nearly two persons in active age. In 2010 the ratio is 46.0%. For the whole observed period, the average age dependency ratio is 46.8%. In 2012 the ratio is more favourable in urban areas - 43.5% than in rural ones - 64.7%.

In the analysis of age dependency ratio by sex one can see the influence of the age-sex structure. There is higher share of female in the demographic burden of population with elderly population, while for male - with younger population<sup>10</sup>. The difference is due to the age-sex structure.

The demographic burden indicator for the population in independent ages should be seen in both sub-populations of the dependent population. Based on the tendencies in their development it is possible different interpretations to be done in respect future population and labour force development. If the demographic burden increases at expense of increasing number of young population than the tendency could

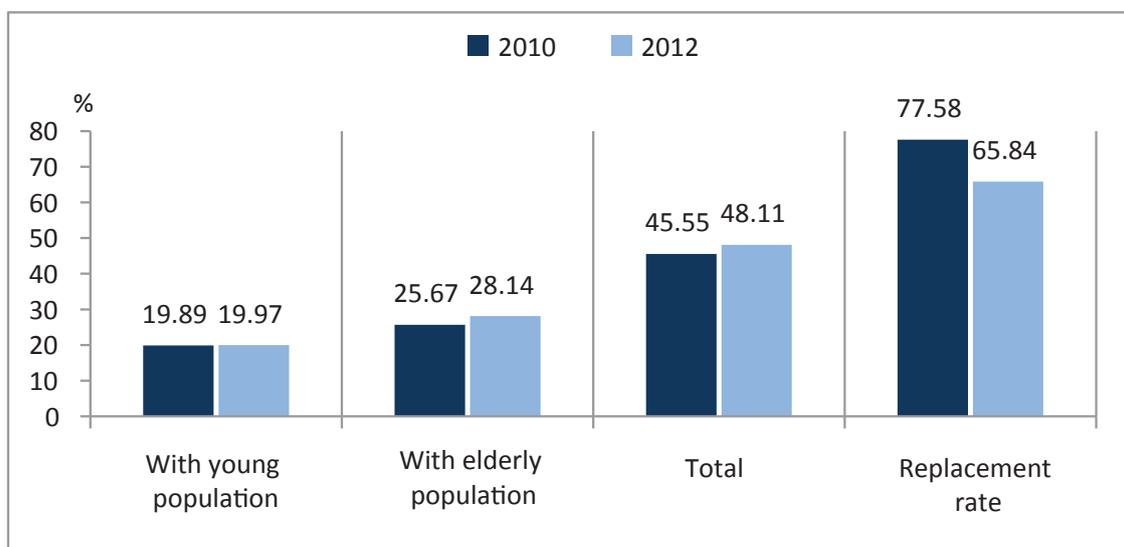
<sup>9</sup> Number of persons in 'dependent' ages (persons under 15 years of age and 65 and over) per 100 persons in 'independent' ages (persons aged 15 to 64 years) calculated in percentage (also interpreted as a demographic burden of the population in 'independent' ages).

<sup>10</sup> 'Young' is the population aged 0 - 14 years; 'Elderly' is the population aged 65 years and over.



be considered 'good'. However, the reality is different. The demographic burden of population in active ages with young population in 2001 is 22%. In the next years the indicator decreases and in the period 2010 - 2012 reaches average value of 19.9%. The last tendency is negative due to changes of the population age structure. Contrary to this tendency is the change of the indicator for demographic burden of population in active ages with an elderly population. The age dependency ratio in respect elderly population in 2011 is 24.9%, while on average for the observed period - 26.9%, i.e. the burden with elderly population increases. 42.6% of the demographic burden of the population in independent ages is due to the young ages (0 - 14) and 67.4% to the elderly population (65 years and over). As far as the demographic burden by sex is concerned, the respective shares are 48.4% and 37.8% for the young male and female referred to male and female aged 15 - 64 years. As far as population in working age by sex with an elderly population is concerned, the indicators for male is 51.6%, while for female - 62.2%. The considerable differences by sex are due to the natural population increase - higher number and share of male born and higher life expectancy for female, as well as to the changes in age-sex structure of population resulting from migration. If the regions are concerned, the shares are additionally influenced by the intensity of demographic processes in the separate regions.

Variation of these two indicators in different direction shows the overall negative change in the population age structure.



*Figure II.3. Demographic burden and demographic replacement rates of the population aged 15 - 64 years*

Demographic replacement rate<sup>11</sup> changes in conformity to the tendencies of the demographic burden of population. In 2010, 100 persons leaving the working age are replaced by 124 persons aged 15 - 19 years. During the next years their number decreases and reaches 71 on average in the period 2010 - 2012, i.e. even the simple reproduction of population in working age is not ensured.

The brief review of the population and demographic tendencies in the country aim to present the demographic situation. The last can be estimated as poor. Since the negative demographic processes during the last two decades run with high intensity, they are observed in all country regions. However, in some territories and settlements some peculiarities are seen mainly in respect the degree of manifestation of negativity and to a lower extent of positivity of the demographic tendencies observed.

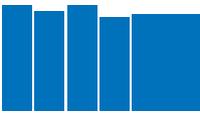
<sup>11</sup> Demographic replacement rate is a ratio between the number of people entering working age (15 - 19 years) and the number of people exiting working age (60 - 64 years).

### III. DEMOGRAPHIC AND SOCIO-ECONOMIC DEVELOPMENT OF AREAS

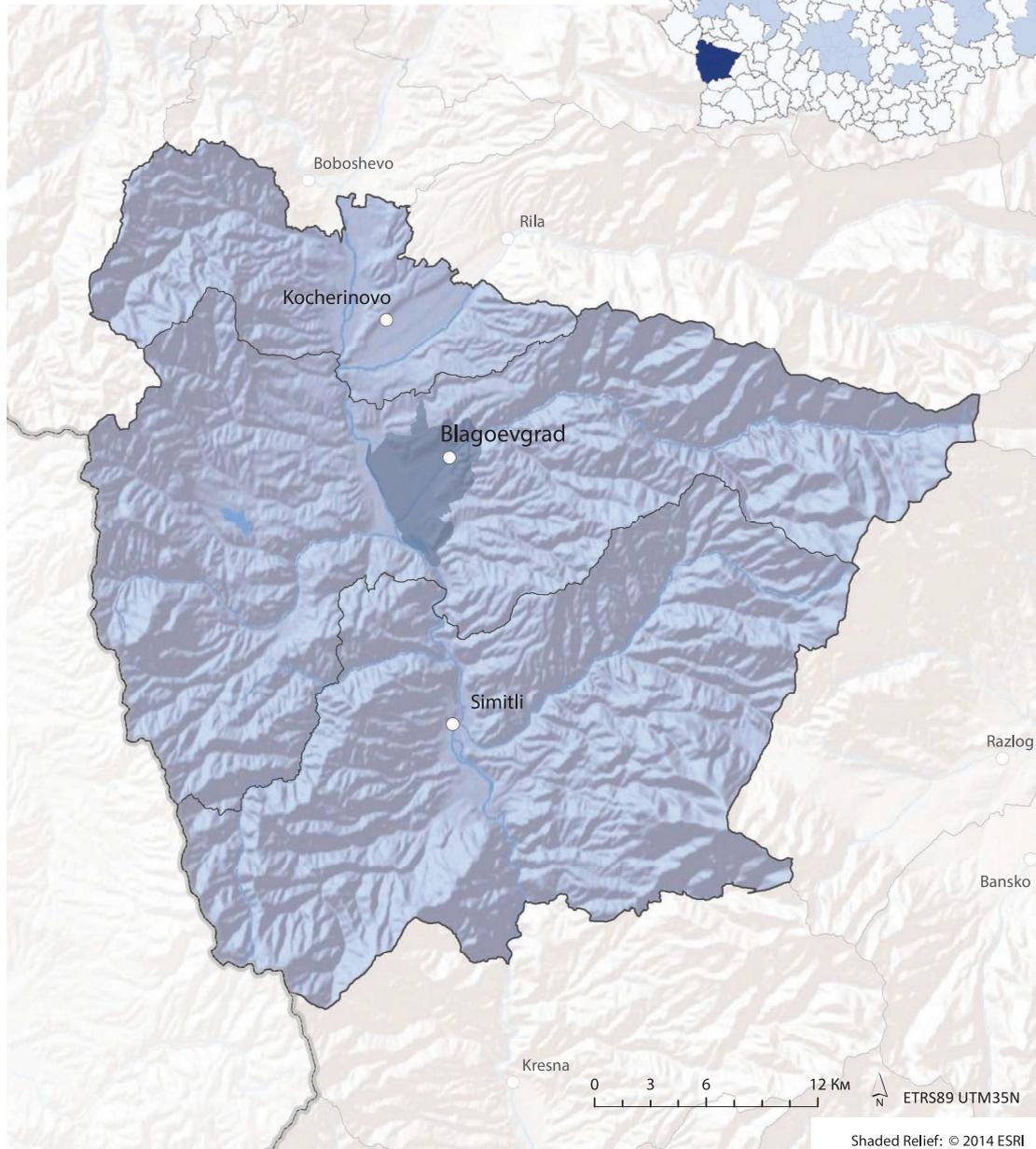
Analysis of the demographic and social processes in the country and the FUA created for the 'Urban Audit data collection' purposes is done based on the rdata for the period 2010 - 2012. The mentioned data are used to fulfill the periods specified in the project. Due to that the analysis is limited to a certain extent and data do not cover long period, thus ensuring in depth analysis of the influence of urban nuclei on the development of its periphery.

According to the criteria applied, 17 areas are created and 18 city centres are chosen, for which it is accepted that are important for the country regional development. These cities stimulate and it is expected to stimulate the development of contiguous settlements not only functional, but also spatial one. At present stage, in their empirical determination is included the whole territory of some municipalities, linked territorially and functionally to the centre (nuclei) chosen. Their regulation as objects of special planning can lead to improvement of their management by combining the efforts of the group of municipalities that form this new type of areas.

The 18 cities chosen and their contiguous zones of influence cover 25.1% of the country territory and 58.2% of the population at the end of 2012.



Area with centre city of Blagoevgrad<sup>12</sup>



	Municipality	Population	Area (sq. km)	Density
<b>BLG03</b>	Blagoevgrad	76927	620.1	124
<b>BLG44</b>	Simitli	14486	553.0	26
<b>KNL27</b>	Kocherinovo	5460	182.3	30
	<b>Area</b>	<b>96873</b>	<b>1355.4</b>	<b>71</b>

Shaded Relief: © 2014 ESRI  
 ○ Municipality center  
 □ Municipality borders  
 ■ Core city

Figure III.1.1. Area of Blagoevgrad - municipalities, average annual population, territory and density (per 1 sq. km) in 2010 - 2012 period

<sup>12</sup> Areas included in the analysis are presented in alphabetic order (Bulgarian).

## Population

Three municipalities with average population of 96 873 persons for the period 2010 - 2012 or 1.3% of the country population are included in the agglomeration; the territory is 1 355 sq. km or 1.2% of the whole country territory and the population density 71 persons per 1 sq. km. The city centre is Blagoevgrad with a population 70 466 persons or 72.7% of the population of created special area.

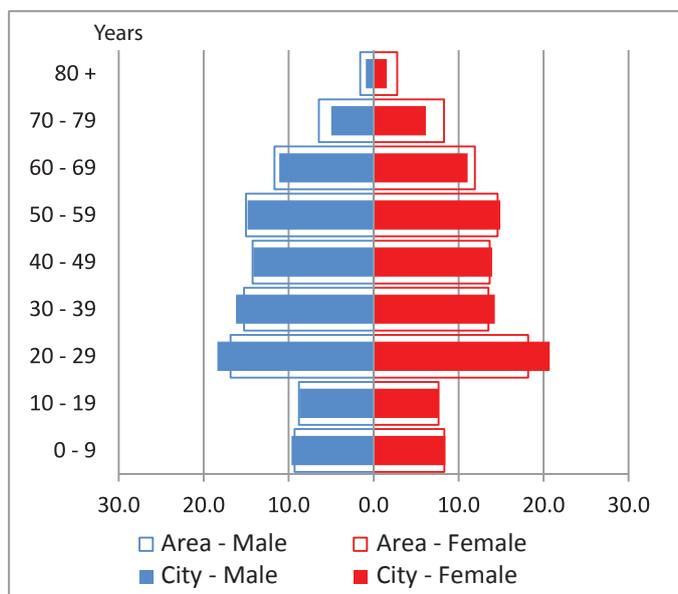


Figure III.1.2. Age pyramid of the city and area of Blagoevgrad

48.2% of the whole area population are male and 51.8% - female. Similar are the shares in city-centre - 47.7% are male and 52.3% - female, compared to 48.5% and 51.5% total for the country. The population of the city centre is about 70 500 persons. The area population decreased during the observed period from 97 335 at the end of 2010 to 96 084 in 2012. The decrease is due to the negative natural growth and migration. Crude birth rate is 9.80‰, and the TFR - 1.23 children. As a result, the crude mortality rate is 11.40‰. The average natural increase is negative - minus 1.6‰.

The average annual immigration to the area for the observed period is 1 410 persons or 14.55‰. The immigrants are from settlements outside the area boundaries. Higher is the

number of emigrants - nearly 1 590 per year or 16.39‰. As a result, a negative migration growth is registered of nearly 180 persons per year. The coefficient of migration growth<sup>13</sup> is minus 1.84‰.

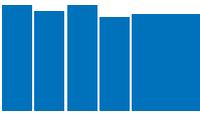
Different are the indicator for population natural and migration growth for the city centre Blagoevgrad. The crude birth rate in the city is 10.53‰ and the TFR - 1.22 children. The mortality rate is quite lower - 8.73‰. As a result the natural increase in the city is positive - 1.8‰. The last is the highest among the cities included in the survey.

The average annual migration growth of the city is negative - about minus 290 persons (4.15‰) each year, i.e. the average number of immigrants is about 1 150, while of emigrants - 1 435. The intensity of the two flow is 16.27‰ and 20.27‰ respectively.

There are migration flows between the nuclei and its periphery also. Within the three surveyed years on average 170 persons annually or 2.39‰ have migrated from the periphery to the city. The opposite flow numbers 290 persons annually or 4.14‰. As a result the population of city Blagoevgrad have decreased annually by 123 persons or 1.75‰.

As a total, due to the natural and migration growth the population of city Blagoevgrad slightly increased during the observed period - from 70 404 in 2010 to 70 656 in 2012 or on average for the period it is 70 562 persons. The increase is mainly due to the natural population increase.

<sup>13</sup> Coefficient of migration growth characterises the intensity and results of migration. It is calculated as a ratio of the absolute migration growth (difference between immigrants and emigrants) to the average annual population.



73% of the area population is aged 15 - 64 years, compared to 68% total for the country. The number of population aged 15 - 64 is a little above 70 thousand, 48.9% of which are male. Share of the same age group in the city centre is higher - 75.5%, and the number about 53 thousand. The population aged 15 - 64 in surrounding area is 17 thousand.

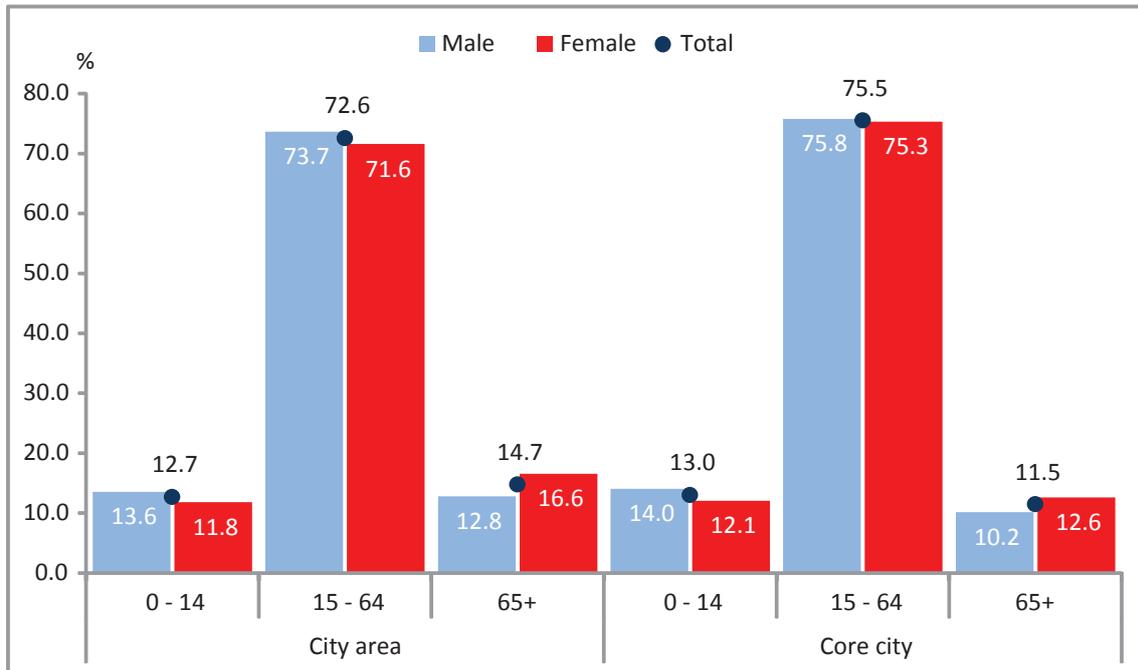


Figure III.1.3. Age structure of average annual population

The shares of population under working age (0 - 14 years) total for the area and for the city, as well as for male and female are almost equal - about 12%. Total for the country the indicator is 13.6%. More considerable differences are observed among elderly population. Share of this population in the area is 14.7%, compared to 11.5% in the city. The shares are lower compared to the country value - 18.3%. More considerable is the difference in shares of female aged 65 and over. In the area the last is 16.6%, while in the city - 12.6%.

The difference in the age structure is also expressed by the mean age of population. The last is 39 years in the city and 40.7 years in the surrounding area. The demographic burden of population in independent ages is 38. Ratio of young population to population aged 15 - 64 years is 17%, while of the elderly population to the population aged 15 - 64 years - 20%. In this connection it should be mentioned that 46 of the total burden is due to the young ages and 54% to population aged 65 and over. The respective values for the country are 46.8% and 53.2%.

For the city of area the ratio between population in dependent and in the independent ages is lower - 32%. However, the share of burden of young population is considerably higher - over 53%. 17 persons of population up to 14 years and 15 persons of population over 65 years correspond to 100 persons in independent ages.

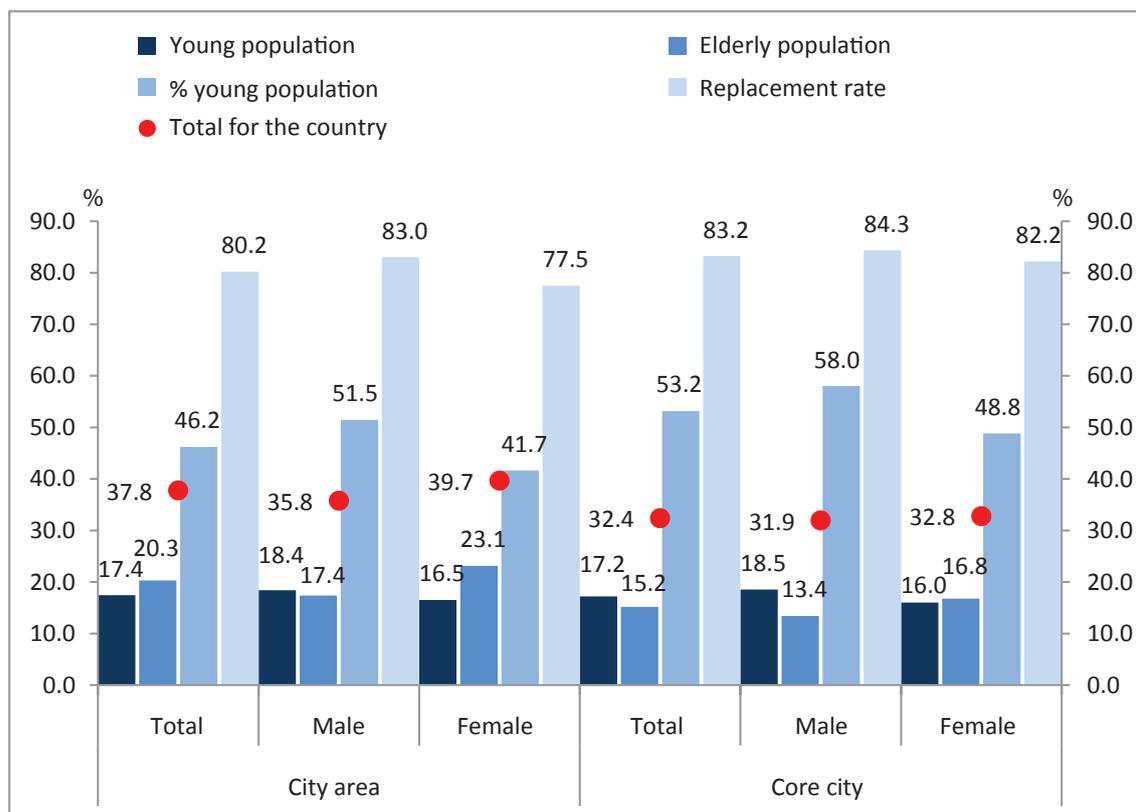


Figure III.1.4. Demographic burden, demographic replacement rates and share of younger ages in demographic burden

The analysis of these indicators by sex shows that they follow the country tendencies i.e. there is higher share of female in the demographic burden of population with elderly population, while for male - with younger population. The last is best expressed total for the area.

Compared to the country, the demographic replacement rate both in the area and city is higher. Total for the area 100 persons exiting working age are replaced by 80 persons aged 19 - 24 years. The rate is higher in the city - 100 persons exiting are replaced by 83 persons entering working age. The demographic replacement rate for the country is 71%.

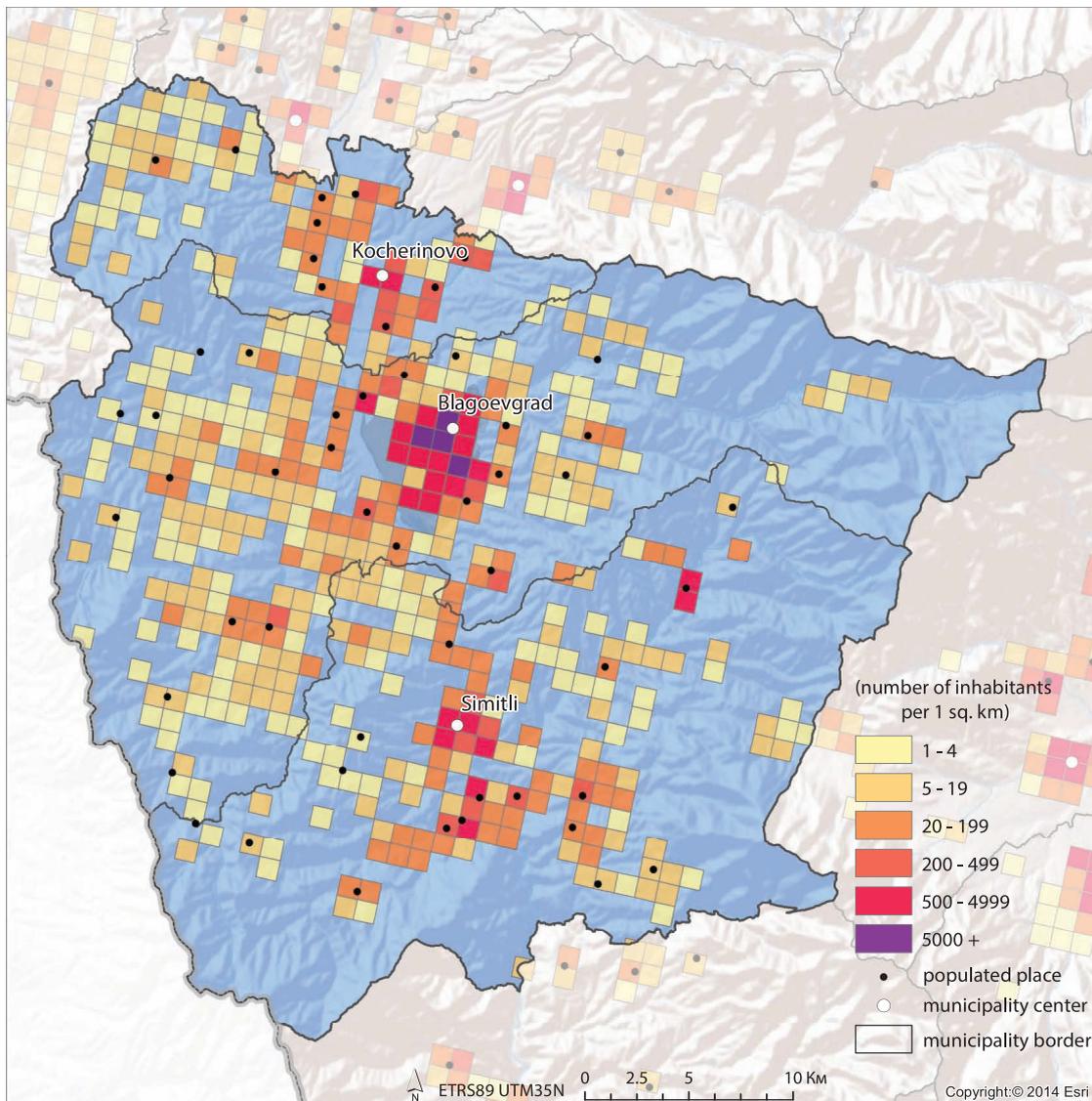


Figure III.1.5. Population grid of the area of Blagoevgrad, 2011 Census

## Households

Number of households in the area of Blagoevgrad is relatively small compared to the country one. In 2012 there are 36 298 households representing 1.3% of the total number of households in the country. Compared to 2010, the number of households increased by 2.3%. Average for the period the one-member households in the area are 27.5% representing 0.9% of the country number; lone parents with children below 18 years are 1.9% representing 0.7% of the country number; households of single pensioners - 15.2% or 0.7%; households with children below 18 years - 28.8% or 0.9%. Bigger part (74.1%) of the households is living in the area centre city of Blagoevgrad.

#### *Dwellings*

Number of dwellings in the area in 2012 is 46 332 representing 1.2% of the country number. The last did not change considerably during the surveyed period. Average price of a dwelling is 20 380 BGN or about 25% lower than the country average in 2012. Average price of a detached house in the same year is 42 610 BGN or two times higher than the price of a dwelling. More than half of area dwellings in 2012 are located in city of Blagoevgrad - 64.5%.

#### *Labour market*

Number of employed aged 20 - 64 years in the period 2010 - 2012 decreased by 9.6%, reaching 37 874 persons. Employment rate is 60.3% or 2.2% lower than the country average. Share of employed in the area represent 1.3% of the total country number. Biggest part of the employed (about 77%) live in the area centre, city of Blagoevgrad.

Average annual number of unemployed in the period is 5 162. Share of unemployed is highest in the area centre - over 71.3%. Unemployment rate is 12.5% or 1.4% higher than the country average.

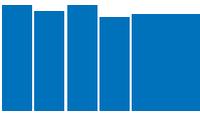
#### *Poverty*

Share of poor people, living at risk of poverty is relatively high - about 25 - 26% for the period. Poverty level is 4 - 5% higher than the country average. At risk of poverty rate before social transfers (including pensions) is considerably higher - 53% or about 3% higher than the country average. Material deprivation level in the area is 46 - 47% or 3% higher than the country average.

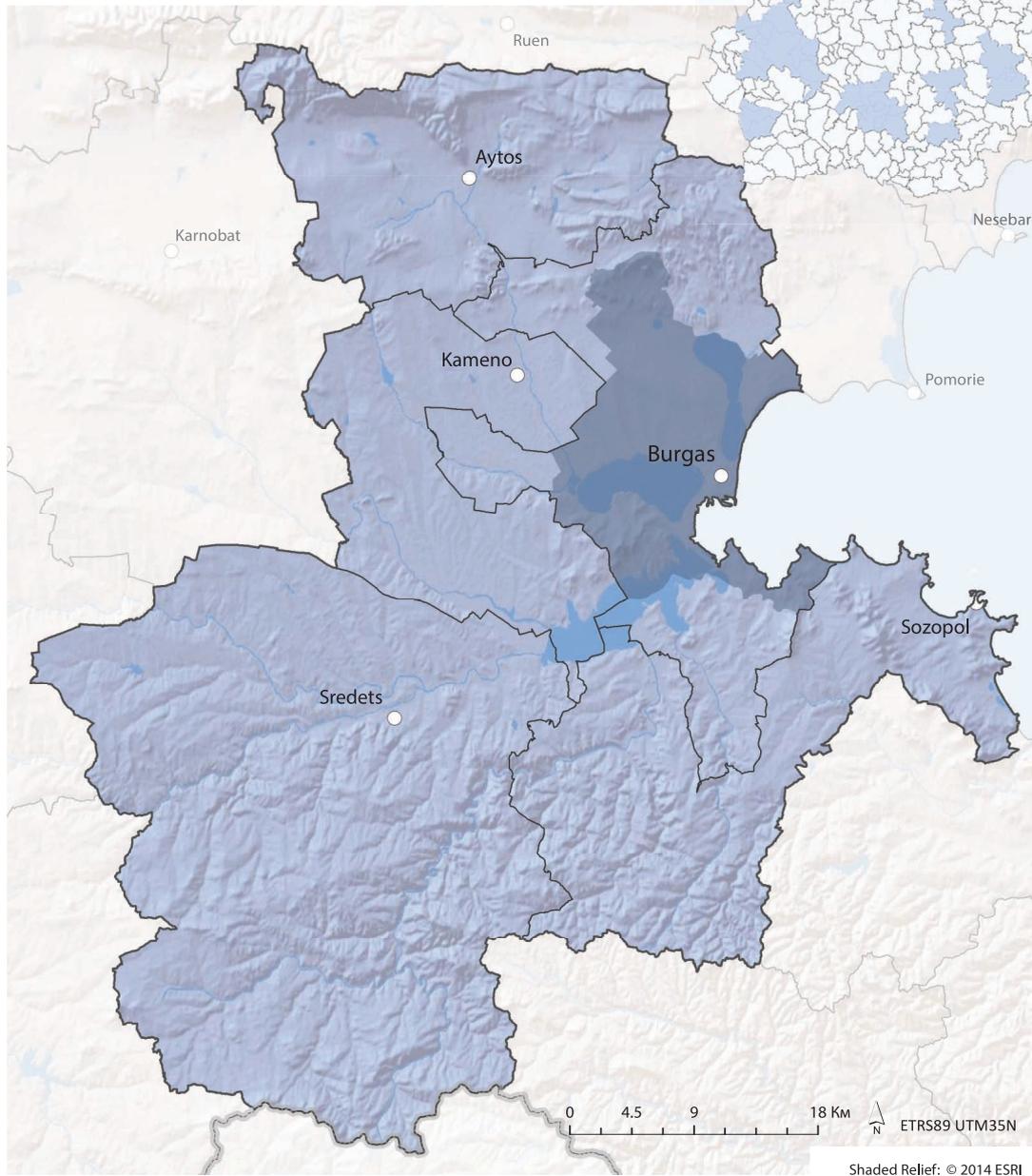
#### *Education*

Number of children aged 0 - 4 years during the observed period increased by 1.4%, and reached 2 324 in 2012.

In 2012 the number of students in the city is 13 466 and a decrease is observed compared to 2010 by 1.2%. Share of the early school leavers aged 18 - 24 years is 13.2% or 0.2% higher than the country average.



Area with centre city of Burgas



	Municipality	Population	Area (sq. km)	Density
BGS01	Aytos	29508	402.9	73
BGS04	Burgas	209224	559.2	374
BGS08	Kameno	11258	354.9	32
BGS21	Sozopol	14020	480.1	29
BGS06	Sredets	15468	1149.9	14
	<b>Area</b>	<b>279478</b>	<b>2947.0</b>	<b>95</b>

Figure III.2.1. Area of Burgas - municipalities, average annual population, territory and density (per 1 sq. km) in 2010 - 2012 period

### Population

Three municipalities covering territory of 2 947 sq. km or 3.8% of the country territory are included in the area. According to its territory the area takes the second place after the capital area, and according to its population - fourth place. Average annual population for the period is 279 thousand, of which 135 thousand

(48.5%) are male and 144 thousand (51.5%) - female. The population number represent 2.7% of the total country average population. Population density in the area is 95 persons per 1 sq. km. City centre is city of Burgas with a population 196 500 persons or 70.2% of the area population. The share of male area population is 48% and of female - 52%.

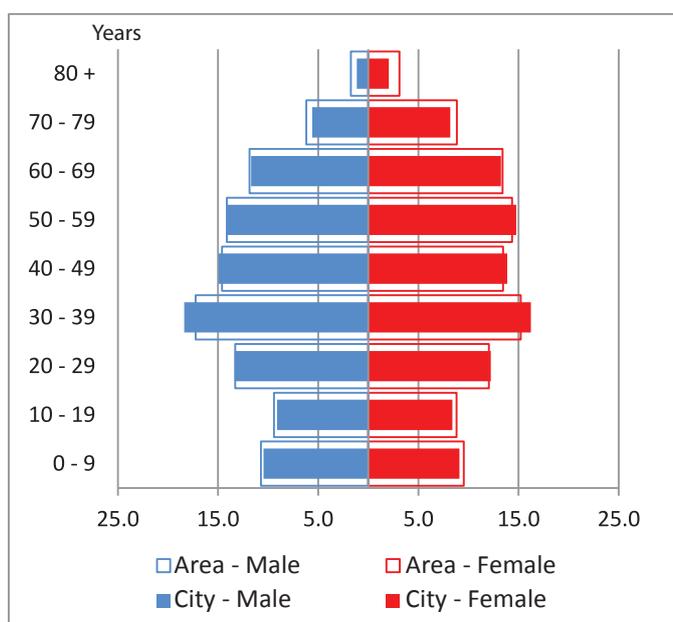


Figure III.2.2. Age pyramid of the city and area of Burgas

Within the period 2010 - 2012 the population of the area decreased from 280 445 to 277 929 or by nearly 2 500 persons. Crude birth rate is 12.28‰, and the TFR - 1.50 children. The last values are higher than the country ones. Crude mortality rate is 12.66‰ i.e. lower than the country average. As a result, the average annual natural increase in the area is quite low - 0.38‰.

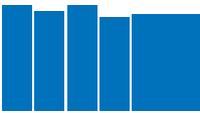
For the three surveyed years the migration flows (immigration and emigration) are almost equal - about 4 300 persons. Annually the population in the area decreased by 82 persons or the coefficient of migration growth is minus 0.29‰.

Indicators for city of Burgas are more unfavorable compared to the area ones. The crude birth rate is lower - nearly 10‰, and the TFR is 1.35 children. Regardless the lower mortality rate - nearly 11‰, the average natural increase of the city for the period is minus 1.02‰.

The average annual migration growth of the city is also negative - minus 258 persons (1.31‰) for each year; the number of immigrants is 2 962 on average and of emigrants 3 320 persons.

Migration processes within the area are lower. On average 535 persons (2.72‰) migrate annually from the periphery to the city and 794 persons (4.04‰) from the city to the periphery. As a result the city population decreases annually by 260 persons on average or the migration growth coefficient due to migration within the area is minus 1.32‰. Therefore the direction of migration within the area is from the centre to the periphery.

The average annual population of city of Burgas for the three year period of survey is nearly 196 500 persons.



The average area population aged 15 - 64 years is 195 thousand persons or 69.7% of the total area population compared to 68% for the country. Male population is 97 thousand or 49.7% and female - 98 thousand or 50.3%. Male aged 15 - 64 years are nearly 72% and female - 68%.

The city population aged 15 - 64 years is 141 thousand or 71.6%, of which 48.9% are male and 51.2% - female. The shares of population up to 14 in the city and area are too close - 14.6% and 14.2% respectively. The last are a little higher than the country average (13.6%). Higher is the share of elderly population in the area - 15.6% compared to 14.2% for the city, but both shares are lower than the country average - 18.3%.

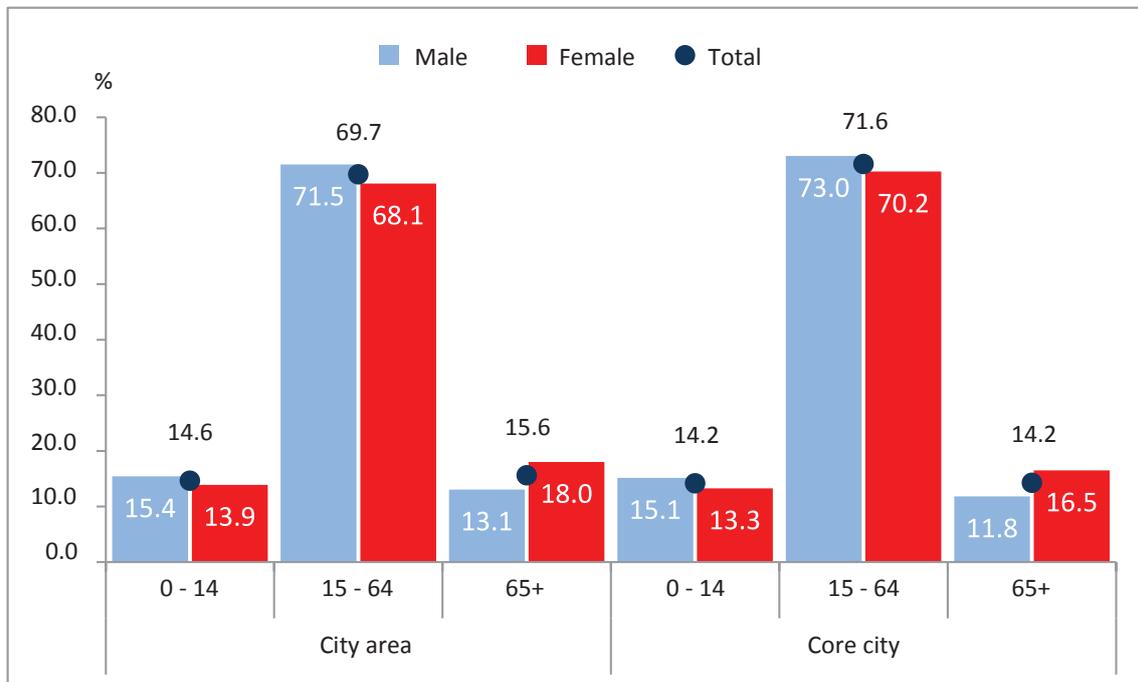


Figure III.2.3. Age structure of average annual population

Mean age of population in the city and periphery is almost equal - about 41 years. The level of demographic burden of population in independent ages is 43% or lower than the country average - 46.8%. The demographic burden with young and elderly population is similar - 21% for young population and 22% for elderly. In the value of last the demographic burden with young population is 48.4% or higher than the country average - 42.6%.

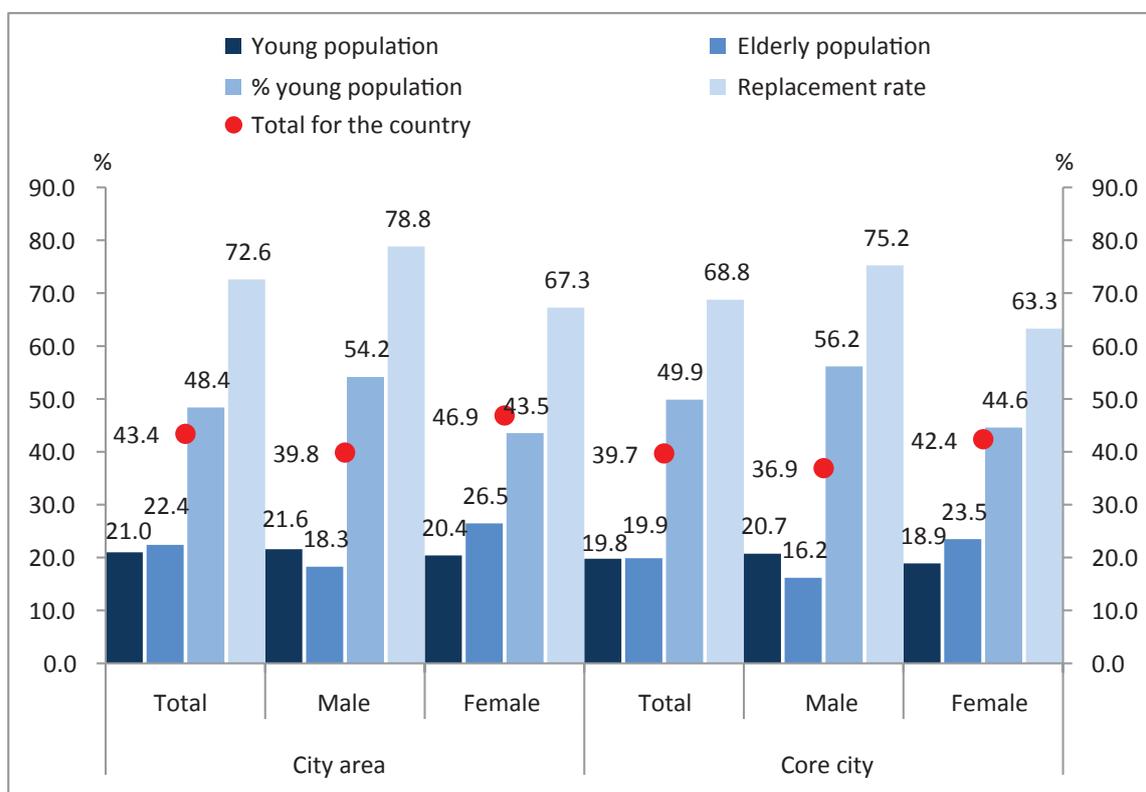


Figure III.2.4. Demographic burden, demographic replacement rates and share of younger ages in demographic burden

The ratio between population in dependent and independent ages in the city is 40%. Here full equality between demographic burden with young and elderly population is observed - 20%.

Compared to the country average (71 persons entering working age corresponding to 100 persons exiting it) the coefficient of demographic replacement in the area is a bit higher - 100 exiting working age are replaced by 69 persons aged 19 - 24 years.

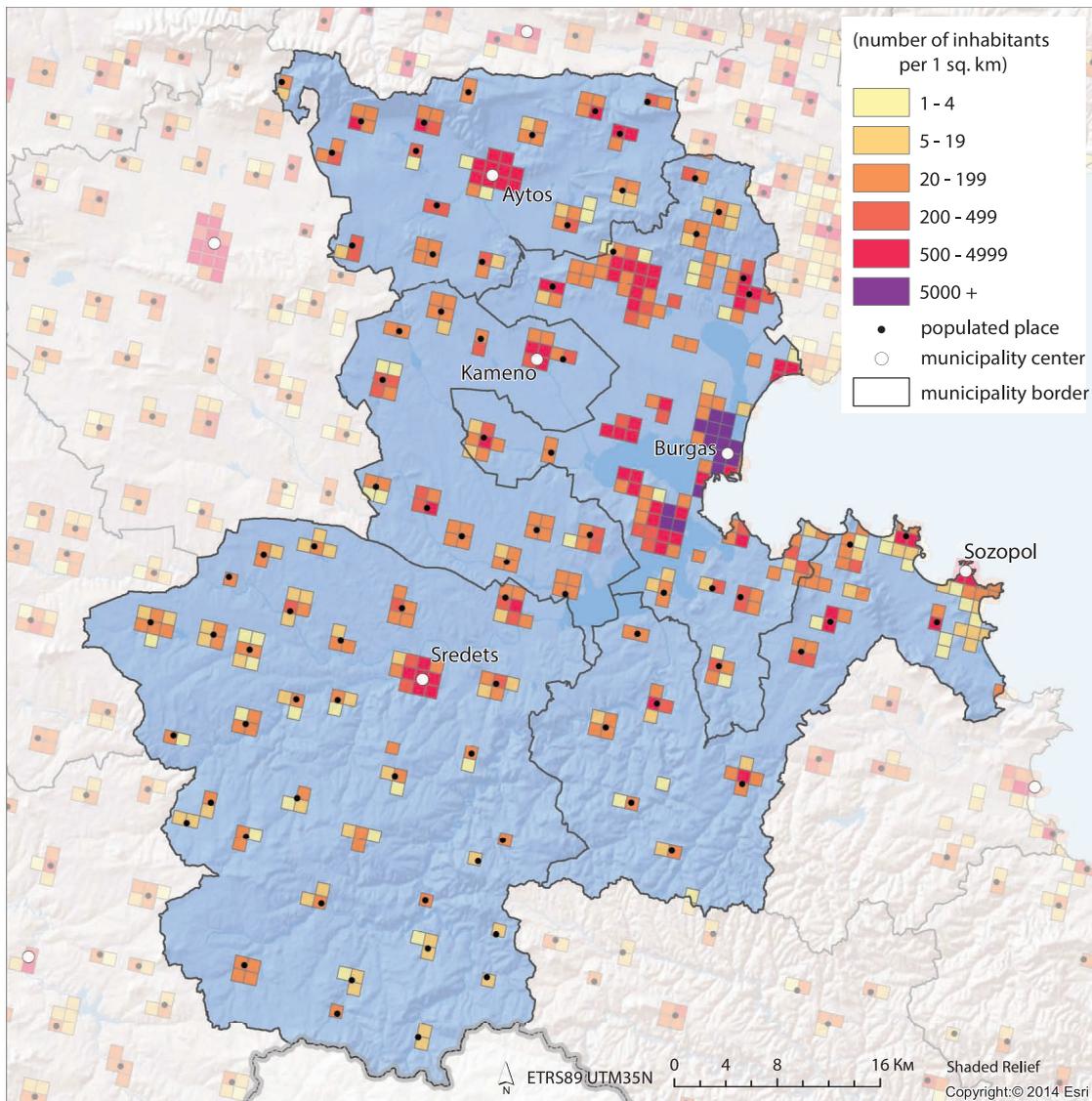


Figure III.2.5. Population grid of the area of Burgas, 2011 Census

### Households

Number of households in the area of Burgas is relatively high compared to the rest areas. In 2012 there are 111 230 households representing 3.9% of the country ones. Compared to 2010, the number of households increased by 2.0%.

Average for the period the one-member households in the area are 26.0% representing 2.5% of the country number; lone parents with children below 18 years are 2.5% representing 2.9% of the country number; households of single pensioners - 16.7% or 2.4%; households with children below 18 years - 29.2% or 2.6%. Bigger part (78.8%) of the households is living in the area centre - city of Burgas.

#### ***Dwellings***

Number of dwellings in the area in 2012 is 145 742 representing 3.7% of the country number. The last increased by 1.9% during the surveyed period. Average price of a dwelling is 30 572 BGN or about 12.4% higher than the country average in 2012. Average price of a detached house in the same year is 53 580 BGN. More than half of area dwellings in 2012 are located in city of Burgas - 67.1%.

#### ***Labour market***

Number of employed aged 20 - 64 years in the period 2010 - 2012 increased by 3.0%, reaching 120 430 persons. Employment rate is 65.5% or 3.0% higher than the country average. Share of employed in the area represents 4.0% of the total country number. Biggest part of the employed (about 76%) live in the area centre, city of Burgas.

Average annual number of unemployed in the period is 10 993. Share of unemployed is highest in the area centre - over 62.1%. Unemployment rate is 8.5% or 2.5% lower than the country average.

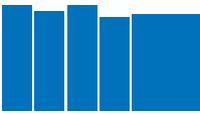
#### ***Poverty***

Share of poor people, living at risk of poverty is relatively high - about 14 - 15% for the period. Poverty level is 5 - 6% lower than the country average. At risk of poverty rate before social transfers (including pensions) is considerably higher - 44% or about 5% lower than the country average. Material deprivation level in the area is about 40% or 4% lower than the country average.

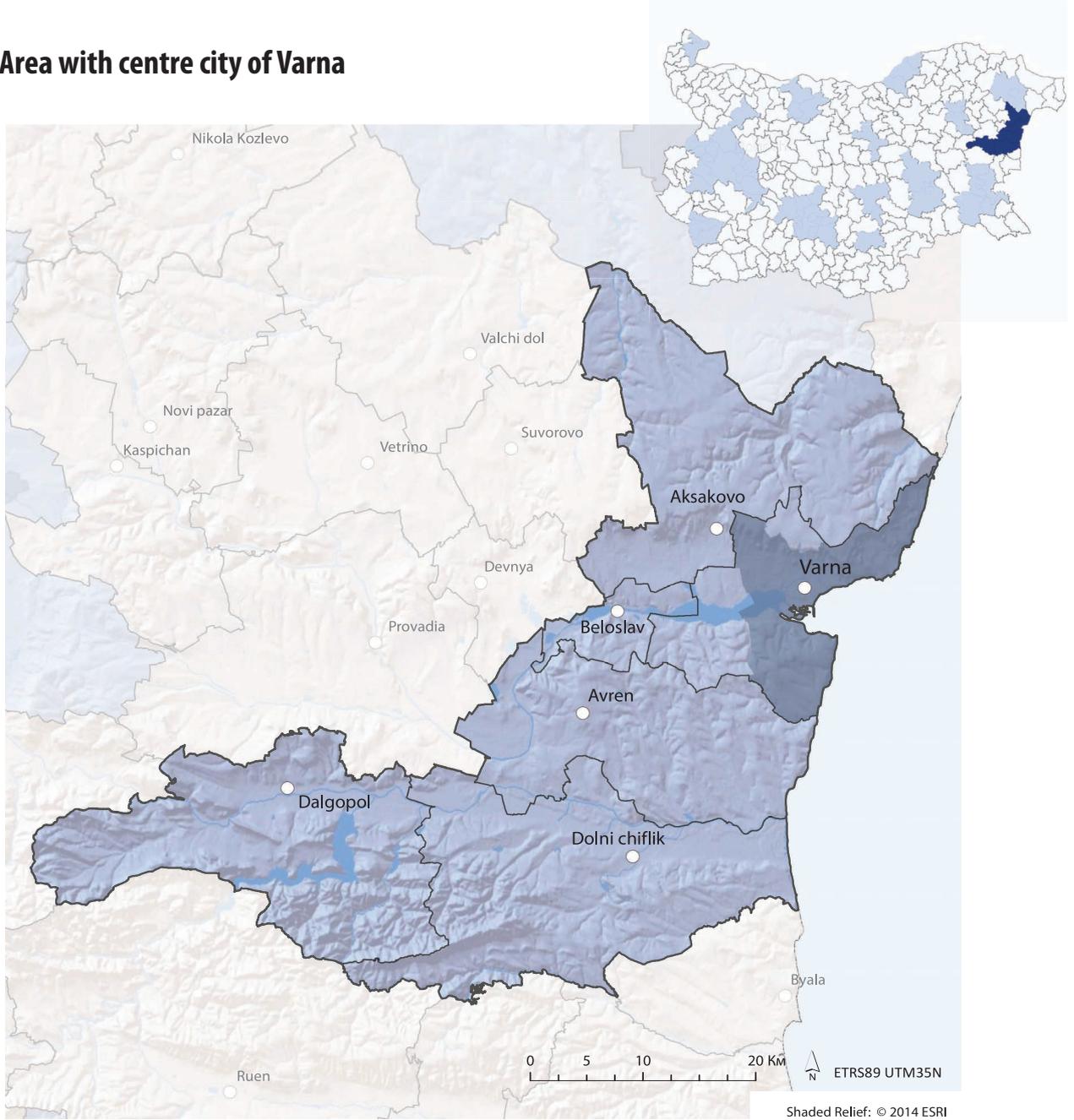
#### ***Education***

Number of children aged 0 - 4 years during the observed period increased by 6.2% and reached 6 345 in 2012.

In 2012 the number of students in the city is 9 828 and a decrease is observed compared to 2010 by 19.6%. Share of the early school leavers aged 18 - 24 years is 8.6% or 4.3% lower than the country average.



Area with centre city of Varna



	Municipality	Population	Area (sq. km)	Density
<b>VAR01</b>	Avren	8835	353.8	25
<b>VAR02</b>	Aksakovo	21218	460.5	46
<b>VAR04</b>	Beloslav	11117	60.1	185
<b>VAR06</b>	Varna	336677	237.5	1418
<b>VAR13</b>	Dolni chiflik	19228	485.1	40
<b>VAR16</b>	Dalgopol	14227	440.9	32
	<b>Area</b>	<b>411302</b>	<b>2037.9</b>	<b>202</b>

Shaded Relief: © 2014 ESRI  
 ○ Municipality center  
 □ Municipality borders  
 ■ Core city

Figure III.3.1. Area of Varna - municipalities, average annual population, territory and density (per 1 sq. km) in 2010 - 2012 period

## Population

The area with centre city of Varna includes six municipalities with a territory 2 038 sq. km. According to its territory the area takes the fourth place and according to its population - third. The average annual population for the observed years is 411 thousand persons, of which 200 thousand are male and 211 thousand - female. Shares of male and female population are 48.7% and 51.3% respectively. In the area is living 5.5%

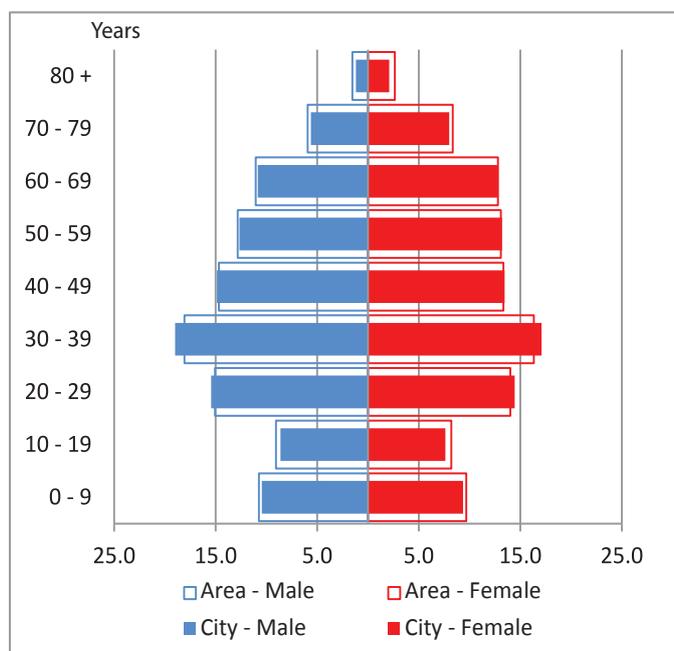


Figure III.3.2. Age pyramid of the city and area of Varna

of the country population. Population density is 202 persons per 1 sq. km - quite higher than the country average - 66 persons. Nearly 80% of the population of area is living in the city of Varna - 328 thousand. As the biggest part of population is living in city of Varna the gender structure of area and city is identical - 48.5% male and 51.5% - female.

Average crude birth rate in the area is 10.83‰, which is higher than the country average. TFR is 1.44 children. Crude mortality rate (11.12‰) is lower than the country average. Average annual natural increase for the observed period is negative, but quite low - minus 0.29‰.

As a result of migration the population increases annually by 200 persons or the coefficient of migration growth is 0.48‰. Average annual number of immigrants is about 6 480, compared to 6 280 - emigrants. The intensity of the two migration flows is 15.75‰ and 15.27‰ respectively.

Natural growth indicators of the city are better compared to the periphery. Crude birth rate in the city is higher - 11.01‰, but the TFR is lower - 1.35 children. Relatively lower is the mortality rate - 10.00‰. Natural increase rate is 1‰, or this is the second city in the country with such natural growth after Blagoevgrad.

City of Varna has positive migration, but the size of the absolute and relative migration growth is considerably lower. On average the city population has increased by 40 persons due to migration or by 0.13‰.

Migration processes between the city and its periphery result in positive growth of the periphery and negative of the city. On average 607 persons annually immigrate to Varna from the periphery, compared to 884 emigrants. Due to the last the city population decreases by 277 persons each year.

Therefore, the increase of area population is due to the positive natural growth of the nuclei (Varna) and the positive migration in the area (immigration from territories outside the area). However, inside the area migration withdraw population from the city at the expense of its periphery.

For the observed period the average annual population in working age is 288 thousand or 70% of the total population. The share is higher than the country average (68%). The number and share of male and female population in working age are almost equal - 144 thousand or 50%. Due to the different age structure of male and female population, share of male aged 15 - 64 is 72.0%, compared to female - 68.5% of the respective population.

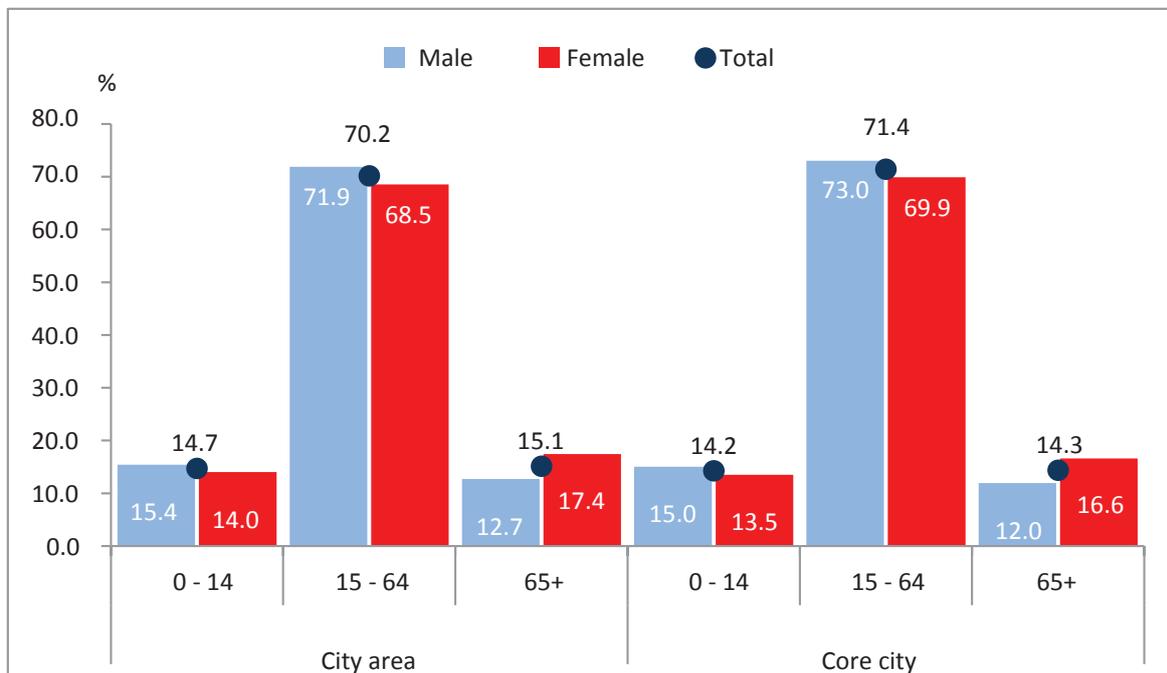


Figure III.3.3. Age structure of average annual population

The share of population aged 15 - 64 years in the urban part of area is a little bit higher - 71.4% (73.0% - male and 69.9% - female). Share of population up to 14 years in the area as a whole and in the nuclei quite close - 14.7% and 14.2% respectively. The last are slightly higher than the country average - 13.6%. Share of population aged 65 and over in the area is 15.1%, compared to 14.3% in the city, but both are lower than the country average - 18.3%.

Mean age of population in the area and nuclei is almost equal - about 40 years or lower than the country average.

The demographic burden rate of the population in working age is 42.5% or lower than the country average - 46.8%. Demographic burden with young and elderly population is almost equal - 21% for young and 21.6% - for elderly population. Accordingly, the value of the coefficient in proportion to the burden with young population is 49.3%. This proportion is significantly higher than the total for the country - 42.6 percent.

The ratio between population in independent and in dependent ages in the area centre is 40%. The level of demographic burden with young and elderly population is equal - 20%.

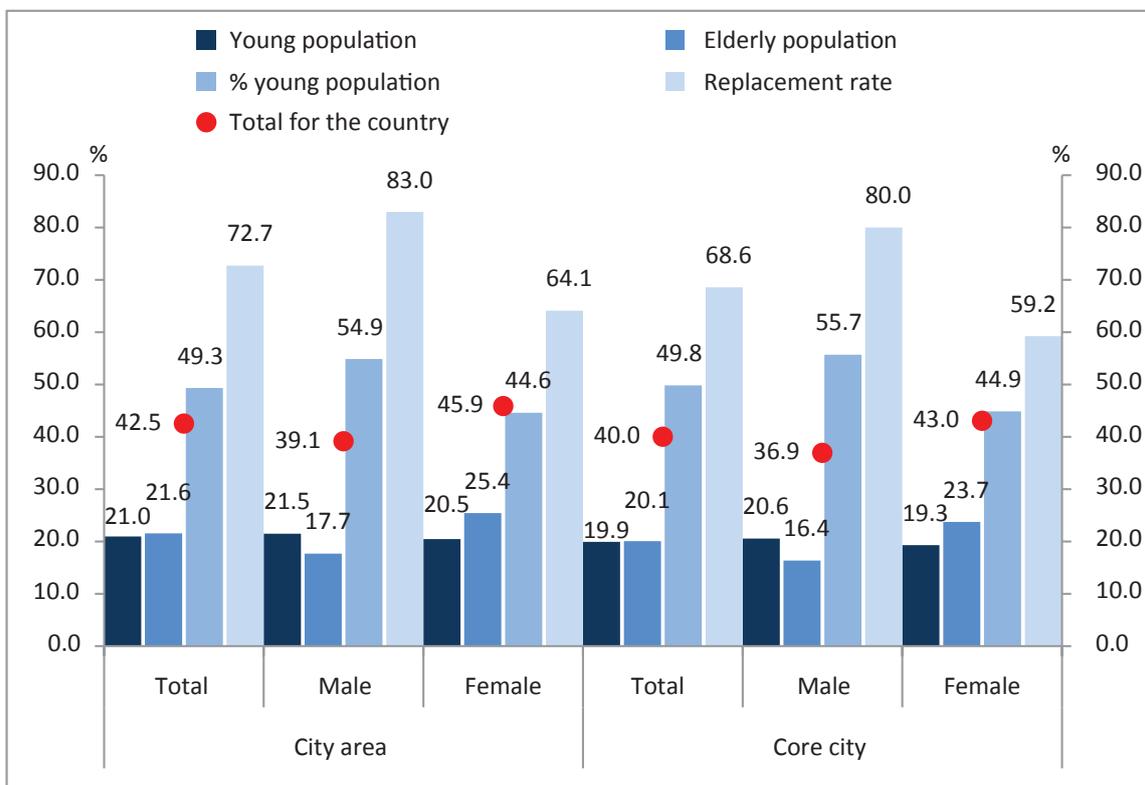


Figure III.3.4. Demographic burden, demographic replacement rates and share of younger ages in demographic burden

Compared to the country average (71 persons entering corresponding to 100 persons exiting working age) the demographic replacement ratio is higher - 100 persons exiting are replaced by 73 persons entering working age. In the city, however, the coefficient is lower than in the area and then the country average. The ratio here is 100 persons exiting working age to 69 persons aged 19 - 24 replacing them.

Demographic replacement ratio differs for male and female as well as for area as a whole and city. The ratio is higher for male - over 80% in the area and in the city. The respective figures for female are 64% and 59%. The difference is due to the age-sex structure of the area and city population.

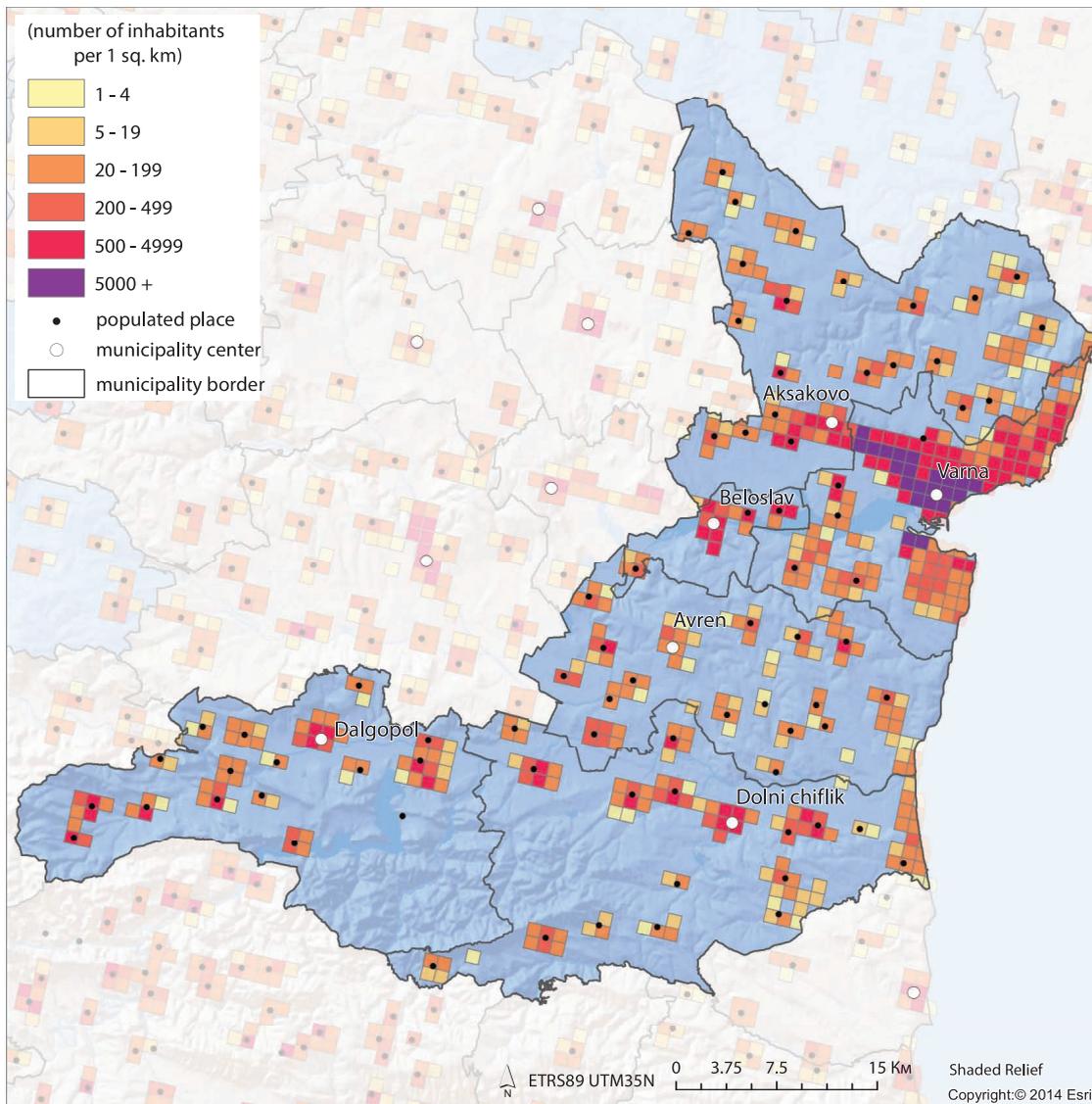


Figure III.3.5. Population grid of the area of Varna, 2011 Census

### Households

Number of households in the area of Varna is relatively high compared to the country one. In 2012 there are 167 497 households representing 5.8% of the country ones. Compared to 2010, the number of households increased by 5.9%.

Average for the period the one-member households in the area are 26.9% representing 3.8% of the country number; lone parents with children below 18 years are 2.6% representing 4.3% of the country number; households of single pensioners - 15.9% or 3.4%; households with children below 18 years - 29.2% or 3.9%. Bigger part (81.3%) of the households is living in the area centre - city of Varna.

#### *Dwellings*

Number of dwellings in the area in 2012 is 215 591 representing 5.5% of the country number. The last did not change considerably during the surveyed period. Average price of a dwelling is 33 036 BGN or about 21.4% higher than the country average in 2012. Average price of a detached house in the same year is 53 335 BGN. About 80% of the area dwellings in 2012 are located in city of Varna.

#### *Labour market*

Number of employed aged 20 - 64 years in the period 2010 - 2012 is 272 545 persons. Employment rate is 66.8% or 4.3% higher than the country average. Share of employed in the area represents 6.0% of the total country number. Biggest part of the employed (about 84%) live in the area centre, city of Varna.

Average annual number of unemployed in the period is 15 730. Share of unemployed is highest in the area centre - over 72.5%. Unemployment rate is 8.5% or 2.5% lower than the country average.

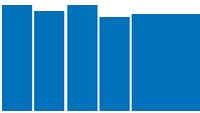
#### *Poverty*

Share of poor people, living at risk of poverty is relatively low - about 14% for the period. Poverty level is 7% lower than the country average. At risk of poverty rate before social transfers (including pensions) is lower - 44% or about 5% lower than the country average. Material deprivation level in the area is about 40% or 4% lower than the country average.

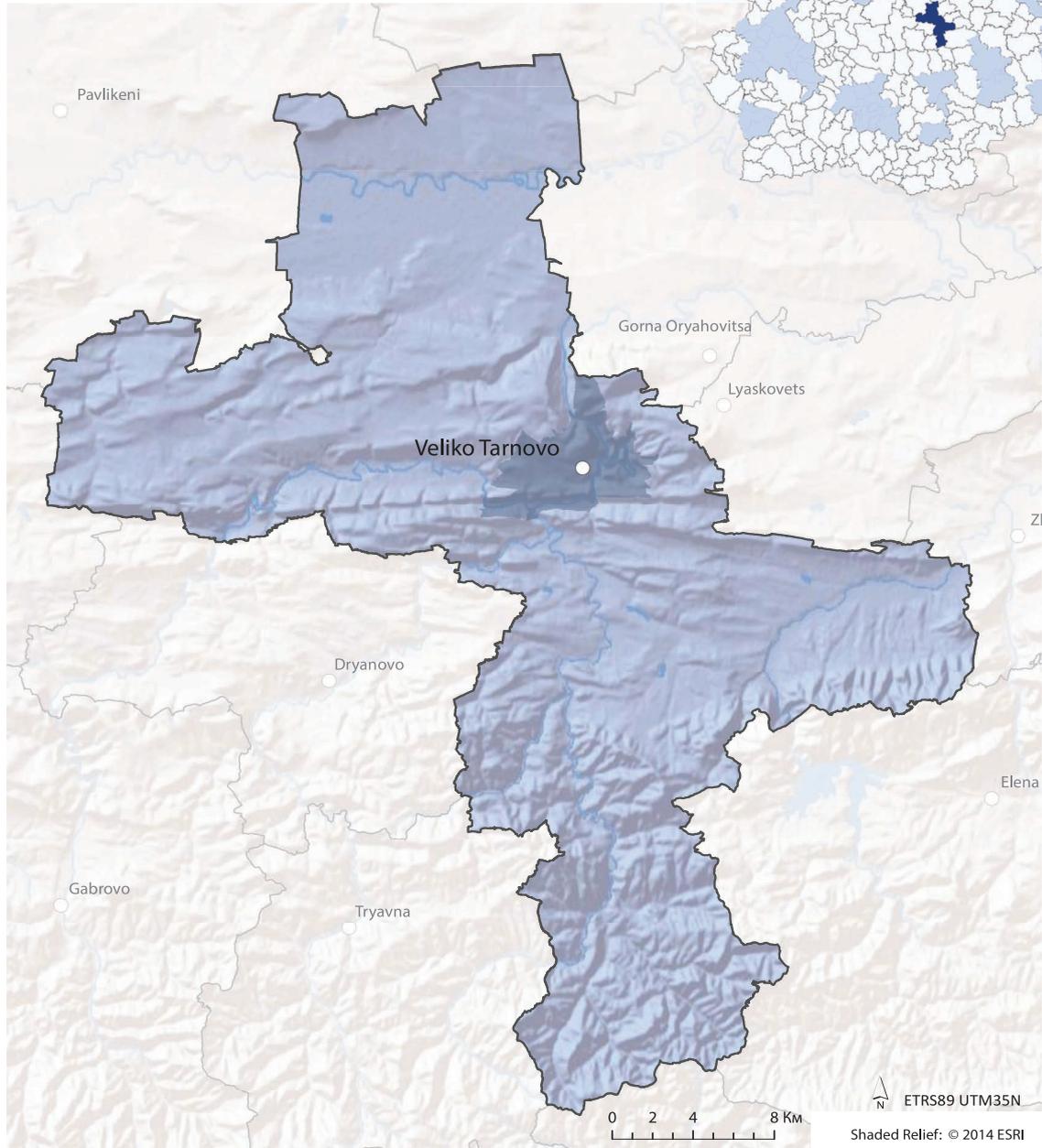
#### *Education*

Number of children aged 0 - 4 years during the observed period decreased by 3 - 4% and reached 9 112 in 2012.

In 2012 the number of students in the city is 33 181 and a decrease is observed compared to 2010 by 9.2%. Share of the early school leavers aged 18 - 24 years is 8.1% or 4.9% lower than the country average.



**Area with centre city of Veliko Tarnovo**



	Municipality	Population	Area (sq. km)	Density
<b>VTR04</b>	Veliko Tarnovo	88455	885.3	100
	<b>Area</b>	<b>88455</b>	<b>885.3</b>	<b>100</b>

- Municipality center
- Municipality borders
- Core city

Figure III.4.1. Area of Veliko Tarnovo - municipalities, average annual population, territory and density (per 1 sq. km) in 2010 - 2012 period

### Population

The area with centre city of Veliko Tarnovo includes only one municipality consisting of the administrative centre city Veliko Tarnovo and the small villages around it. The territory is 885 sq. km (0.8% of the country territory) and the average annual population for the observed period is 88 thousand persons.

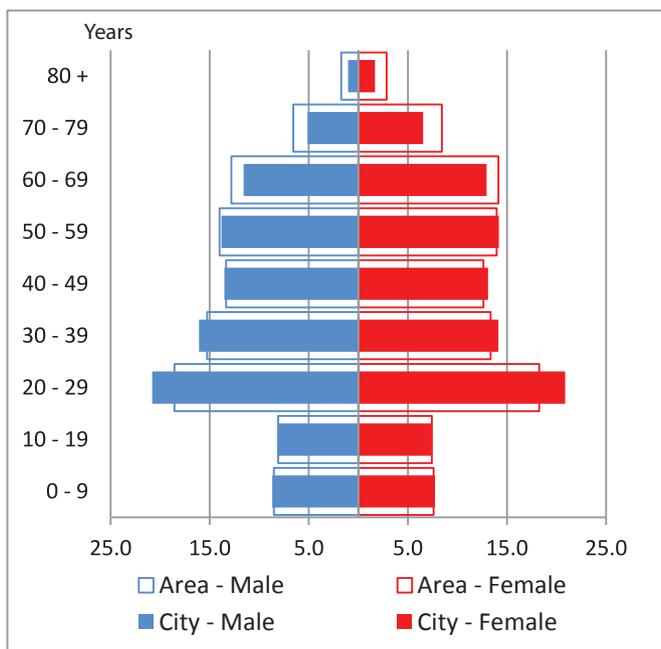


Figure III.4.2. Age pyramid of the city and area of Veliko Tarnovo

Veliko Tarnovo is the largest city with average annual population for the period 2010 - 2012 of 68 thousand or 77% of the area population. Male represent 47.6% of the area population and female - 51.8%. Similar is the distribution in the city - 47.1% are male and 52.9% - female.

In the period 2010 - 2012 the total area population remains unchanged. The decrease observed is by 156 persons. Crude birth rate in the area is 9.12‰ and the TFR - 1.14 children. Mortality rate is 13.21‰. The last two indicators predetermine the high negative natural increase - minus 4.09‰ for the period.

On average 1 800 persons or 20.36‰ compared to the area population immigrated in the area. Emigrants are 1 682 or 19.02‰ of the area population. The migration growth is positive - 120 persons annually. The population increase due to migration is 1.35‰.

Natural increase indicators for the city of Veliko Tarnovo are similar due to the fact that bigger part of the area population is actually living in the city of Veliko Tarnovo. Average annual crude birth rate for the period is a little higher - 9.78‰ and the TFR is lower - 1.09 children. Mortality in the city is relatively lower - 10.02‰. The indicators mentioned show neutral tendency in the population and demographic development. Due to the natural growth the city population decreased by minus 0.24‰.

Migration influences the population increase positively. Annually 1 609 persons or 23.66‰ emigrate from the city. Immigrants are on average 1 687 or 24.82‰. That is the reason for the positive migration growth of 80 persons or 1.16‰ of the city population.

Migration processes within the area are characterised by higher number of persons migrating from the city to its periphery than the opposite one - from the periphery to the city. As a result the city losses annually 62 persons or the migration growth rate is minus 0.91‰.

Based on the tendencies outlined above, the conclusion can be done that the population decreases due to the negative natural growth and the last is better expressed for the area than for the city. The decrease is partially compensated by the positive migration growth of the centre (city) and its surrounding territory.

Migration is positive for the periphery and influences negatively the city population which decreases.

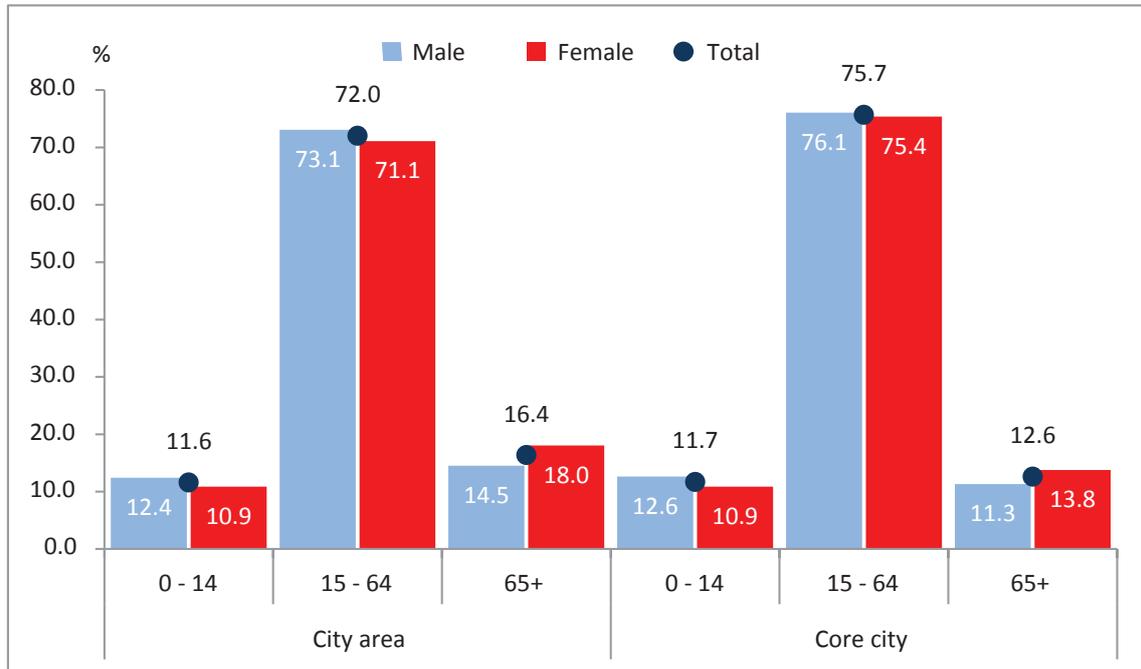
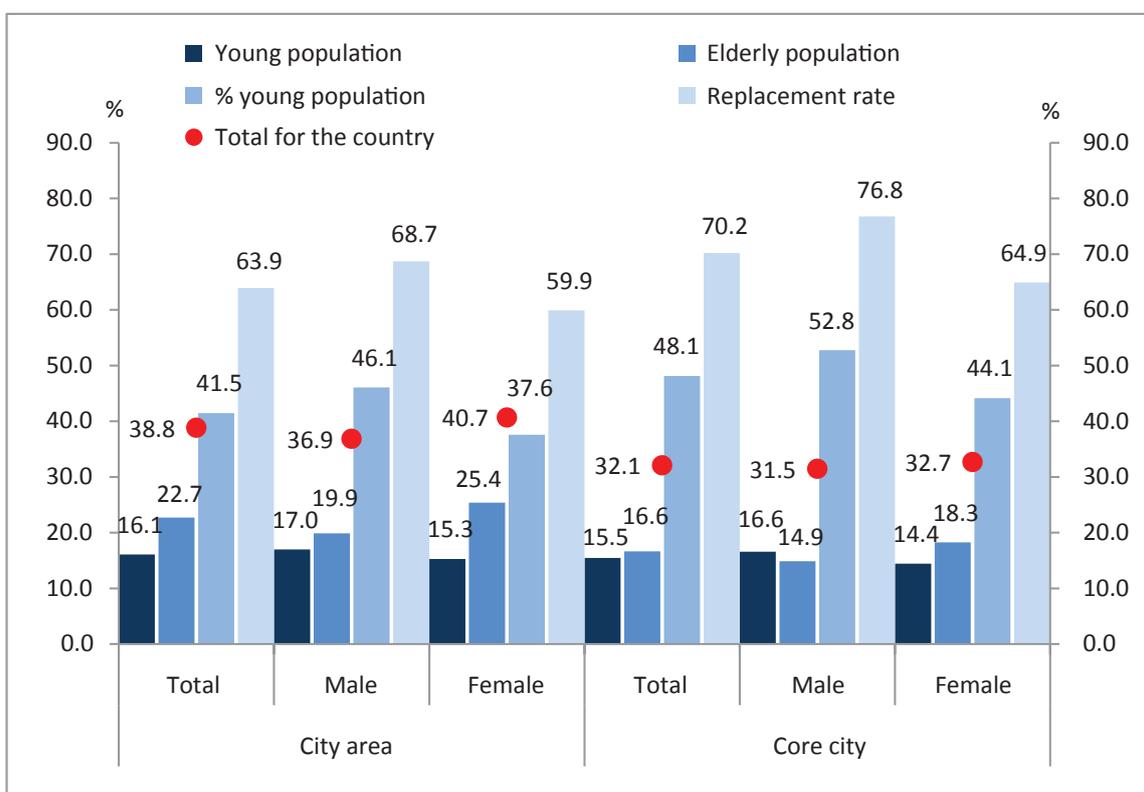


Figure III.4.3. Age structure of average annual population

Area population in independent ages (15 - 64 years) represents 72% of the total area population. Its average annual number is 63 715 души, 47.6% of which are male. Share of population in independent ages in the city is higher - 75.7%, and the respective number - a bit less 51 500 persons. Shares of male and female under working age (0 - 14 years) in the area and in the city are almost equal and vary between 11% to 12.5% (13.6% for the country). Different are also the shares of elderly population (65 years and over) in the area compared to the city - 16.4% and 12.6% respectively. The last are considerably lower than the country average - 18.3%. Share of female aged 65 and over in the area is 18.0%, compared to 13.8% - in the city. Differences among male population are smaller - 14.5% in the area and 11.3% in the city.

Younger age structure of the city population is expressed and by the lower mean age of population - 39.8 years compared to 41.7 years in the surrounding territory. To a great extent this is due to the fact that one of the country universities is situated there. The demographic burden of population in independent ages is 38.8%, 42% of which is due to the young ages burden. The respective value for the country is 46.8%. Ratio of young population to population aged 15 - 64 years is 16%, and of elderly population to the same age group - 22.7%, or it creates 58.5% of the total burden of the population in working age.



*Figure III.4.4. Demographic burden, demographic replacement rates and share of younger ages in demographic burden*

For the city the ratio between population in dependent and independent ages is lower - 32%. The demographic burden with young ages is 15.5%, and with elderly ones - 16.6%. What concerns the total demographic burden, the part representing the burden with young population is 48% or higher than in the area, whereas the part representing the burden with elderly population - 52%.

Examination of the same indicators for the area by sex shows that tendencies are similar to the country ones - higher burden among female (40.7%) than among male - 36.9%. The difference in the city is less expressed - the respective values are 31.5% and 32.7% respectively.

Compared to the country average (71%) the demographic replacement rate both in the area and in the city is lower. In the area 100 persons exiting working age are replaced by 64 persons entering it (19 - 24 years). The same ratio in the city is higher - 100:70. The last means that a demographic problem exists at present as well as for the future years in respect reproduction of labour force in the area and its centre.

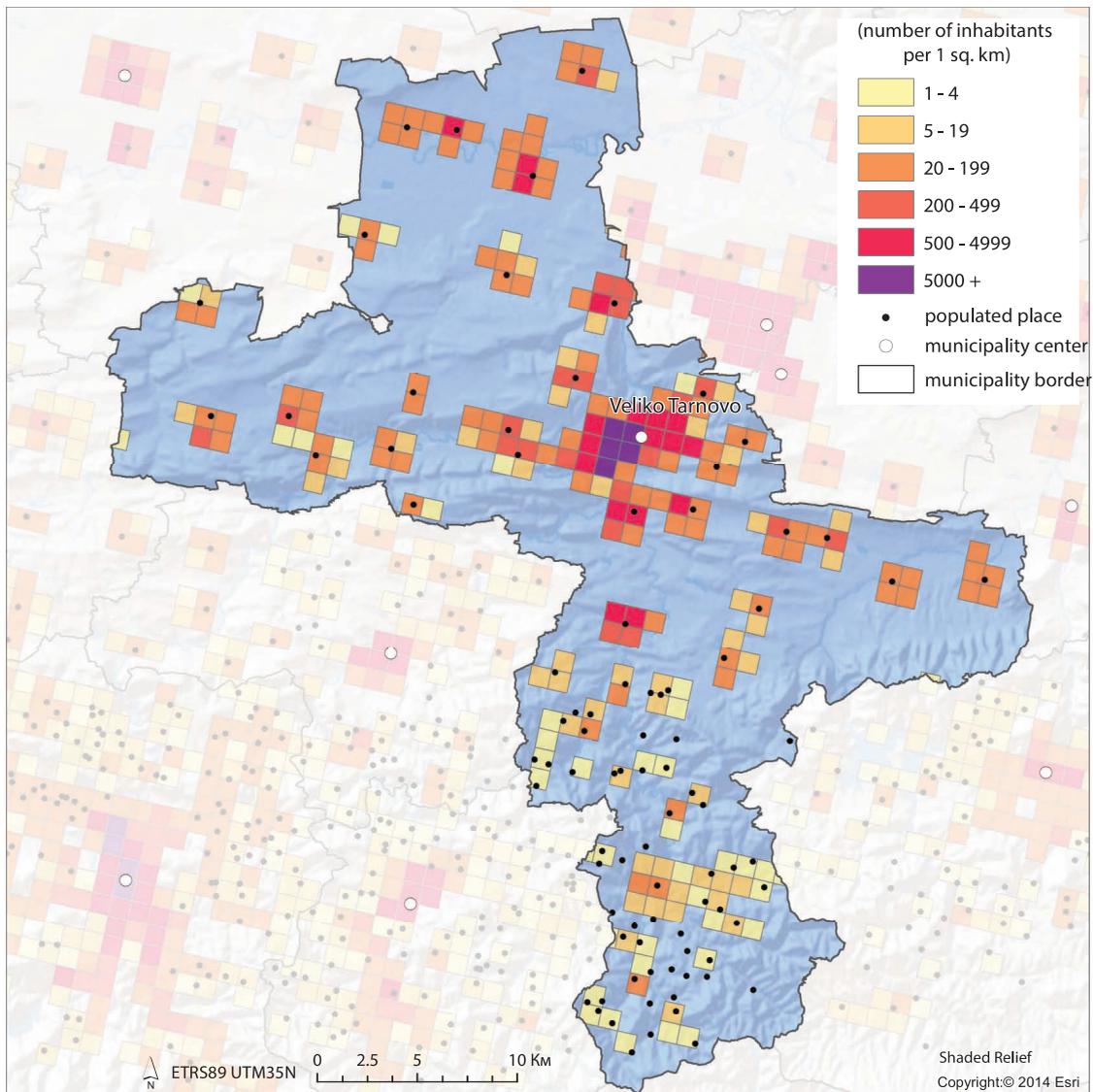


Figure III.4.5. Population grid of the area of Veliko Tarnovo, 2011 Census

### Households

Number of households in the area of Veliko Tarnovo is relatively low compared to the country one. In 2012 there are 33 342 households representing 1.2% of the country ones. Compared to 2010, the number of households increased by 4.4%.

Average for the period the one-member households in the area are 31.1% representing 0.9% of the country number; lone parents with children below 18 years are 2.2% representing 0.8% of the country number; households of single pensioners - 16.4% or 0.7%; households with children below 18 years - 26.4% or 0.7%. Bigger part (77.5%) of the households is living in the area centre - city of Veliko Tarnovo.

### *Dwellings*

Number of dwellings in the area in 2012 is 47 887 representing 1.2% of the country number. The last did not change considerably during the surveyed period. Average price of a dwelling is 28 140 BGN or about 3.4% higher than the country average in 2012. Average price of a detached house in the same year is 63 650 BGN or twice higher than the price of a dwelling. About 80% of the area dwellings in 2012 are located in city of Veliko Tarnovo.

### *Labour market*

Number of employed aged 20 - 64 years in the period 2010 - 2012 is 35 607 persons and decreased by 8.7%. Employment rate is 59.7% or 2.8% lower than the country average. Share of employed in the area represents 1.2% of the total country number. Biggest part of the employed (about 81.0%) live in the area centre, city of Veliko Tarnovo.

Average annual number of unemployed in the period is 4 949. Share of unemployed is highest in the area centre - over 78.8%. Unemployment rate is 13.7% or 2.6% higher than the country average.

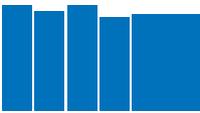
### *Poverty*

Share of poor people, living at risk of poverty is relatively high - about 27% for the period. Poverty level is 6% higher than the country average. At risk of poverty rate before social transfers (including pensions) is considerably higher - 55% or about 4% higher than the country average. Material deprivation level in the area is about 50% or 5 - 6% higher than the country average.

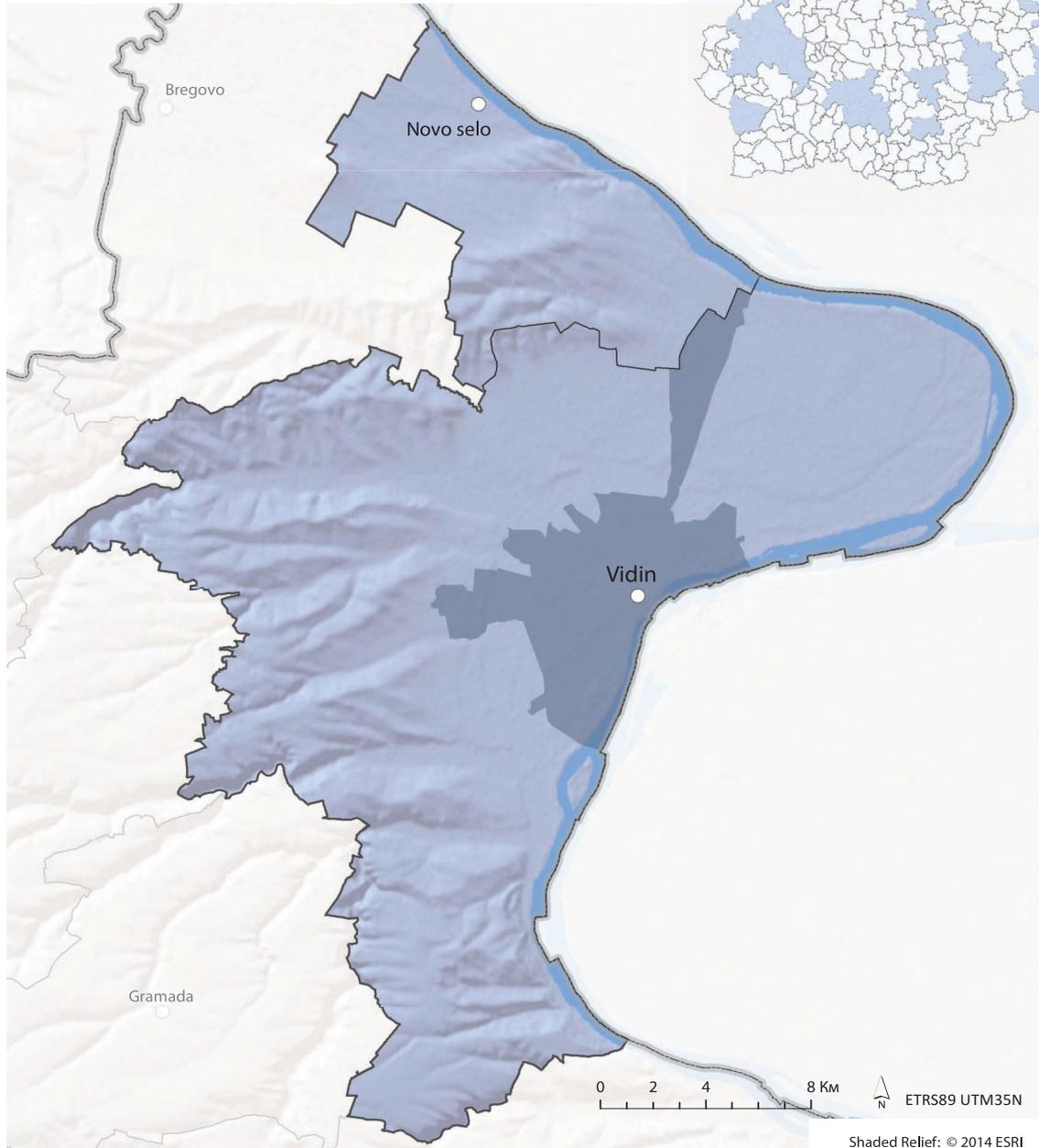
### *Education*

Number of children aged 0 - 4 years during the observed period increased by 12.2% and reached 1 876 in 2012.

In 2012 the number of students in the city is 28 163 and an increase is observed compared to 2010 by 8.5%. Share of the early school leavers aged 18 - 24 years is 23.3% and is 10.4% higher than the country average.



Area with centre city of Vidin



	Municipality	Population	Area (sq. km)	Density
<b>VID09</b>	Vidin	63703	512.9	124
<b>VID30</b>	Novo selo	3115	109.5	29
	<b>Area</b>	<b>66818</b>	<b>622.4</b>	<b>107</b>

- Municipality center
- Municipality borders

Figure III.5.1. Area of Vidin - municipalities, average annual population, territory and density (per 1 sq. km) in 2010 - 2012 period

## Population

Area with centre city of Vidin consists of two municipalities with a territory of 622.5 sq. km representing 0.56% of the total country territory. According to its territory and population the area is the smallest one of the observed FUA. Average annual population for the observed period is 67 thousand persons, of which 32 350 (48.4%) are male and 34 470 (51.6%) - female. Area population represents 0.9% of the country population and the population density is 107 persons per 1 sq. km. In the city of Vidin are living 70% of the area population, of which 23 300 are male and 24 840 - female. Shares of male and female population in the city are the same in in the area.

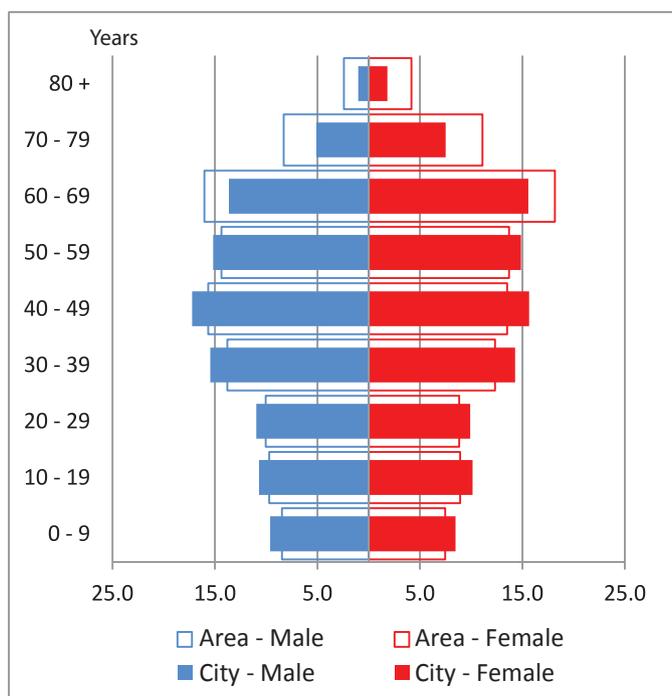


Figure III.5.2. Age pyramid of the city and area of Vidin

Area is situated in North-West Bulgaria characterised by weak socio-economic development and badly deteriorated demographic situation. Average crude birth rate for the three years under observation is quite low - 7.39‰, lower than the country average - 9.68‰. TFR is 1.37 children. Demographic development is strongly influenced by the quite high level of mortality mainly due to age structure of population. Crude death rate is 17.85‰ and the average natural increase rate negative - minus 10.46‰.

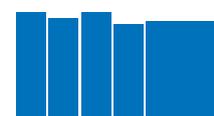
Demographic situation in the area is deteriorated also by the migration processes. Annually about 690 persons on average immigrate to the area compared to 1 073 emigrants. The intensity of these two flows is 10.28‰ and 16.06‰ respectively. Due to the migration the area population decreases annually by 386 persons or by minus 5.78‰.

Demographic processes in the city of Vidin are also bad. Crude birth rate (8.44‰) is a little higher than the area one, but lower than the country value. TFR is also low - 1.36 children. Mortality is 12.05‰. As a result the natural increase in the city is negative - minus 3.61‰.

Influence of the migration on the demographic development of city of Vidin is even stronger. Annually the number of emigrants is 1 082 (22.48‰) and of immigrants - 646 (13.42‰). The city population decreases annually by 436 persons or by 9.06‰ annually.

As the second municipality, part of the area, is a small one, the migration processes between city and surroundings are weak. Migration growth rate of the city is negative - the nuclei decreases annually by 72 persons or 1.49‰ and the rest part of the area increases by the respective figure.

Negative demographic tendencies lead to decrease of area population. It decreases by nearly 4 thousand for the observed period to a little over 64 thousand at the end of 2012. Population in working age is 44 730 or 66.9% of the total area population. It is lower than the country average (68%). Number and share of male and female population in working age are almost equal - 22 thousand or 50%. In city of Vidin the population in working age represents 72.6% of the total city population - male (73.7%) and female (71.6%).



Share of male aged 15 - 64 years is 69.0% and of female - 65% of the area population. In city of Vidin the last shares are higher.

Youngest population (up to 14 years) in the area is 12.5% or lower than the country average (13.6%). Higher is the same share in the city 14.3%.

Population over 65 years represents 20.5% of the area population or it is higher than the country average - 18.3%. Particularly high is the last for females - 23% of female population is over 65 years of age. Population aged 65 and over in the city is 13% of the total city population - 11% male and nearly 15% - female.

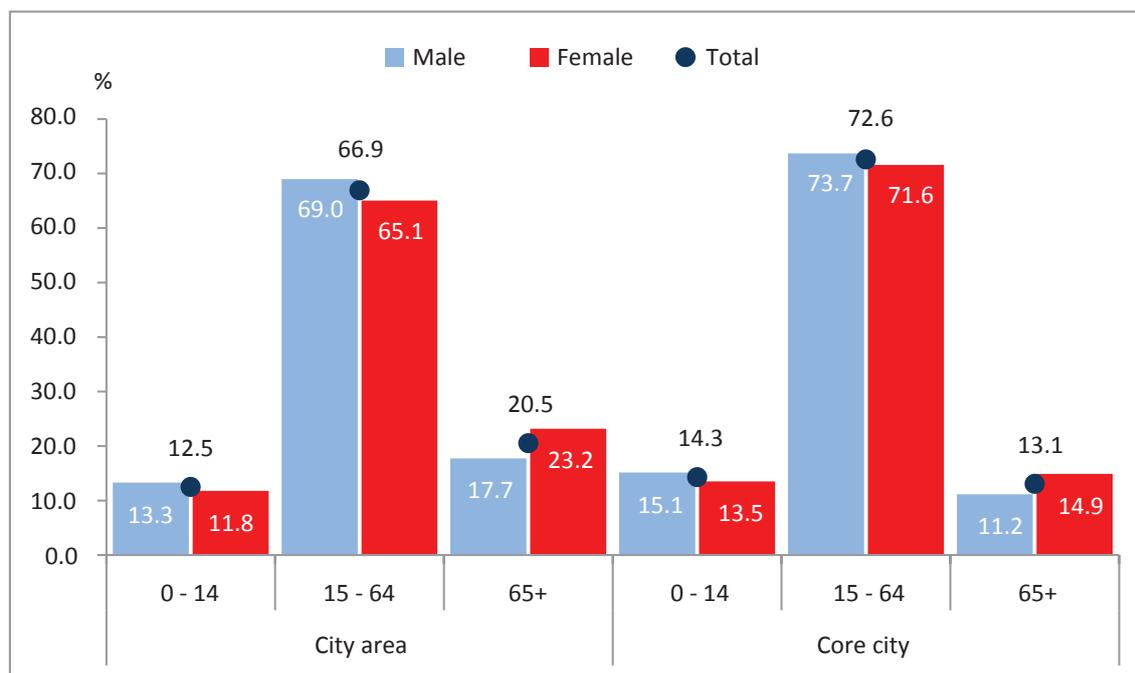


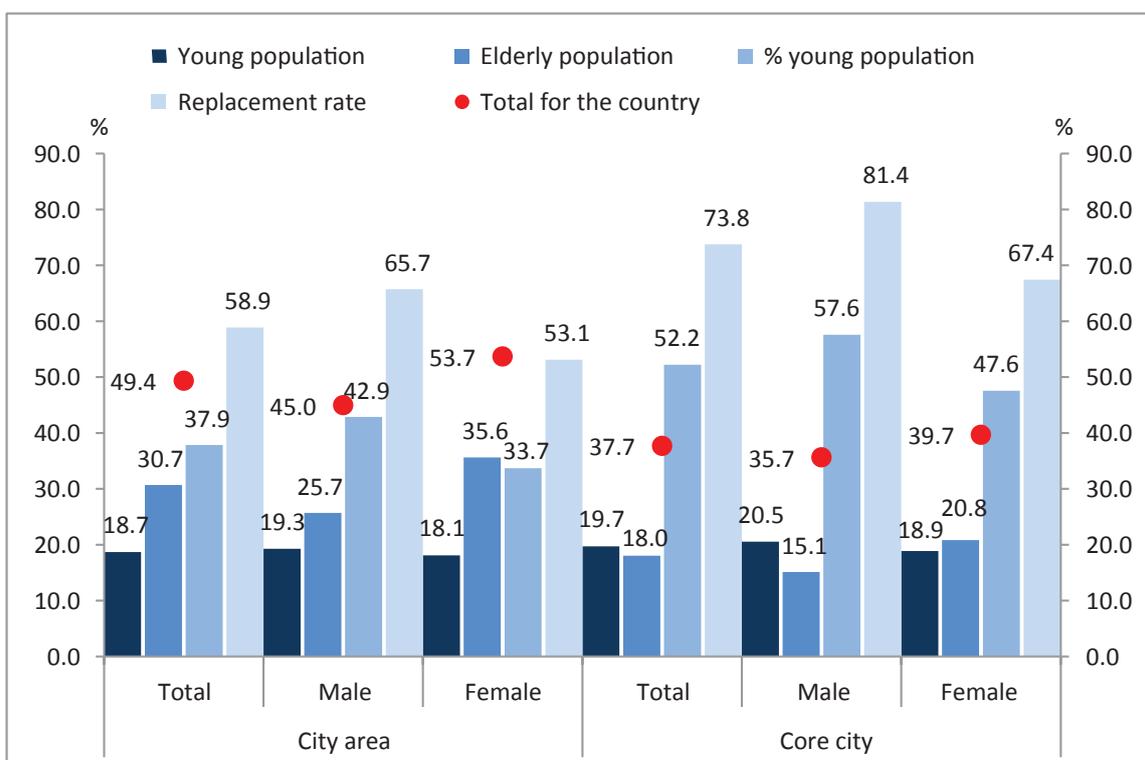
Figure III.5.3. Age structure of average annual population

Cited data on the population age structure according to the three main age groups show considerable ageing of the area population and low reproduction potential. The last is mainly due to the low number of young population and is also proved by the population mean age - 44.6 years in the area and 40.9 - in the city.

Demographic burden rate of the population in independent ages is 49.4%, or higher than the country average - 46.8%. Respective values for male and female population are 45.0% and 53.7%.

There is a great difference between the demographic burden with young and elderly population. Ratio between the young ages and the population aged 15 - 64 years is 18.7%, compared to nearly 31% in respect old ages. Therefore 62% of the total demographic burden of population in independent ages is due to the high share of elderly population and only 38% - of young population.

For the area centre, the ratio between population in independent and in dependent ages is 37.7%. The difference in the demographic burden of population in independent ages with young population (19.7%) and with old one (18%) is in favour of young ages. The last create 52.2% of the total burden, whereas 47.8% is due to the elderly population.



*Figure III.5.4. Demographic burden, demographic replacement rates and share of younger ages in demographic burden*

Reproduction of labour force in the area is strongly limited. 100 persons exiting working age are replaced by 59. The demographic replacement level is considerably lower than the country average - 71%.

Demographic replacement rate in the city is better. Each 100 persons exiting working age are replaced by nearly 74 persons aged 19 - 24 years.

The demographic replacement rate of male and female differs both in the area and in the city. For male population it is 66% in the area and 74% - in the city. The respective values for females are 53% and 67%. The differences are due to the population age structure in the area and in the city of Vidin.

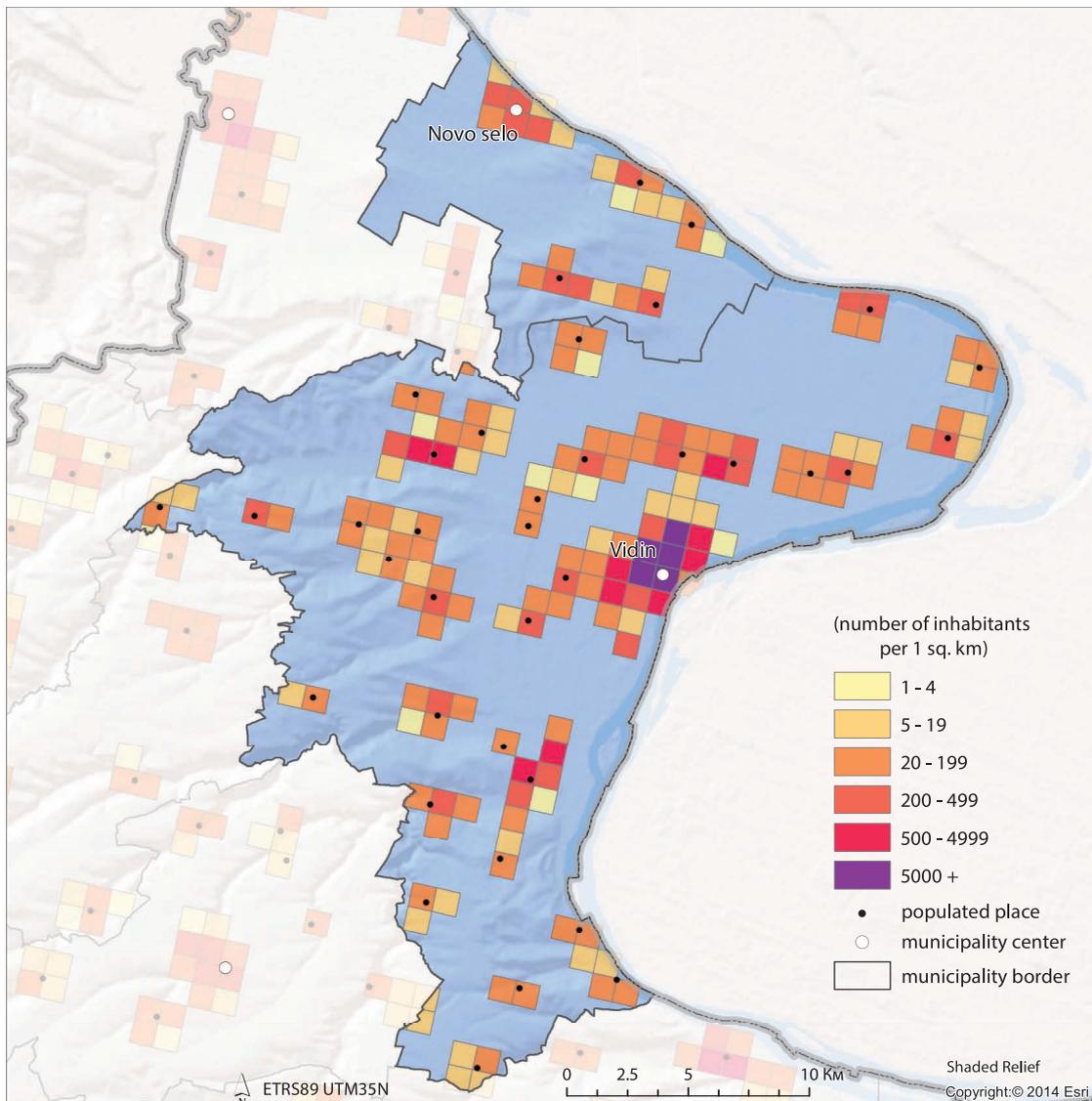
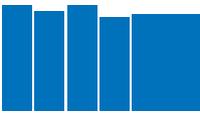


Figure III.5.5. Population grid of the area of Vidin, 2011 Census

## Households

Number of households in the area of Vidin is relatively low compared to the country one. In 2012 there are 25 208 households representing 0.9% of the country ones. Compared to 2010, the number of households decreased by 2.3%.

Average for the period the one-member households in the area are 27.7% representing 0.4% of the country number; lone parents with children below 18 years are 2.3% representing 0.6% of the country number; households of single pensioners - 20.0% or 0.7%; households with children below 18 years - 26.4% or 0.6%. Bigger part (70.0%) of the households is living in the area centre - city of Vidin.

#### *Dwellings*

Number of dwellings in the area in 2012 is 37 042 representing 0.95% of the country number. The last did not change considerably during the surveyed period. Average price of a dwelling is 18 850 BGN or about 30.7% lower than the country average in 2012. Average price of a detached house in the same year is 28 362 BGN or higher than the price of a dwelling. More than half - 65.9% of the area dwellings in 2012 are located in city of Vidin.

#### *Labour market*

Number of employed aged 20 - 64 years in the period 2010 - 2012 is 22 080 persons and decreased by 15.9%. Employment rate is 56.5% or 6.4% lower than the country average. Share of employed in the area decreased and in 2012 represents 0.77% of the total country number. Biggest part of the employed (about 80.0%) live in the area centre, city of Vidin.

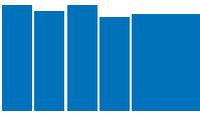
Average annual number of unemployed during the period is 3 642. Share of unemployed is highest in the area centre - over 73.7%. Unemployment rate is 14.3% or 3.2% higher than the country average.

#### *Poverty*

Share of poor people, living at risk of poverty is relatively high - about 30% for the period. Poverty level is 8 - 9% higher than the country average. At risk of poverty rate before social transfers (including pensions) is considerably higher - 58% or about 7 - 8% higher than the country average. Material deprivation level in the area is about 52% or 8% higher than the country average.

#### *Education*

Number of children aged 0 - 4 years during the observed period decreased by 4.6%, and reached 1 143 in 2012. About 82 - 85% of children aged 0 - 4 years live in the area centre Vidin.



Area with centre city of Vratsa

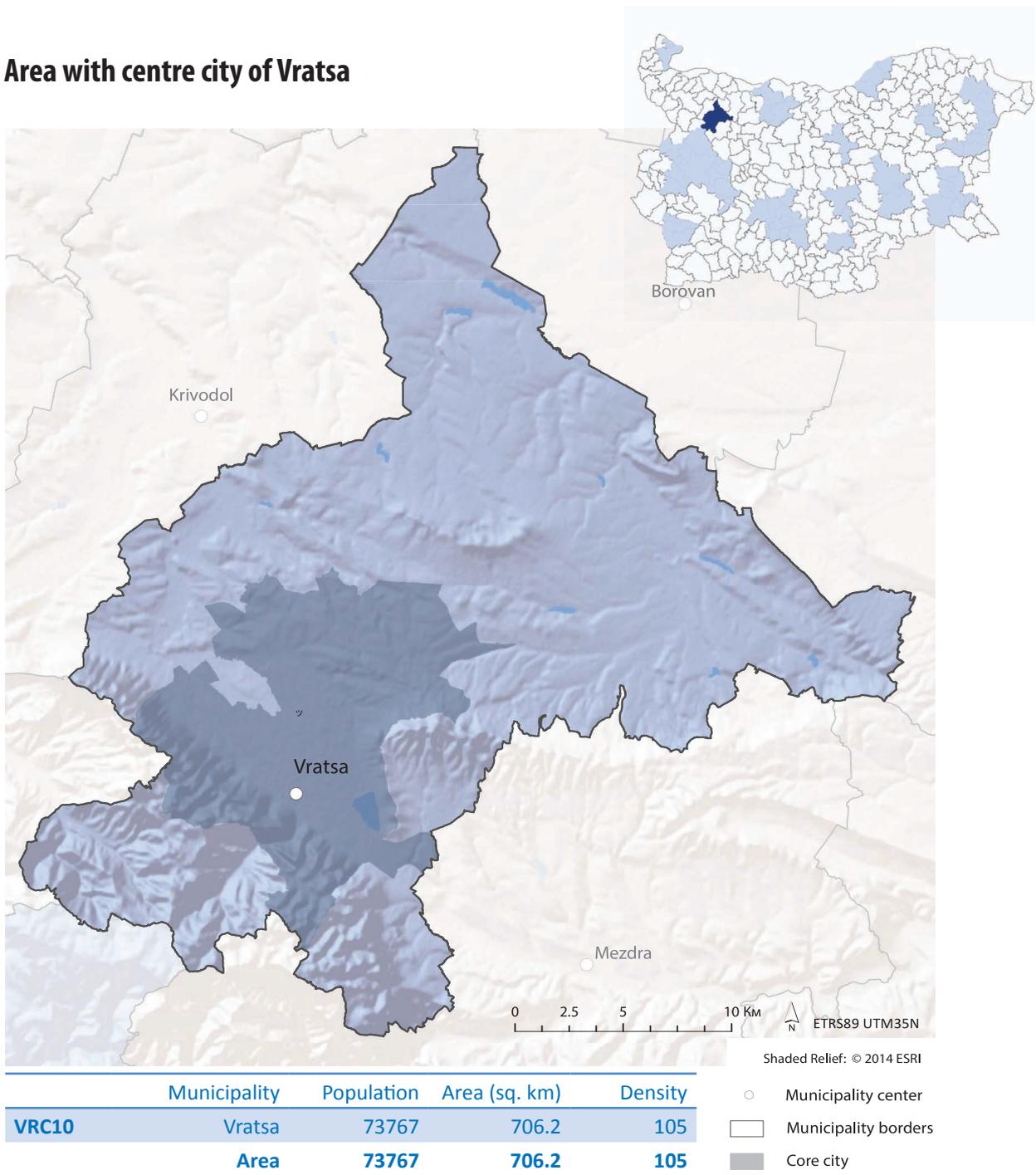


Figure III.6.1. Area of Vratsa - municipalities, average annual population, territory and density (per 1 sq. km) in 2010 - 2012 period

## Population

Area with centre city of Vratsa consists of one municipality in which the administrative centre - city of Vratsa is included, as well as the villages surrounding it. The territory is 706 sq. km representing 0.64% of the total country territory. Average annual population for the period is 73 767 persons and the population density - 105 persons per 1 sq. km. Vratsa is the largest city with average annual population for the period 2010 - 2012 of nearly 60 thousand persons, representing 81% of the area population. Out of the total area population share of males is 48.7% and of females - 51.3%. Similar are the shares in the city centre - male represent 48.4% and female - 51.6% of the city population.

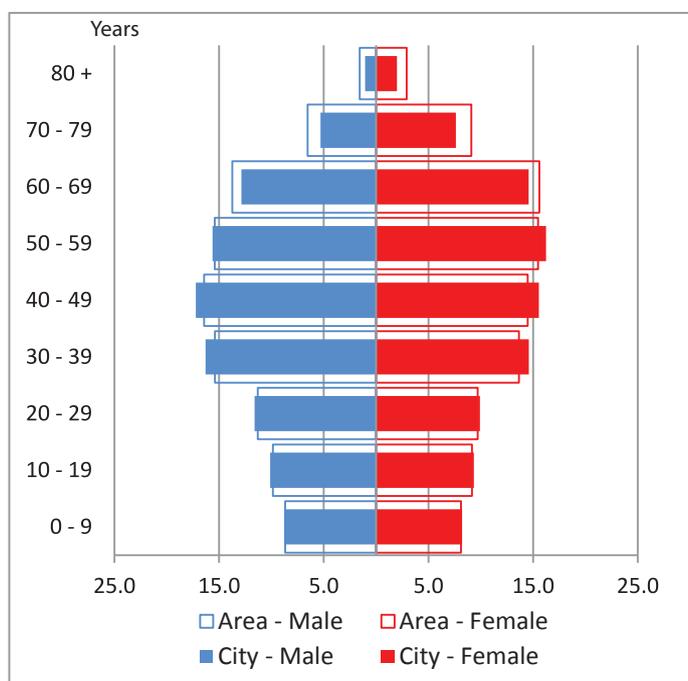


Figure III.6.2. Age pyramid of the city and area of Vratsa

Total population of the area has decreased by nearly 3 thousand within the period 2010 - 2012. The decrease is due to the negative natural and migration growth. Average crude birth rate in the area is 7.79‰, and TFR - 1.31 children. Mortality rate is 14.75‰. As a result the average annual natural increase rate is close to minus 7‰. Thus the only area with worse fertility and mortality indicators is the area with centre city of Vidin.

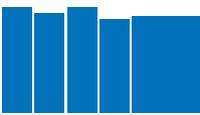
Migration processes worsen demographic situation in the area. Average annual number of immigrants is 730, and of emigrants 1 363 persons. The intensity of these two flow is 9.9% and 18.48‰ respectively. Due to migration the area population decreases annually by 634 persons or minus 8.59‰. The last is the highest negative value compared to all observed areas.

Demographic situation in the city is also bad. For the three-year period the city population has decreased by about 1 000 persons. Crude birth rate is 7.74‰, and TFR - 1.23 children. Mortality rate is 12.26‰. As a result the natural increase rate of the city population is 4.52‰.

Migration processes also influence negatively the city demographic development. Annually 1 420 persons emigrated from the city or 23.74‰ and 682 persons immigrated to the city or 11.42‰. The city population decreases annually by 738 persons or minus 12.33‰ annually. The last value is the highest for the observed cities.

As some small villages are included in the area the migration processes between the city and its surroundings are limited in size. Intensity of immigration to the city is 1.38‰ or annually 82 persons on average. Numerous is the flow from the city to its periphery. Annually 216 persons emigrate from the city or 3.62‰. Due to the negative migration growth the city population decreases annually by 134 persons or by 2.24‰. Respectively, the rest part of the area population - increases.

Regardless the negative demographic tendency leading to decrease of area and city population, the population age structure is better than the country one. Share of young population is 13.3% compared to



13.6% for the country. Situation with the population in working age is also better. It totals to 52 thousand or 70.3% of the area population, compared to 68% for the country. Number and share of male and female in working age are almost equal - 26 thousand or 50%. Population aged 65 and over is slightly above 12 thousand or 16.4% of the average annual area population.

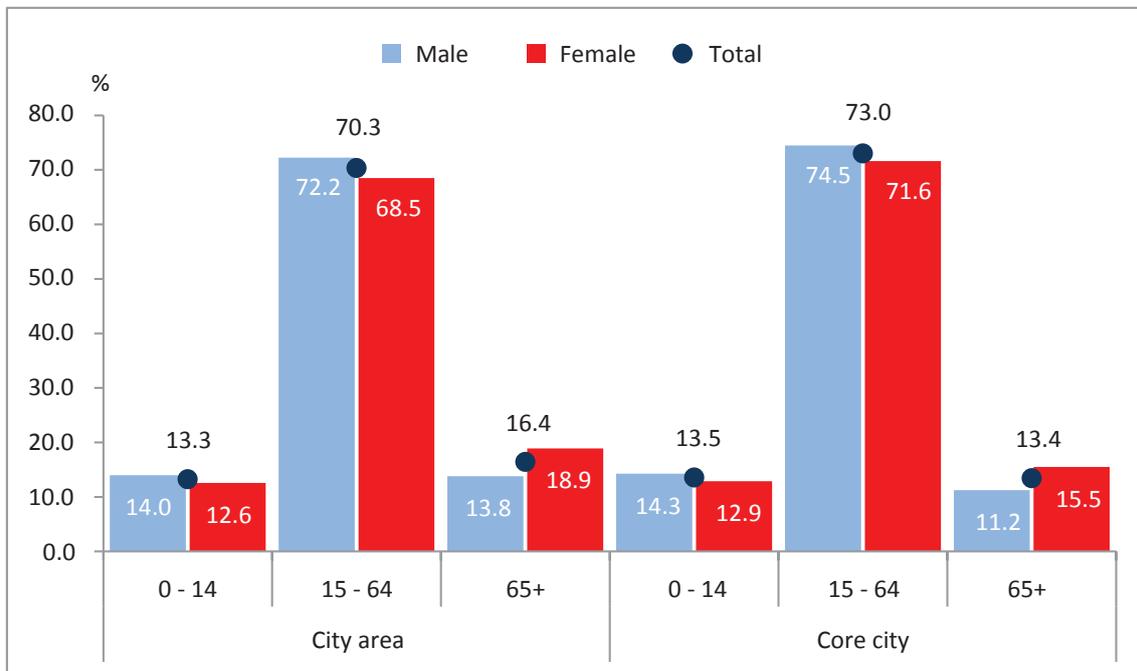
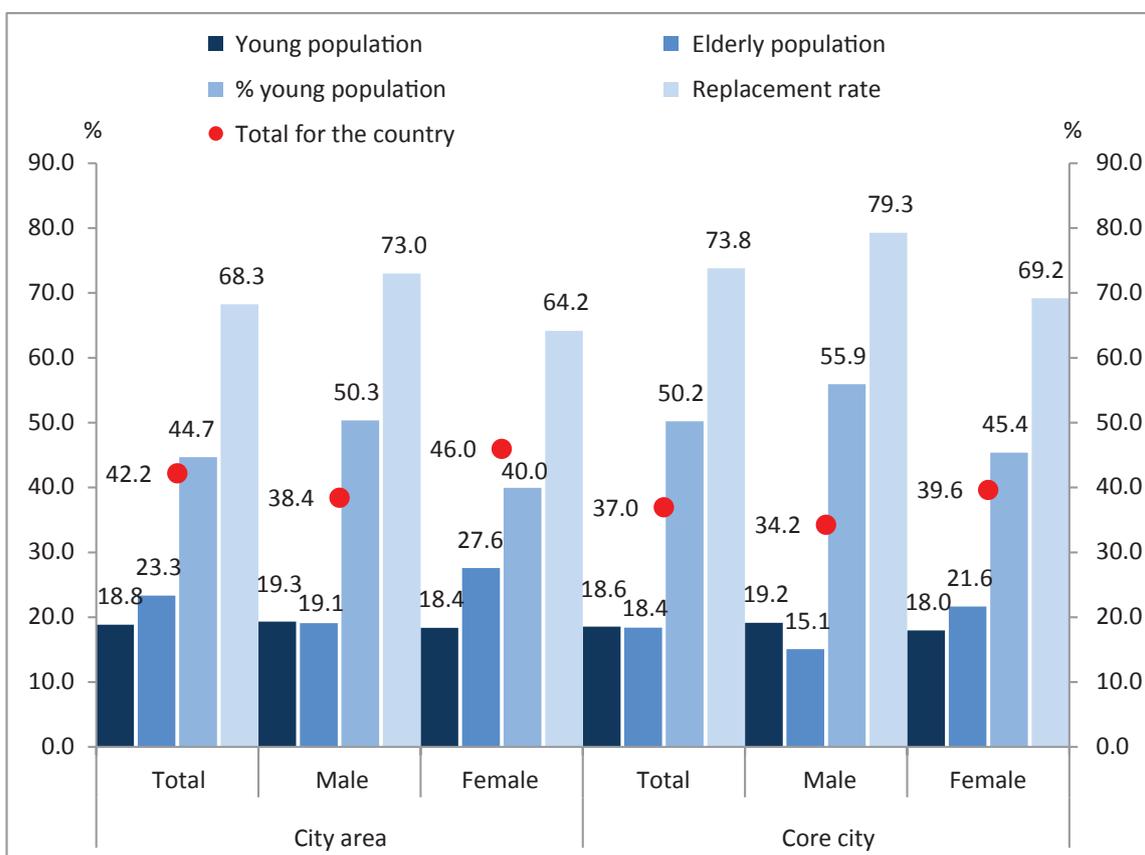


Figure III.6.3. Age structure of average annual population

Age structure of city of Vratsa is better than the area one. Share of population under working age is almost the same (13.5%) as in the area, but the population in working age is 73%. Respective shares of male and female are 74.5% and 71.6%. As positive can be mentioned and the small share of population aged 65 and over - 13.4%. For male respective share is 11.2% and for female - 15.5%.

Mean age of the area population is 42.6 years and of city - 41.3 years.

Demographic burden rate of the population in working age is 42.2% and is lower than the country average - 46.8%. The rate is particularly low for male - 38.4%, whereas for female it is 46.0%. Demographic burden of the population in independent ages with young population is 18.8%, and with elderly - 23.3%. Or, 53.6% of the overall burden of population in independent ages is due to the elderly population and 44.7% of the young one.



*Figure III.6.4. Demographic burden, demographic replacement rates and share of younger ages in demographic burden*

In the area nuclei the ratio between population in dependent and independent ages is 37.0%. The demographic burden of population in independent ages with young population (18.6%) and with elderly one (18.4%) is almost equal.

Regardless the good age structure in the area and especially the higher share of population in working age, the labour force reproduction is not good. The demographic replacement rate is 68.3%, or lower than the country average. Indirectly, the last indicates a limited future reproduction of the area labour force.

The demographic replacement rate in the city is relatively higher. In the city 100 persons exiting working age are replaced by 74 persons aged 19 - 24 years.

The demographic replacement rates for male and female population in the area as a whole and in the city are different. For male population in the area it is - 73.0% and in the city - 79.3%. The respective figures for female are 64.2% and 69.2%. The last values are influenced by the differences in population age structure in the area and in its centre city of Vratsa.

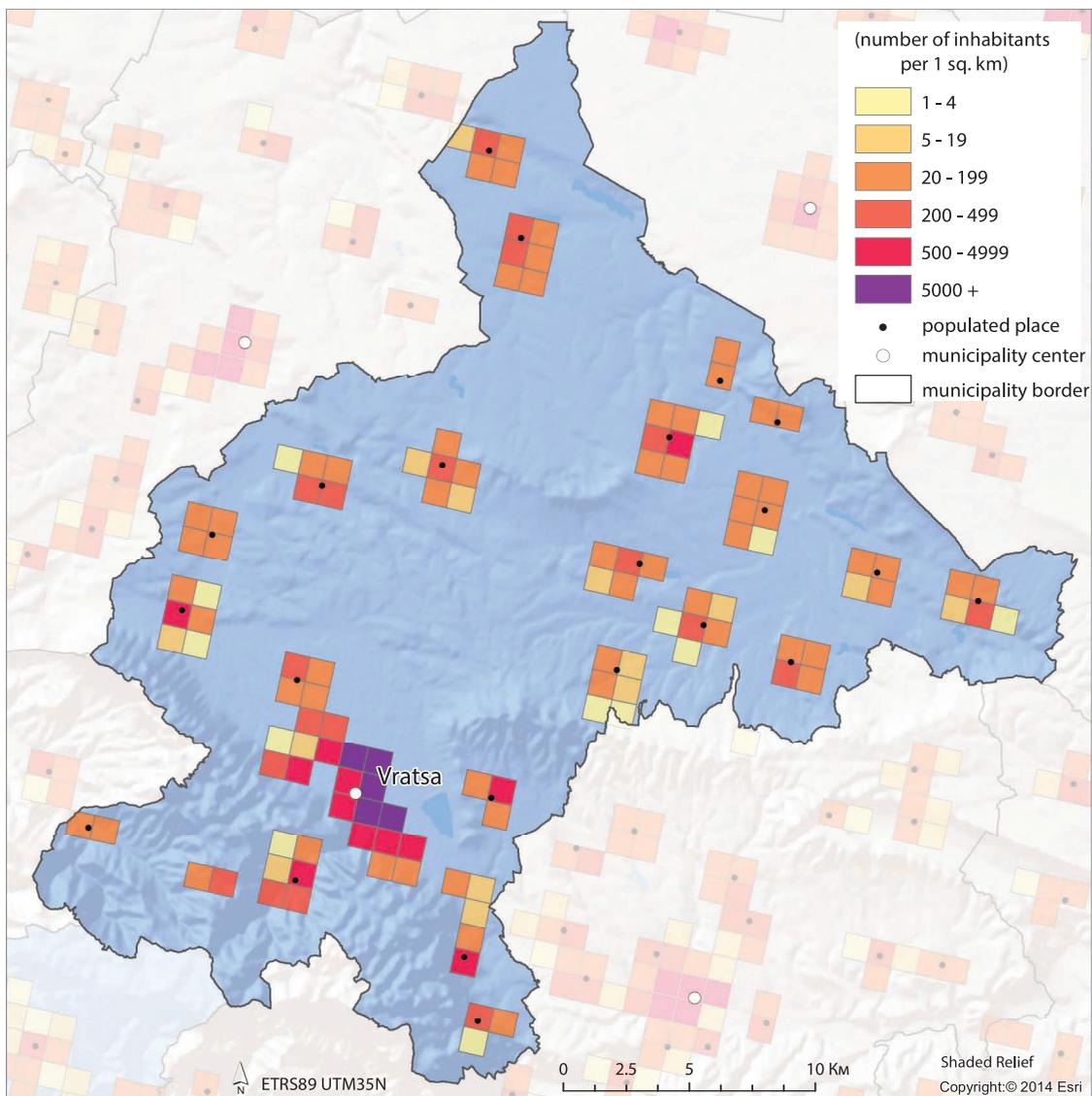


Figure III.6.5. Population grid of the area of Vratsa, 2011 Census

### Households

Number of households in the area of Vratsa is relatively low compared to the country one. In 2012 there are 27 165 households representing 0.9% of the country ones. Compared to 2010, the number of households decreased by 0.3%.

Average for the period the one-member households in the area are 25.4% representing 0.6% of the country number; lone parents with children below 18 years are 2.2% representing 0.6% of the country number; households of single pensioners - 16.8% or 0.6%; households with children below 18 years - 29.6% or 0.7%. Bigger part (80.1%) of the households is living in the area centre - city of Vratsa.

#### *Dwellings*

Number of dwellings in the area in 2012 is 42 780 representing 1.1% of the country number. The last did not change considerably during the surveyed period. Average price of a dwelling is 24 700 BGN or about 9.2% lower than the country average in 2012. Average price of a detached house in the same year is 47 125 BGN or twice higher than the price of a dwelling. More than half - 77.9% of the area dwellings in 2012 are located in city of Vratsa.

#### *Labour market*

Number of employed aged 20 - 64 years in the period 2010 - 2012 is 29 357 persons and decreased by 9.6%. Employment rate is 61.3% or 1.3% lower than the country average. Share of employed in the area represents 1.1% of the total country number. Biggest part of the employed (about 78.0%) live in the area centre, city of Vratsa.

Average annual number of unemployed in the period is 3 836. Share of unemployed is highest in the area centre - over 80.1%. Unemployment rate is 12.4% or 1.4% higher than the country average.

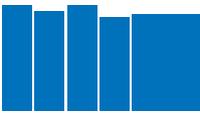
#### *Poverty*

Share of poor people, living at risk of poverty is relatively high - about 25% for the period. Poverty level is 4% higher than the country average. At risk of poverty rate before social transfers (including pensions) is considerably higher - 53% or about 3% higher than the country average. Material deprivation level in the area is about 46 - 47% or 3% higher than the country average.

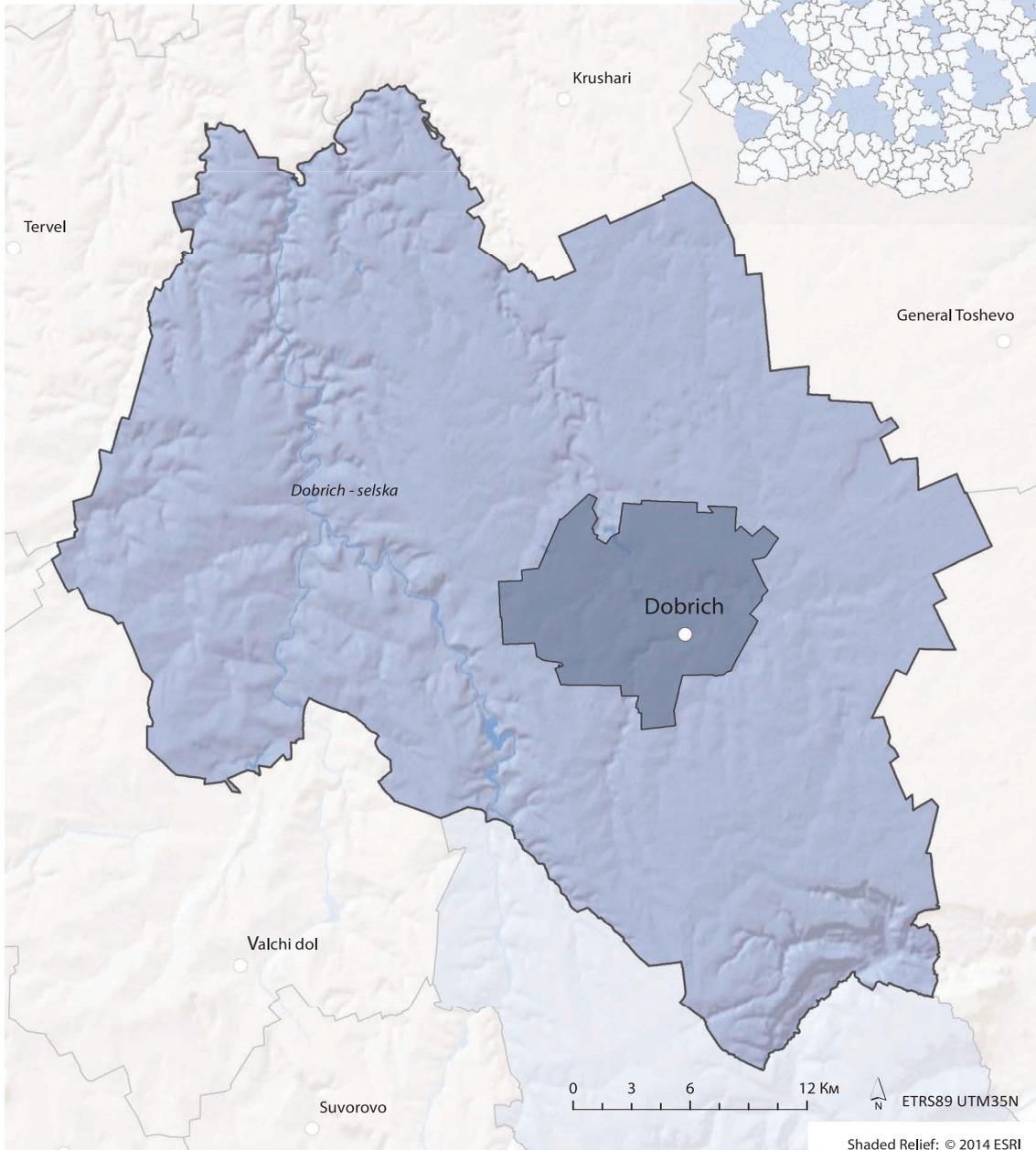
#### *Education*

Number of children aged 0 - 4 years during the observed period decreased by 3.1%, and reached 1 840 in 2012.

In 2012 the number of students in the city is 605 and an increase is observed compared to 2010 by 76.4%. Share of the early school leavers aged 18 - 24 years is 14.4% or 1.8% higher than the country average.



Area with centre city of Dobrich



	Municipality	Population	Area (sq. km)	Density
<b>DOB15</b>	Dobrich-selska	22868	1296.2	18
<b>DOB28</b>	Dobrich	91185	109.0	836
	<b>Area</b>	<b>114053</b>	<b>1405.2</b>	<b>81</b>

Shaded Relief: © 2014 ESRI  
 ○ Municipality center  
 □ Municipality borders  
 ■ Core city

Figure III.7.1. Area of Dobrich - municipalities, average annual population, territory and density (per 1 sq. km) in 2010 - 2012 period

## Population

Area consists of two municipalities of which the first coincide with the city of Dobrich boundaries and the second includes the villages surrounding the city. The total area territory is 1 405 sq. km or 1.26% of the country territory. Average annual population for the period 2010 - 2012 is a little above 114 thousand persons or 1.54% of the country population. Population density is 81 persons per 1 sq. km.

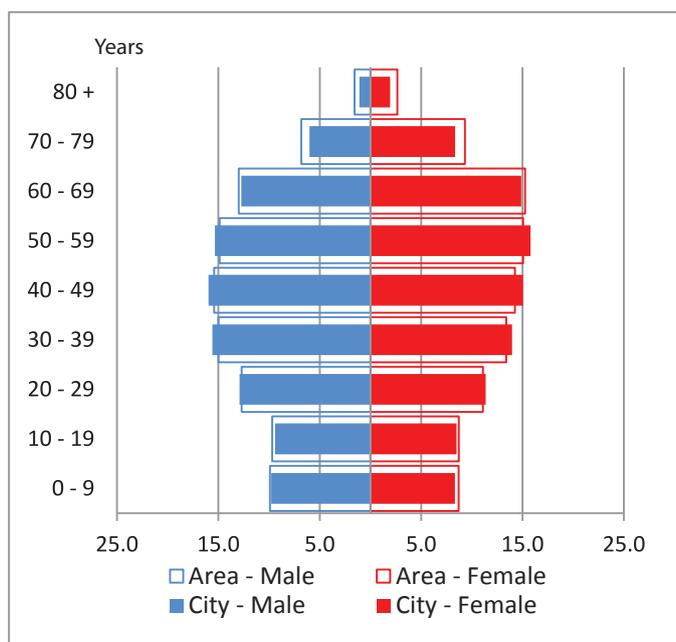


Figure III.7.2. Age pyramid of the city and area of Dobrich

Population of the area centre (city of Dobrich) is 91 thousand persons, representing nearly 80% of the area population. Out of the total area population 48.5% are male and 51.5% - female. Similar are the shares in the city of Dobrich - 48.1% are male and 51.9% - female.

Within the period 2010 - 2012 the area population has decreased from 116 to 111 thousand persons. Average crude birth rate in the area for the same period is 9.24‰ and TFR - 1.46 children, which is close to the country average (1.49 children). Mortality rate is too high - 14.06‰. Last indicators predetermine high (minus 4.82‰) negative natural increase of the area.

Annually 1 353 persons immigrated to the area or 11.86‰. Number of emigrants is 1 838 or 16.12‰. The difference between the two flows is negative - on average minus 485 persons annually. The population decrease due to migration is minus 4.26‰.

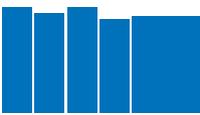
Average annual crude birth rate in the area nuclei is 9.15‰ and TFR - 1.37 children. Mortality rate in the city is lower - 11.78‰. Last two indicators predetermine negative demographic development i.e. due to the negative natural increase the city population decreases by minus 2.63‰.

City population decreases also due to migration. On average 1 404 persons or 15.40‰ emigrate from the area. Number of immigrants (958 persons or 10.51‰) is lower and as a result the migration growth is negative - 446 persons annually or 4.89‰.

Migration processes within the area do not change the number of city and its periphery population. Annually 212 persons immigrate to the area and 200 - emigrate. Migration growth of the city is about 10 persons or 0.11‰.

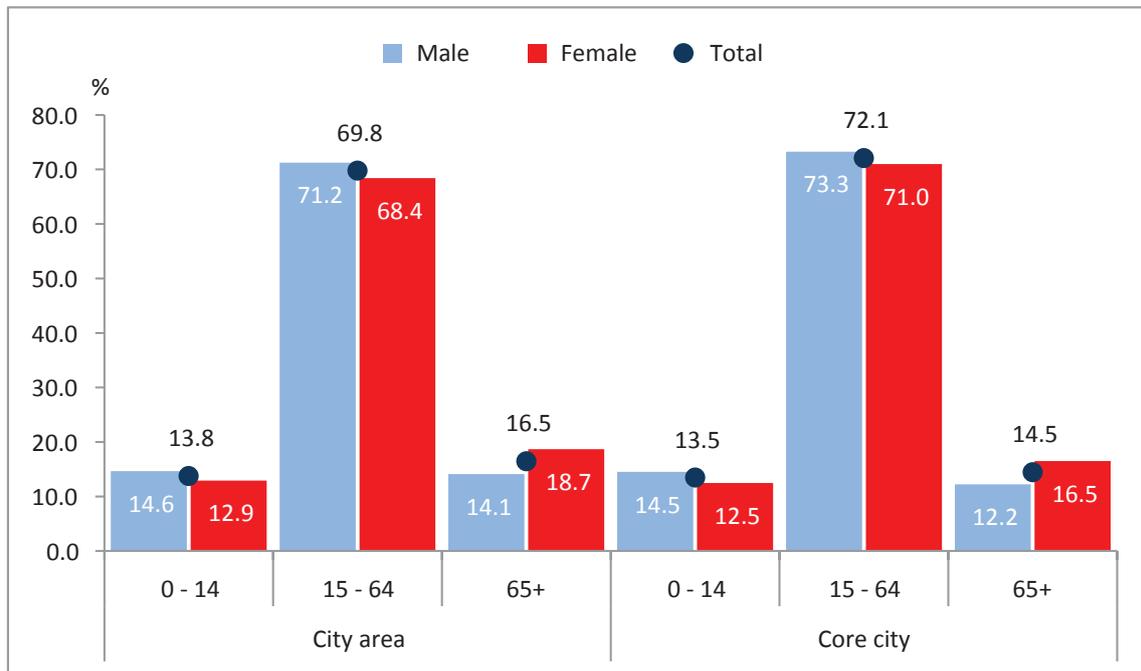
Due to the natural demographic processes, mainly the area population and less the city one decreases. Both populations of the area and of the city decrease also due to emigration. Migration processes within the area do not influence the population numbers in the area and in the city.

As 80% of the surveyed population lives in the city, the population age structure strongly depends on the age structure of the city population. Population in working age (15 - 64 years) represents nearly 70% of the area population. Its average annual number is 79 585 of which 49.5% are male. The same population



in the city has higher share - 72.1% and the respective number is 65 735 persons, of which 48.8% - male and 51.2% - female.

Number of young population in the area is 15 700 and in the city - 12 270 persons. The respective shares are relatively equal - 13.8% and 13.5% respectively. The same value for the country is 13.6%.



*Figure III.7.3. Age structure of average annual population*

There are differences in the shares of elderly population. In the area population aged 65 and over is 18 780 or 16.5% of the area population, whereas in the city the respective number is 13 180 or 14.5%. The last shares are lower than the country average - 18.3%. Share of female aged 65 and over in the area is 18.7% compared to 16.5% - in the city. Lower are the shares of male aged 65 and over - 14.1% in the area and 12.2% - in the city.

Relative similar age structure of the area and city population result in almost equal mean age of area and city populations - 41.95 and 41.37 years respectively.

Demographic burden of population in independent ages is 43.3%, 45.5% of which is due to the younger ages. The respective value for the country is 46.8%. Ratio between young population and population aged 15 - 64 years is 19.7%, compared to 23.6% between elderly population and persons aged 15 - 64 years or 54.5% of the total burden is due to the elderly population.

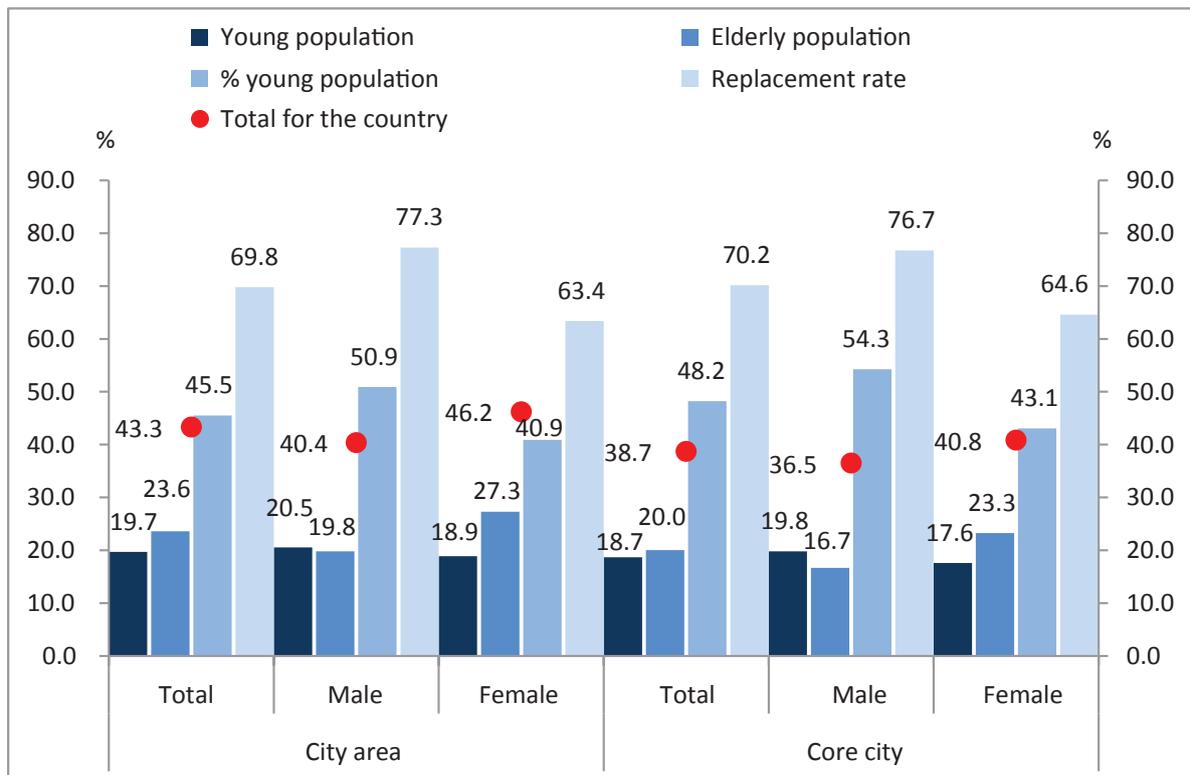


Figure III.7.4. Demographic burden, demographic replacement rates and share of younger ages in demographic burden

Share between ‘dependent’ and ‘independent’ population in the city is lower - 38.7%. Demographic burden due to the young ages is 18.7%, and to the old ones - 20.0%. Regarding the total demographic burden - in the city 48.2% of it is due to young ages or higher than in the area. The rest (51.8%) is the influence of old ages.

Like in the country as a whole, in the area demographic burden of population in working ages among female (46.2%) is higher than among male (40.4%). The difference is seen in the city also and the respective values are 36.5% and 40.8%.

Demographic replacement rates in the area and in the city are almost equal. Both in the area and in the city 100 persons exiting working age are replaced by 70 persons aged 19 - 24 years, close to the country average 71.

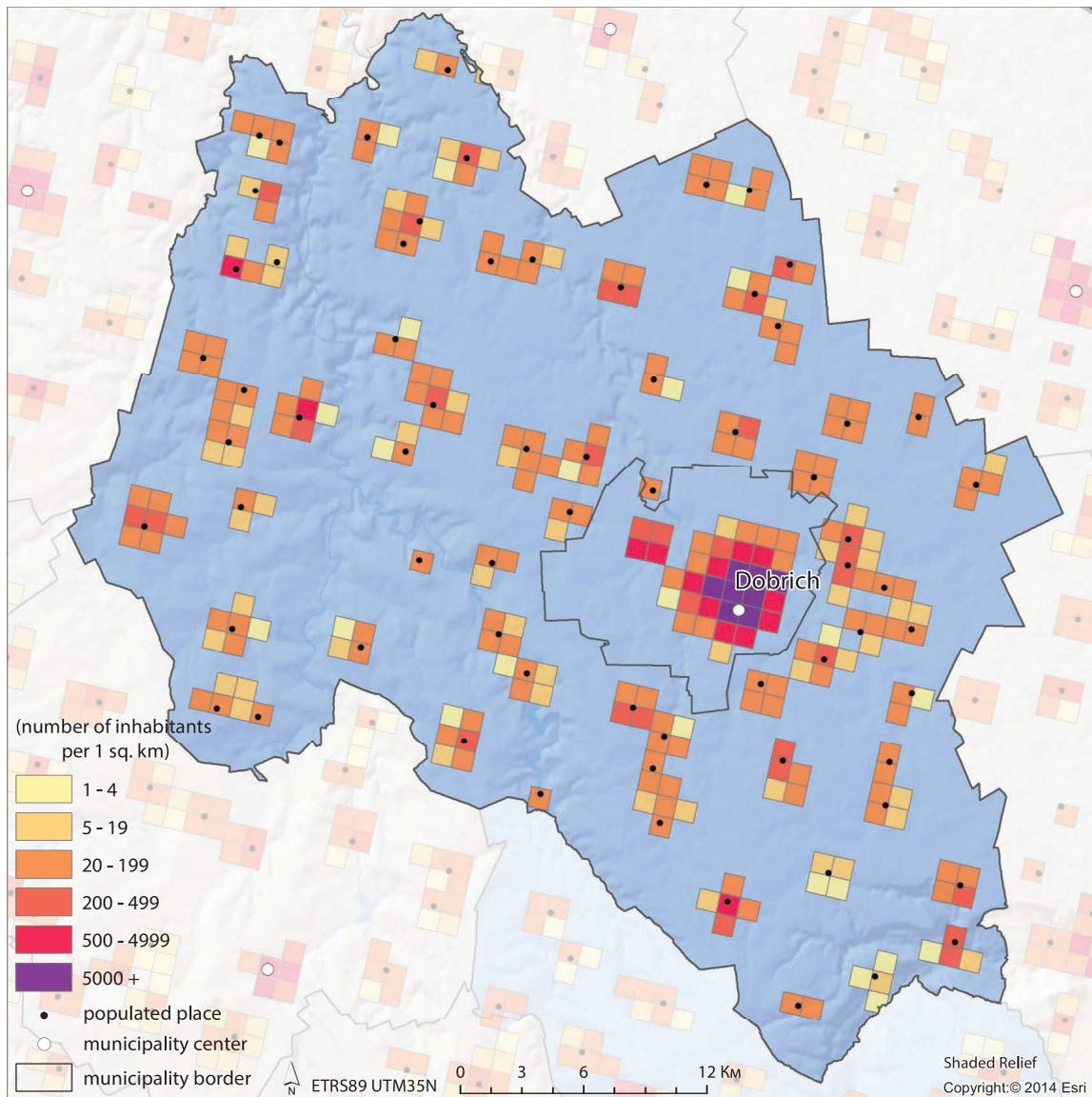


Figure III.7.5. Population grid of the area of Dobrich, 2011 Census

### **Households**

Number of households in the area of Dobrich is relatively low compared to the country one. In 2012 there are 48 188 households representing 1.5% of the country ones. Compared to 2010, the number of households increased by 1.9%.

Average for the period the one-member households in the area are 24.4% representing 0.9% of the country number; lone parents with children below 18 years are 2.5% representing 1.1% of the country number; households of single pensioners - 16.5% or 0.9%; households with children below 18 years - 27.8% or 1.0%. Bigger part (78.9%) of the households is living in the area centre - city of Dobrich.

#### *Dwellings*

Number of dwellings in the area in 2012 is 54 719 representing 1.4% of the country number. The last did not change considerably during the surveyed period. Average price of a dwelling is 20 065 BGN or about 26.3% lower than the country average in 2012. Average price of a detached house in the same year is 35 440 BGN or higher than the price of a dwelling. More than half - 74.1% of the area dwellings in 2012 are located in city of Dobrich.

#### *Labour market*

Number of employed aged 20 - 64 years in the period 2010 - 2012 is 44 927 persons and decreased by 8.7%. Employment rate is 61.3% or 1.2% lower than the country average. Share of employed in the area represents 1.5% of the total country number. Biggest part of the employed (86.1%) lives in the area centre, city of Dobrich.

Average annual number of unemployed in the period is 6 065. Share of unemployed is highest in the area centre - over 65.8%. Unemployment rate is 12.3% or 1.2% higher than the country average.

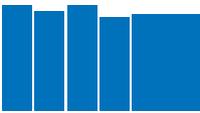
#### *Poverty*

Share of poor people, living at risk of poverty is relatively high - about 22% for the period. Poverty level is 1% higher than the country average. At risk of poverty rate before social transfers (including pensions) is considerably higher - 49% or almost equal to the country average. Material deprivation level in the area is about 43% or 1% lower than the country average.

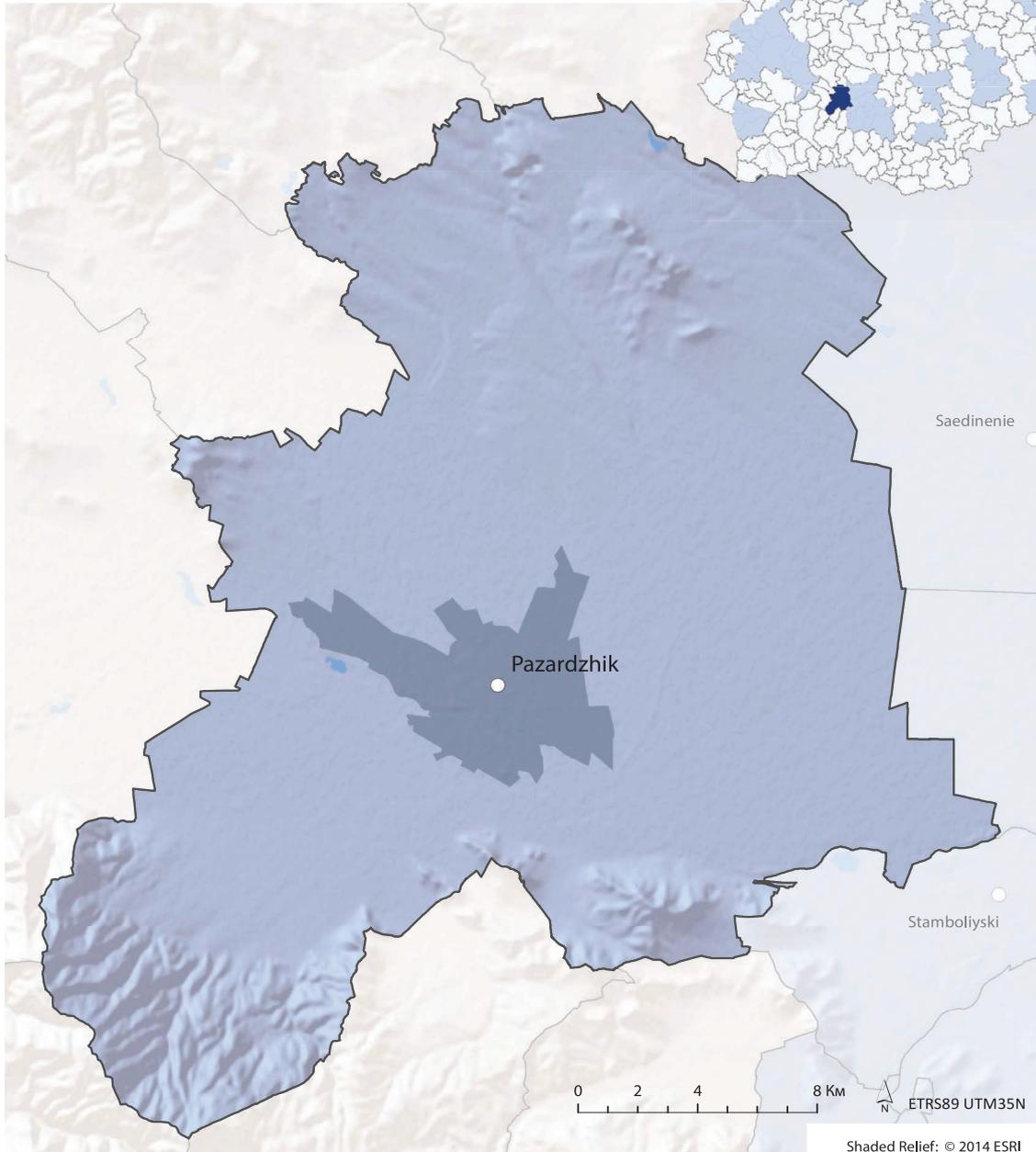
#### *Education*

Number of children aged 0 - 4 years did not change during the period and is 2 169 in 2012.

In 2012 the number of students in the city is 1 155 and a decrease is observed compared to 2010 by 11.8%. Share of the early school leavers aged 18 - 24 years is 14.0% or 1.4% higher than the country average.



Area with centre city of Pazardzhik



	Municipality	Population	Area (sq. km)	Density
<b>PAZ19</b>	Pazardzhik	117293	636.7	184
	<b>Area</b>	<b>117293</b>	<b>636.7</b>	<b>184</b>

- Municipality center
- Municipality borders
- Core city

Figure III.8.1. Area of Pazardzhik - municipalities, average annual population, territory and density (per 1 sq. km) in 2010 - 2012 period

### Population

Area includes one municipality with centre city of Pazardzhik and 31 villages with a territory of 637 sq. km or 0.57% of the country territory. Average annual population for the period is 117 thousand persons, of which 57 500 - male and 60 thousand - female. The respective shares of males and females are 49% and 51%. Area population represents 1.6% of the country one. Population density is 184 persons per 1 sq. km. In the city live 73 thousand persons or 64.4% of the area population, 35 400 of which are male and 37 780 - female.

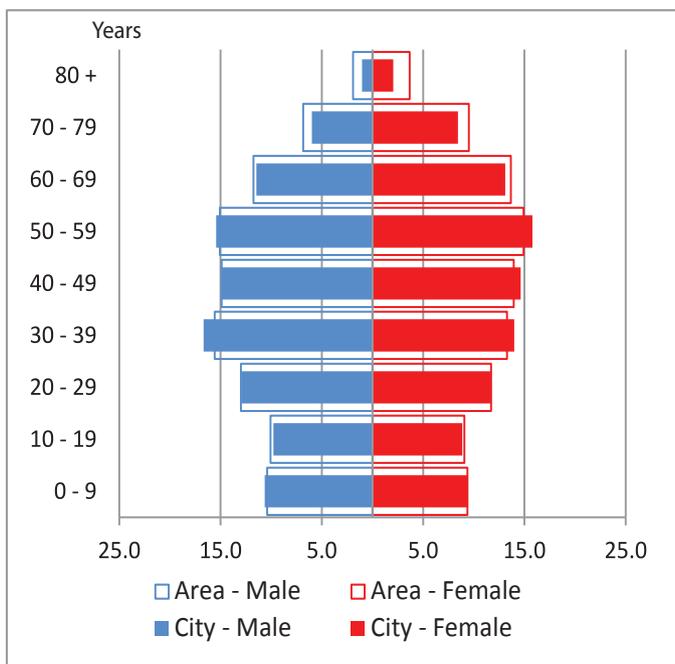


Figure III.8.2. Age pyramid of the city and area of Pazardzhik

Average crude birth rate for the three-year period is 9.80‰ or higher than the country average (9.68‰). TFR is 1.57 children. Mortality rate (10.07‰) is lower than the country one (14.72‰). The average natural increase for the three-year period is negative - minus 2.89‰.

About 760 persons annually immigrate to the area and 1 260 - immigrate. The intensity of these two flows is 6.51‰ and 10.78‰ respectively. As a result of migration the area population decreases annually by 500 persons or by minus 4.27‰.

City indicators are better than the area and country ones. Crude birth rate in the city is 10.07‰, and TFR - 1.53 children, one of the highest in the country. Mortality rate is also relatively low - 11.05‰. The natural increase growth is negative - minus 0.98‰.

Annually 1 080 persons emigrate from the area or 14.74‰, compared to 700 immigrants or 9.65‰ of the city population. As a result of migration the city population decreases annually by 370 persons or by minus 5.09‰.

Migration between the city and its periphery is low - about 160 - 170 persons. Migration growth of the city is negative - 12 persons annually or minus 0.16‰.

Area population in working age is 81 170 persons or 69.2% of the area population. The share is a little bit above the country average (68%). Number and share of male and female in the same age group are almost equal. Number of male is 40 870 and of female - 40 300 representing 50.4% and 49.6% respectively. Out of the total male population 71.0% are in working age and among female - 67.4%.

Population of city of Pazardzhik aged 15 - 64 years is 52 thousand or 71.2% of the total city population. Total for the area the respective share is 71.2%, 73.7% - for male and 71.6% - for female.

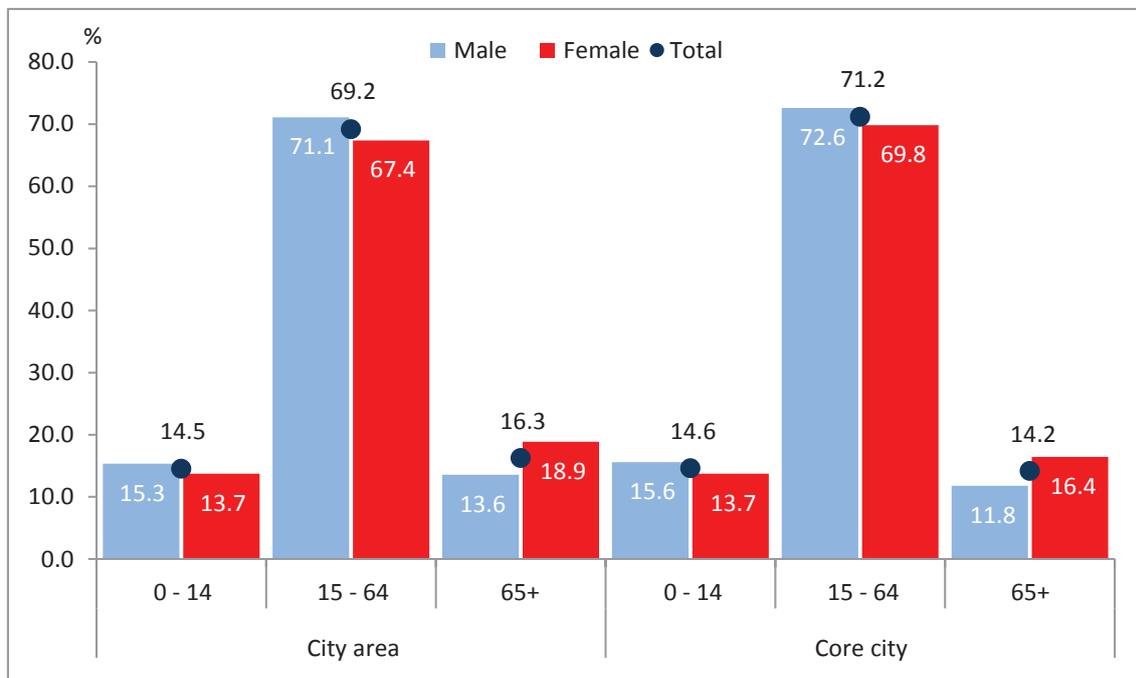


Figure III.8.3. Age structure of average annual population

Share of youngest population (up to 14) in the area is slightly higher (14.5%) than the country average (13.6%). The same is the value in the city. Shares of young male and female in the area and in the city are equal - 15% for male and 13.7% for female.

Difference in the shares of elderly population (65 years and over) in the area and in the city is small - 16.3% and 14.2% respectively. The last are lower than the country average - 18.3%. Out of the total male population in the area 13.6% are aged 65 and over, compared to 11.8% - in the city. The respective shares for female are 18.9% and 16.4%.

Mean age of population in the area and in the city is relatively favourable than the country one. In the area it is 41.4 years and in the city - 40.6 years.

More favourable demographic indicators in the area and in the city can be explained by the population ethnic structure. Shares of Roma population and Moslem religion are bigger in the region and the last in general have higher fertility than the rest population.

Demographic burden rate of the population in independent ages and the reproduction of labour force are better than the country ones, corresponding to the population age structure. Demographic burden rate of the population in working age is 44.5% in the area - 40.7% for male and 48.4% for female.

There is a difference between the demographic burden with young and with elderly population. Ratio between young population and population aged 15 - 64 years is 21.0%, compared to 23.5% between population aged 15 - 64 and elderly one. Hence, 47.2% of the total demographic burden of population in independent ages is due to the young and 52.8% to the elderly population.

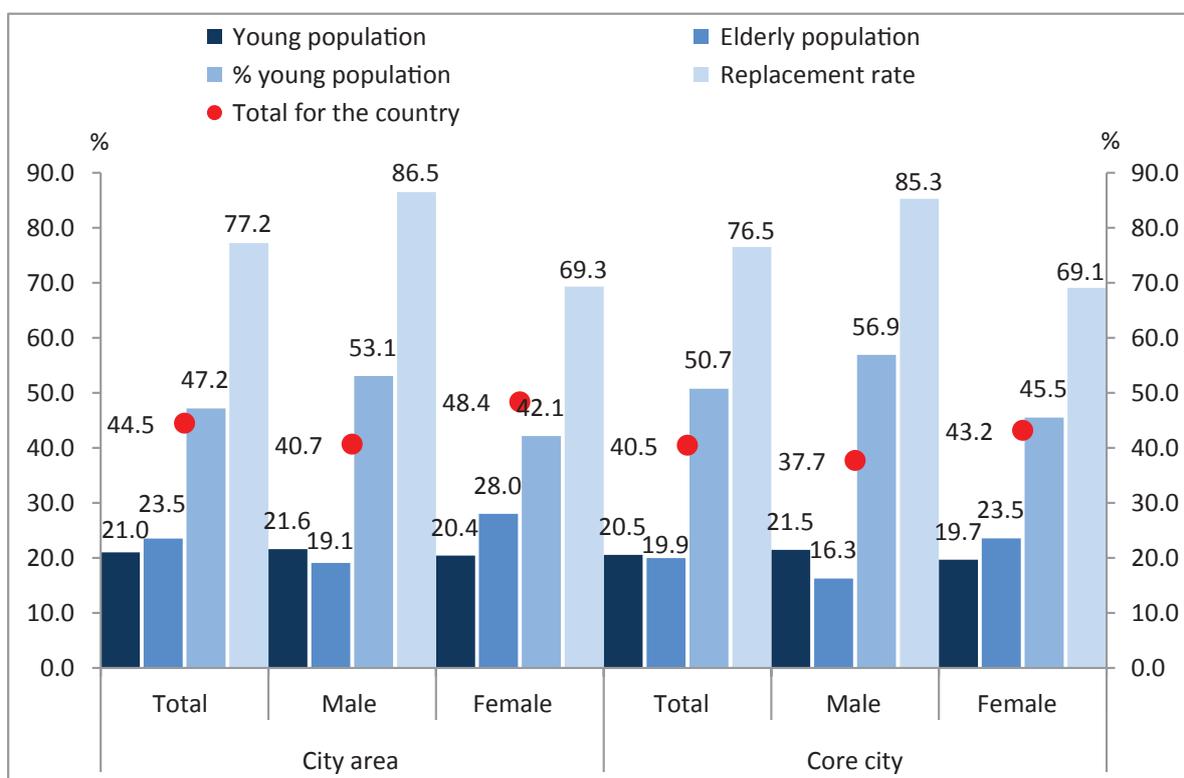


Figure III.8.4. Demographic burden, demographic replacement rates and share of younger ages in demographic burden

In the city-centre the ratio between population in independent and in dependent ages is 40.5%. The burden with young population in the city is higher and with elderly - lower. The respective values are 20.5% and 19.9%. Hence, 50.7% of the total demographic burden is due to the young ages and 49.3% - to the old ones.

Reproduction of the area and city population in working age is better than for the country, but a decrease of labour force is also observed. During the surveyed period 100 persons exiting working age are replaced by 77 or the demographic replacement rate is better than the country average - 71%.

The demographic replacement rate in the city is relatively better - 100 persons exiting working age are replaced by 74 persons aged 19 - 24 years.

Both in the area and in the city the demographic replacement of male and female population is different - 86% for male and 69% - for female.

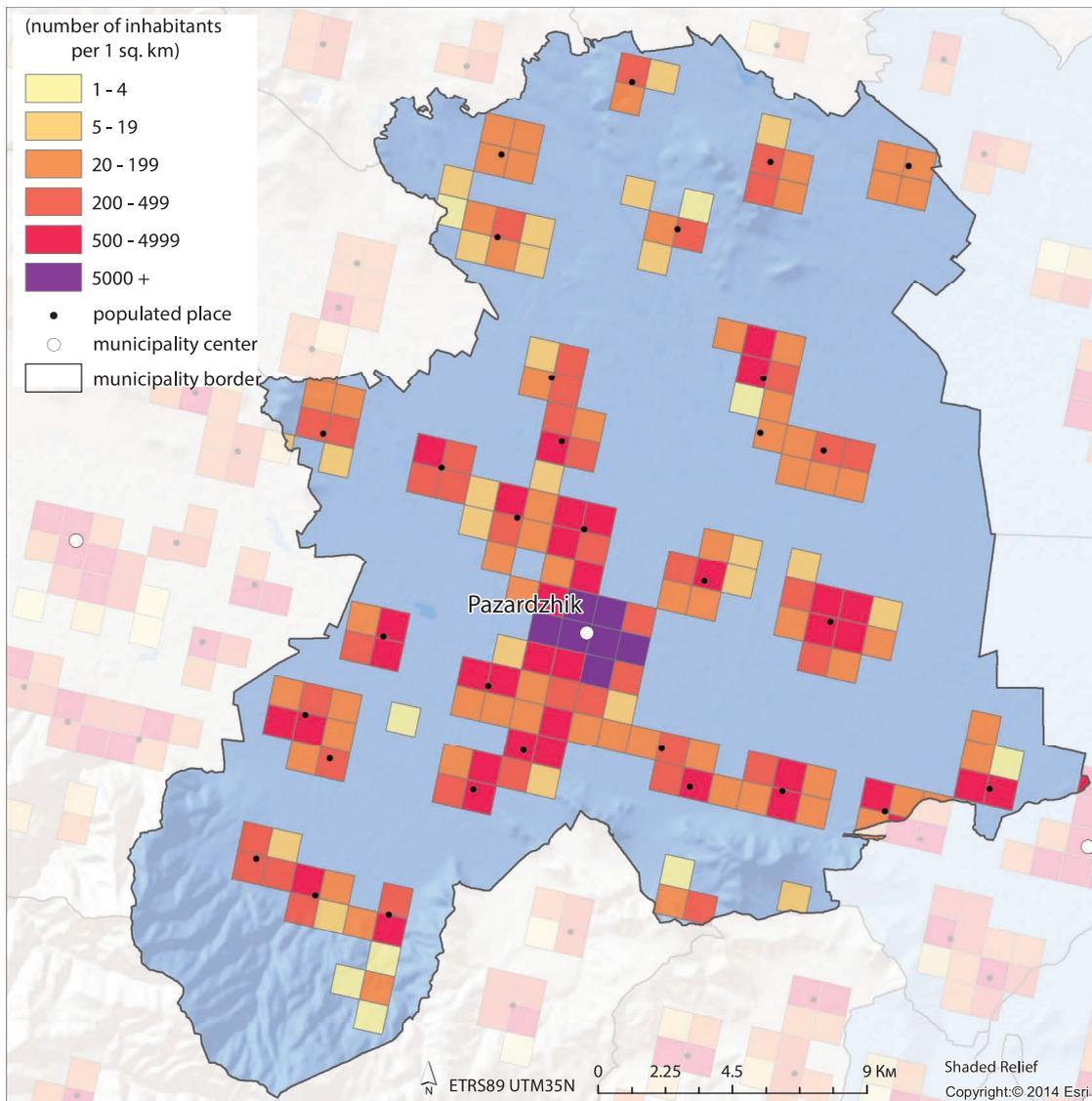
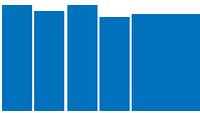


Figure III.8.5. Population grid of the area of Pazardzhik, 2011 Census

## Households

Number of households in the area of Pazardzhik is relatively low compared to the country one. In 2012 there are 42 728 households representing 1.5% of the country ones. Compared to 2010, the number of households increased by 0.2%.

Average for the period the one-member households in the area are 23.3% representing 0.9% of the country number; lone parents with children below 18 years are 2.4% representing 1.0% of the country number; households of single pensioners - 15.6% or 0.9%; households with children below 18 years - 31.4% or 1.1%. Bigger part (62.7%) of the households is living in the area centre - city of Pazardzhik.

#### *Dwellings*

Number of dwellings in the area in 2012 is 51 289 representing 1.3% of the country number. The last did not change considerably during the surveyed period. Average price of a dwelling is 34 600 BGN or about 27.2% higher than the country average in 2012. Average price of a detached house in the same year is 60 200 BGN or almost twice higher than the price of a dwelling. More than half - 62.9% of the area dwellings in 2012 are located in city of Pazardzhik.

#### *Labour market*

Number of employed aged 20 - 64 years in the period 2010 - 2012 is 45 642 persons and decreased by 10.6%. Employment rate is 61.0% or 1.5% lower than the country average. Share of employed in the area represents 1.5% of the total country number. Biggest part of the employed (67.0%) lives in the area centre, city of Pazardzhik.

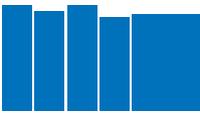
Average annual number of unemployed in the period is 6 176. Share of unemployed is highest in the area centre - over 63.0%. Unemployment rate is 12.0% or 1.0% higher than the country average.

#### *Poverty*

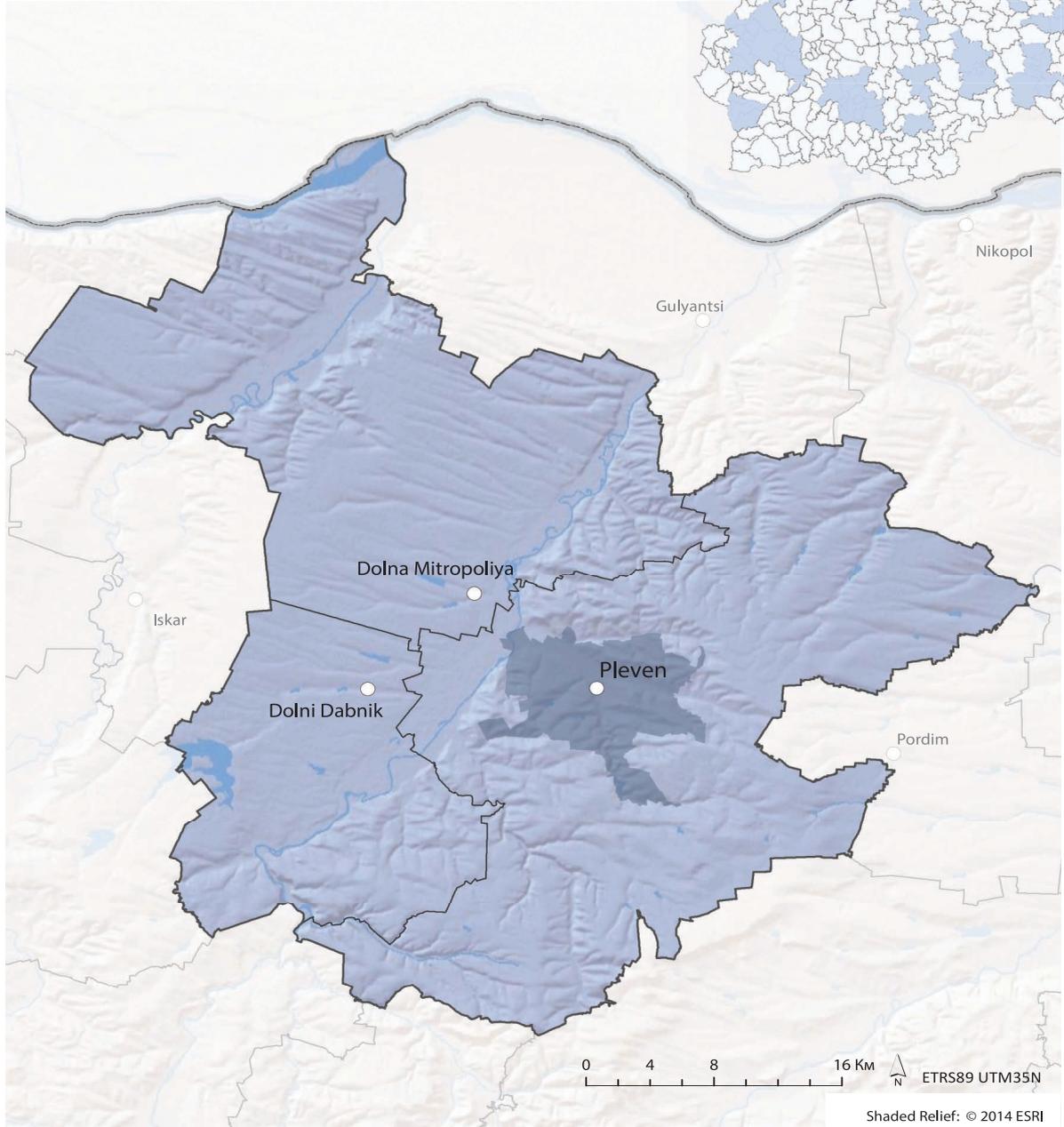
Share of poor people, living at risk of poverty is relatively high - about 21% for the period. Poverty level is the same as the country average. At risk of poverty rate before social transfers (including pensions) is considerably higher - 47% or 2% lower than the country average. Material deprivation level in the area is about 42% or 2% lower than the country average.

#### *Education*

Number of children aged 0 - 4 years during the observed period increased and reached 2 024 in 2012, of which 77.0% are living in the area centre.



Area with centre city of Pleven



	Municipality	Population	Area (sq. km)	Density
<b>PVN10</b>	Dolna Mitropoliya	20440	674.9	30
<b>PVN11</b>	Dolni Dabnik	12933	307.6	42
<b>PVN24</b>	Pleven	133310	809.7	165
	<b>Area</b>	<b>166683</b>	<b>1792.2</b>	<b>93</b>

- Municipality center
- Municipality borders
- Core city

Figure III.9.1. Area of Plevna - municipalities, average annual population, territory and density (per 1 sq. km) in 2010 - 2012 period

## Population

Three municipalities are included in the area with a total average annual population 166 680 persons or 2.2% of the country one and a territory of 1 792 sq. km representing 1.6% of the country territory. Population density is 93 persons per 1 sq. km. The population number of area centre, city of Pleven is 108 thousand persons or 64.8% of the area one. Centres of two municipalities are small towns with population below 7 thousand persons.

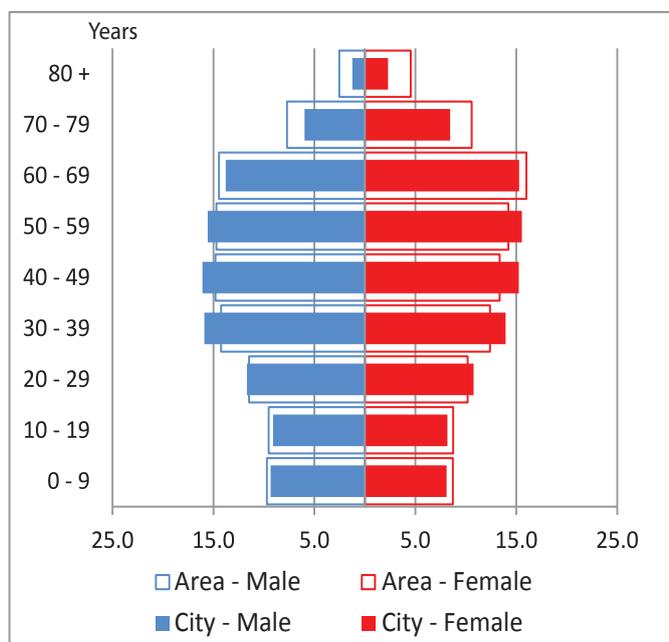


Figure III.9.2. Age pyramid of the city and area of Pleven

Male population is nearly 81 thousand or 48.4% and female - 86 thousand or 51.6% of the area population. Similar is the situation in the area centre - male population is 52 thousand or 48.2%, and female - 56 thousand or 51.8%. Ratio between the number of male and female is almost equal to the country one.

Despite the location in the north central part of the country, good soil and climate conditions and well-developed transport infrastructure due to closure of production establishments and low investments activity, the labour market and hence demographic development were badly influenced. The average area population has decreased from 173 thousand in 2010 to 160 thousand in 2012 or by over 4 thousand persons on average per year. Crude birth rate is 9.0‰ or lower than the country average and TFR is 1.55 children.

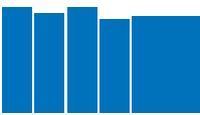
Mortality rate (15.89‰) is higher than the country average. Due to the last the average annual natural increase is negative - minus 6.89‰, one of the highest in the country. Higher is the mortality in area of Vidin only.

Average annual number of persons who immigrate to the area is 2 125 or 12.75‰ to the average annual population. The opposite flow or emigrants are 2 800 annually or 16.84‰. As a result the migration growth is negative - minus 4.1‰ to the average annual population. Therefore the population decrease is due to great extent to the migration.

City of Pleven is one of the seven cities in the country with a population over 100 thousand persons, but its population decreases continuously. For the surveyed period a decrease of about 5 thousand per year is observed. Crude birth rate in the city is too low - 8.60‰, much below that the country average and TFR is 1.32 children, also lower than the country one. Mortality rate is 11.58‰. As a result the natural increase is negative - minus 3‰.

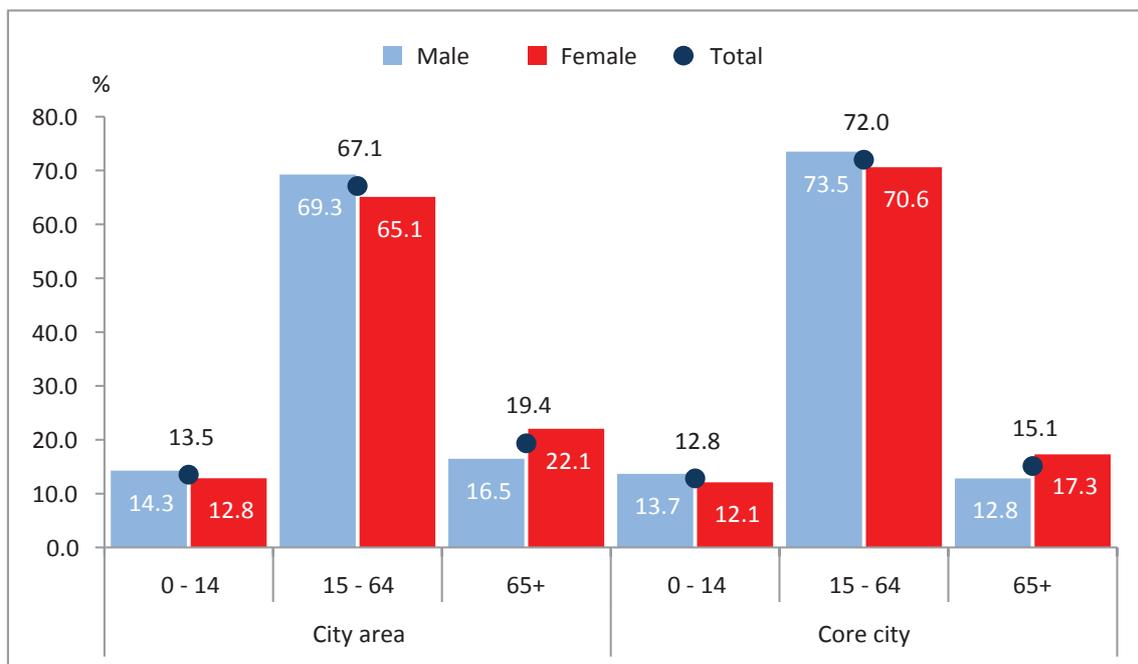
City demographic development is negatively influenced by migration also. Average annual number of immigrants is 1 470, compared to over 2 300 emigrants or 13.58% and 21.70% of the city population. Due to migration the population decreases by 880 persons or by 8.11‰ annually.

There is a migration between the nuclei and its periphery also. Within the three observed years annually 340 persons or 3.17‰ have migrated from the periphery to the city. The opposite flow is bigger - 580 persons or 5.37‰ annually. As a result the city population decreased by 240 persons or 2.2‰ annually.



Out of the area population 112 thousand or nearly 67% are aged 15 - 64 years. The last is lower than the country average (68%). Number and shares of male and female aged 15 - 64 are almost equal - 50%, 69% of male are aged 15 - 64 compared to 65 - female.

About 78 thousand persons or 72% of city population is aged 15 - 64 years; male aged 15 - 64 represent 73.5% of total number of male population in the city and female - 70.6%. In the periphery 34 thousand are aged 15 - 64 years.



*Figure III.9.3. Age structure of average annual population*

Shares of male and female population under working age in the area and in the city vary between 12% and 14%. Total number of area population under working age is 22 500 or 13.5%, compared to 13 890 or 12.8% - in the city.

More considerable differences are observed for elderly population. The number of last in the area is over 32 thousand or 19.4% of the area population, and 16 350 or 15.1% - in the city. The respective share for the country is 18.3%. Number of female population above 65 years is higher both in the area and in the city - 22% and 17% respectively. The respective figures for male population are 16.5% and 12.8%.

Data above show considerable ageing of population both in the area and in the city. The last is proved by the increasing mean age of population - 43.4 years in the area and 42.2 - in the city, which is the highest one among all areas and cities under observation.

Demographic burden of the population in independent ages is 49%. Ratio between the young population and population aged 15 - 64 years is 20.1% and of the elderly population and persons aged 15 - 64 - nearly 29%. The differences define that 41% of the total demographic burden of population in independent ages is due to young ages and 59% - to population aged 65 and over. The respective country values are 46.8% and 53.2%.

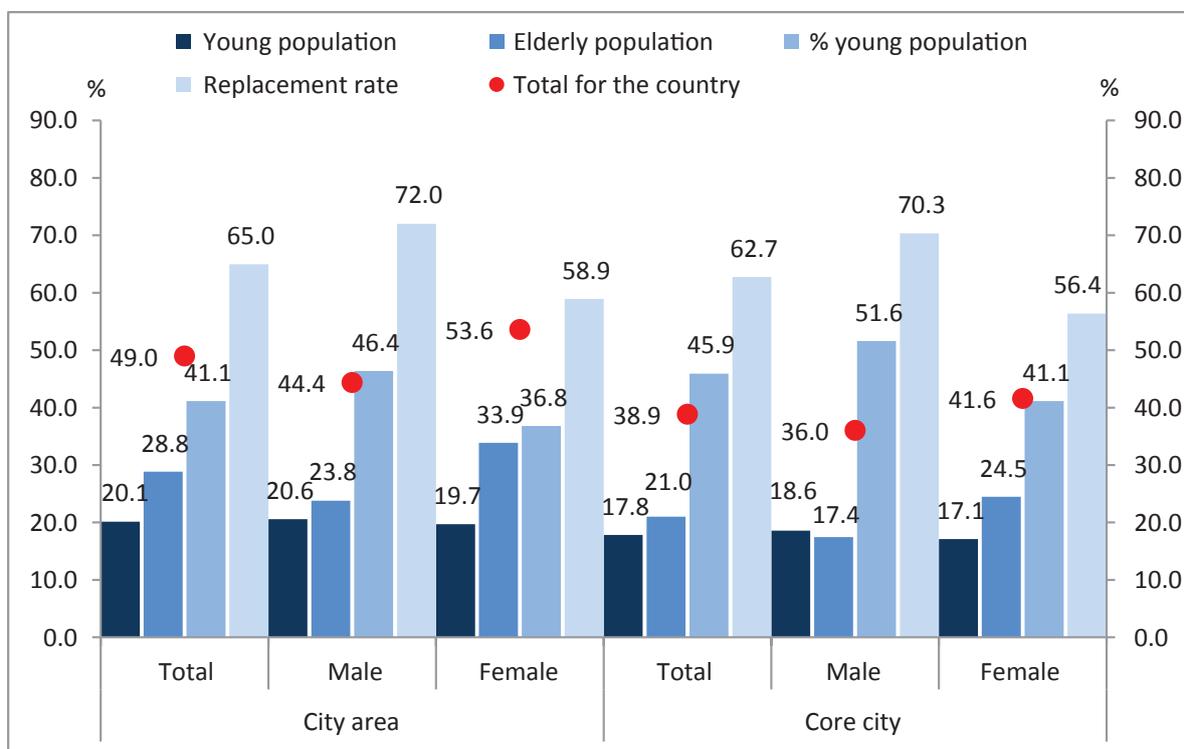


Figure III.9.4. Demographic burden, demographic replacement rates and share of younger ages in demographic burden

Ratio between population in dependent and independent ages is more favourable in the city where the value is lower - 39%. The last is due to the lower burden of elderly population. In the city 54% of the total demographic burden is due to elderly population. 18 persons up to 14 years and 21 persons aged 65 and over correspond to 100 persons aged 15 - 64 years.

Unfavourable demographic situation in the area and its nuclei is seen also when analysing the reproduction of labour resources. Demographic replacement rate in the area is lower than the country one. In the area 100 persons exiting working age are replaced by 65 persons aged 19 - 24 years. The same rate in the city is even lower - 100 persons exiting working age are replaced by less than 63 persons entering working age. Demographic replacement rate value for the country is 71%.

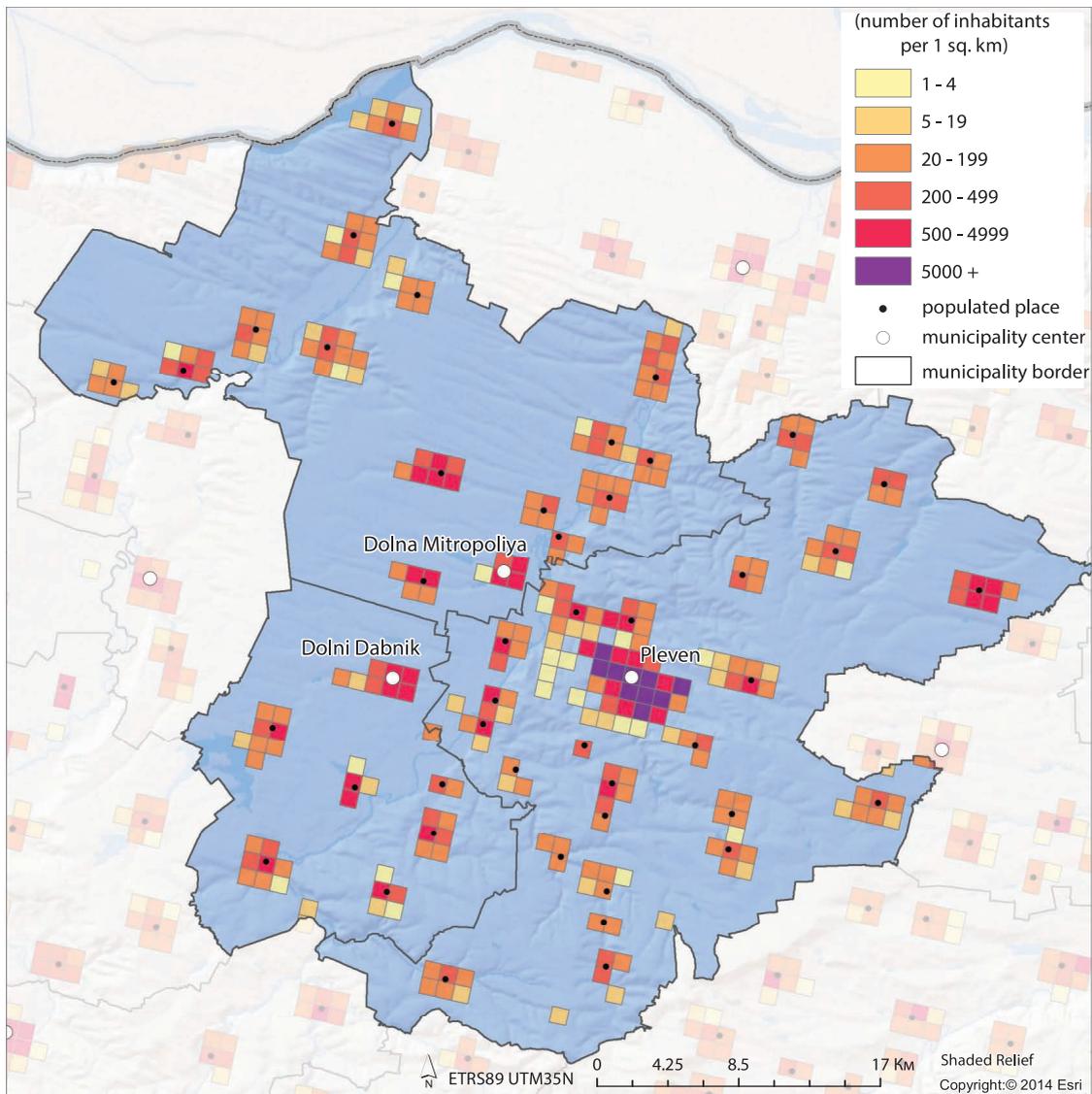


Figure III.9.5. Population grid of the area of Plevna, 2011 Census

## Households

Number of households in the area of Plevna is relatively low compared to the country one. In 2012 there are 60 565 households representing 2.1% of the country ones. Compared to 2010, the number of households decreased by 2.0%.

Average for the period the one-member households in the area are 25.1% representing 1.4% of the country number; lone parents with children below 18 years are 2.4% representing 1.5% of the country number; households of single pensioners - 16.7% or 1.3%; households with children below 18 years - 29.7% or 1.5%. Bigger part (65.2%) of the households is living in the area centre city of Plevna.

#### *Dwellings*

Number of dwellings in the area in 2012 is 84 130 representing 2.2% of the country number. The last did not change considerably during the surveyed period. Average price of a dwelling is 19 983 BGN or about 27.0% higher than the country average in 2012. Average price of a detached house in the same year is 28 000 BGN or higher than the price of a dwelling. More than half - 62.9% of the area dwellings in 2012 are located in city of Pleven.

#### *Labour market*

Number of employed aged 20 - 64 years in the period 2010 - 2012 is 61 280 persons and decreased by 11.9%. Employment rate is 62.2% or close to the country average. Share of employed in the area represents 2.1% of the total country number. Biggest part of the employed (73.3%) lives in the area centre, city of Pleven.

Average annual number of unemployed in the period is 8 739. Share of unemployed is highest in the area centre - 66.8%. Unemployment rate is 12.2% or 1.1% higher than the country average.

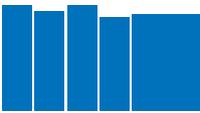
#### *Poverty*

Share of poor people, living at risk of poverty is 21.6% for the period. Poverty level remains the same during the whole period and is close to the country average. At risk of poverty rate before social transfers (including pensions) is considerably higher - 48.4% or the same as the country average. Material deprivation level in the area is 42.7% or 2% lower than the country average.

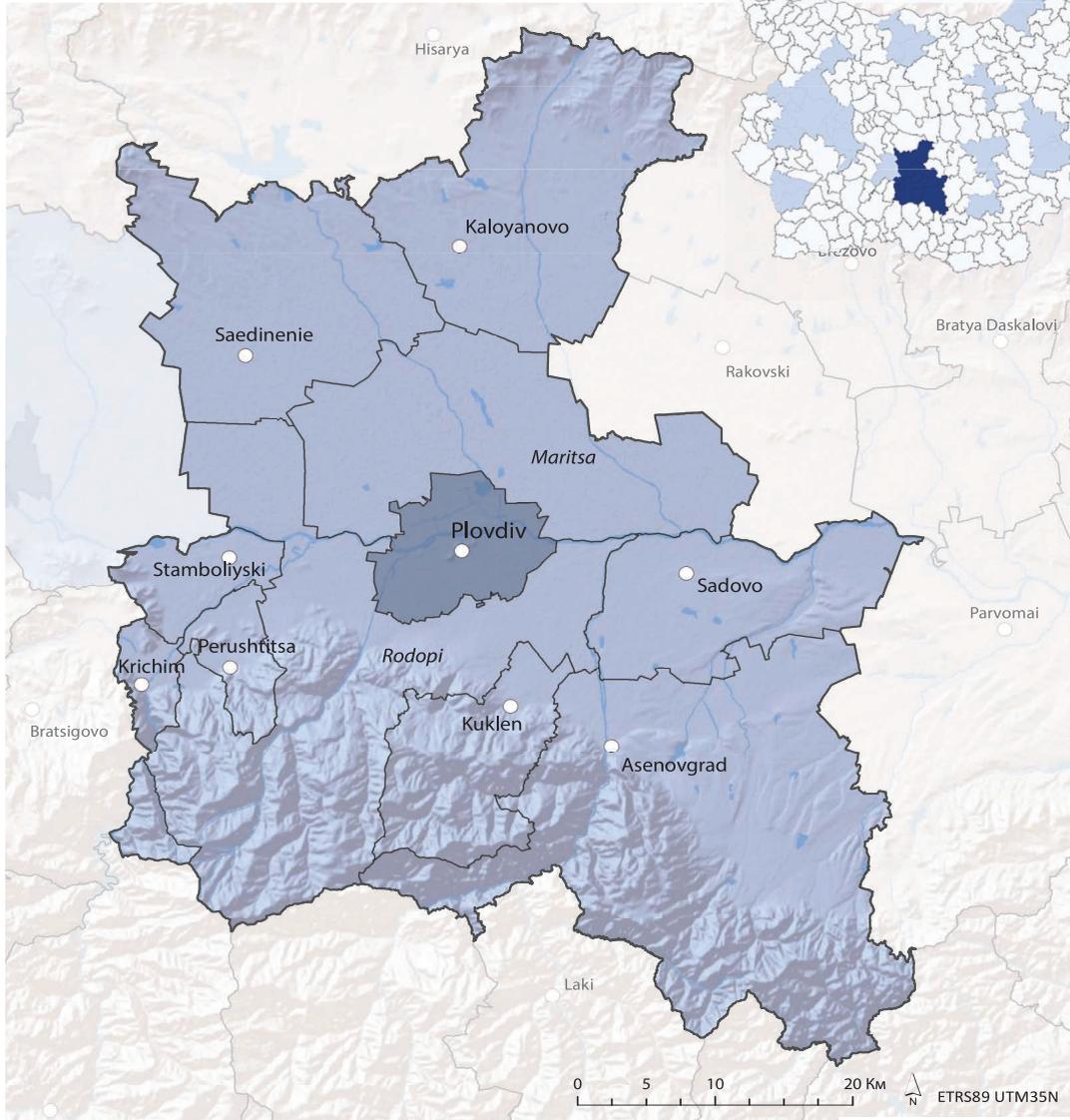
#### *Education*

Number of children aged 0 - 4 years during the observed period increased by 7.2% and is 3 494 in 2012.

In 2012 the number of students in the city is 1 718 or the same as during the period. Early school leavers aged 18 - 24 years is 14.5% and is 1.5% higher than the country average.



Area with centre city of Plovdiv



	Municipality	Population	Area (sq. km)	Density
<b>PDV01</b>	Asenovgrad	64197	665.4	97
<b>PDV12</b>	Kaloyanovo	12022	347.5	35
<b>PDV17</b>	Maritsa	31938	342.7	93
<b>PDV22</b>	Plovdiv	343197	102.0	3365
<b>PDV26</b>	Rodopi	32091	523.7	61
<b>PDV28</b>	Sadovo	15543	192.9	81
<b>PDV33</b>	Saedinenie	10699	298.0	36
<b>PDV39</b>	Krichim	8429	54.9	154
<b>PDV40</b>	Perushtitsa	5089	48.7	105
<b>PDV41</b>	Stamboliyski	20631	61.3	337
<b>PDV42</b>	Kuklen	6453	148.4	44
	<b>Area</b>	<b>550289</b>	<b>2785.3</b>	<b>198</b>

Shaded Relief: © 2014 ESRI  
 ○ Municipality center  
 □ Municipality borders  
 ■ Core city

Figure III.10.1. Area of Plovdiv - municipalities, average annual population, territory and density (per 1 sq. km) in 2010 - 2012 period

## Population

Area of Plovdiv takes the third place according to its territory, following areas of Sofia and Burgas. Area territory is 2 785 sq. km or 2.5% of the country territory. City of Plovdiv takes the second place according to number of population and is an important economic, education and culture centre. City of Asenovgrad with a population of 50 thousand at the end of 2012 is included in the area. The last is one of the relatively big country cities, but does not create own area according to the criteria applied.

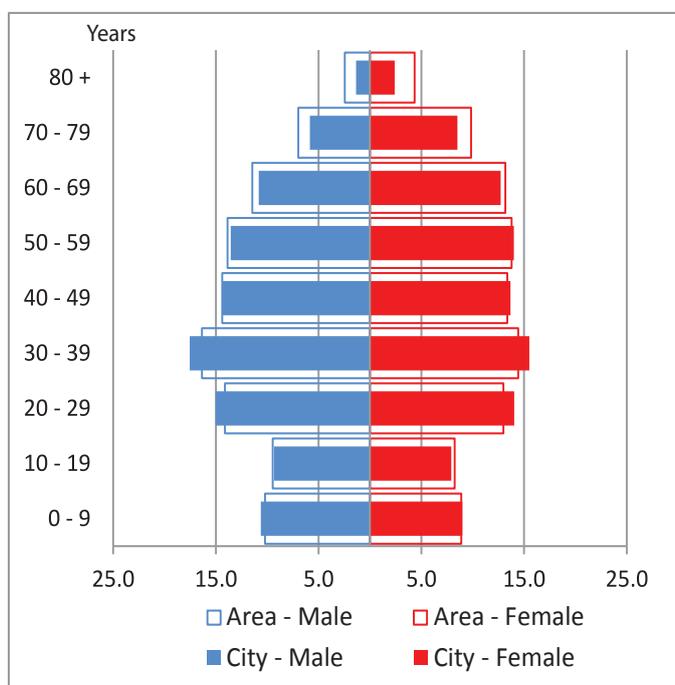


Figure III.10.2. Age pyramid of the city and area of Plovdiv

number of emigrants. The intensity of the two flows is almost equal - immigrants represent 14.42‰ of the average area population and emigrants - 14.65‰.

Demographic indicators in the area centre are better than the periphery ones. Crude birth rate in the city is higher - 11.08‰, but TFR is lower - 1.44 children. Relatively lower is the mortality rate - 10.89‰. Natural increase of city of Plovdiv is positive, but almost equal to zero - 0.19‰. Among the observed cities, Plovdiv is the third one (after Blagoevgrad and Burgas) with positive natural growth. In all the rest the natural increase is negative.

City migration growth is also close to zero. Annually due to migration the city population increased by 5 persons or by 0.01‰.

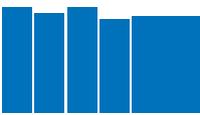
There are migration between the area centre and the periphery, but the last is small compared to the population number. Annually 1 048 persons emigrate from the periphery to city of Plovdiv and 1 226 immigrate. The intensity of immigration and emigration is a little above 3‰. As a result the city population decreased by 180 persons annually. Biggest part of the decrease (79%) is due to emigration to municipality of Maritza - villages located close to the city.

For the three-year period the area population has decreased from 556 to 544 thousand and the decrease is fully due to the negative natural increase.

Average annual population of the area is over 550 thousand persons, of which 265 thousand are male and 285 - female or 48.1% and 51.9% of the area population respectively. 7.4% of the country population is living in the area. Population density is 198 persons 1 per sq. km or quite higher than the country average - 66 persons. In the area centre live 343 thousand persons or nearly 62.4% of the area population. Sex ratio is 47.7% to 52.3% - male and female respectively.

Crude birth rate in the area is 10.22‰ or higher than the country average and TFR - 1.47 children. Lower than the country average is the mortality rate - 12.93‰. Average annual natural increase rate is negative - minus 2.70‰.

The absolute annual migration growth for the period 2010 - 2012 is minus 124 persons, but it represents just minus 0.22‰ of the area population. Annually 8 thousand persons immigrate to the area and almost the same is the



Average annual number of population in working age is 379 thousand or 69% of the total area population. The last is close to the country average. The number and share male in working age (187 thousand or 49.3%) are lower than of female (192 thousand or 50.7%). Among male 70.6% are aged 15 - 64 years and among female - 67.3%.

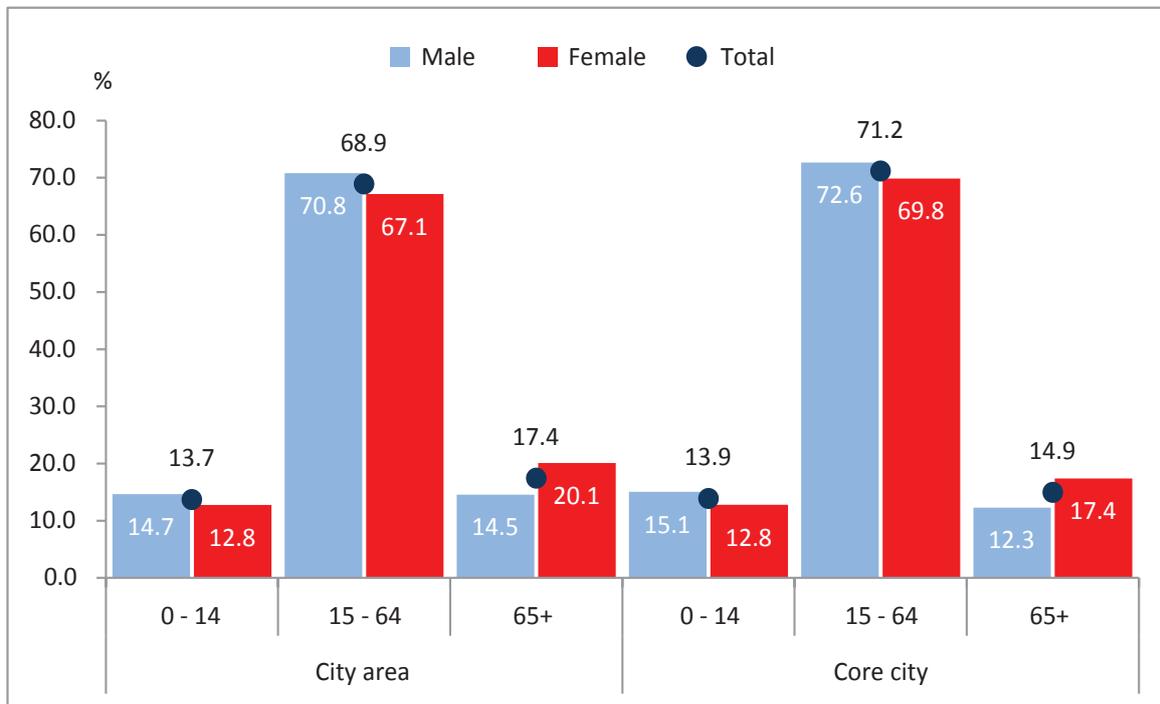


Figure III.10.3. Age structure of average annual population

Share of population in working age in the city is a little higher - 71.1%; 72.8% - for male and 69.8% - for female.

Shares of young population (male and female) in the area and city are almost equal - between 13% and 15%. As a total population up to 14 years is 75 thousand or 13.7% of the area population. The same figures in the city are 48 thousand or 14%. These shares are higher than the country averages.

There are some differences in the shares of elderly population. In the area persons aged 65 and over represent 17.4%, while in the city - 14.9%, but both shares are lower than the country average - 18.3%.

Data above show that the area and city age structure is better than the country one. The last is proved by the mean age of population - 41.8 years in the area and 41.9 in the city, compared to 42.4 years for the country.

Demographic burden rate of the area population in independent ages is 45,1% or lower than the country average - 46.8%. The demographic burden with young and elderly population is different - 19.8% and 25.3% respectively. 44% of the total demographic burden is due to the young population and 56% to the elderly.

In the area centre the ratio between population in dependent and independent ages is 40%. The demographic burden with young and elderly population is not quite different - 19.5% is due to young people and 21% to elderly. Demographic burden with young population is 48% higher than in the area.

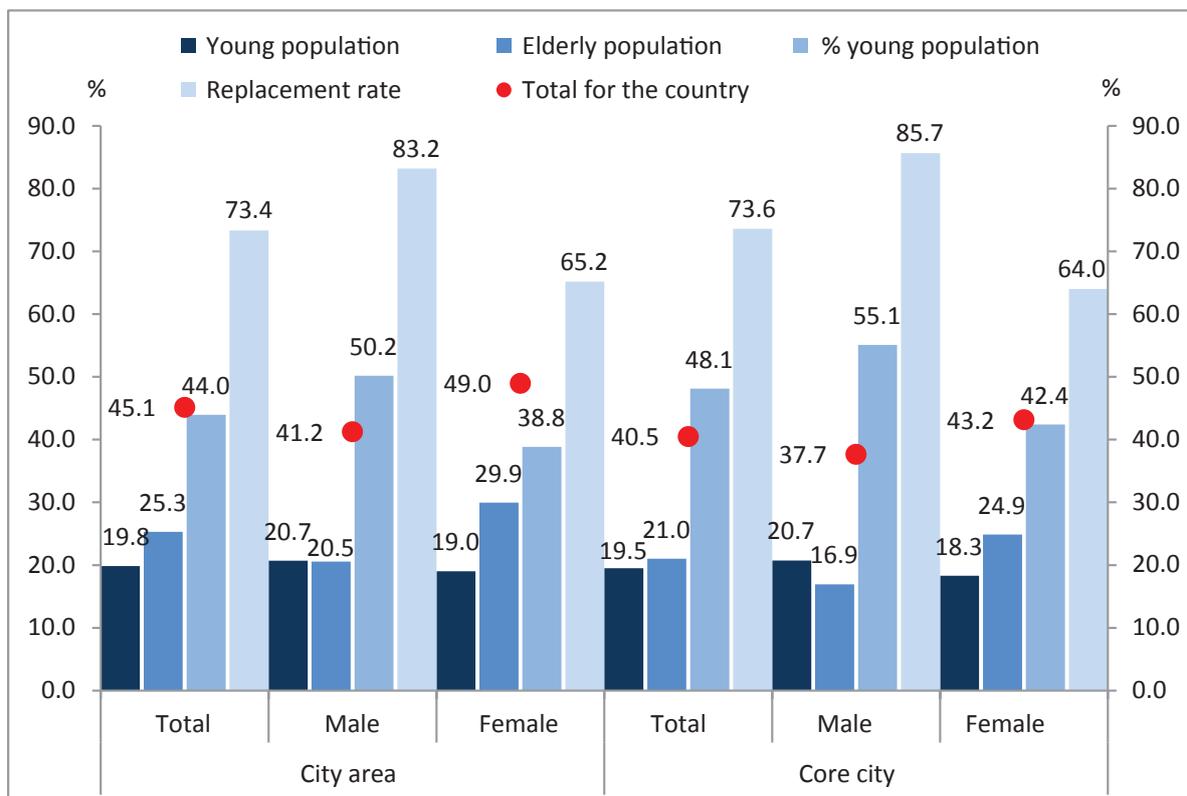


Figure III.10.4. Demographic burden, demographic replacement rates and share of younger ages in demographic burden

Compared to the country (71 persons entering working age to 100 - exiting it) the demographic replacement rate in the area and its nuclei is a little higher - 100 persons exiting working age are replaced by 73 persons aged 19 - 24 years.

The demographic replacement rate for male and female, both in the area and its centre are different. Higher is the demographic replacement rate for male - between 83 - 85% in the area and in the area centre. The same value for female is about 65%.

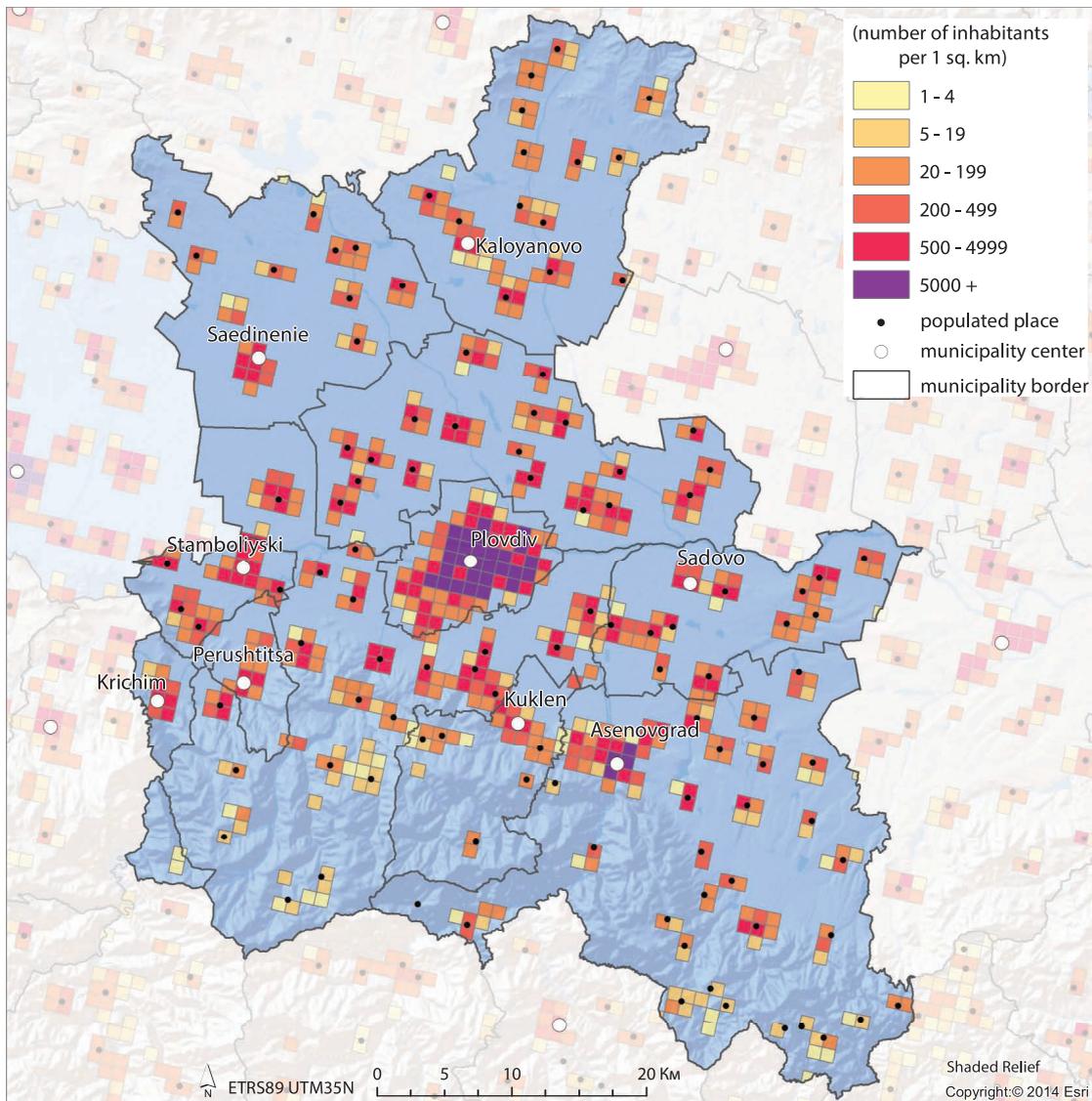


Figure III.10.5. Population grid of the area of Plovdiv, 2011 Census

## Households

Number of households in the area of Plovdiv is relatively low compared to the country one. In 2012 there are 215 430 households representing 7.5% of the country ones. Compared to 2010, the number of households increased by 0.4%. Average for the period the one-member households in the area are 25.8% representing 4.5% of the country number; lone parents with children below 18 years are 2.4% representing 5.1% of the country number; households of single pensioners - 16.3% or 4.5%; households with children below 18 years - 29.2% or 5.0%. Bigger part (61.5%) of the households is living in the area centre - city of Plovdiv.

#### *Dwellings*

Number of dwellings in the area increased by 5.2% in 2012 and reaches 248 187 representing 5.2% of the country number. The last did not change considerably during the surveyed period. Average price of a dwelling is 18 400 BGN or about 32.4% lower than the country average in 2012. Average price of a detached house in the same year is 35 898 BGN or higher than the price of a dwelling. More than half - 60.7% of the area dwellings in 2012 are located in city of Plovdiv.

#### *Labour market*

Number of employed aged 20 - 64 years in the period 2010 - 2012 is 226 708 persons and decreased by 7.2%. Employment rate is 65.0% or higher by 2.5% than the country average. Share of employed in the area represents 7.9% of the total country number. Biggest part of the employed (67%) lives in the area centre, city of Plovdiv.

Average annual number of unemployed in the period is 15 049 and increased by 13.7%. Share of unemployed is highest in the area centre - about 79%. Unemployment rate is relatively low - 8.0% or 3.0% lower than the country average.

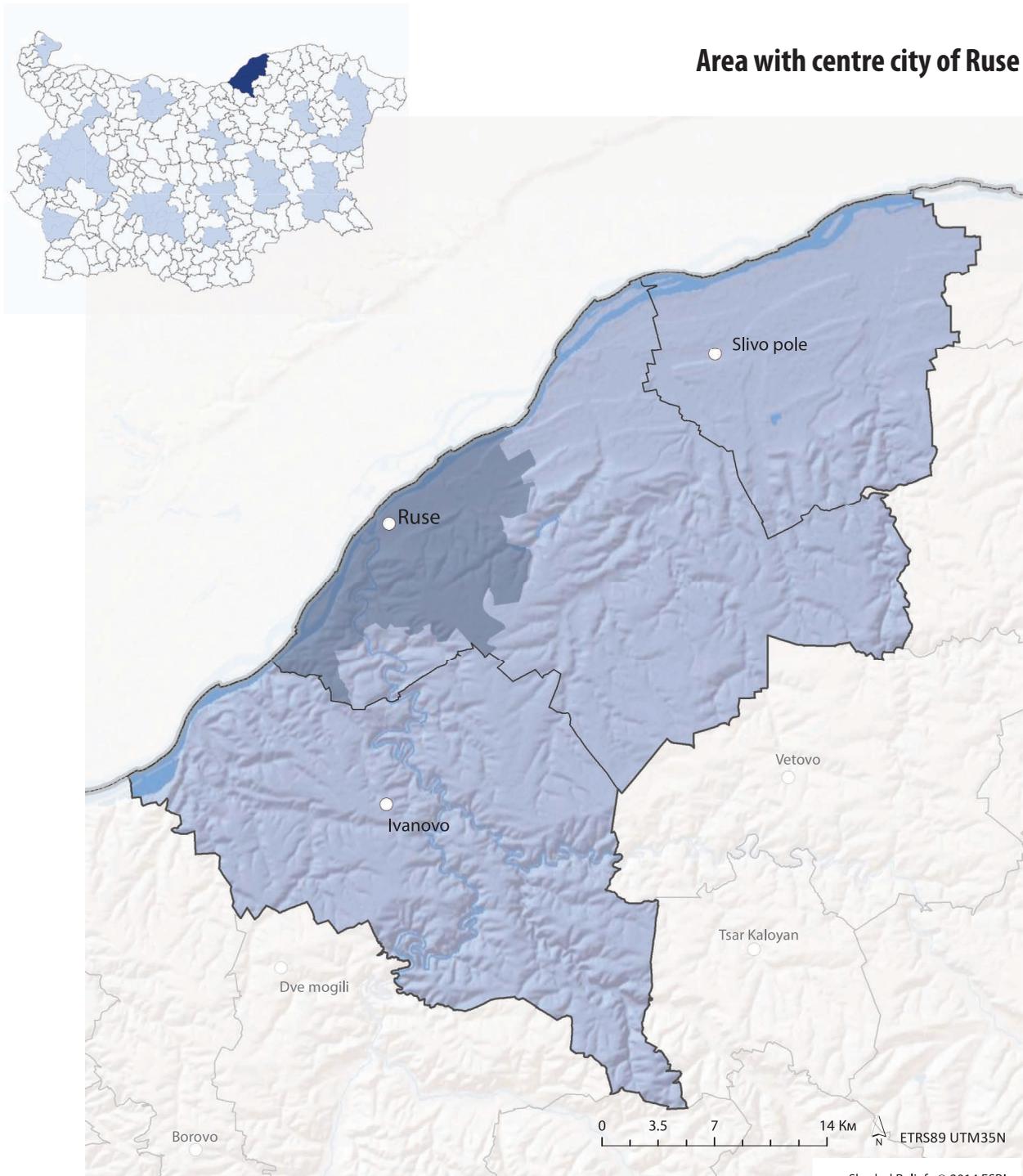
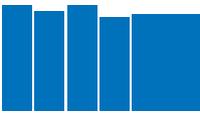
#### *Poverty*

Share of poor people, living at risk of poverty is relatively low - 16 - 17% for the period. Poverty level is 4 - 5% lower than the country average. At risk of poverty rate before social transfers (including pensions) is considerably higher - 46.0% or 3% lower than the country average. Material deprivation level in the area is 42% or 2% lower than the country average.

#### *Education*

Number of children aged 0 - 4 years during the observed period increased by 8.3% and is 11 370 in 2012.

In 2012 the number of students in the city is 13 466 and a decrease is observed compared to 2010 by 9.4%. Share of the early school leavers aged 18 - 24 years is 9.0% or 3 - 4% more than the country average.



	Municipality	Population	Area (sq. km)	Density
<b>RSE13</b>	Ivanovo	9731	490.7	20
<b>RSE27</b>	Ruse	170602	570.6	299
<b>RSE33</b>	Slivo pole	11106	276.8	40
	<b>Area</b>	<b>191439</b>	<b>1338.2</b>	<b>143</b>

- Shaded Relief: © 2014 ESRI
- Municipality center
  - Municipality borders
  - Core city

Figure III.11.1. Area of Ruse - municipalities, average annual population, territory and density (per 1 sq. km) in 2010 - 2012 period

## Population

Area consists of three municipalities with an average annual population of 191 440 persons or 2.6% of the country population and a territory of 1 338 sq. km. The area represents 1.2% of the country territory with a population density of 143 persons per 1 sq. km. The area centre is city of Ruse, with a population of 152 thousand or 79.6% of the area population.

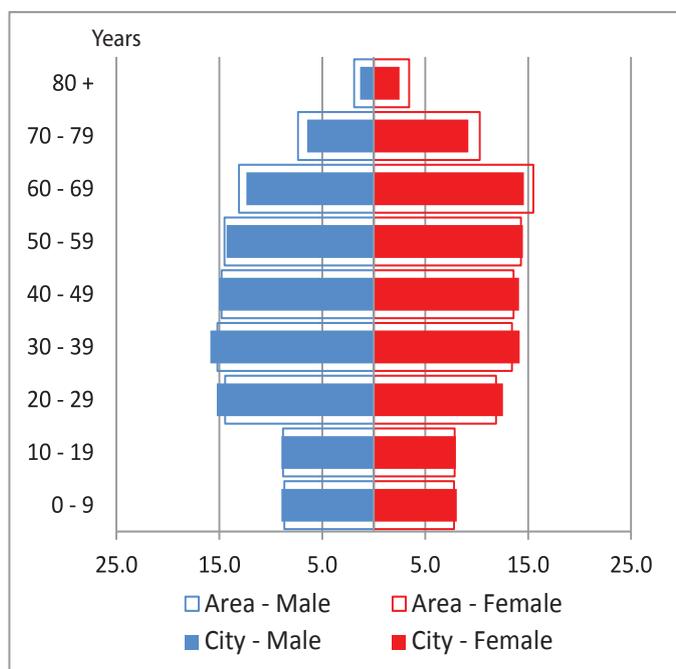


Figure III.11.2. Age pyramid of the city and area of Ruse

Male population is nearly 93 thousand or 48.4% of the total area population and female - 98 thousand or 51.6%. Similar distribution is observed in the area nuclei - male are 73 thousand or 48.3% and female - nearly 79 thousand or 51.7%. The sex ratio is similar to the country one.

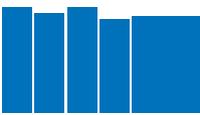
Area is situated in the North-east part of the country and has good conditions for agricultural production. The area centre, city of Ruse, is the biggest Bulgarian city situated at Danube River and is the biggest river port. Ruse has been in the past and is at present important economic, culture, education and logistic centre. The reduced investment process and the low labour market activity influenced negatively the area demographic situation. During the three-year period the average annual population decreased by over 3 thousand annually. The last is due to the high negative natural increase of population. The crude birth rate is 8.26‰ or

lower than the country average. Lower is the crude birth rate in areas of Vidin and Vratsa only. TFR - 1.26 children - is also lower than the country one. Mortality rate is 14.53‰. As a result the average annual natural increase is minus 6.27‰, one of the highest in the country. Higher negative values are registered in areas of Vidin and Pleven only.

Though the migration from and to the area is intensive, it do not influence considerably the population number. On average about 2 600 persons annually migrate from and to the area or 13 - 14% compared to the average annual population. As a result an insignificant negative migration growth is observed of 30 persons annually or 0.15‰ of the area population.

Ruse is one of the seven country cities with a population over 100 thousand, but its population decreases continuously. The decrease for the three-year observed period is from 156 to 149 thousand persons. The average annual population is 152 thousand. Crude birth rate is also quite low - 8.59‰, rather lower than the country average. Below the country average is and the TFR - 1.22 children. Mortality rate in the area centre is 12.79‰ and as a result the natural increase rate is negative - minus 4.20‰. Higher negative values among the observed cities are registered in Pernik and Vratsa only.

Average annual immigration and emigration to/from the city vary between 2 316 and 2 370 persons, representing 15‰ of the city population. Due to migration the city population decreases annually by 60 persons or 0.37‰.



Migration between the nuclei and its periphery is small in scope and intensity. Annually 400 persons migrate from the periphery to the city or 2.60‰. The opposite flow is a little over 440 persons or 2.89‰. As a result the city population decreased each year by 43 persons, representing 0.28‰ of the average annual city population.

69% of the area population is aged 15 - 64 years or nearly 133 thousand. Number of male and female is almost equal - 66 thousand and the respective shares are 72% and 67%.

City population aged 15 - 64 years is about 109 thousand or 71.0% of the total population number. Therefore, the population in working age outside the city is 24 thousand. 73.5% of male population in the city are aged 15 - 64 years and 69.3% - of female.

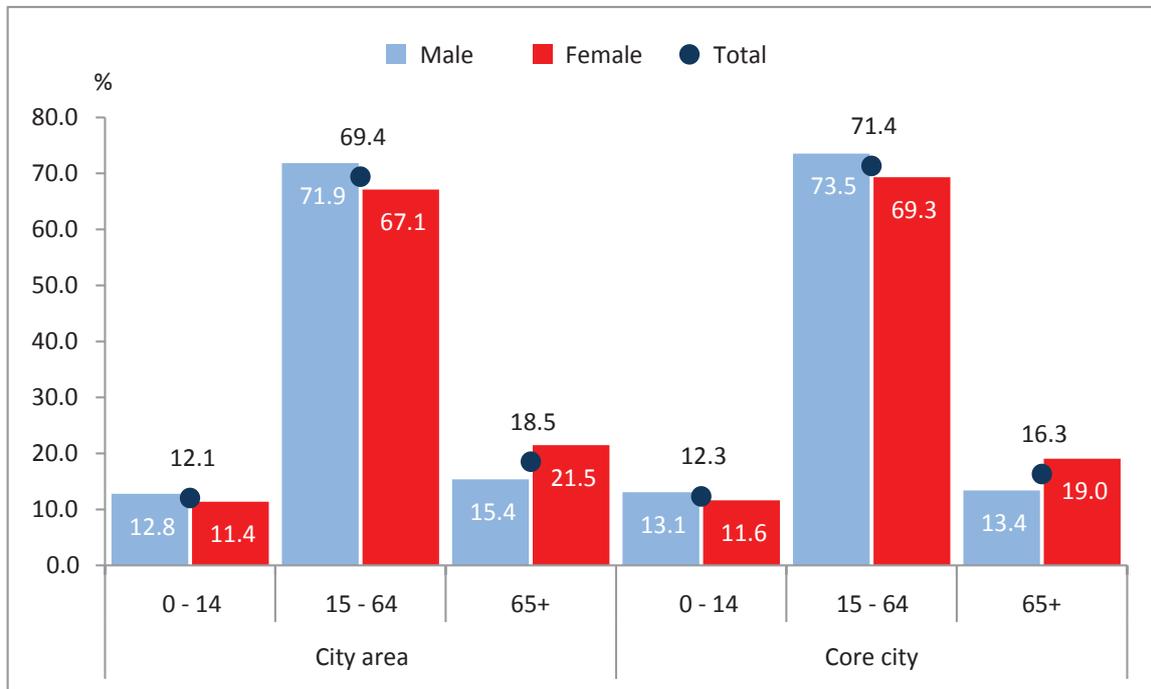


Figure III.11.3. Age structure of average annual population

Shares of male and female under working age (0 - 14 years) total in the area and in the city vary between 11% and 13%. Total number of the area population under working age is 23 thousand or 12.1%, and of the city one - 19 thousand or 12.8%.

More considerable differences are observed in the shares of elderly population. In the area their number is over 35 thousand or 18.5% of the total population, while in the city the number of elderly is 25 thousand and the share is 2% lower.

Shares of female both in the area and in the city are higher - 21.5% and 19%. The respective figures for male are 15.4% and 13.4%.

Mean age of area population is 43.0 years, which is higher than the country average. In the city the mean age is 40.1 years.

Total demographic burden of population in independent ages is 44%. Ratio between young population and people aged 15 - 64 years is 17.4% and between elderly people and persons 15 - 64 years - nearly 27%. The last differences define that 39% of the total demographic burden is due to young ages and 61% - to population aged 65 and over. Compared to the rest observed areas, the demographic burden with elderly population is higher in area of Vidin only.

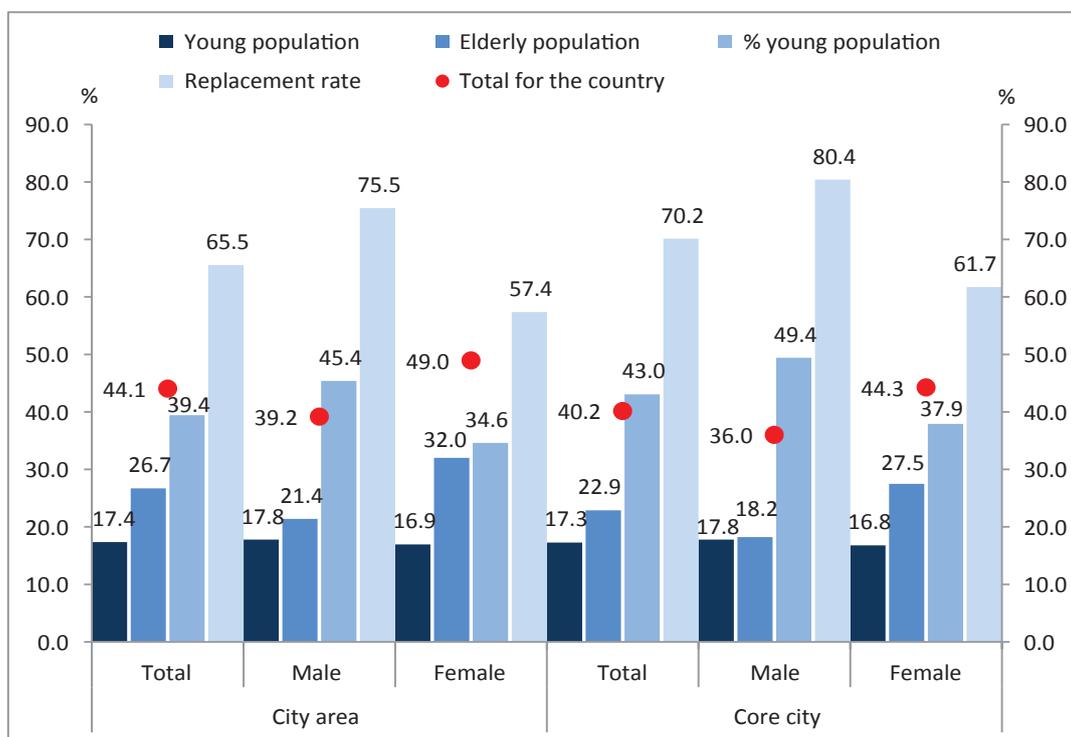


Figure III.11.4. Demographic burden, demographic replacement rates and share of younger ages in demographic burden

Ratio between the population in independent and in dependent ages in the area centre is considerably favourable - about 40%. The lower burden of population in independent ages is fully due to the lower burden with elderly population - 43% of the total demographic burden. Demographic burden with population aged 15 - 64 is 23% and with population aged up to 14 years - 17%.

Unfavourable demographic situation in the area and its centre is proved by the development of labour resources also. The demographic replacement rate in the area is considerably lower than the country average. In the area 100 persons exiting working age are replaced by 65 persons aged 19 - 24 years. In the city the rate is better - 100 exiting are replaced by 70 entering working age. The last indicators are worse than the country average - 71%.

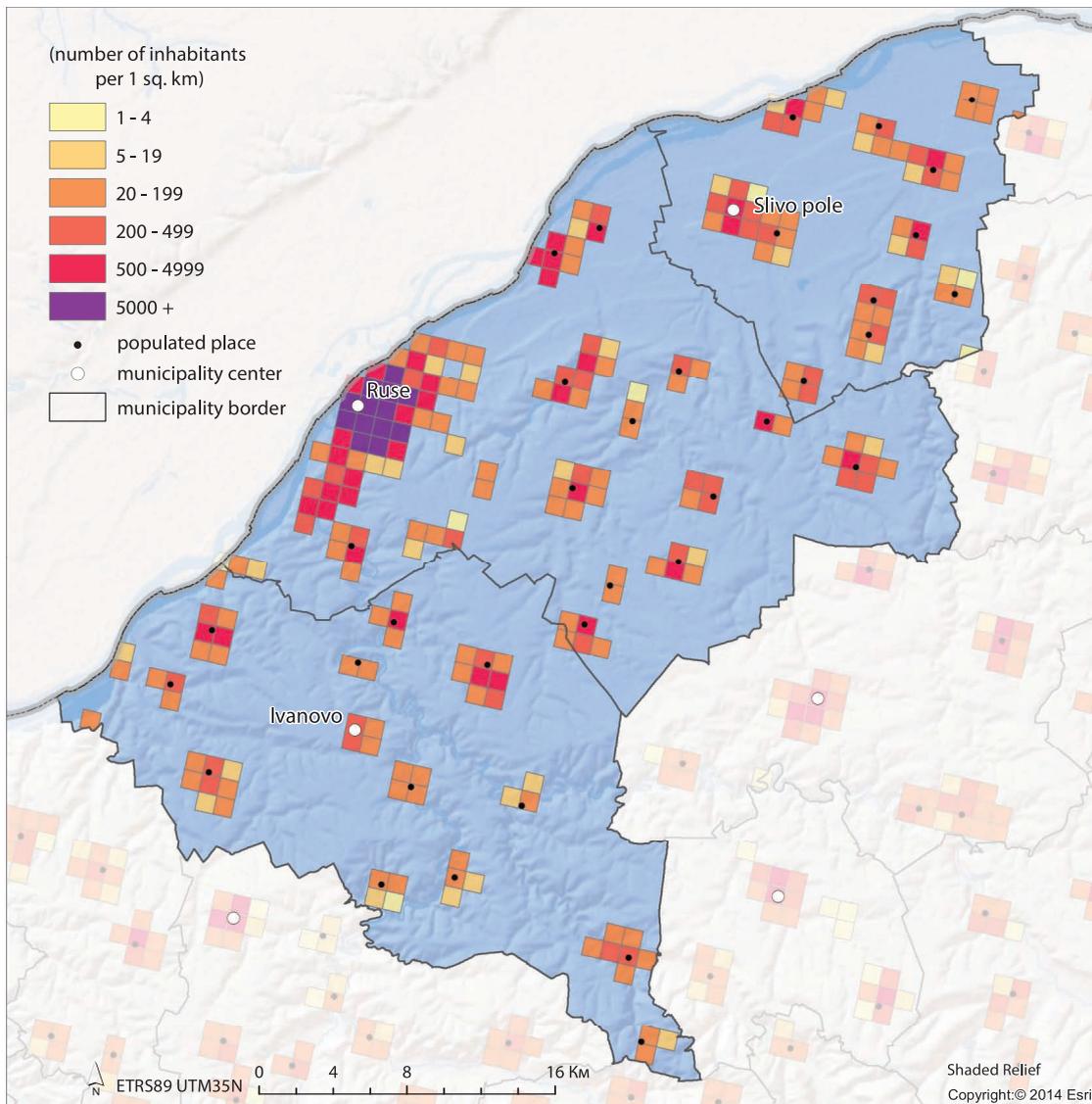


Figure III.11.5. Population grid of the area of Ruse, 2011 Census

## Households

Number of households in the area of Ruse is relatively low compared to the country one. In 2012 there are 74 935 households representing 2.6% of the country ones. Compared to 2010, the number of households decreased by 2.6%. Average for the period the one-member households in the area are 27.0% representing 1.8% of the country number; lone parents with children below 18 years are 2.6% representing 2.0% of the country number; households of single pensioners - 16.8% or 1.7%; households with children below 18 years - 28.0% or 1.7%. Bigger part (80.6%) of the households is living in the area centre - city of Ruse.

#### *Dwellings*

Number of dwellings in the area reached 98 839 in 2012 representing 2.5% of the country number. The last did not change considerably during the surveyed period. Average price of a dwelling is 23 579 BGN or about ½ of the average country market price of a dwelling in 2012. Average price of a detached house in the same year is 28 075 BGN or lower than the country average. More than half - 74.7% of the area dwellings in 2012 are located in city of Ruse.

#### *Labour market*

Number of employed aged 20 - 64 years in the period 2010 - 2012 is 78 857 persons and decreased by 9.8%. Employment rate is 65.5% or 3.0% higher than the country average. Share of employed in the area represents 2.7% of the total country number. Biggest part of the employed (about 84%) live in the area centre, city of Ruse.

Average annual number of unemployed in the period is 7 975 and increased by 11.7%. Share of unemployed is highest in the area centre - over 72.3%. Unemployment rate is relatively low - 8.5% or 2.6% lower than the country average.

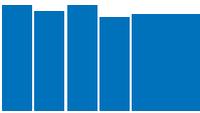
#### *Poverty*

Share of poor people, living at risk of poverty is 14% for the period. Poverty level is 7% lower than the country average. At risk of poverty rate before social transfers (including pensions) is considerably higher - about 44% or 5% lower than the country average. Material deprivation level in the area is 40% or 4% lower than the country average.

#### *Education*

Number of children aged 0 - 4 years during the observed period increased by 6.3% and is 3 641 in 2012.

In 2012 the number of students in the city is 10 459 and increased 15.5% compared to 2010. Share of the early school leavers aged 18 - 24 years is nearly 7% or 6% less than the country average.



Area with centre city of Sliven

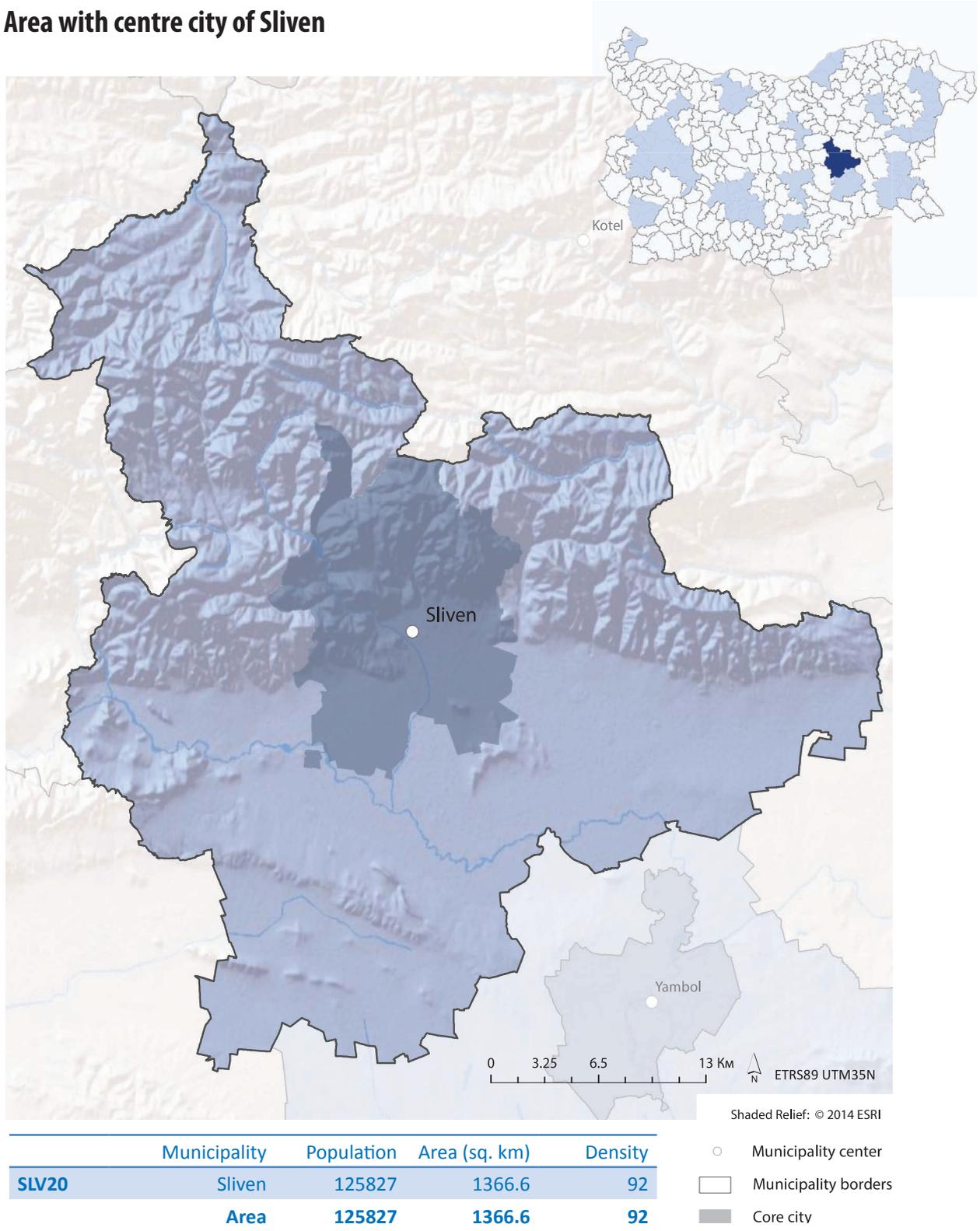


Figure III.12.1. Area of Sliven - municipalities, average annual population, territory and density (per 1 sq. km) in 2010 - 2012 period

## Population

Just one municipality is included in the area with an administrative centre city of Sliven and 42 small settlements around it. The area territory is 1 367 sq. km representing 1.23% of the country territory. Average annual population for the observed period is nearly 126 thousand, of which 61 thousand are male and 65 - female. The respective shares of male and female are 48% and 52%. Area population represents 1.6% of the country one. Population density is 92 persons per 1 sq. km. In the city centre live 92 thousand persons or 73% of the area population. Ratio between male and female in the city is almost the same as in the area - 47.8% are male and 52.3% - female.

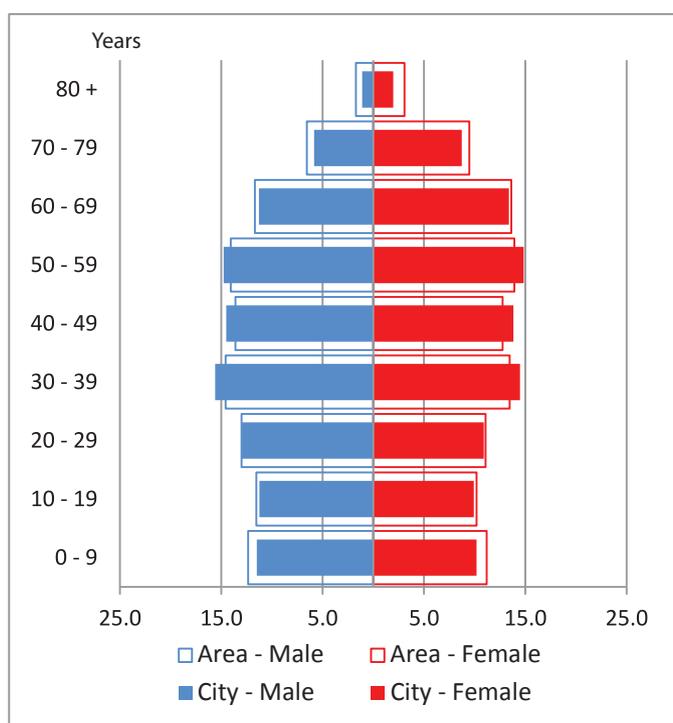


Figure III.12.2. Age pyramid of the city and area of Sliven

is 12.07‰. Fertility and mortality levels lead to negative natural increase of minus 1.08‰.

During the observed period annually to the city immigrate 1 000 persons or 10.85‰ and emigrate over 1 700 or 19.09‰ of the city population. Due to migration the city population decreases annually by 750 persons or by minus 8.24‰.

Migration between the city and its surroundings is weak - 180 - 240 persons. Due to migration the city population decreases by 50 persons annually or by minus 0.6‰ and the surrounding areas increase respectively.

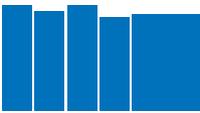
Area population in working age is nearly 84 thousand or 66.7% of the area population. The last is a little below the country average (68%). Numbers and shares of male and female in the same age group are almost equal - 41 821 and 42 142 respectively or 49.8% and 50.26%. Male population in working age represents 68.6% of the total number of male and female - 65%.

In the area centre, city of Sliven the population in working age is 63 878 persons or 69.5% of the total population. Male population in working age represents 71% of the total number of male and female - 68.8%.

Average annual crude birth rate for the period is 11.93‰, considerably higher than the country average - 9.68‰. TFR is quite higher than the country one - 1.95 children. The higher crude birth rate and TFR in the area are to a great extent due to relatively higher number of Roma population living there. The higher crude birth rate leads to better age structure and lower mortality of population - 12.69‰, compared to - 14.72‰ total for the country. Regardless the higher fertility the area natural increase is negative - minus 1.71‰.

About 1 000 persons immigrate to the area annually and over 1 800 emigrate. The intensity of the two flow is 8.18‰ and 14.3‰ respectively. As a result the area population decreases annually by 770 persons and the migration growth is minus 6.14‰.

Crude birth rate in the city is lower - 11‰ and TFR is 1.73 children, one of the highest in the country. Mortality rate in the city



Share of population aged up to 14 years in the area is higher (17.2%) than the country average (13.6%). The respective figures for male and female are 18.1% and 16.3%.

Youngest population in the city is 16.2%, male - 17.3% and female - 15.2%.

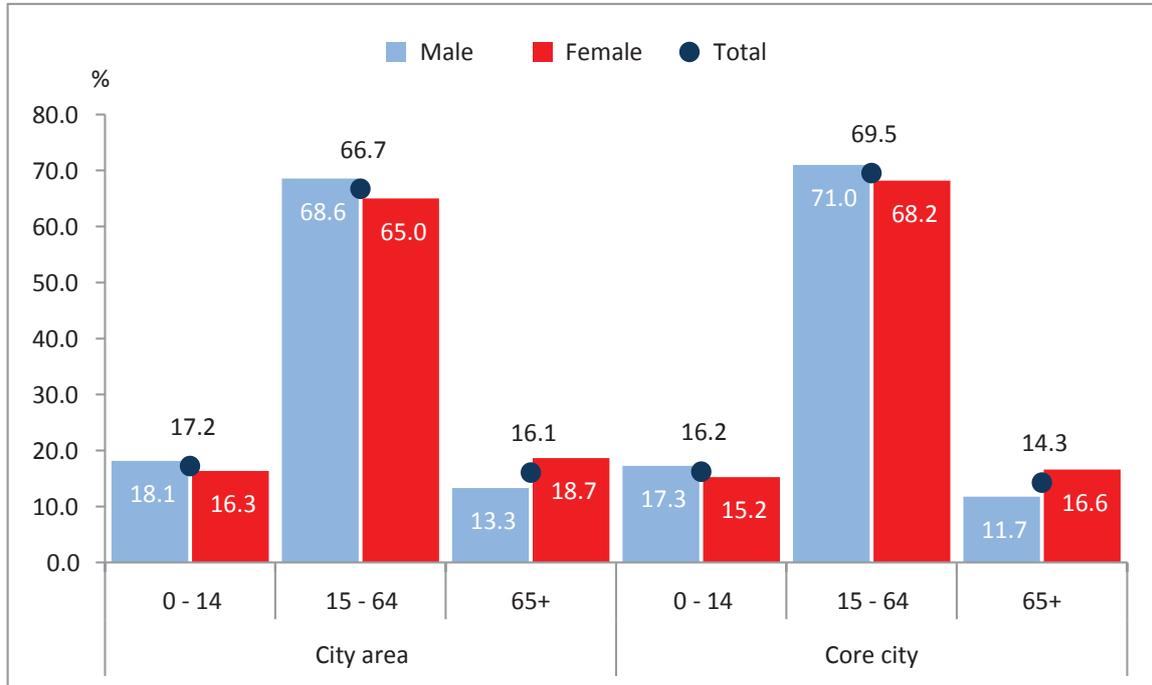


Figure III.12.3. Age structure of average annual population

Population aged 65 and over in the area is 16% and in the city 14.3%. The last shares are lower than the country average - 18.3%. Out of the total number of male living in the area 13.3% are aged 65 and over, compared to 11.7% - in the city. The respective shares for female are 18.7% and 16.6%.

Compared to the country, the age structure of the area and its centre is more favourable. The last is proved by the mean age of area population - 40.3 years and of the city one - 40.6 years compared to 42.4 years - total for the country.

Relatively higher shares of young population in the area and in the city influence the demographic burden indicators by age groups and ratio between them. Demographic burden rate of population in working age in the area is 49.9%. The respective figures for male and female are 45.9% and 53.8%. The last values are higher than the country average, but also a peculiarity exists. There is a difference not only between the values of demographic burden with young and elderly population, but also in the relative burden with young population. Ratio between young ages and the population aged 15 - 64 years is 25.8% and in respect elderly population - 24.1%. Therefore 51.7% of the total burden of population in independent ages is due to the young population, compared to 48.3% - to the elderly one. It has to be underlined that the area of Sliven is the only one where the demographic burden with young population and its relative weight in the total demographic burden is higher than with elderly one.

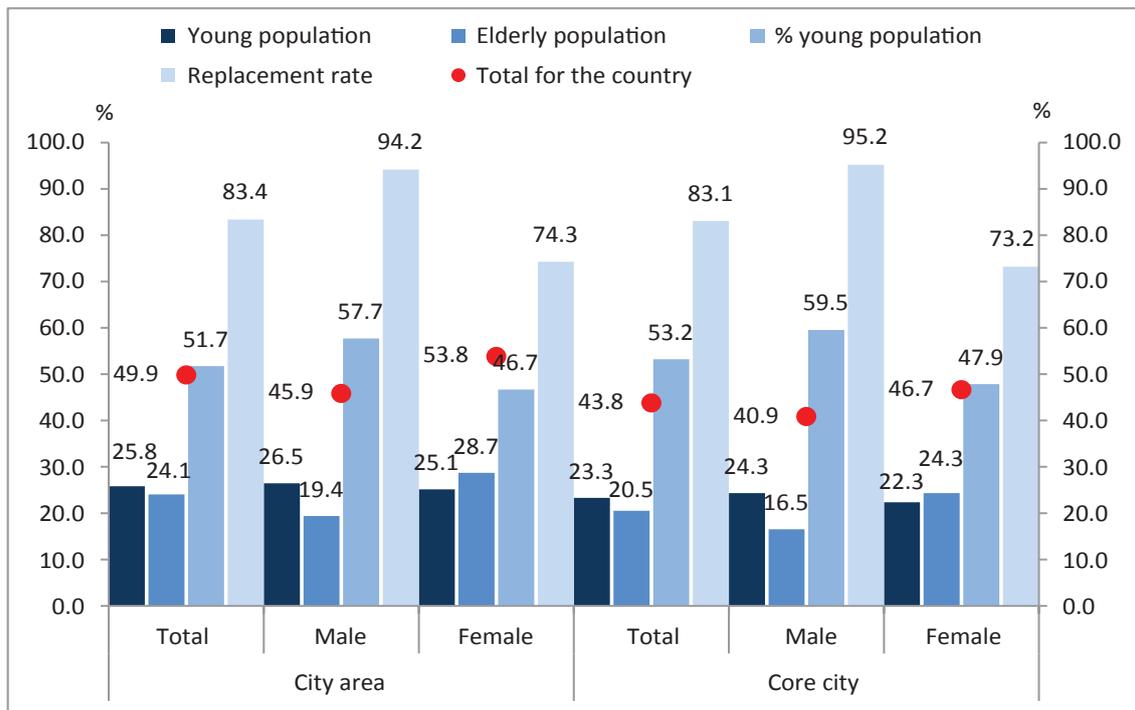


Figure III.12.4. Demographic burden, demographic replacement rates and share of younger ages in demographic burden

In the area centre the ratio between population in dependent and independent ages is 43.8%. Here the demographic burden with young population is even higher on expense of burden with elderly population. The respective values are 23.3% and 20.5%. At such ratios, 53.2% of the total demographic burden is due to young ages and 46.8% - to elderly population.

Reproduction of population in working age both in the area and in the city is better than in the country as a whole, but nevertheless the labour resources decrease. During the observed period each 100 persons exiting working age are replaced by 83 entering it or the replacement level is better than the country average - 71%.

Both in the area and in the city the demographic replacement rate for male and female are different. The last is 95% for male in the area and in the city, compared to 74% for female.

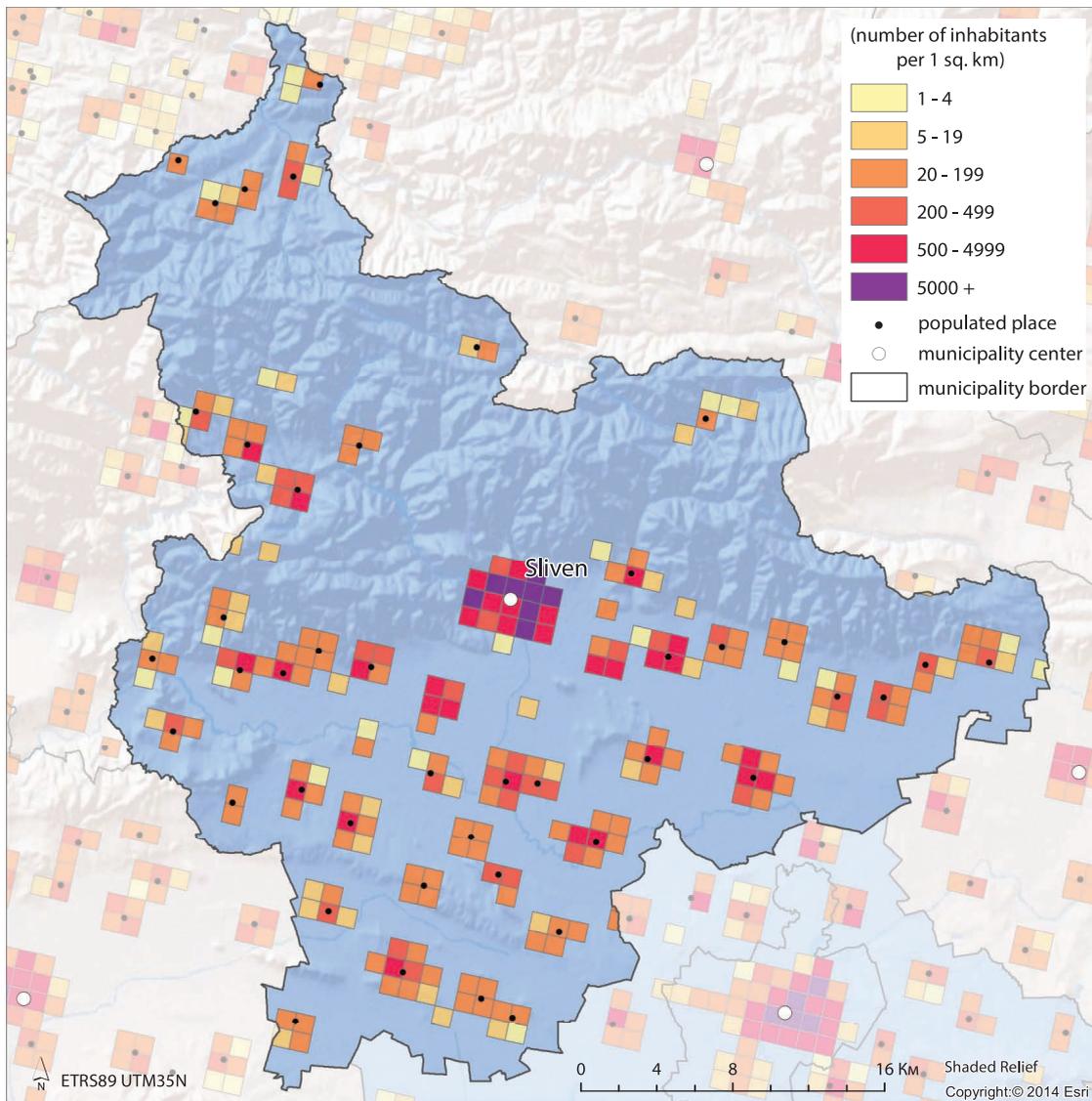
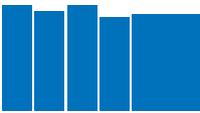


Figure III.12.5. Population grid of the area of Sliven, 2011 Census

### Households

Number of households in the area of Sliven is relatively low compared to the country one. In 2012 there are 47 056 households representing 1.6% of the country ones. Compared to 2010, the number of households increased by 3.3%. Average for the period the one-member households in the area are 23.7% representing 1.0% of the country number; lone parents with children below 18 years are 2.7% representing 1.2% of the country number; households of single pensioners - 15.9% or 0.9%; households with children below 18 years - 31.4% or 1.2%. Bigger part (73.5%) of the households is living in the area centre - city of Sliven.

#### *Dwellings*

Number of dwellings in the area reached 59 387 in 2012 representing 1.5% of the country number. The last did not change considerably during the surveyed period. Average price of a dwelling is 26 800 BGN or close to the country average. Average price of a detached house in the same year is 51 200 BGN or twice higher than the price of a dwelling. More than half - 73.4% of the area dwellings in 2012 are located in city of Sliven.

#### *Labour market*

Number of employed aged 20 - 64 years in the period 2010 - 2012 is 47 747 persons and decreased by 6.4%. Employment rate is 60.6% or 1.9% lower than the country average. Share of employed in the area represents 1.7% of the total country number. Biggest part of the employed (about 78%) live in the area centre, city of Sliven.

Average annual number of unemployed in the period is 6 422 and increased by 3.4%. Share of unemployed is highest in the area centre - nearly 75.5%. Unemployment rate is 11.8% or close to the country average.

#### *Poverty*

Share of poor people, living at risk of poverty is 20% for the period. Poverty level is 0.8% lower than the country average. At risk of poverty rate before social transfers (including pensions) is considerably higher - about 47% or 2% lower than the country average. Material deprivation level in the area is 42% or 2% lower than the country average.

#### *Education*

Number of children aged 0 - 4 years during the observed period did not changed considerably and is 2 218 in 2012.

In 2012 the number of students in the city is 795 and increased by 14.2% compared to 2010. Share of the early school leavers aged 18 - 24 years is 13.9% or close to the country average.

## Area with centre city of Sofia

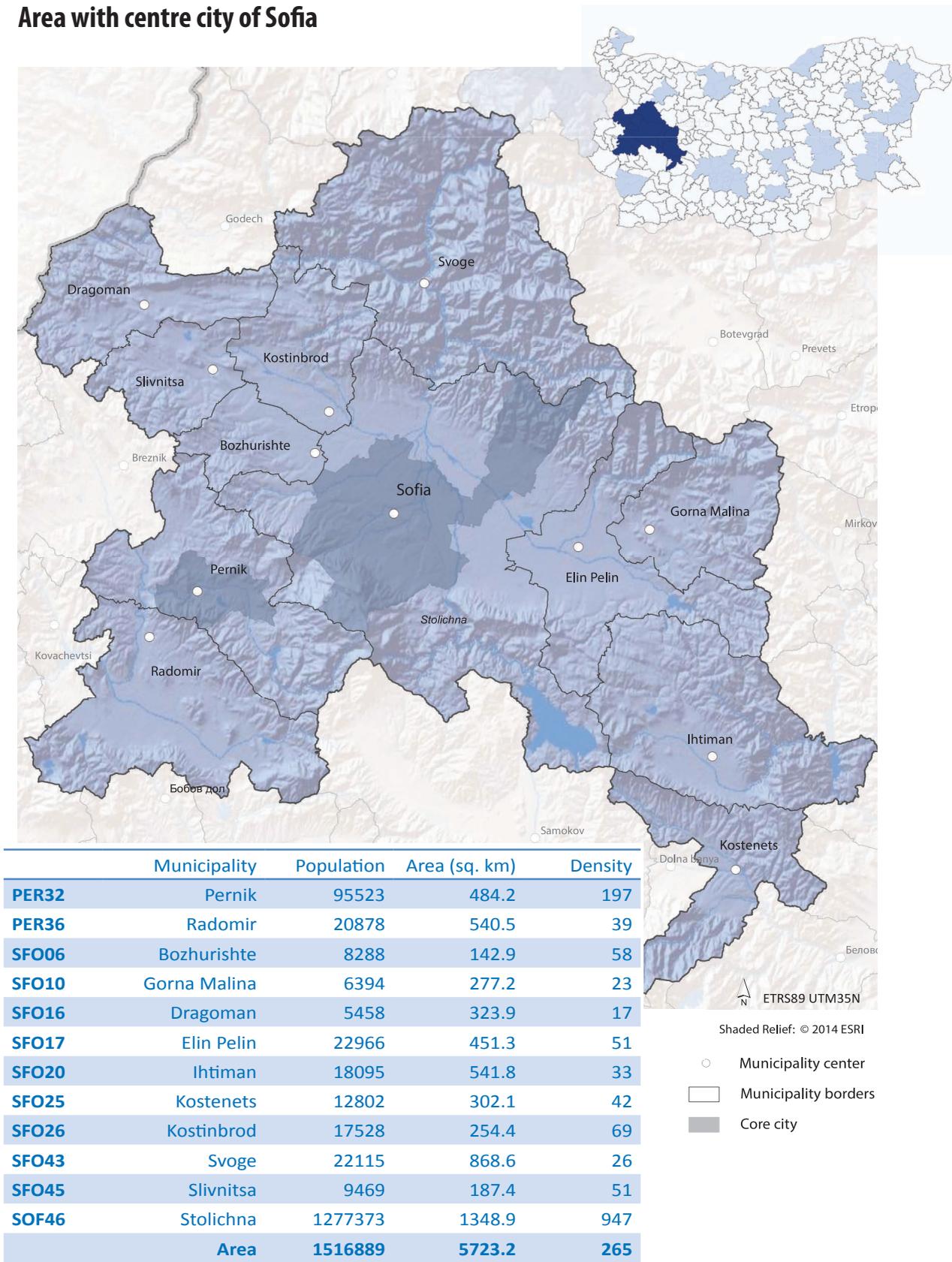


Figure III.13.1. Area of Sofia - municipalities, average annual population, territory and density (per 1 sq. km) in 2010 - 2012 period

## Population

The capital of Bulgaria, city of Sofia, is the main administrative, industrial, financial, cultural, educational and transport centre of the country. The last is the biggest area with a territory of 5 723 sq. km, representing 5.16% of the country territory with an average annual population of 1 517 thousand or 20.5% of the country one. Out of the total area population 725 thousand are male and 792 thousand - female. Shares of male and female are 47.8% and 52.2% respectively. Area population represents 35.3% of the average annual country population and the population density is 265 persons per 1 sq. km.

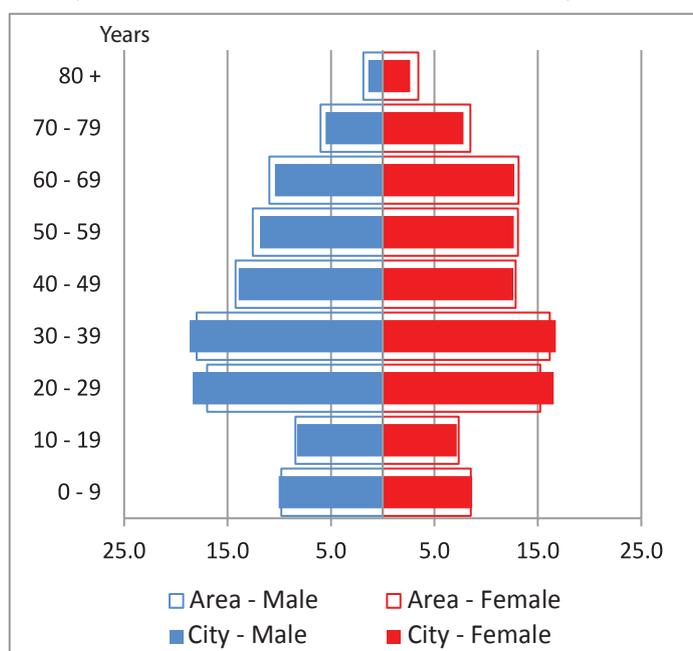


Figure III.13.2. Age pyramid of the city and area of Sofia

The area comprises of city of Sofia and settlements belonging to 11 administratively defined municipalities, including city of Pernik, which is a centre of administrative district. City of Pernik is part of the area because according to the criteria applied it does not create its own functional area. Based on the 2011 census data 23% of the working age population of Pernik commutes daily to the capital. Due to the last city of Pernik can be attributed to the category 'related cities'.

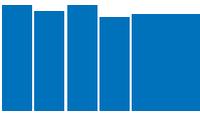
Average annual population of the area increases from 1 496 thousand in 2010 to 1 537 thousand in 2012 or for the three-year period an increase of 41 thousand is registered. The last is mainly due to the weaker negative natural increase and the positive migration growth of city of Sofia.

Average crude birth rate in the area is about 10.50‰, higher than the country average, but TFR - 1.31 children - is lower than the country one. Lower than the country average is and the mortality rate - 12.69‰. Average annual natural increase for the three-year period is minus 2.19‰.

The area is the only one with a considerable migration growth - 4.96‰. Due to migration to and out of the area the average annual population increases by 7 500 persons. Number of immigrants is over 24 thousand per year and of emigrants - 16 500. Compared to the population number, the intensity of immigration is 15.9‰ and of emigration - 10.9‰.

In the area centre (Sofia) the average annual population increases from 1 170 thousand in 2010 to 1 210 thousand in 2012. Therefore the increase of population in the area as a whole (41 thousand) is fully due to the increase of population of Sofia. The average annual population for the period under observation is 1 191 thousand or 78.5% of the area population. Male represent nearly 566 thousand or 47.5% and female - 625 thousand or 52.5%.

Demographic development of Sofia is better than of the area as a whole. Average crude birth rate in Sofia is 11.25‰ or higher than the area and country ones, but TFR is low - 1.31 children and the same as in the area. Mortality rate is 11.70‰. As a result the natural increase of city of Sofia is negative - minus 0.46‰.



Therefore the increase of population number in Sofia is fully due to migration. Annually nearly 21 thousand persons immigrate to Sofia, representing 17.6‰ and about 14 thousand or 11.66‰ emigrate. Due to these flows the migration growth of Sofia is positive - nearly 7 100 persons, representing 6‰.

Average annual population of the related to the area city of Pernik is smaller in number - 78 thousand, of which 38 thousand or 48.3% are male and 41 thousand or 51.7% - female. Demographic indicators of Pernik are quite negative- crude birth rate is 8.75‰, level lower than the country average and TFR is 1.38 children. The low fertility is accompanied by high mortality - 14.37‰. Thus the natural increase of Pernik is negative - minus 5.62‰, the last being highest among the cities included in observation.

In parallel to the negative natural increase, negative migration growth is also observed in Pernik. Due to migration the city population decreases annually by 530 persons or 6.83‰.

There is a migration between the area centre, city of Sofia and its periphery, but due to large population number in the area their intensity is too low. Even if small, there are some peculiarities of migration flows. Sofia increases its population annually by 300 persons due to immigration of people living in the municipalities located far away in the area, including in Pernik. At the same time, emigration from Sofia to settlements located in municipality Sofia-capital and to neighboring municipalities decreases the city population by 1 000 persons annually. Thus, positive migration growth of the periphery is created and negative - for the city. So the conclusion can be done that the increase of area population as a whole is fully due to the positive migration growth, created by population living outside the area boundaries. However, within the area migration draw out population from the city to the periphery.

Mean age of area population is 41.3 years, lower than the country average. Population in working age numbers 1 074 thousand during the surveyed period or 70.8% of the total number. The last share is higher than the country average (68%). Number and share of male and female in working age are close, but the number of female is by 20 thousand higher. Male in independent ages are 527 thousand (49.1%) and female - 547 thousand or 50.9%. Due to difference in age structure of male and female, the share of male aged 15 - 64 years is 72.7%, compared to 69.1% - of female.

Total number of people up to 14 years is nearly 196 thousand or 13% of the total area population. Male aged up to 14 years are 14% or more than female - 12%.

Female prevail among elderly population - 150 thousand or 60.6%, compared to 97 thousand or 39.4% - male. The last ratios are due to the higher number of female within the total area population. There are weak structural differences - 13.4% of male are aged 65 and over, compared to 12% - female.

Mean age of population of Sofia is 40.6 years. Share of population aged 15 - 64 years is a little higher than the area average - 71.7% in Sofia, 73.5% for male and 70.2% - for female. Number of population aged 15 - 64 years is 854 thousand, of which 416 thousand - male and 438 thousand - female. The respective shares are 48.7% and 51.3%.

In the city live 155 thousand people aged up to 14 years as the number of male is higher - nearly 80 thousand, compared to 75 thousand female. Share of population aged up to 14 is the same as in the area - 13% or lower than the country average - 13.6%.

Share of elderly population in the city (15.3%) is lower both that the area and the country one (18.3%). Share of female aged 65 and over is higher - 17.8%, while of male is a little over 12%.

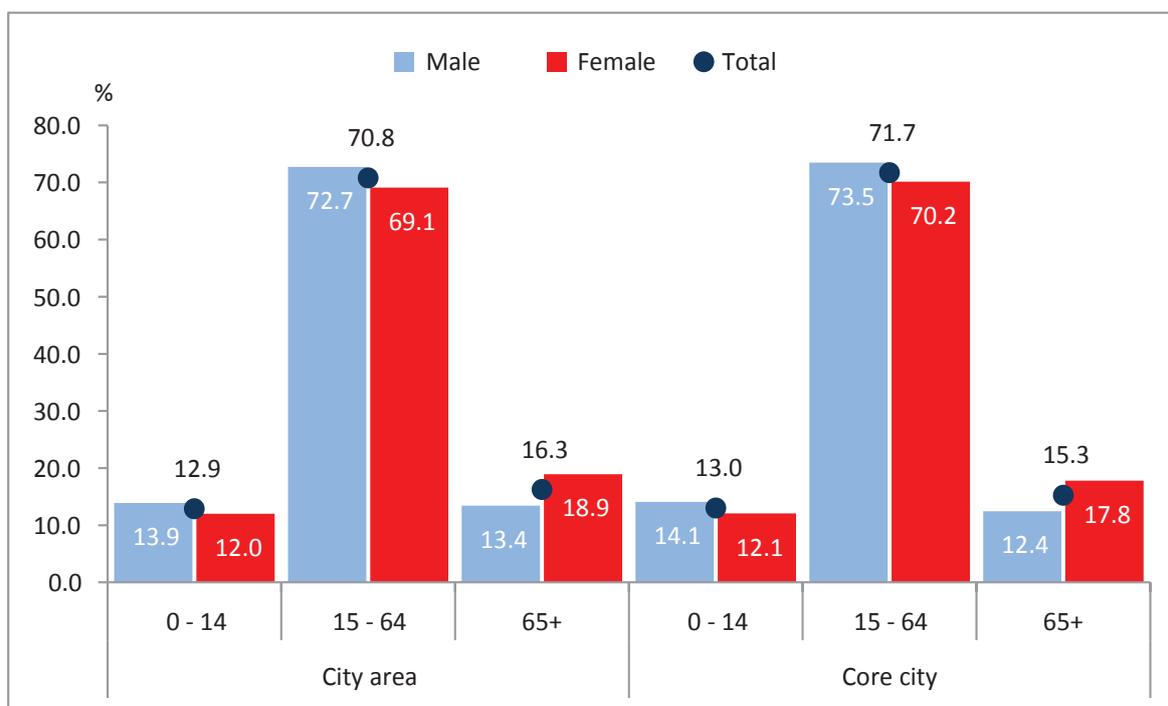


Figure III.13.3. Age structure of average annual population

In city of Pernik the population in working age is 55 thousand or 70.4%. Population up to 14 years represents 12.6%, and over 65 years - 17% of the total population. Mean age of the city population is 42.9 years which is considerably higher than the area and its centre ones.

Demographic burden of population in independent ages is 41.2%, lower than the country average - 46.8%. The respective figures for male are 37.5% and for female - 44.7%. Demographic burden with young population is 18%, compared to 23% - with elderly. Respectively, the part of the demographic burden due to young population is low - 44.2%, but higher than the country average - 42.6%. Nearly 56% of the total demographic burden is due to the elderly population.

For the area centre the ratio between population in dependent and independent ages is 39.4%. The respective values for male and female are 36% and 42.5%. The demographic burden with young population is 18.2%. Lower demographic burden is due to lower burden of elderly population, which is 21.3% in the city. The demographic burden with young population increases to 46% thus decreasing the demographic burden of elderly one.

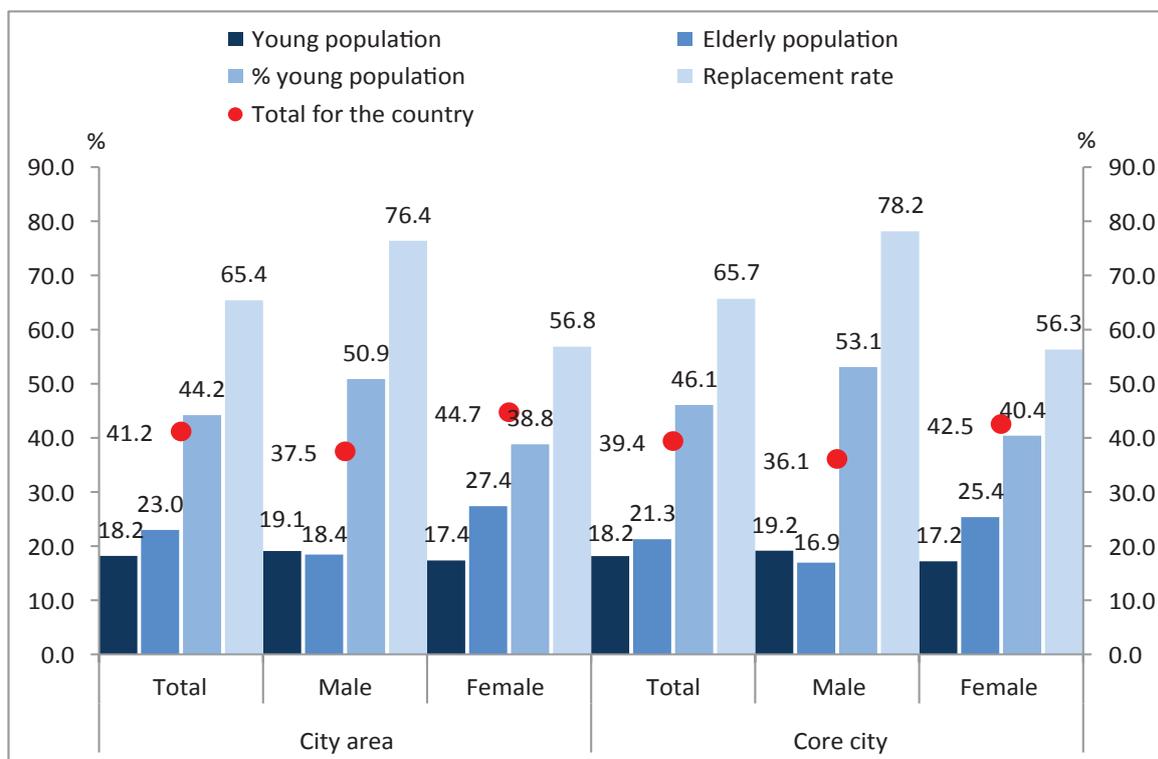


Figure III.13.4. Demographic burden, demographic replacement rates and share of younger ages in demographic burden

The reproduction of labour resources in the area is limited. Compared to the country average (71 entering corresponding to 100 exiting working age) the demographic replacement rate in the area is considerably lower - 100 persons exiting working age are replaced by 65 persons entering it. The value in the city is almost the same. Regardless the low replacement rate the labour market is ensured with work force through migration, and the city also through everyday travelers to work from the area periphery and settlements outside the area boundaries.

Demographic replacement rate in the area and in the city for male and female differs. It is higher for male - over 76% both in the area and city, compared to about 56% - for female. The difference is due to the age-sex structure of population in the area and in the city.

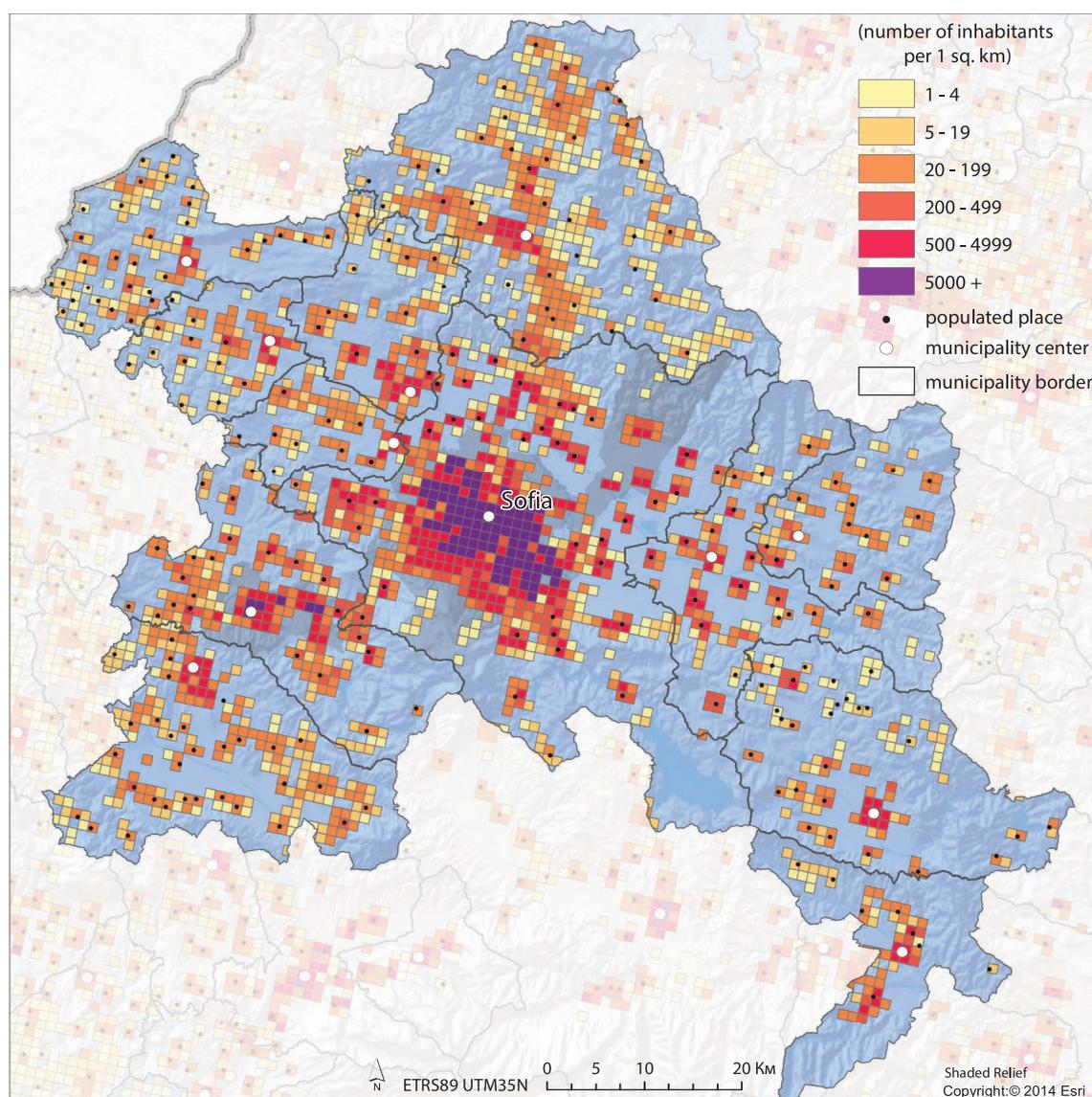
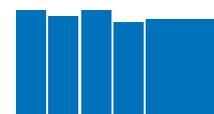


Figure III.13.5. Population grid of the area of Sofia, 2011 Census

## Households

Number of households in the area of Sofia is relatively high compared to the country one. In 2012 there are 616 023 households representing 21.5% of the country ones. Compared to 2010, the number of households increased by 5.9%. Average for the period the one-member households in the area are 28.4% representing 15.3% of the country number; lone parents with children below 18 years are 2.7% representing 16.7% of the country number; households of single pensioners - 15.6% or 12.4%; households with children below 18 years - 27.8% or 13.9%. Bigger part (79.7%) of the households is living in the area centre - city of Sofia.



### *Dwellings*

Number of dwellings in the area increased by 9.7% during the observed period and reached 779 391 in 2012 representing 19.9% of the country number. The last did not change considerably during the surveyed period. Average price of a dwelling is 25 778 BGN or 5.3% lower than the country average. Average price of a detached house in the same year is 62 620 BGN or twice higher than the price of a dwelling. More than half - 71.9% of the area dwellings in 2012 are located in city of Sofia.

### *Labour market*

Number of employed aged 20 - 64 years in the period 2010 - 2012 is 679 671 persons and decreased by 1.5%. Employment rate is 68.5% or 6.0% higher than the country average. Share of employed in the area represents 23.6% of the total country number. Biggest part of the employed (about 81.0%) live in the area centre, city of Sofia.

Average annual number of unemployed increased during the period by 21.4% and reached 52 036 in 2012. Share of unemployed is highest in the area centre - over 89.7%. Unemployment rate is 7.7% or 3.4% lower than the country average.

### *Poverty*

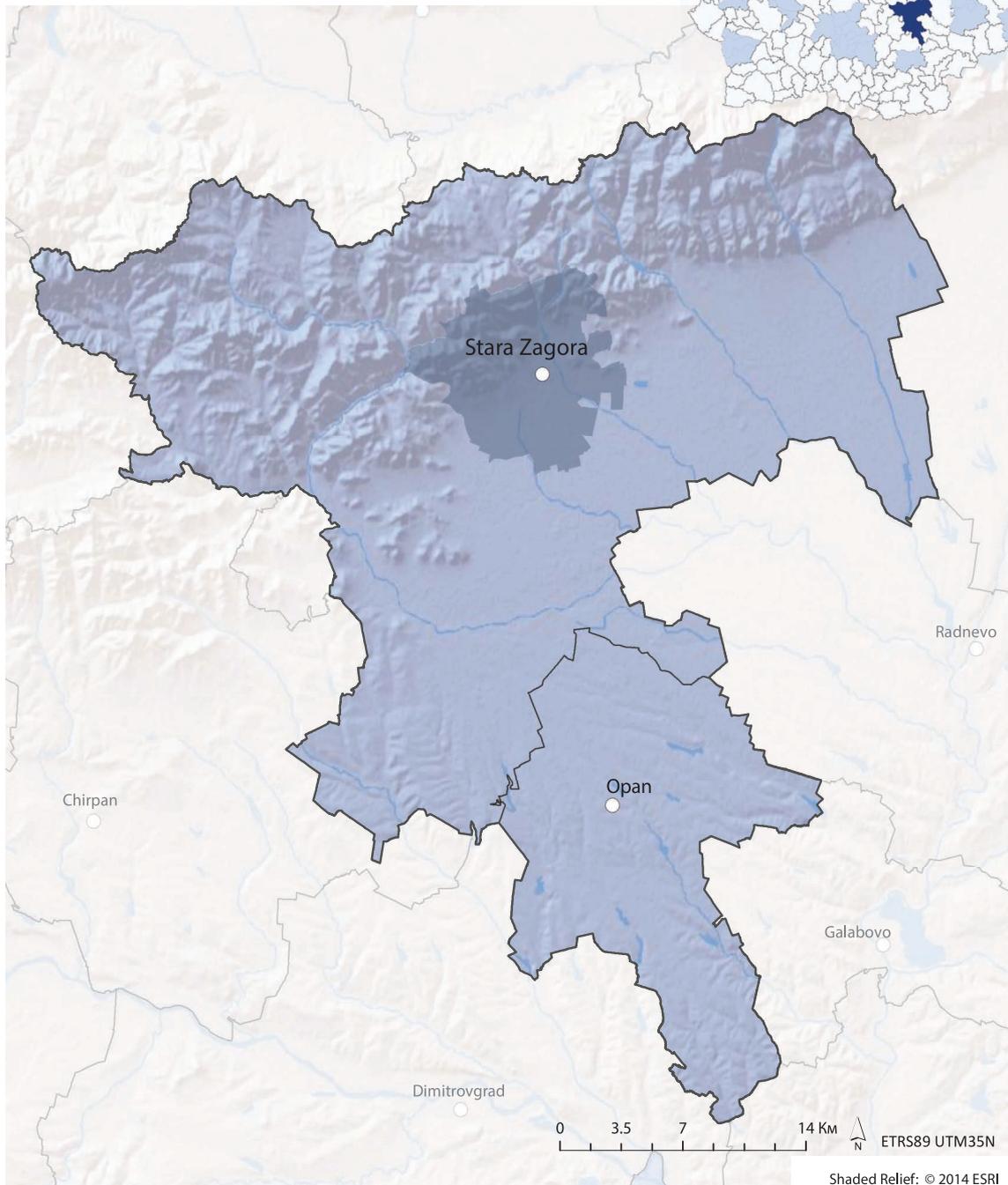
Share of poor people, living at risk of poverty is 13% for the period. Poverty level is 8.0% lower than the country average. At risk of poverty rate before social transfers (including pensions) is considerably higher - about 43% or 6% lower than the country average. Material deprivation level in the area is 39% or 5% lower than the country average.

### *Education*

Number of children aged 0 - 4 years during the observed period increased by 10.0% and is 32 637 in 2012.

In 2012 the number of students in the city is 114 793 and increased compared to 2010 by 2.5%. Share of the early school leavers aged 18 - 24 years is 6.7% or 6.3% lower than the country average.

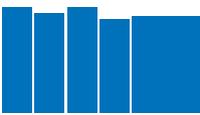
Area with centre city of Stara Zagora



	Municipality	Population	Area (sq. km)	Density
<b>SZR23</b>	Opan	3178	257.5	12
<b>SZR31</b>	Stara Zagora	161544	1063.4	152
	<b>Area</b>	<b>164722</b>	<b>1320.9</b>	<b>125</b>

- Municipality center
- Municipality borders
- Core city

Figure III.14.1. Area of Stara Zagora - municipalities, average annual population, territory and density (per 1 sq. km) in 2010 - 2012 period



## Population

The area consists of two municipalities - Stara Zagora and Opan, the last with population under 3 thousand. The area territory is 1 321 sq. km representing 1.19% of the country territory. The average annual area population for the three surveyed years is nearly 165 thousand persons - 80 thousand male and 85 thousand female. The respective shares of male and female are 48.5% and 51.5%. In the area lives 2.2% of the country population and the population density is 125 persons per 1 sq. km. In city of Stara Zagora live 139 thousand persons or nearly 85% of the area population. The sex ratio in the city is the same as in the area.

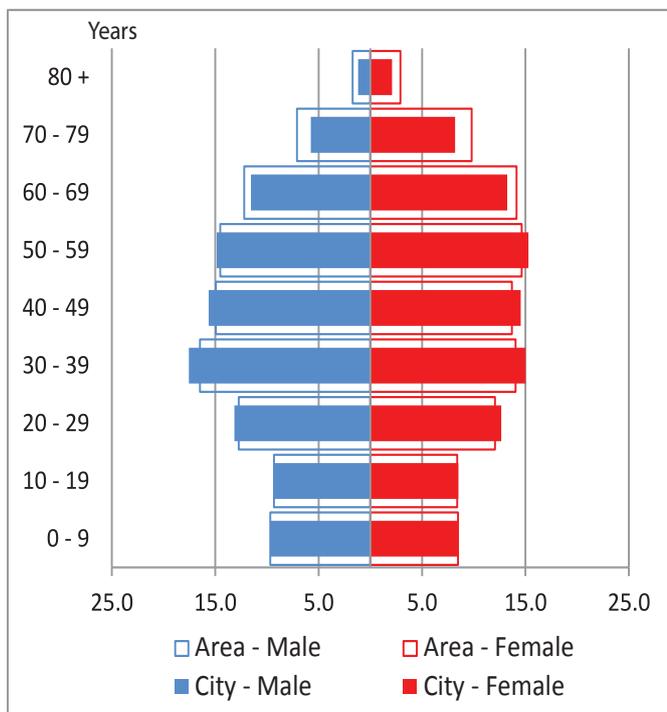


Figure III.14.2. Age pyramid of the city and area of Stara Zagora

Data show that migration influences the city population stronger. Annually 2 315 persons immigrate to the city and 2 600 - emigrate. Due to the last the migration growth of the city is negative - 270 persons or 2‰. It should be mentioned that 87% of the negative growth is due to migration within the area. The city population annually decreases by 235 persons who emigrate to the periphery.

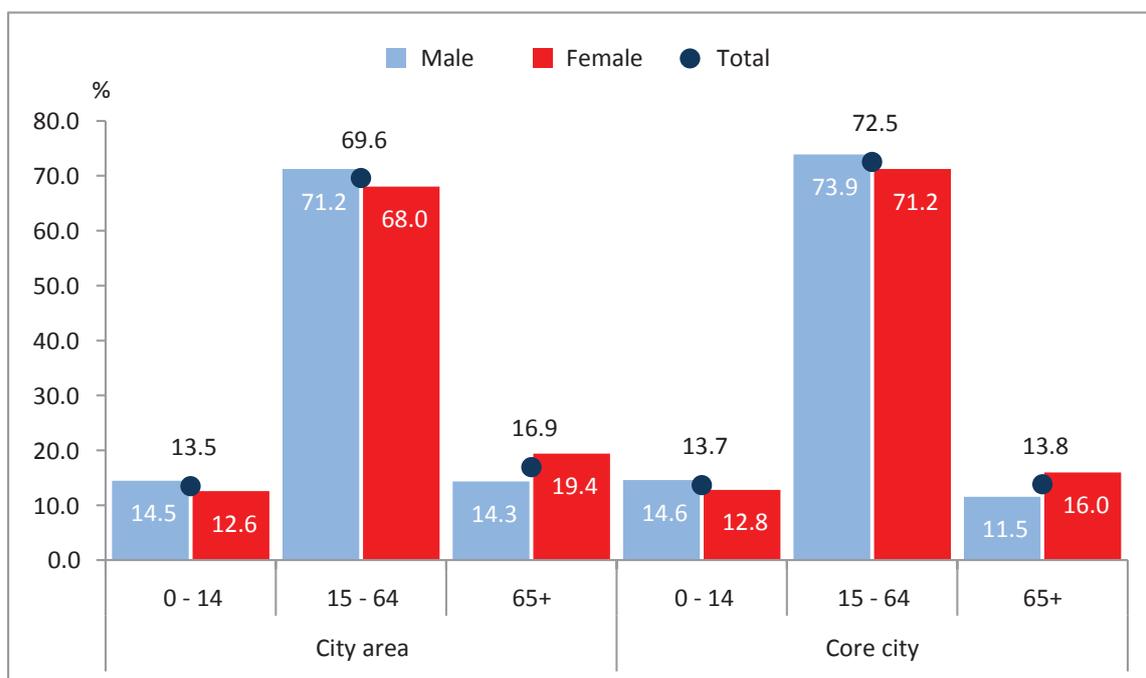
As a result of natural and migration growth the area population decreased from 167 450 in 2010 to 162 200 in 2012, compared to decrease of the city population from 140 100 to 137 650 persons. Decrease of the city population is due to the negative migration directed from the city to its periphery. Annually 235 persons migrate from the city and settled in its periphery or the intensity of minus 1.7‰ is observed.

Average annual number of population in working age in the area is nearly 115 thousand or 69.6% of the total area population. The last is close to the country average. Number and share of male in working age are 56 860 or 49.6%, compared to 57 770 and 50.4%. 71.2% of male and 68% of female are aged 15 - 64 years.

To a certain extent the city and area demographic development are similar. Crude birth rate in the area is 10‰, near to the country average. TFR is 1.53 children. Mortality rate is a little lower than the country one - 13.62‰. The average annual natural increase for the three surveyed years is negative - minus 3.61‰.

Migration in the area is quite intensive - about 15‰ of the area population or 2 400 persons. The last values apply both for immigration and emigration and thus the migration as a whole does not influence the population number. Actually the migration growth is negative - minus 0.2‰.

Some of the demographic indicators in the area centre are more favourable. The last is better expressed for the mortality rate - 11.10‰, but the crude birth rate is almost the same - 10.3‰. Hence, the natural increase is lower, but also negative - 0.81‰. TFR is 1.45 children.



*Figure III.14.3. Age structure of average annual population*

In the area centre - city of Stara Zagora - the total population number in working age is 100 640 or 72.5% of the total population; male - 73.9% and female - 71.2%.

Shares of male and female youngest population in the area and its centre are almost equal - between 12.6% and 14.6%. Total number of area population aged up to 14 years is 13.5%, and its average annual number - about 22 thousand. In the city the respective figures are 20 thousand or 13.7%. Hence, in the periphery just 2 thousand persons are aged up to 14 years.

More considerable are the differences in shares of elderly population. Share of population aged 65 years and over in the area is 16.9%, compared to 13.8% - in the city, both shares lower than the country average - 18.3%. Relatively lowest is the share of male aged 65 and over in the city - 11.5%, and highest the share of female total in the area - 19.4% of the respective population. In the area elderly people are nearly 28 thousand, of them 19 thousand living in the city.

Mean age of the area population is close to the country average - 42.1 years, compared to 40.8 years - in the city.

Demographic burden rate of population in independent ages in the area is 43.7%, lower than the country average - 46.8%. Demographic burden with young and elderly population differs. Ratio between population aged up to 14 years and population in working age is 19.4%, compared to 24.3% for elderly population. As a result, 44% of the total demographic burden is due to young ages and 56% to elderly.

In the area centre the ratio between population in dependent and independent ages is 37.9%. There is no great difference in the burden with young and elderly population. The respective values are 18.8% for young population and 19% for elderly. Burden with young population is higher than in the area - 49.7%, which is better from a demographic point of view.

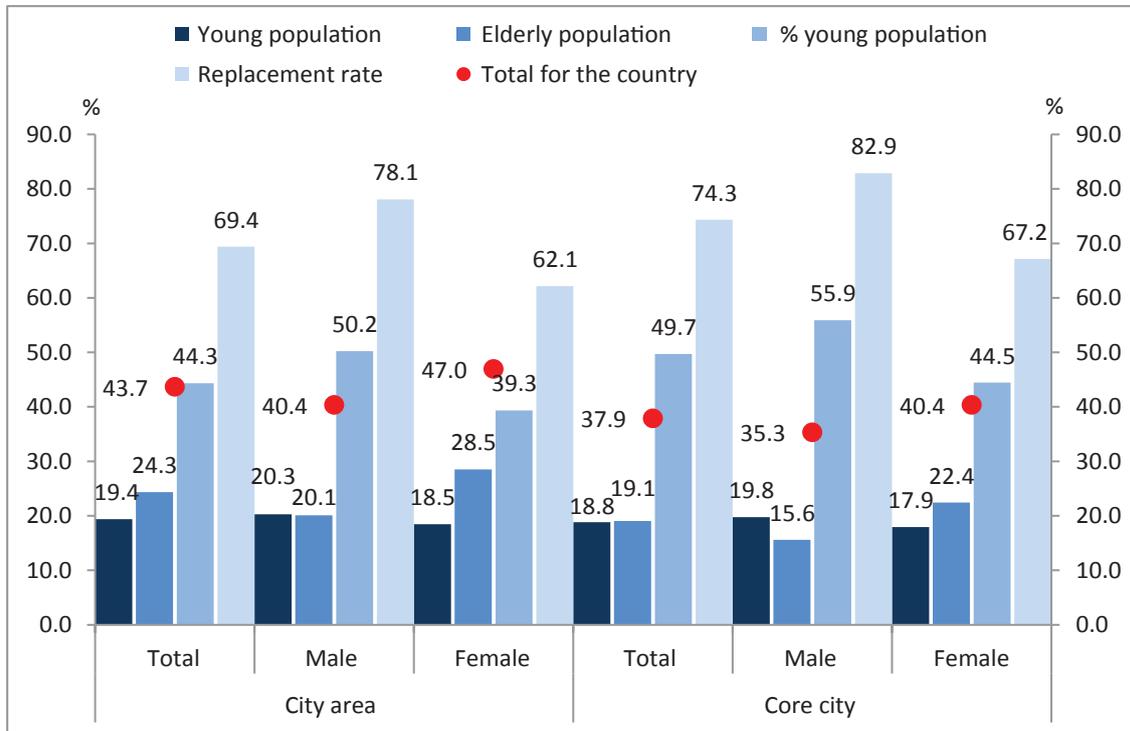
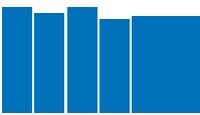


Figure III.14.4. Demographic burden, demographic replacement rates and share of younger ages in demographic burden

Demographic replacement rate in the area is lower than the country average. In the area 100 persons exiting working age are replaced by 69 entering it. The rate is better in the city - 100 to 74. Demographic replacement rate for male is higher than for female - 78% in the area compared to 83 - in the city. The same values for female are 62% and 67%.

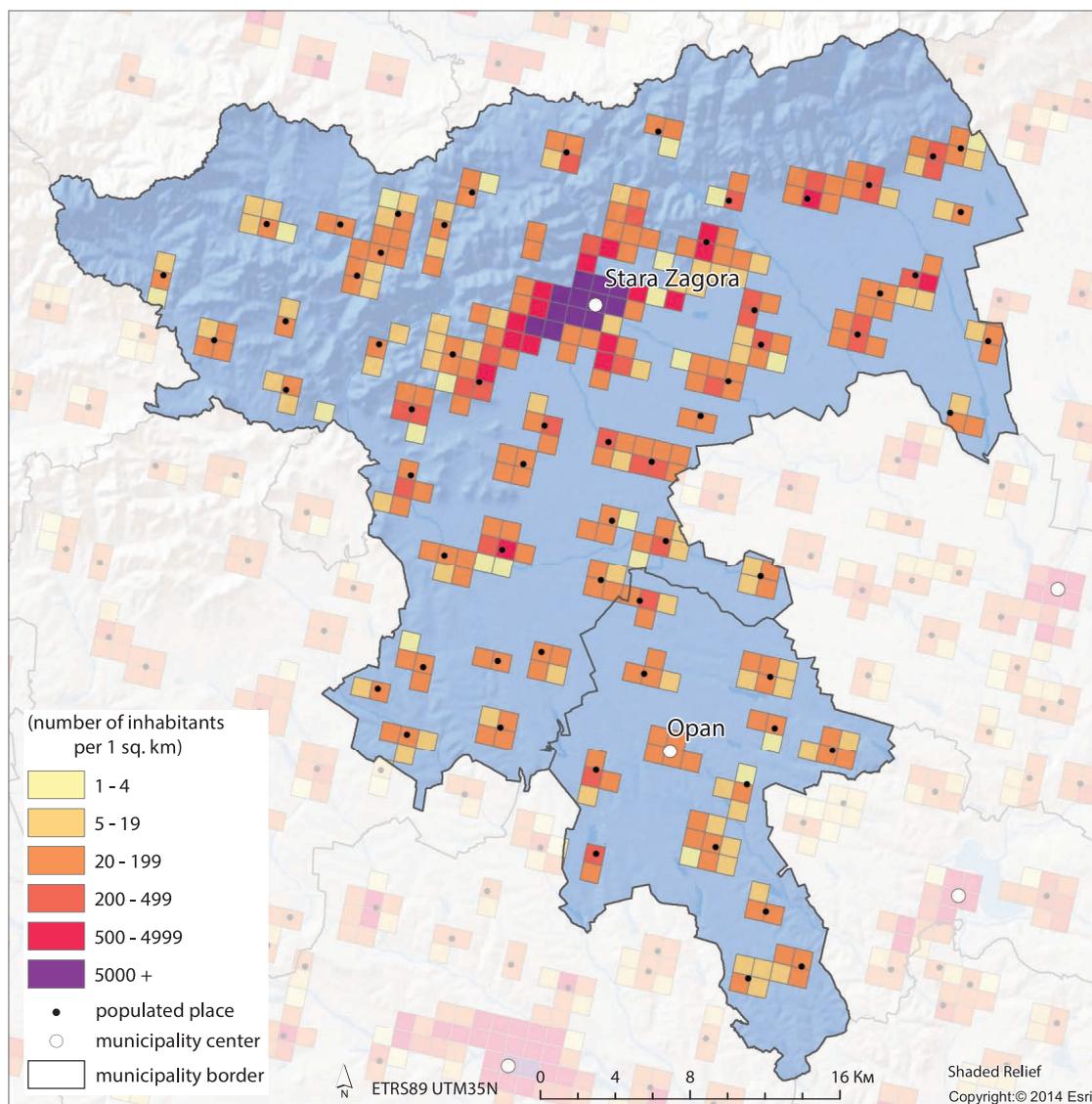
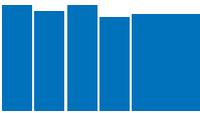


Figure III.14.5. Population grid of the area of Stara Zagora, 2011 Census

### Households

Number of households in the area of Stara Zagora is relatively low compared to the country one. In 2012 there are 64 861 households representing 2.3% of the country ones. Compared to 2010, the number of households decreased by 0.8%. Average for the period the one-member households in the area are 26.3% representing 1.5% of the country number; lone parents with children below 18 years are 2.6% representing 1.7% of the country number; households of single pensioners - 16.4% or 1.4%; households with children below 18 years - 28.4% or 1.5%. Bigger part (84.6%) of the households is living in the area centre - city of Stara Zagora.



### *Dwellings*

Number of dwellings in the area increased by 5.3% during the observed period and reached 82 559 in 2012 representing 2.1% of the country number. The last did not change considerably during the surveyed period. Average price of a dwelling is 16 857 BGN or about 62.0% lower than the country average. Average price of a detached house in the same year is 34 385 BGN or twice higher than the price of a dwelling. More than half - 78.5% of the area dwellings in 2012 are located in city of Stara Zagora.

### *Labour market*

Number of employed aged 20 - 64 years in the period 2010 - 2012 is 70 776 persons and decreased by 6.9%. Employment rate is 68.1% or 5.6% higher than the country average. Share of employed in the area represents 2.5% of the total country number. Biggest part of the employed (90.4%) lives in the area centre, city of Stara Zagora.

Average annual number of unemployed increased during the period by 13.4% and reached 6 643 in 2012. Share of unemployed is highest in the area centre - over 79.6%. Unemployment rate is 8.2% or 2.9% lower than the country average.

### *Poverty*

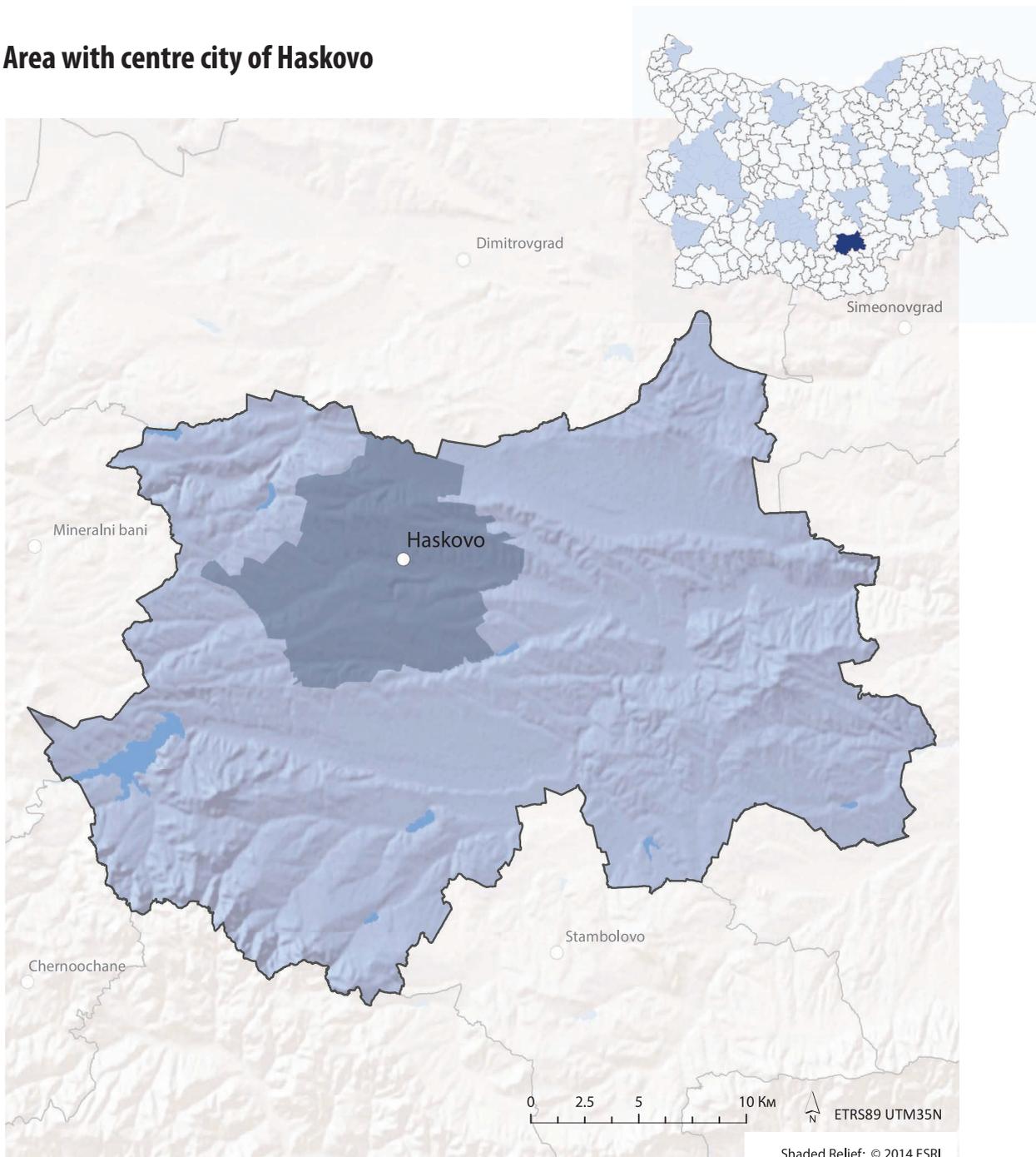
Share of poor people, living at risk of poverty is 13 - 14% for the period. Poverty level is 7 - 8% lower than the country average. At risk of poverty rate before social transfers (including pensions) is considerably higher - about 43% or 6% lower than the country average. Material deprivation level in the area is 40% or 4% lower than the country average.

### *Education*

Number of children aged 0 - 4 years during the observed period increased by 8.3% and is 3 420 in 2012.

In 2012 the number of students in the city is 4 945 and decreased compared to 2010 by 5.7%. Early school leavers aged 18 - 24 years are 6.3% or twice lower than the country average.

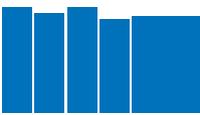
### Area with centre city of Haskovo



	Municipality	Population	Area (sq. km)	Density
<b>HKV34</b>	Haskovo	94559	739.8	128
	<b>Area</b>	<b>94559</b>	<b>739.8</b>	<b>128</b>

- Municipality center
- Municipality borders
- Core city

Figure III.15.1. Area of Haskovo - municipalities, average annual population, territory and density (per 1 sq. km) in 2010 - 2012 period



## Population

One municipality is included in the area with administrative centre city of Haskovo and the 36 small settlements around it. Area territory is 740 sq. km or 0.67% of the country one. Average annual population for the period is 94 560 persons, of which 45 422 (48%) are male and 49 137 (52%) - female. Area population represents 1.3% of the country one and the population density - 128 per 1 sq. km. In city of Haskovo live 76 thousand persons or 80.5% of the area population. Sex ratio is similar to the area one - 47.7% are male and 52.3% - female.

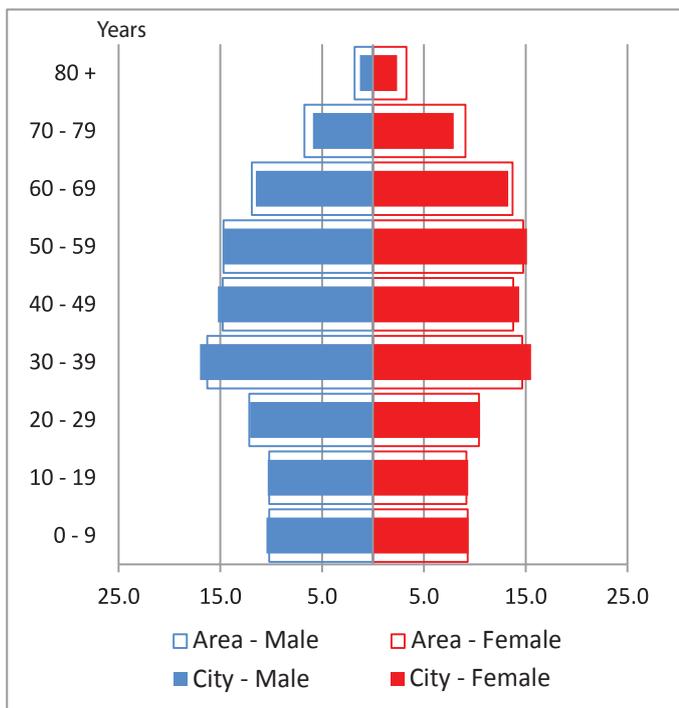


Figure III.15.2. Age pyramid of the city and area of Haskovo

Average annual crude birth rate for the observed period is 9.62‰ or equal to the country one. Also TFR is equal to the country average - 1.49 children. Mortality is 12.46‰ and the natural increase rate - minus 2.84‰.

On average 895 persons immigrate to the area annually and 1 364 - emigrate or 9.46‰ and 14.42‰ respectively. Due to migration the area population decreases annually by 470 persons or minus 4.96‰.

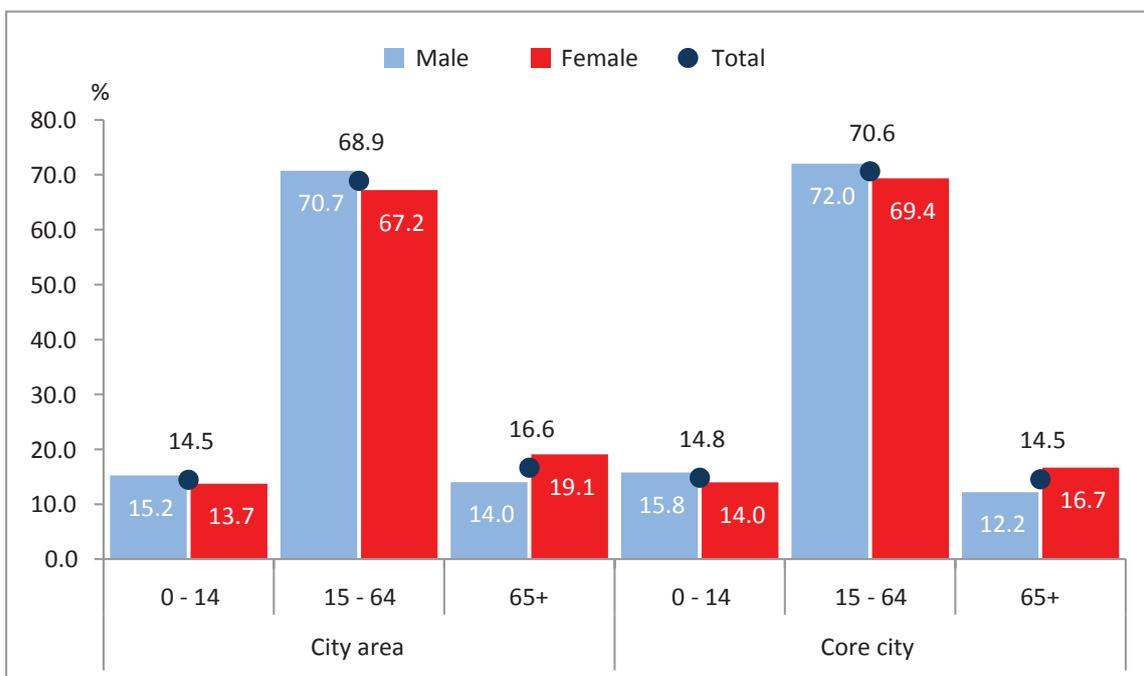
Due both to the negative natural and migration growth the area population decreased for the 3-year period from 96 111 in 2010 to 93 047 in 2012.

Crude birth rate in city of Haskovo is 9.98‰ and TFR - 1.47 children or almost equal with the country ones. Mortality rate (10.79‰) is lower than the country average. As a result the natural increase is negative - minus 0.81‰.

Migration also influences the city population. Annually 830 persons or 10.90‰ immigrate to the city and 1 350 or 17.72‰ - emigrate. Due to migration annually the city population decreases by 520 persons or by minus 6.82‰.

Migration between the city and its periphery is considerably smaller - about 100 immigrations and 170 emigrations. As a result a small negative migration growth is observed of 70 persons annually or minus 0.92‰. The respective increase is registered in the area rural part.

Area population in working age is over 65 thousand persons or 68.9% of the total population, which is almost equal to the country average. Number and share of male and female in working age are almost equal - 32 134 male and 33 019 - female or 49.3% and 50.7%. Among male in working age are 70.7%, compared to 67.2% - among female.



*Figure III.15.3. Age structure of average annual population*

In the area centre, city of Haskovo, average annual population aged 15 - 64 years is 53 744 persons or 70.6% of the total population. Male aged 15 - 64 years are 72%, and female - 69.4%.

Number of population up to 14 years is nearly 13 670 persons representing 14.5% or a little above the country average. The respective shares for male and female are 15.2% and 13.7%.

In the city the youngest population is 11 290 persons or 14.8%, higher for male (15.8%) than for female - 14.0%.

In the area population over 65 is 15 740 persons or 16.6%, compared to a little bit over 11 thousand or 14.8% - in the city. Both shares are lower than the country average - 18.3%. Out of male living in the area 14% are aged 65 years and over, compared to 14.5% - in the city. The respective shares for female are 13.7% and 14%.

Mean age of area population is 41.7 years and of the city one - 40.7, both values lower than the country average (42.4 years).

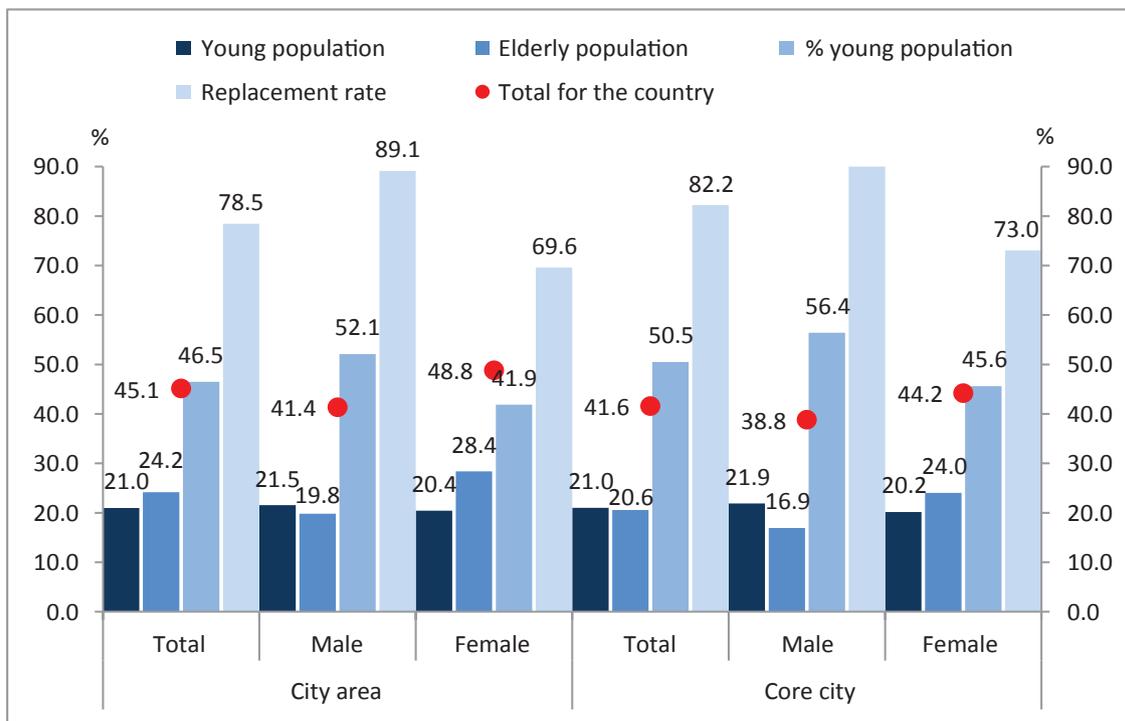


Figure III.15.4. Demographic burden, demographic replacement rates and share of younger ages in demographic burden

Demographic burden of the population in working age in the area is 45.1%, 41.4% for male and 48.8% for female. Ratio between young population and population aged 15 - 64 years is 21%, compared to 24.2% for the elderly population. Hence, 46.5% of the total burden of the population in independent ages is due to young population and 53.5% to elderly.

In the area centre the ratio between the population in dependent and independent ages is 41.6%. Burden with young and elderly population is almost equal - 20.6% and 21.0% respectively.

Reproduction of population in working age both in the area and in the city is better than in the country as a whole, but nevertheless the decrease of labour resources is observed. During the observed period 100 persons exiting working age in the area are replaced by 78 compared to 83 in the city. The last values are better than the country average - 71.

Replacement rate for male and female both in the area and in the city is different. For male in the area replacement rate is 89%, compared to 93% in the city. Values for female population are lower - 70% and 73% respectively.

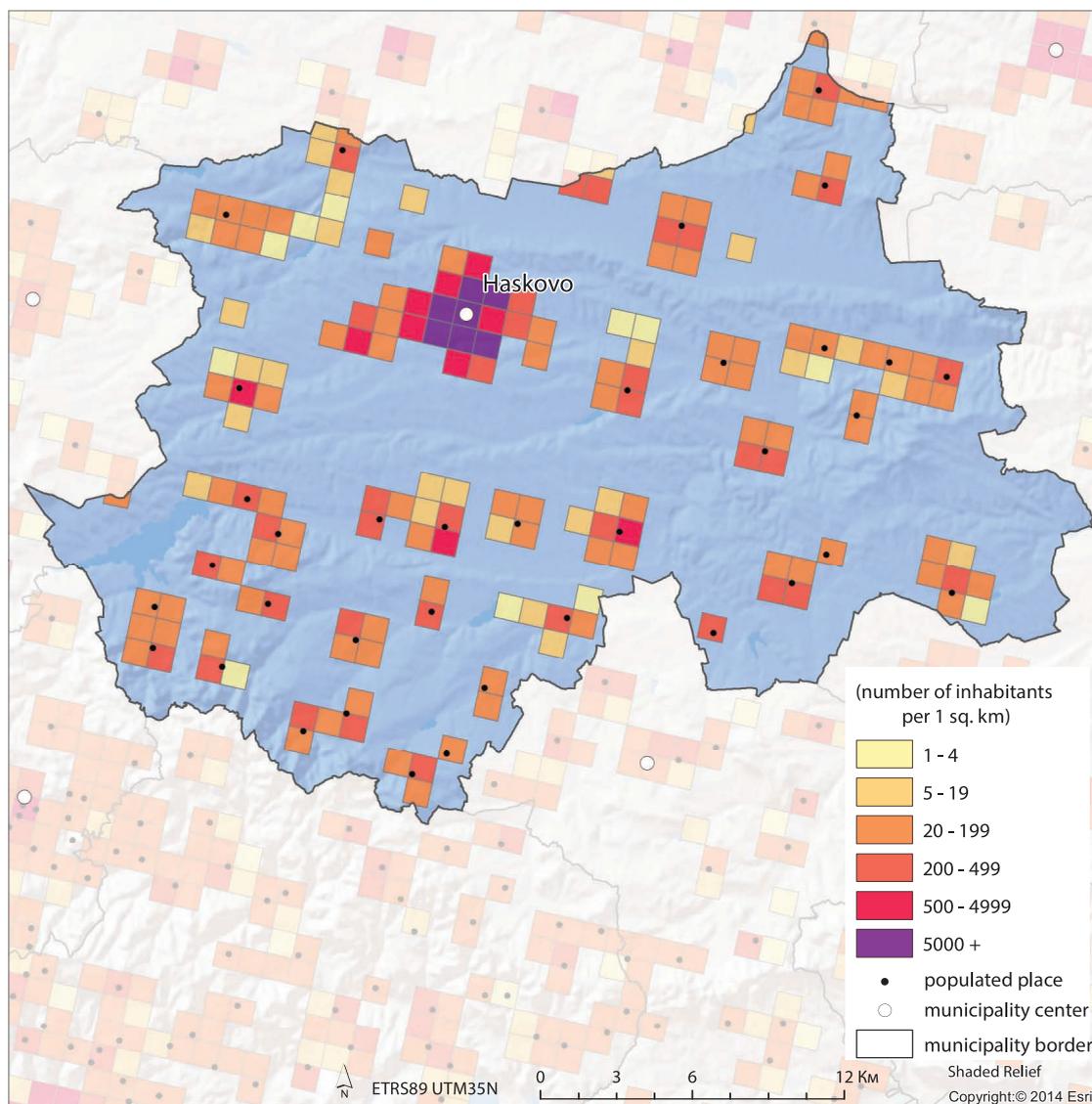
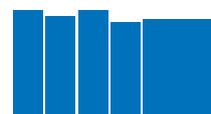


Figure III.15.5. Population grid of the area of Haskovo, 2011 Census

## Households

Number of households in the area of Haskovo is relatively low compared to the country one. In 2012 there are 35 229 households representing 1.2% of the country ones. Compared to 2010, the number of households increased by 2.7%. Average for the period the one-member households in the area are 23.0% representing 0.7% of the country number; lone parents with children below 18 years are 2.6% representing 0.9% of the country number; households of single pensioners - 15.3% or 0.7%; households with children below 18 years - 31.7% or 0.9%. Bigger part (80.4%) of the households is living in the area centre - city of Haskovo.



### *Dwellings*

Number of dwellings in the area increased by 4.2% during the observed period and reached 43 889 in 2012 representing 1.1% of the country number. The last did not change considerably during the surveyed period. Average price of a dwelling is 38 750 BGN or about 42.4% higher than the country average. Average price of a detached house in the same year is 41 625 BGN. More than half - 80.0% of the area dwellings in 2012 are located in city of Haskovo.

### *Labour market*

Number of employed aged 20 - 64 years in the period 2010 - 2012 is 37 609 persons and decreased by 6.7%. Employment rate is 63.6% or almost equal to the country average. Share of employed in the area represents 1.3% of the total country number. Biggest part of the employed (85.2%) lives in the area centre, city of Haskovo.

Average annual number of unemployed increased during the period by 2.3% and reached 5 013 in 2012. Share of unemployed is highest in the area centre - 80.4%. Unemployment rate is 12.1% or 1.0% higher than the country average.

### *Poverty*

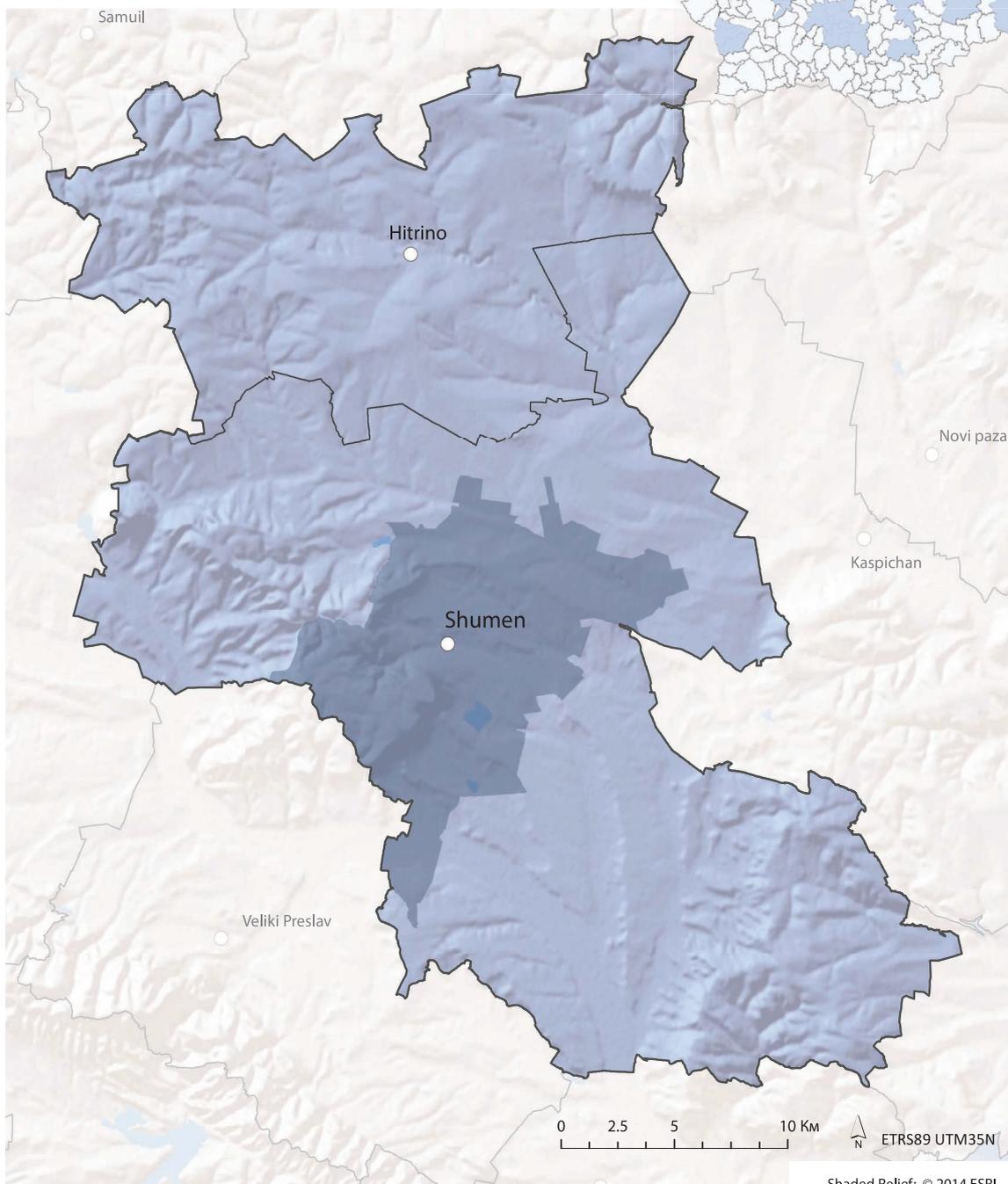
Share of poor people, living at risk of poverty is 20-21% for the period. Poverty level is the same as the country average. At risk of poverty rate before social transfers (including pensions) is considerably higher - about 47% or 2% lower than the country average. Material deprivation level in the area is 42% or 2% lower than the country average.

### *Education*

Number of children aged 0 - 4 years during the observed period increased by 4.8% and is 1 954 in 2012.

In 2012 the number of students in the city is 146. Early school leavers aged 18 - 24 years are 14.2% or 1.0% higher than the country average.

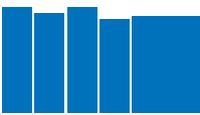
Area with centre city of Shumen



	Municipality	Population	Area (sq. km)	Density
<b>SHU11</b>	Hitrino	6271	289.4	22
<b>SHU30</b>	Shumen	97044	652.3	149
	<b>Area</b>	<b>103315</b>	<b>941.7</b>	<b>110</b>

- Municipality center
- Municipality borders
- Core city

Figure III.16.1. Area of Shumen - municipalities, average annual population, territory and density (per 1 sq. km) in 2010 - 2012 period



## Population

Area covers municipalities of Shumen and one small municipality (Hitrino), the last with population about 6 thousand persons. The area territory is 942 sq. km, representing 0.85% of the country territory. Average annual area population is 103 thousand persons, of which 50 thousand are male and 53 - female or 48% and 52% respectively. 1.4% of the country population lives in the area. Population density is 110 persons per 1 sq. km. In the city of Shumen live 83 thousand persons or nearly 80.6% of the area population and hence the sex ratio in the city is almost the same.

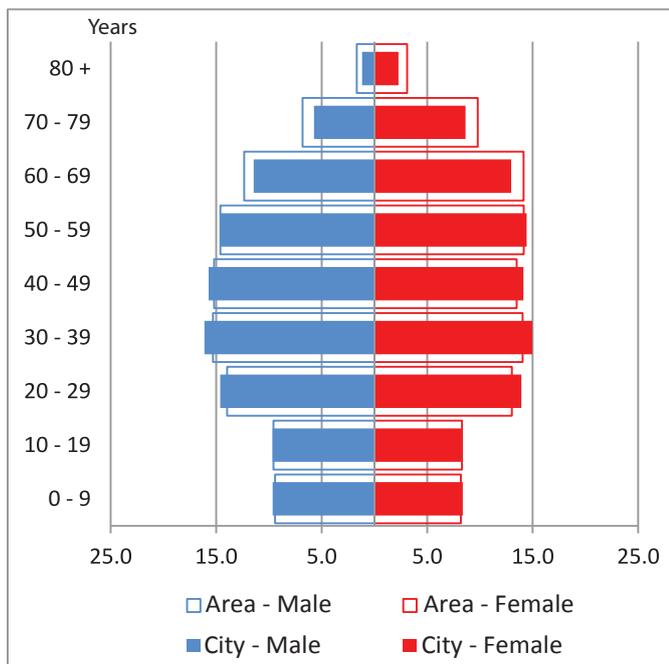


Figure III.16.2. Age pyramid of the city and area of Shumen

Migration in the city of Shumen is more intensive. Immigrants represent 15.8‰ of the city population (1 300 persons). Number of emigrants is 1 570 or 18.8‰ of the average annual population. Comparing the two flows, annually the city population decreases by 260 persons or by minus 3.1‰.

Migration within the area is lower by numbers and intensity and does not influence the city and periphery population numbers.

Compared to the area indicators, the city ones are better. The last is mainly expressed by the lower mortality rate - 11.96‰ and a little higher crude birth rate - 9.68‰. The natural increase of the city population is better than the area one, but also negative - minus 2.27‰. TFR is 1.25 children.

Average annual number of working age population is 72 400 persons or 70% of the total population, which is a little higher than the country average. Out of the total population in working age male are 35 800 or 49.4%, compared to 36 600 or 50.6% - female. Among male 72% are aged 15 - 64 years and among female - 68%.

Crude birth rate in the area for the three-year period (9.34‰) is lower than the country average - 9.68‰. TFR is 1.31 children. Mortality rate (13.71‰) is also lower than the country one. Average natural increase for the three-year period is negative - minus 4.36‰.

Migration influences the area population to a small level. Annually 1 460 persons immigrate to the area or 14.14‰ of the population. Number of emigrants is higher - 1 670 persons or 16.2‰. Due to migration the area population decreases annually by 214 persons or 2.1‰.

As a result of negative natural growth and migration the area population decreased from 103 315 in 2010 to 99 154 in 2012 or by over 4 thousand persons, bigger part of the decrease due to the negative natural increase.

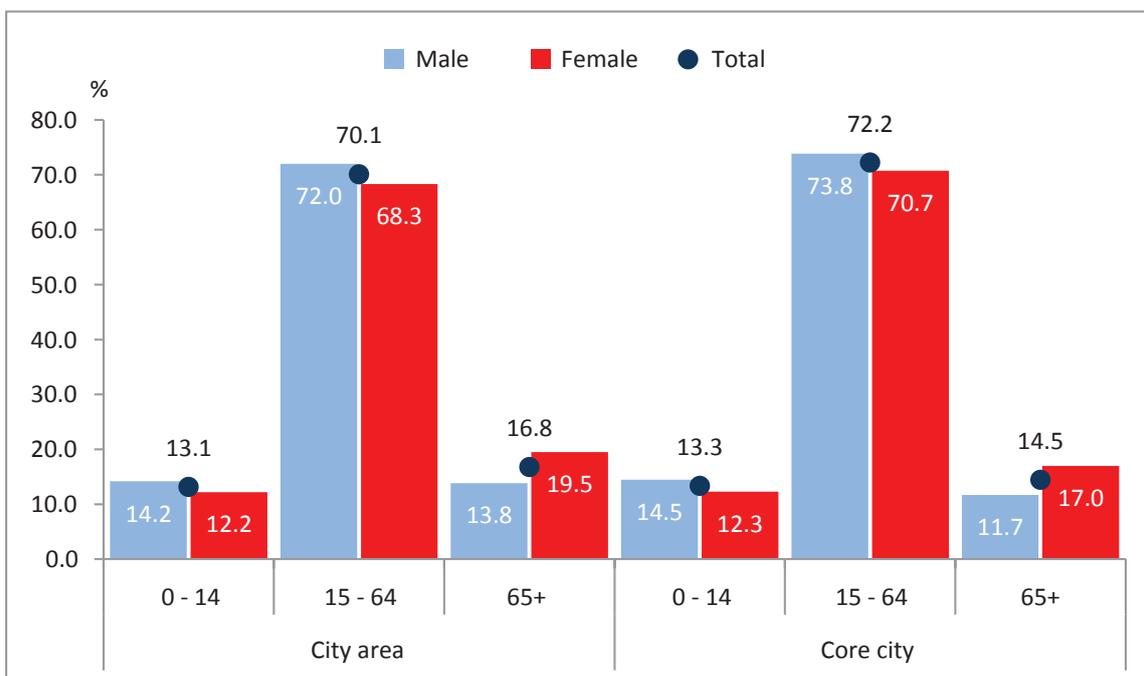


Figure III.16.3. Age structure of average annual population

In city of Shumen the number of population in working age is 60 250 persons, representing 72% of the total population. The respective shares for male and female are 74% and 71%.

Area population up to 14 years is nearly 13 600, 11 120 of them living in the city. Young population in the periphery is a little above 2 thousand persons. In the area population aged up to 14 years is 13%, and in the city - 14.5%. The respective shares of male and female both in the area and in the city are about 14% and 12%.

More considerable are the differences among elderly population. Share of population over 65 years in the area is 16.8%, compared to 14.5% - in the city, both lower than country average - 18.3%. Lowest is the share of male aged 65 and over in the city - 11.7%, and highest of the female in the area - 19.5% of the respective population. In the area persons aged 65 and over are 17 330, 12 thousand of them living in the city.

Mean age of area population is 41.7 years or lower than the country one (42.1 years). In the city the mean age is lower - 40.6 years.

Total demographic burden in the area is 42.7%, lower than the country one - 46.8%. Demographic burden with young and elderly population is different. Ratio between population aged up to 14 years and population in working age is 18.8%, while related to elderly population - 23.9%. 44% of the total demographic burden is due to young population and 56% to the elderly one.

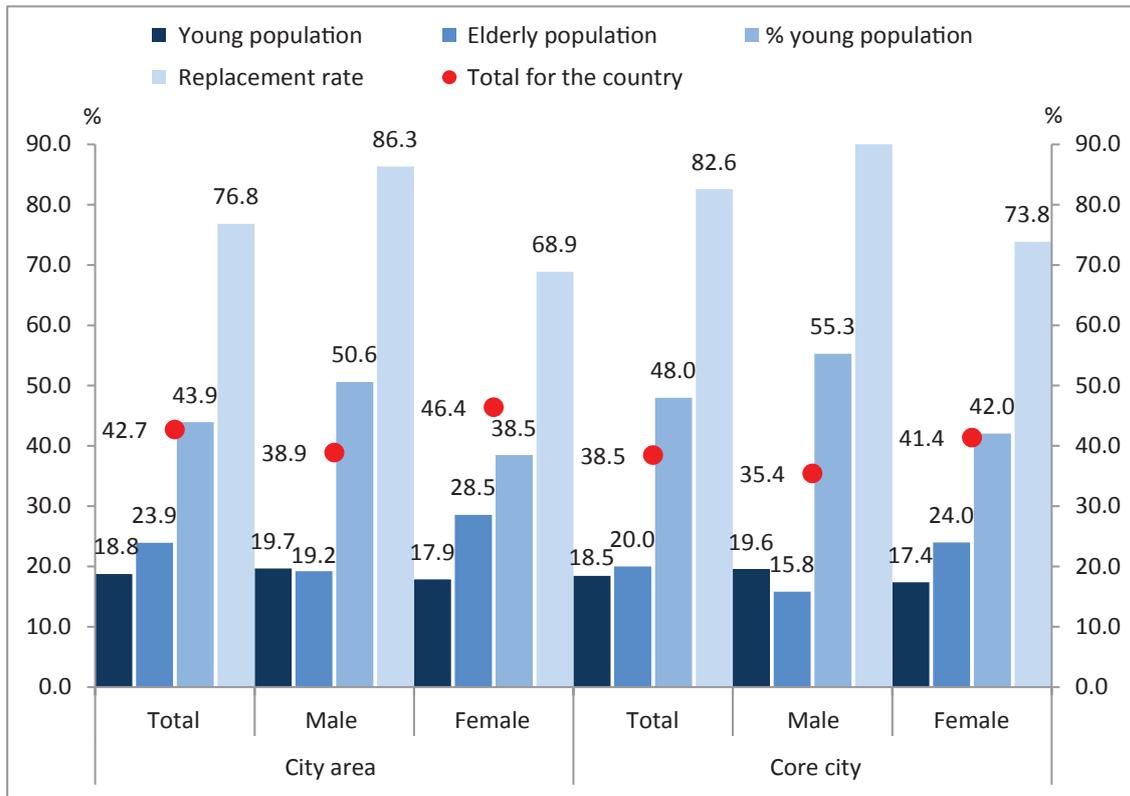
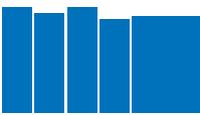


Figure III.16.4. Demographic burden, demographic replacement rates and share of younger ages in demographic burden

In the area centre the ratio between population in dependent and independent ages is 38.5%. The difference in the burden with young and elderly population is smaller - 18.5% and 20.0% respectively. Burden with young population is higher than in the area - 48%, which is better from demographic point of view.

Demographic replacement rate in the area is higher than the country average. In the area 100 persons exiting working age are replaced by 77 persons exiting it. The ratio in the city is better - 100 to 82. Demographic replacement rate for male is higher than for female - 86% in the area and 93% - in the city. The respective values for female are 69% and 74%.

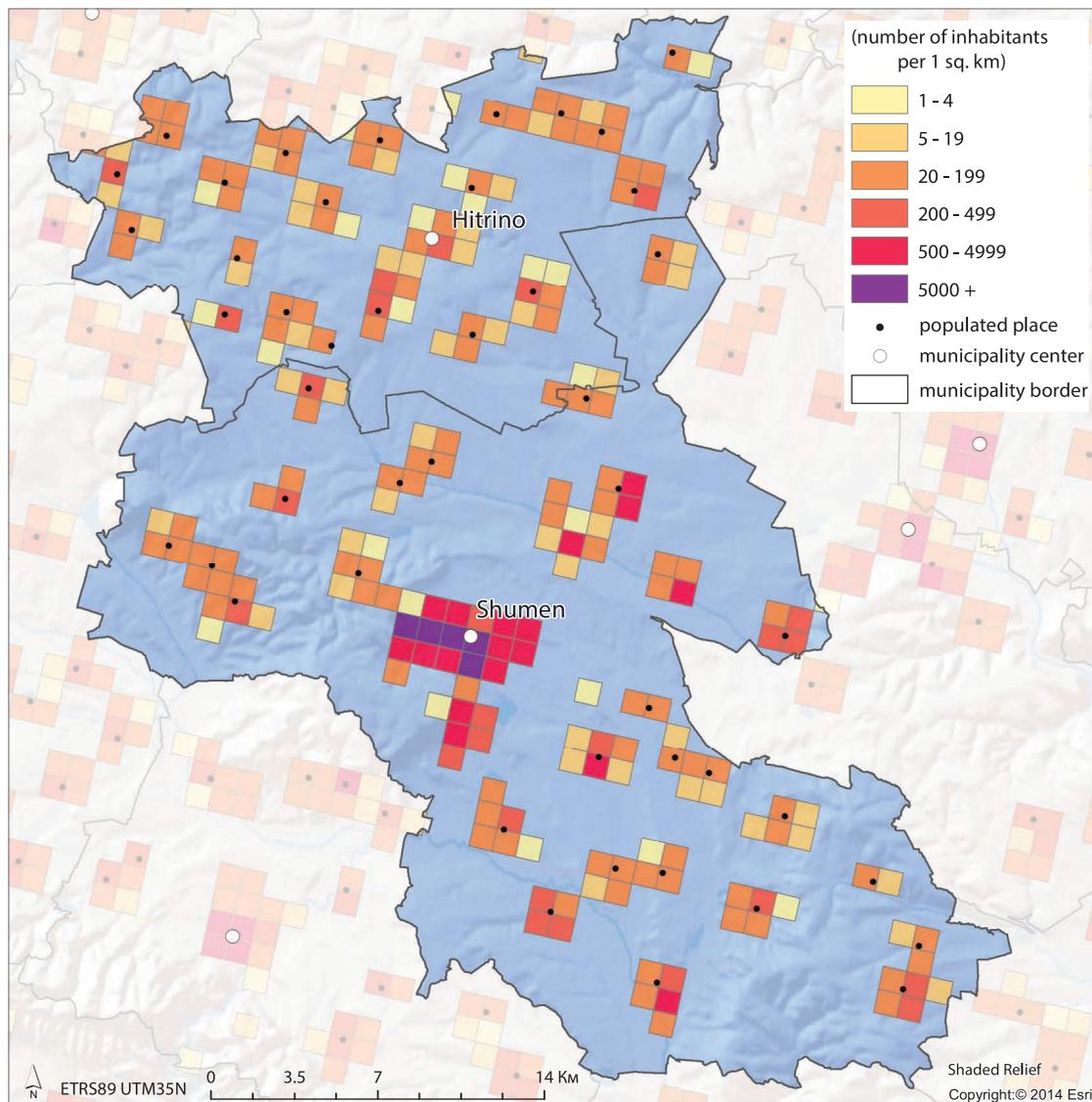
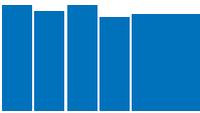


Figure III.16.5. Population grid of the area of Shumen, 2011 Census

### Households

Number of households in the area of Shumen is relatively low compared to the country one. In 2012 there are 37 884 households representing 1.3% of the country ones. Compared to 2010, the number of households decreased by 1.8%. Average for the period the one-member households in the area are 26.1% representing 0.9% of the country number; lone parents with children below 18 years are 2.6% representing 1.0% of the country number; households of single pensioners - 16.0% or 0.8%; households with children below 18 years - 29.5% or 0.9%. Bigger part (80.2%) of the households is living in the area centre - city of Shumen.



### *Dwellings*

Number of dwellings in the area did not change considerably during the observed period and reached 49 975 in 2012 representing 1.3% of the country number. Average price of a dwelling is 16 850 BGN or about 38.1% lower than the country average. Average price of a detached house in the same year is 33 873 BGN or twice higher than the price of a dwelling. More than half - 75.5% of the area dwellings in 2012 are located in city of Shumen.

### *Labour market*

Number of employed aged 20 - 64 years in the period 2010 - 2012 is 40 103 persons and decreased by 12.1%. Employment rate is 62.7% or almost equal to the country average. Share of employed in the area represents 1.4% of the total country number. Biggest part of the employed (86.3%) lives in the area centre, city of Shumen.

Average annual number of unemployed increased during the period by 2.3% and reached 5 440 in 2012. Share of unemployed is highest in the area centre - 81.2%. Unemployment rate is 12.1% or close to the country average.

### *Poverty*

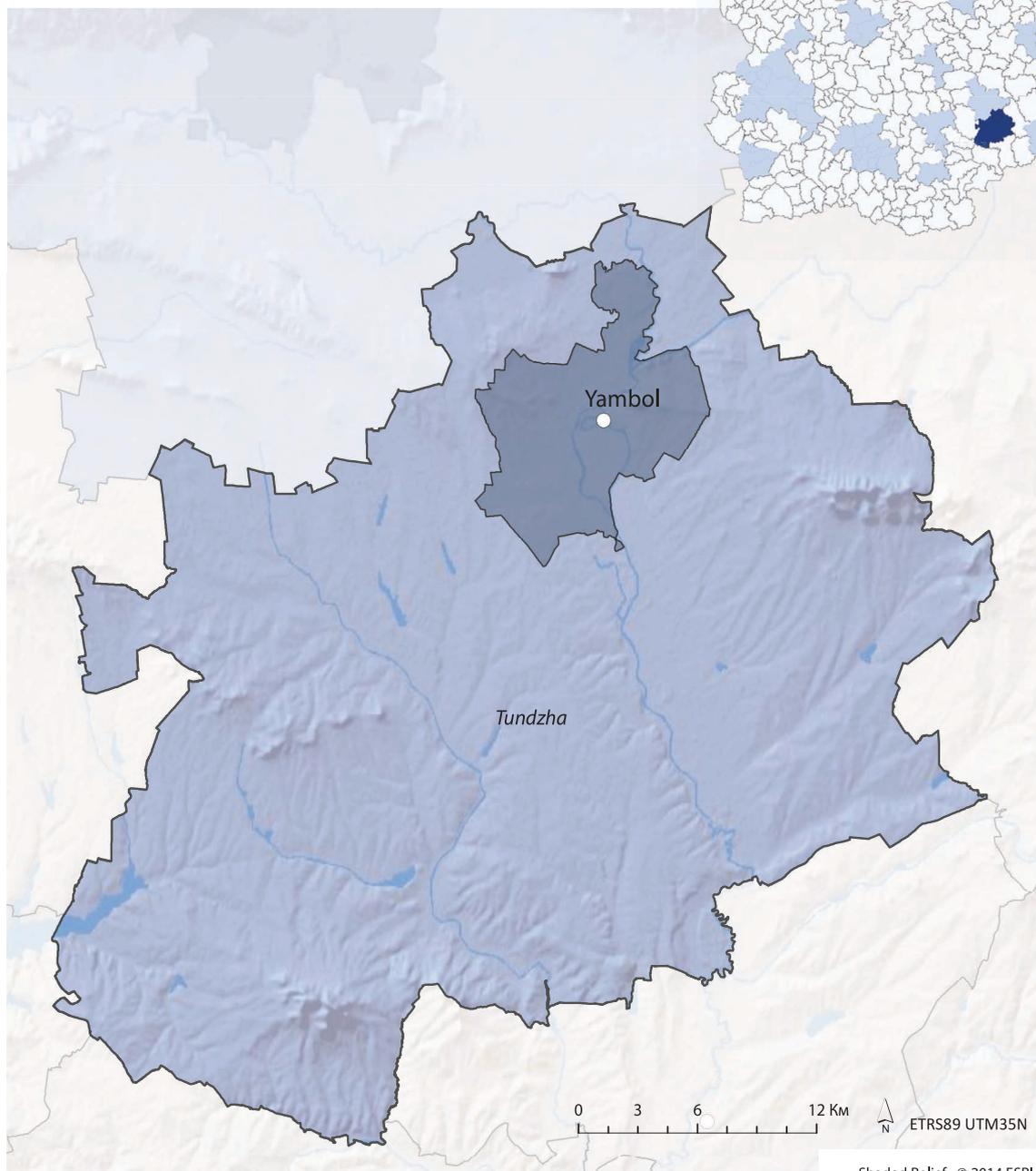
Share of poor people, living at risk of poverty is 21% for the period. Poverty level is the same as the country average. At risk of poverty rate before social transfers (including pensions) is considerably higher - about 48%. Material deprivation level in the area is 42% or 2% lower than the country average.

### *Education*

Number of children aged 0 - 4 years during the observed period decreased by 1.7% and is 2 139 in 2012.

In 2012 the number of students in the city decreased by 3.2% and in 2012 is 7 621 or 2.7% of the country one. Early school leavers aged 18 - 24 years are 14.2% or 1.3% higher than the country average.

Area with centre city of Yambol



	Municipality	Population	Area (sq. km)	Density
<b>JAM25</b>	Tundzha	24963	1218.9	21
<b>JAM26</b>	Yambol	74662	90.7	823
	<b>Area</b>	<b>99625</b>	<b>1309.6</b>	<b>76</b>

- Municipality center
  - Municipality borders
  - Core city
- Shaded Relief: © 2014 ESRI  
ETRS89 UTM35N

Figure III.17.1. Area of Yambol - municipalities, average annual population, territory and density (per 1 sq. km) in 2010 - 2012 period

## Population

Two municipalities are included in the area, the first covering city of Yambol only and the second - 44 settlements (villages) located outside the city. In other words, there is one urbanised and one non-urbanised zone. Total area territory is 1 310 sq. km or 1.18% of the country territory. Average annual population for the period 2010 - 2012 is 99 625 persons or 1.34% of the country one. Population density is 76 persons per 1 sq. km.

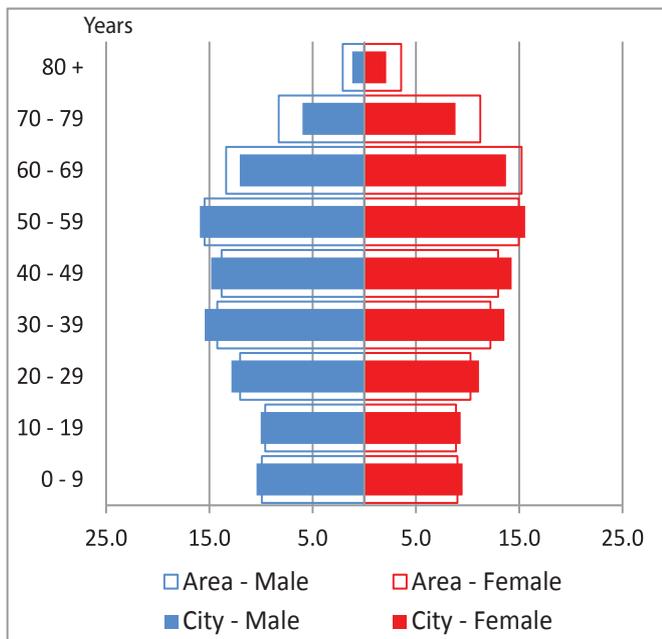


Figure III.17.2. Age pyramid of the city and area of Yambol

Area centre is city of Yambol with population of nearly 75 thousand persons, representing about 75% of the area population. 48.8% of the area population are male and 51.2% - female. Similar is the sex ratio in the city of Yambol - male 48.5% and female - 51.5%.

Within the period 2010 - 2012 the area population has decreased from 102 to 96 thousand persons. Average annual crude birth rate is 9.75‰, and TFR - 1.72 children or higher than the country average (1.49 children). Mortality rate is rather high - 15.83‰. As a result, too high negative natural increase of population is observed - minus 6.07‰. Comparing the high TFR and crude birth rate level indirectly shows a considerable decrease of the fertile contingent in the area.

Annually in the area immigrate 1 470 persons or 14.73‰ of population. Number of emigrants is 2 200 or 22.14‰, the highest

among the surveyed areas. Annual migration growth is negative - nearly 740 persons or minus 7.41‰. The last is second in value after area of Vratsa.

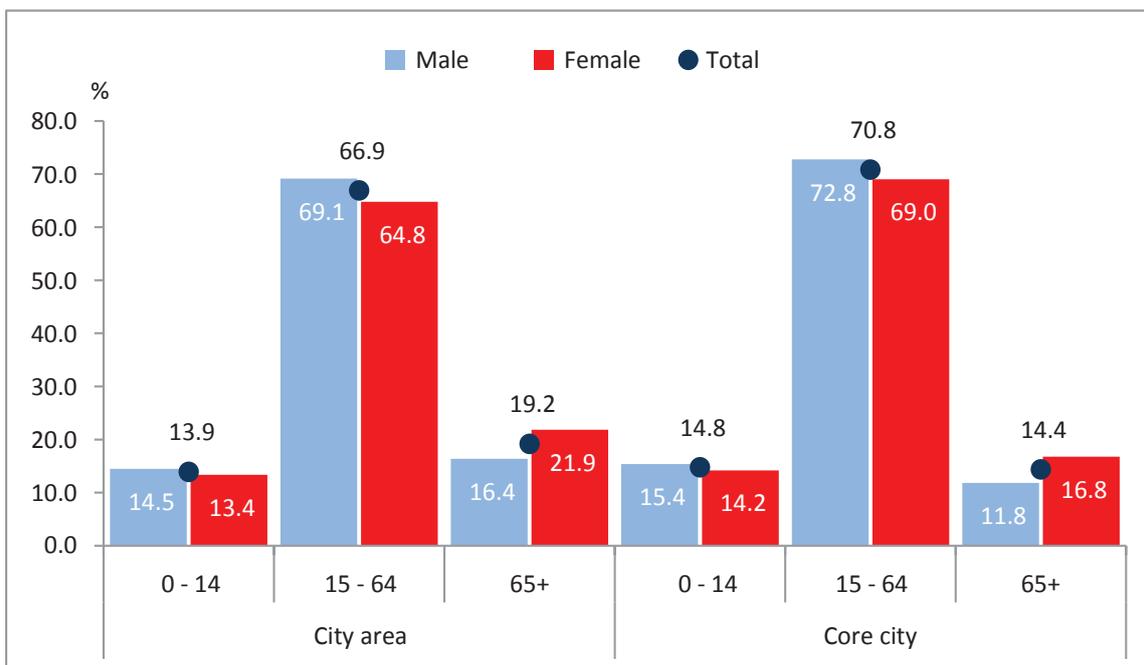
Average crude birth rate in the area centre is higher - 10.49‰, TFR is 1.67 children. Mortality in the area centre is lower - 12.22‰. Regardless the better fertility and mortality indicators, the natural increase in the city is negative - minus 1.73‰.

City population decreases due to migration also. Annually 1 720 persons emigrate from the city or 23.02‰ of the city population. Number of immigrants is lower - 895 on average or 12‰. Migration growth is negative - 823 persons annually, representing 11.03‰ of the city population. The last is also second in value after city of Vratsa.

Migration processes in the area lead to decrease of city population and increase of non-urbanised zone population. Annually 190 immigrate to the city and 344 - emigrate. The absolute migration growth of the city is minus 155 persons or 2‰.

Area population in working age is nearly 67% of the total area population. Number of working age population is 66 656 persons, 50.4% of which are male. Share of the same population group in the city is higher - nearly 71%, but the number lower - 52 890 persons, of which 49.8% - male and 50.2% - female.

Number of the youngest area population is 13 864, and in the city - 11 035 persons. The respective shares are 13.9% and 14.8%, compared to 13.6% total for the country.



*Figure III.17.3. Age structure of average annual population*

Shares of elderly population are different. Total in the area population aged 65 and over is 19 105, representing 19.2% of the area population compared to 10 738 or 14.4% - in the city. Share of female aged 65 and over in the area is nearly 22%, compared to 16.8% - in the city. Shares of male are smaller, but the difference the same - 16.4% in the area and 11.8% in the city.

Mean age of population shows population ageing in the area and predominantly in its periphery. Mean age of area population is 43.2 years, compared to 40.9 of the city one.

Total demographic burden of the population in independent ages is 49.5%, 42% of which is due to young ages. The respective value for the country is 46.8%. Ratio between young ages and population aged 15 - 64 years is 20.8%, and of the elderly one - 28.7%, or the last creates 58% of the total demographic burden.

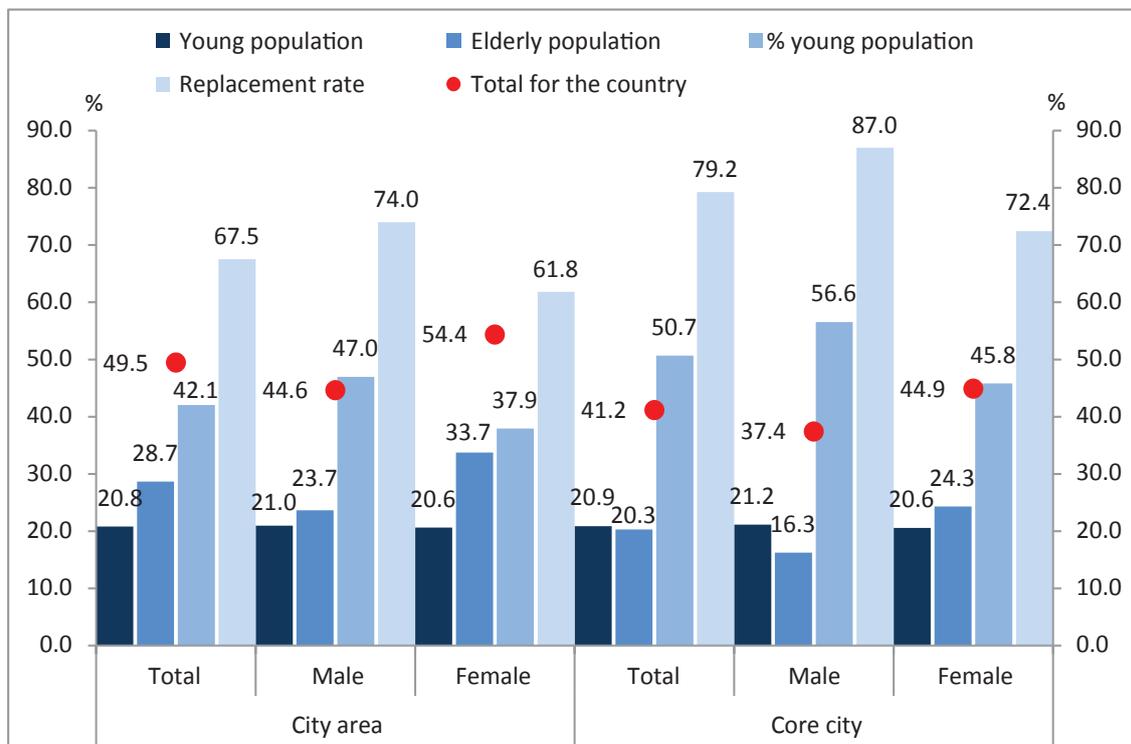


Figure III.17.4. Demographic burden, demographic replacement rates and share of younger ages in demographic burden

In the city the ratio between the population in dependent and independent ages is lower - 41.2%. Demographic burden due to young ages is the same as in the area (20.9%), but the burden due to elderly is considerably lower - 20.3%. Therefore, in the city the total demographic burden is almost equally due to young and elderly population - 50.7% and 49.3% respectively.

The same indicators in the area are quite different for male and female. Demographic burden for female is quite higher than for male - 54.4% and 44.6% respectively. The same difference is observed also in the city and the respective figures are 37.4% and 44.9%. The last data show indirectly higher ageing of female compared to male and especially in the non-urbanised part of the area.

Demographic replacement rate in the area is below the country average. Each 100 persons exiting working age are replaced by 66 persons aged 19 - 24 years. The low value is due to replacement rate for female - 100 exiting are replaced by 61 aged 19 - 24 years. The replacement rate for male is 74%.

Replacement rate of city population is quite higher - 79%, 87% for male and 72% for female.

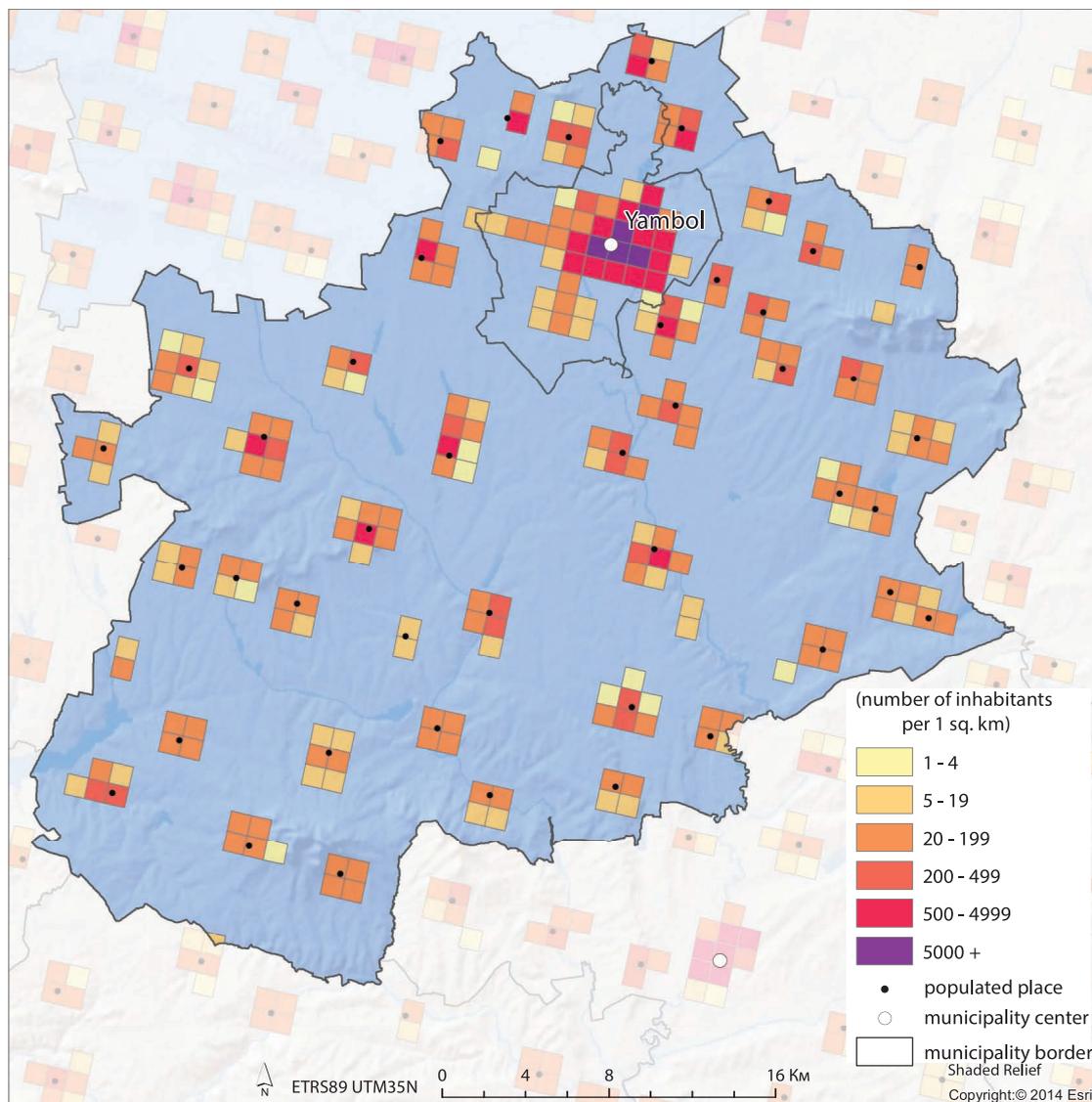
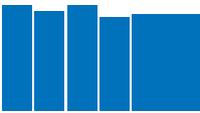


Figure III.17.5. Population grid of the area of Yambol, 2011 Census

### Households

Number of households in the area of Yambol is relatively low. In 2012 there are 37 141 households representing 1.3% of the country ones. Compared to 2010, the number of households decreased by 0.5%. Average for the period the one-member households in the area are 25.5% representing 0.8% of the country number; lone parents with children below 18 years are 2.4% representing 0.9% of the country number; households of single pensioners - 17.4% or 0.8%; households with children below 18 years - 28.7% or 0.9%. Bigger part (73.6%) of the households is living in the area centre - city of Yambol.



### *Dwellings*

Number of dwellings in the area decreased compared to 2010 by 3.6% and is 51 505 in 2012 representing 1.3% of the country number. Average price of a dwelling is 23 685 BGN or about 13.0% lower than the country average. Average price of a detached house in the same year is 34 025. More than half - 70.2% of the area dwellings in 2012 are located in city of Yambol.

### *Labour market*

Number of employed aged 20 - 64 years in the period 2010 - 2012 is 36 950 persons and decreased by 10.4%. Employment rate is 61.6% or almost equal to the country average. Share of employed in the area represents 1.3% of the total country number. Biggest part of the employed (82.6%) lives in the area centre, city of Yambol.

Average annual number of unemployed increased during the period by 1.7% and reached 5 282 in 2012. Share of unemployed is highest in the area centre - over 75.5%. Unemployment rate is 12.4% or 1.4% higher than the country average.

### *Poverty*

Share of poor people, living at risk of poverty is 22% for the period. Poverty level is the same as the country average. At risk of poverty rate before social transfers (including pensions) is considerably higher - 48%. Material deprivation level in the area is 43%.

### *Education*

Number of children aged 0 - 4 years during the observed period decreased insignificantly and is 1 716 in 2012.

In 2012 the number of students in the city increased compared to 2010 by 44.8% and in 2012 are 773. Early school leavers aged 18 - 24 years are 14.6% or 1.7% higher than the country average.

## IV. COMPARATIVE DEMOGRAPHIC AND SOCIO-ECONOMIC ANALYSIS OF AREAS AND CITIES

The areas presented include territories of municipalities, which are connected not only based on territory, but by functions also. Their development is predefined by the economic and social development of the cities-centres (nuclei). As much their potential is developed and dynamic as much the zone of influence expands and contributes to the development of the areas.

### 1. Differences in coverage and demographic situation of the areas

Areas created following the Urban Audit criteria cover in total 27 914 sq. km representing 1/4 of the country territory. Boundaries, in which the last are functioning depend on number of conditions the main being strength of gravitation of the cities-nuclei caused by the differences in their economic and social life and their surroundings, number and demographic structure of population, regional peculiarities, transport infrastructure, nature, etc.

There are big differences within the geothory of separate areas and on this basis the last are grouped in four groups. Six areas, with a territory varying from 662 sq. km (area of Vidin) to 941 sq. km (area of Shumen) are included in the first group. Considerably larger is the territory of areas included in the second group - from 1 309 sq. km (area of Yambol) to 1 405 sq. km (area of Dobrich). The third group includes two areas - Pleven and Varna with a territory of 1 792 and 2 038 sq. km. Largest according to territory are three areas, centres of which are the cities having leading economy in the country - Plovdiv with a territory 2 785 sq. km, Burgas - 2 946 sq. km and Sofia(stolitsa) - 5 723 sq. km.

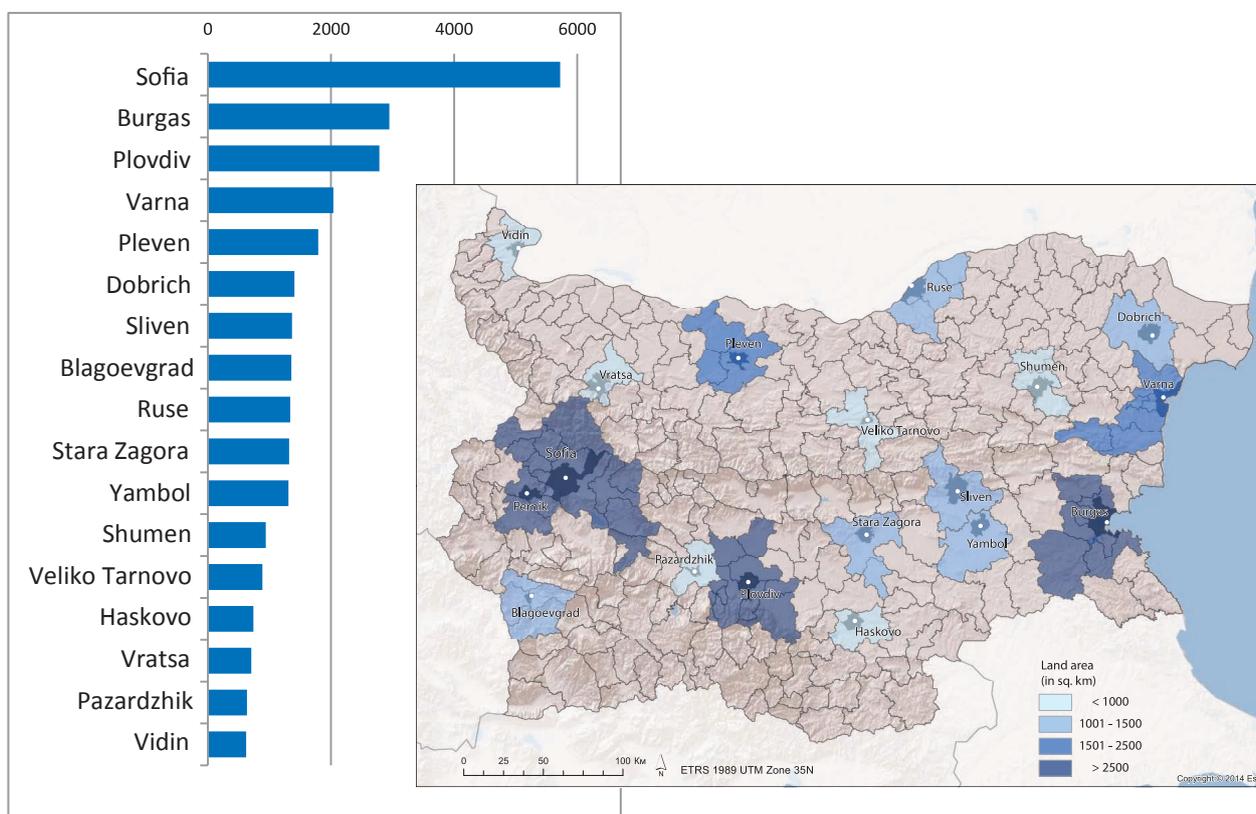
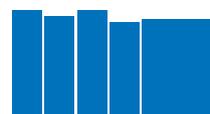


Figure IV.1.1. Areas according to their geotoria size



Within the areas surveyed live 4 261 thousand persons or 57% of the country population. In addition to the economic and social potential of the nuclei, influence on the population has the surrounding settlements network and population living there.

Distribution of areas according to their population is similar (with some exceptions) to the distribution by territory. Lowest number of population has the area of Vidin - nearly 69 thousand. There are another five areas with population under 100 thousand persons. As a total 520 thousand persons live or work there or 12.2% of the average annual population of all the areas. Population number varies from 100 and 191 thousand in seven areas. Total population number living there is 983 thousand or 23% of the whole surveyed population. The rest areas differ considerably in terms of population number and namely: Burgas (6.6%), Varna (9.7%), Plovdiv (12.9%) and Sofia - 1 517 thousand or 35.6% of the total surveyed population.

Area centres (cities)	%
Vidin	1.6
Vratsa	1.7
Veliko Tarnovo	2.1
Haskovo	2.2
Blagoevgrad	2.3
Yambol	2.3
Shumen	2.4
Dobrich	2.7
Pazardzhik	2.8
Sliven	3.0
Stara Zagora	3.9
Pleven	3.9
Ruse	4.5
Burgas	6.6
Varna	9.7
Plovdiv	12.9
Sofia	35.6
<b>Total</b>	<b>100.0</b>

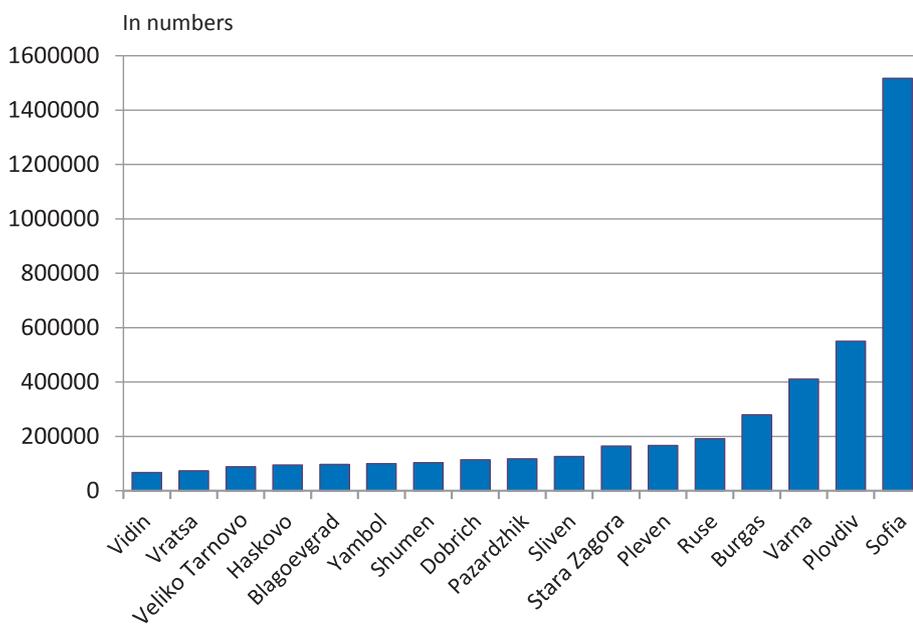
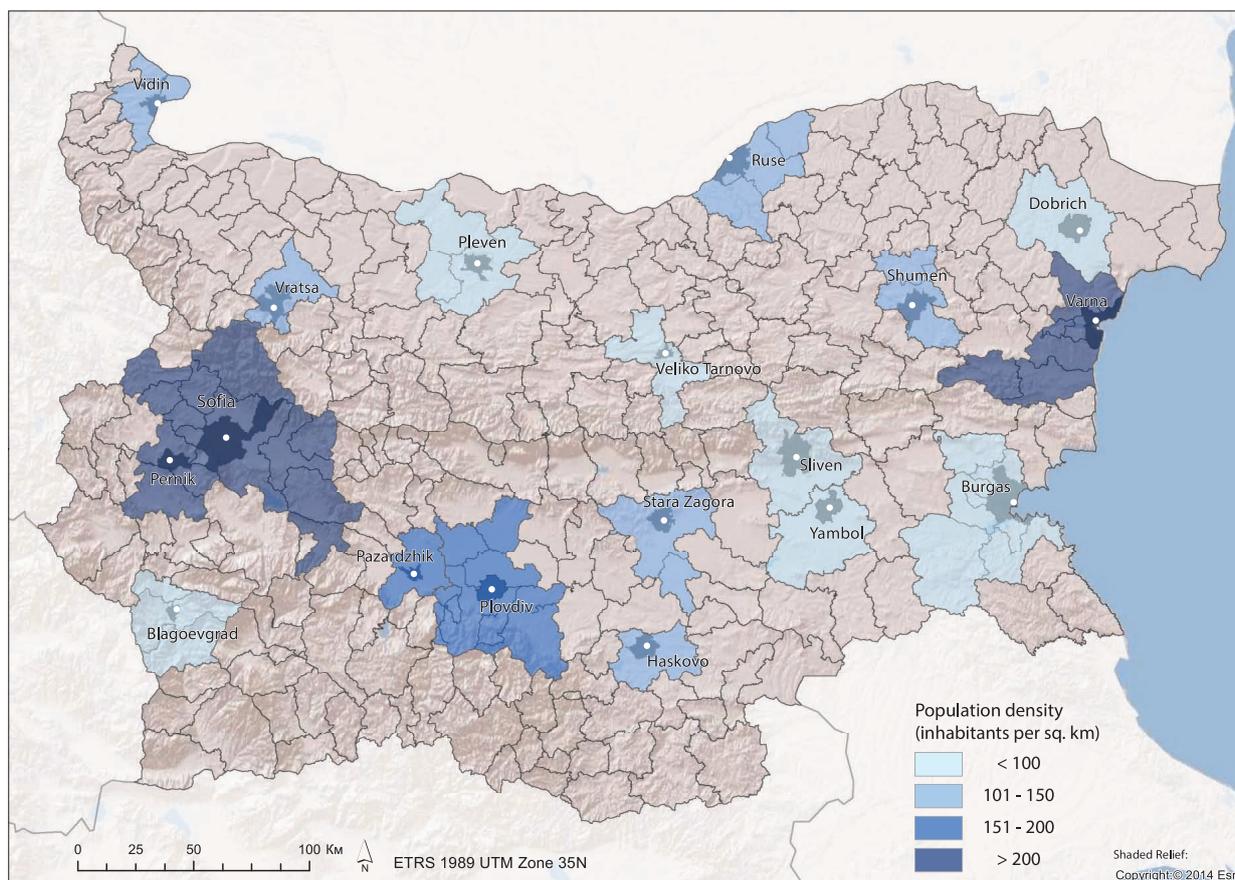


Figure IV.1.2. Distribution of population by areas

Six areas have population density between 71 and 100 persons per 1 sq. km. Higher is the density in areas of Varna - 205 and Sofia - 269 persons per 1 sq. km. Highest is the population density in area of Ruse. The difference in density of population in the nuclei and its periphery has to be considered here also - usually in the nuclei the population density is quite higher than in the periphery.



*Figure IV.1.3. Population density by areas*

Demographic development of the surveyed areas follows the country demographic development in general. Areas observed have negative natural growth, resulting from the reduced fertility and high level of mortality. The differences concern the levels and intensity of the demographic processes.

Most unfavourable demographic development is observed in areas of Vidin, Vratsa, Pleven, Ruse and Yambol. Crude birth rate in these areas is low - between 7.4‰ and 9.8‰. The low fertility leads to worsening of the population age structure and respectively high mortality. The last varies between 14.5‰ in area of Ruse to extremely high level - nearly 18‰ in area of Vidin. Naturally, high negative values of natural growth are observed in these areas - minus 6.1‰ in area of Yambol to the highest one - minus 10.5‰ in area of Vidin. The natural growth indicators in the areas concerned are more unfavourable than the country average.

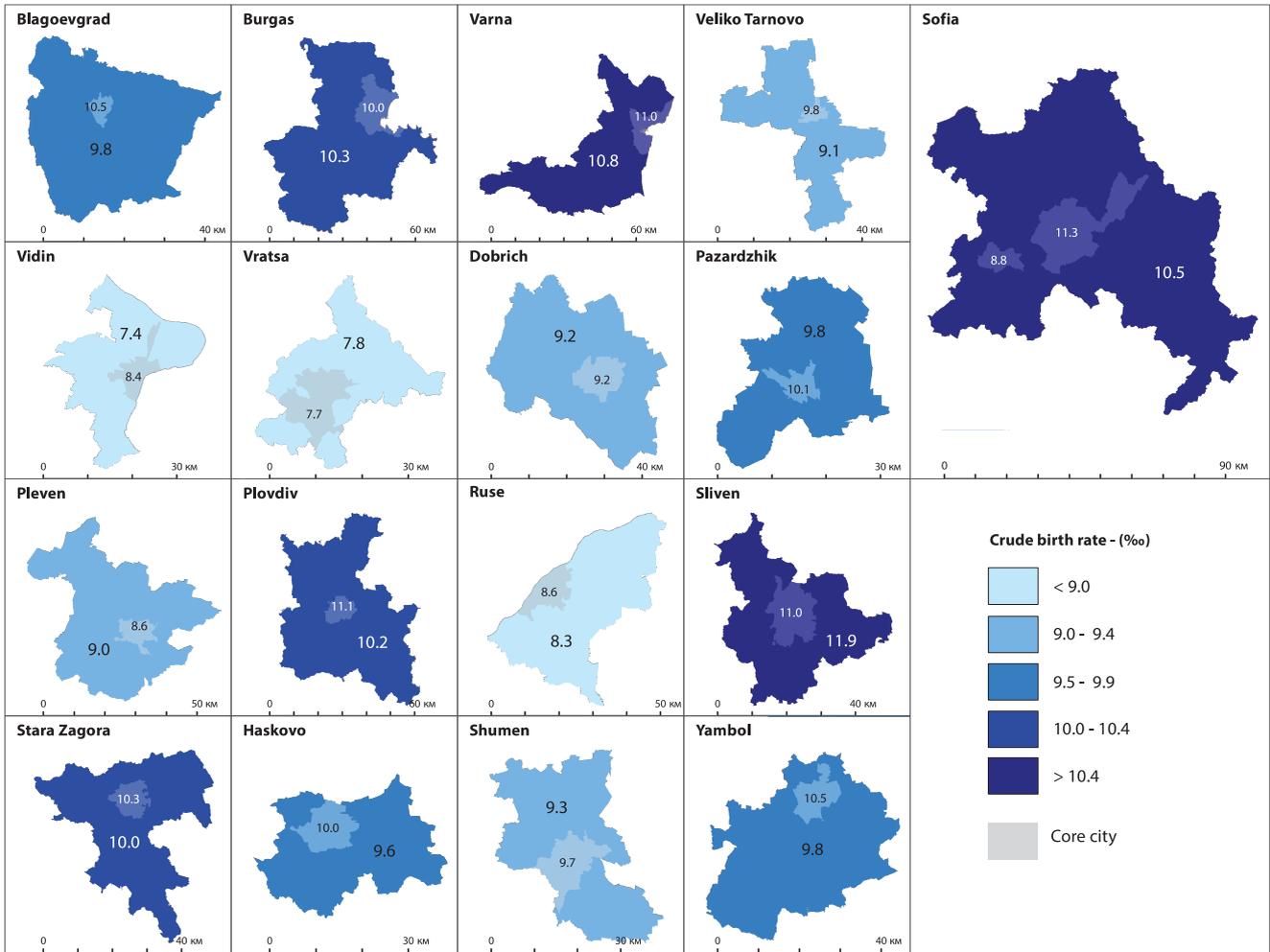
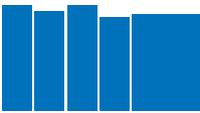


Figure IV.1.4. Crude birth rates by areas and their cities-nuclei

Based on the indicators observed, group of four areas is created where the fertility is also low. Crude birth rates in these areas varies between 9.1‰ and 10‰ and the mortality - between 13.2‰ and 14.1‰. Natural increase rates are from minus 3.6‰ to minus 4.8‰. The areas included in this group are: Stara Zagora, Veliko Tarnovo, Shumen and Dobrich.

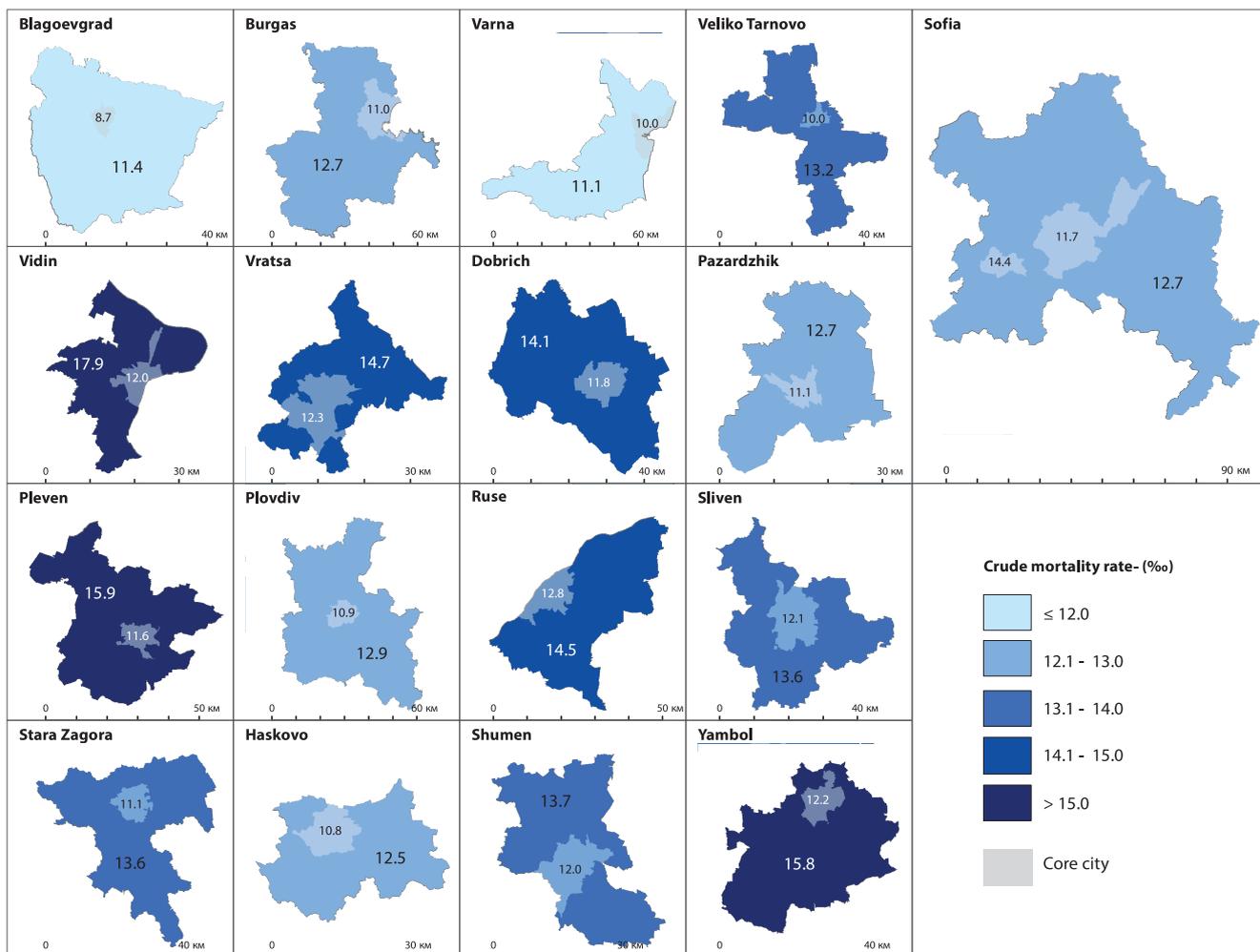


Figure IV.1.5. Mortality rate by areas and their cities-nuclei

In the rest of areas the fertility is equal or higher than the country average and the mortality - lower. As a result, the natural increase rate is also negative, but is lower than in the other areas and the country one. Crude birth rate varies from 9.8‰ in areas of Blagoevgrad and Pazardzhik to 11.9‰ in Sliven. Mortality level in five of the areas is about 12.7‰, excluding Blagoevgrad and Varna - a little above 11‰ and higher in Sliven - 13.6‰. Out of all the areas included in this group, most favourable natural increase is observed in Varna (minus 0.3‰); in Plovdiv, Haskovo and Pazardzhik the natural increase vary between 2.7‰ - 2.9‰.

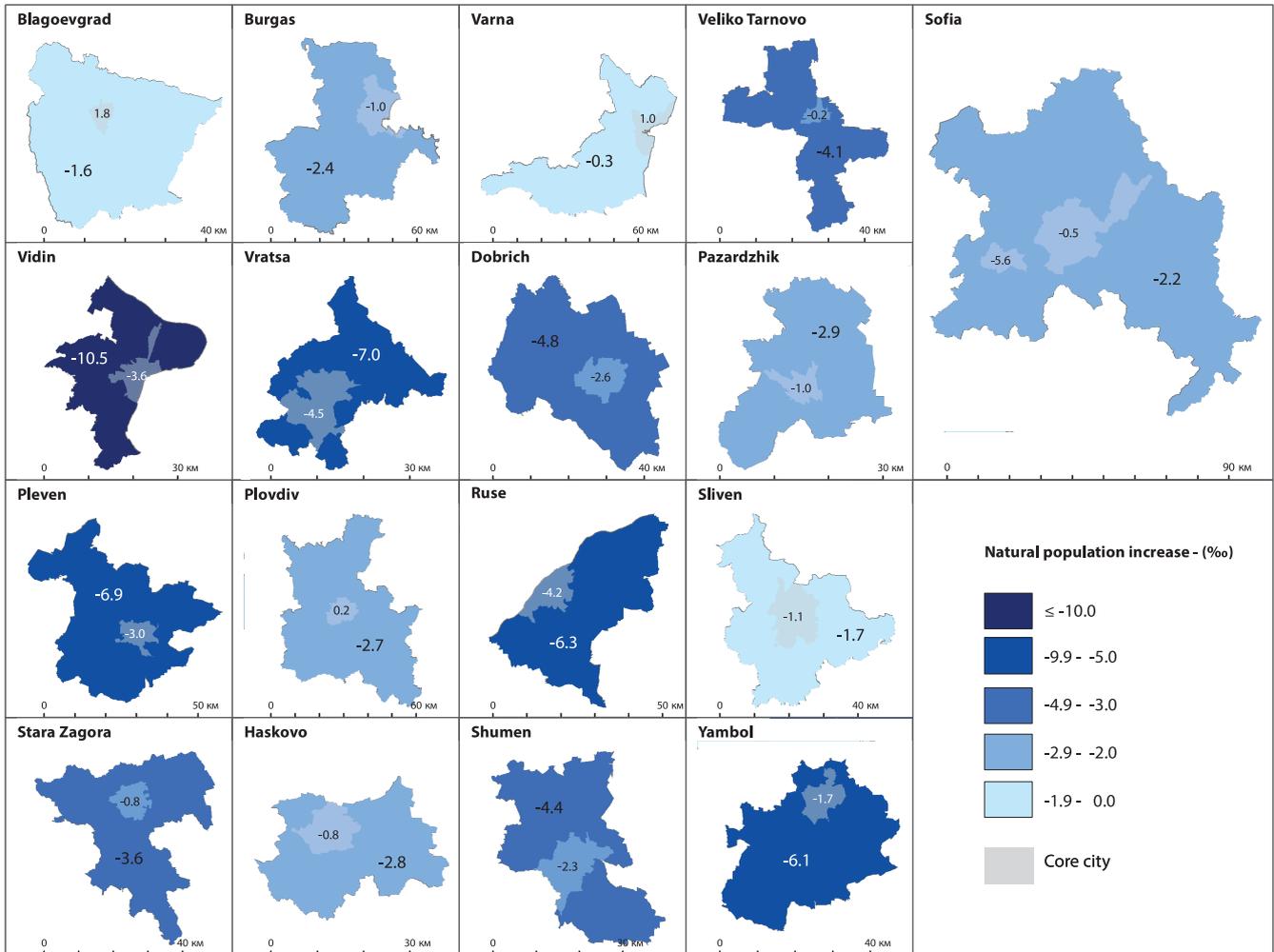
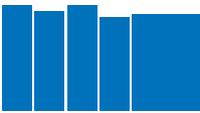


Figure IV.1.6. Natural increase by areas and their cities-nuclei

To better analyse the areas demographic development TFR is very important indicator. In ten of the areas observed the TFR does not exceed the country average (1.48 children). Lowest TFR is registered in area of Veliko Tarnovo (1.14 children). Close to the country average is the TFR in areas of Haskovo and Burgas. TFR varies between 1.53 and 1.72 children in areas of Stara Zagora, Pleven, Pazardzhik and Yambol. Highest value is registered in area of Sliven - 1.95 children.

Migration outside the areas boundaries influences the population number and structures. Due to migration population in areas of Vidin, Sliven, Yambol and Vratsa decreases by 6‰ to 8.5‰. Decrease between 4 - 5‰ annually is observed in areas of Pleven, Dobrich, Pazardzhik and Haskovo and about 2‰ in areas of Blagoevgrad and Shumen. Insignificant is the influence of migration on the population in areas of Ruse, Stara Zagora, Plovdiv and Burgas, where the migration growth is also negative, but with too low values - from minus 0.15‰ to minus 0.30‰.

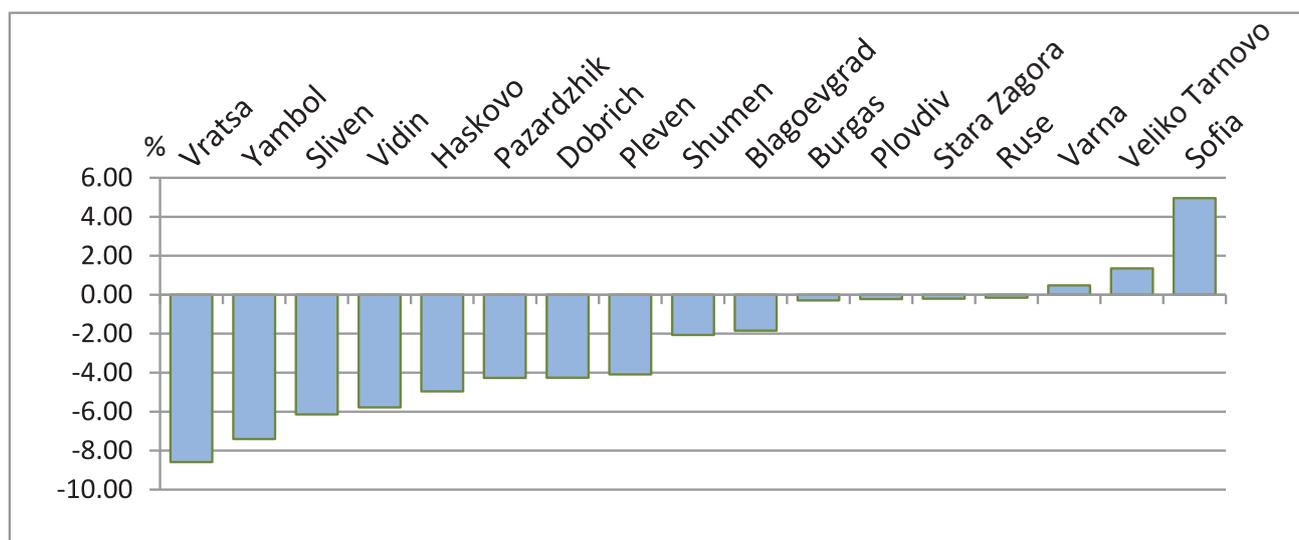
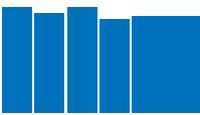


Figure IV.1.7. Migration growth rate by areas

Positive migration growth is registered in three areas only. The last is due to immigration from settlements outside their boundaries. Migration growth rate is positive in areas of Varna - 0.48‰, Veliko Tarnovo - 1.35‰ and the highest one - in area of Sofia - nearly 5‰.

Table IV.1.1. Average annual migration growth of the area's population

Areas	Average annual migration growth	
	Number	Share (‰)
Blagoevgrad	- 178	- 1.84
Burgas	-82	-0.29
Varna	199	0.48
Veliko Tarnovo	119	1.35
Vidin	-386	-5.78
Vratsa	-634	-8.59
Dobrich	-485	-4.26
Pazardzhik	-500	-4.27
Pleven	-681	-4.09
Plovdiv	- 124	-0.22
Ruse	-30	-0.15
Sliven	-773	-6.14
Sofia	7528	4.96
Stara Zagora	-33	-0.20
Haskovo	-469	-4.96
Shumen	-214	-2.07
Yambol	-738	-7.41



Present demographic situation in the country is a result of the stable tendencies observed during the last three decades and namely decrease of the population number due to negative natural and migration growth. In parallel to the above, a continuous population ageing is registered, limiting not only the population biological reproduction, but creating heavy problems in the labour resources development. Partly, the population ageing is due to increasing life expectancy, but it also causes serious problems in respect economic development and especially the social and insurance systems.

For the last ten years the mean age of country population has increased from 40.4 years in 2001 to 42.4 years in the period 2010 - 2012. Mean age of population in the separate areas is between 40.3 and 44.6 years. Lowest (41 years) is the mean age in areas of Varna, Sliven, Blagoevgrad and Burgas. In Sofia, Pazardzhik, Haskovo, Veliko Tarnovo, Shumen and Plovdiv it vary between 41.3 and 41.8 years. In areas of Dobrich, Stara Zagora and Vratsa the mean age is between 42 and 42.6 years and highest one is the mean age in Ruse, Yambol, Pleven and Vidin - 43 to 44.6 years.

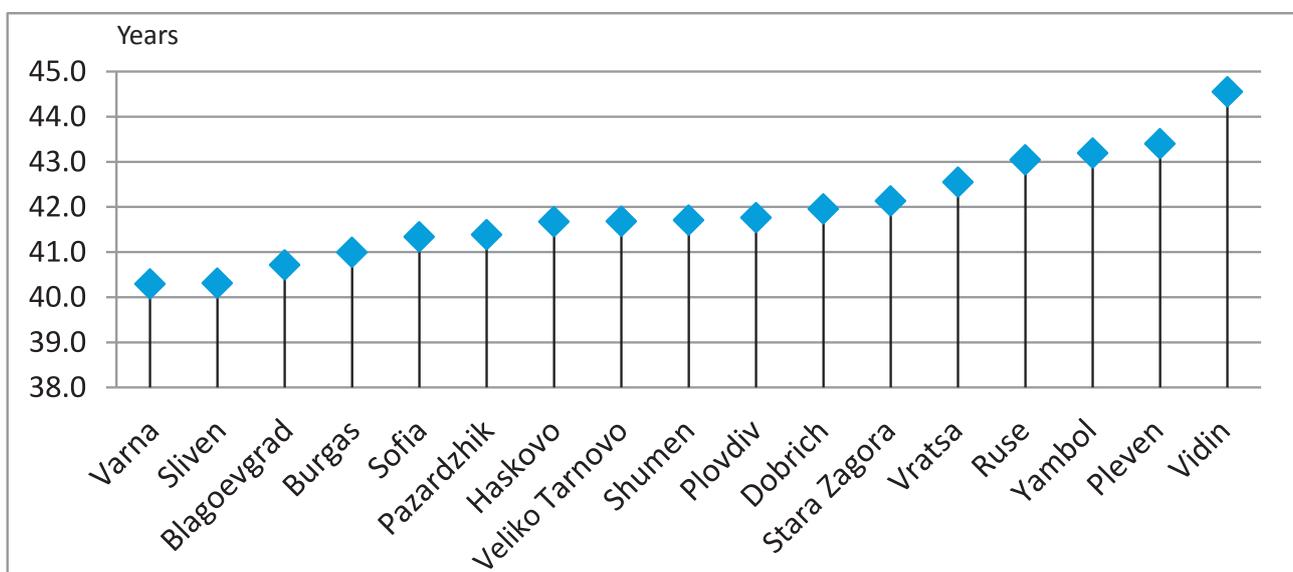


Figure IV.1.8. Mean age of population by areas

Unfavourable age structure of population and problems connected to the labour force are proved by the changes in demographic burden indicators of population in independent ages as well as its reproduction. It has to be mentioned that in usage of the demographic burden indicator, the relative share of burden due to young ages (0 - 14 years) has to be taken into account.

Lowest is the demographic burden of population in independent ages in the areas of Blagoevgrad and Veliko Tarnovo - 37.8% and 38.8% respectively. Demographic situation in the first area can be considered good since 51.5% of the burden is due to young population. Almost the same (over 50%) is the demographic burden in Sliven. In area of Veliko Tarnovo the burden due to young population is 41.5%, or lower than the country average - 42.5%.

In six areas - Sofia, Vratsa, Varna, Shumen, Dobrich and Burgas - the demographic burden varies between 41.2% - 43.4%. Out of them, better is the situation in Varna and Burgas, where 49.3% and 48.4% respectively are due to burden with young population. Lower is the respective share in Dobrich - 45.5% while in the rest areas values are a little over 44%.

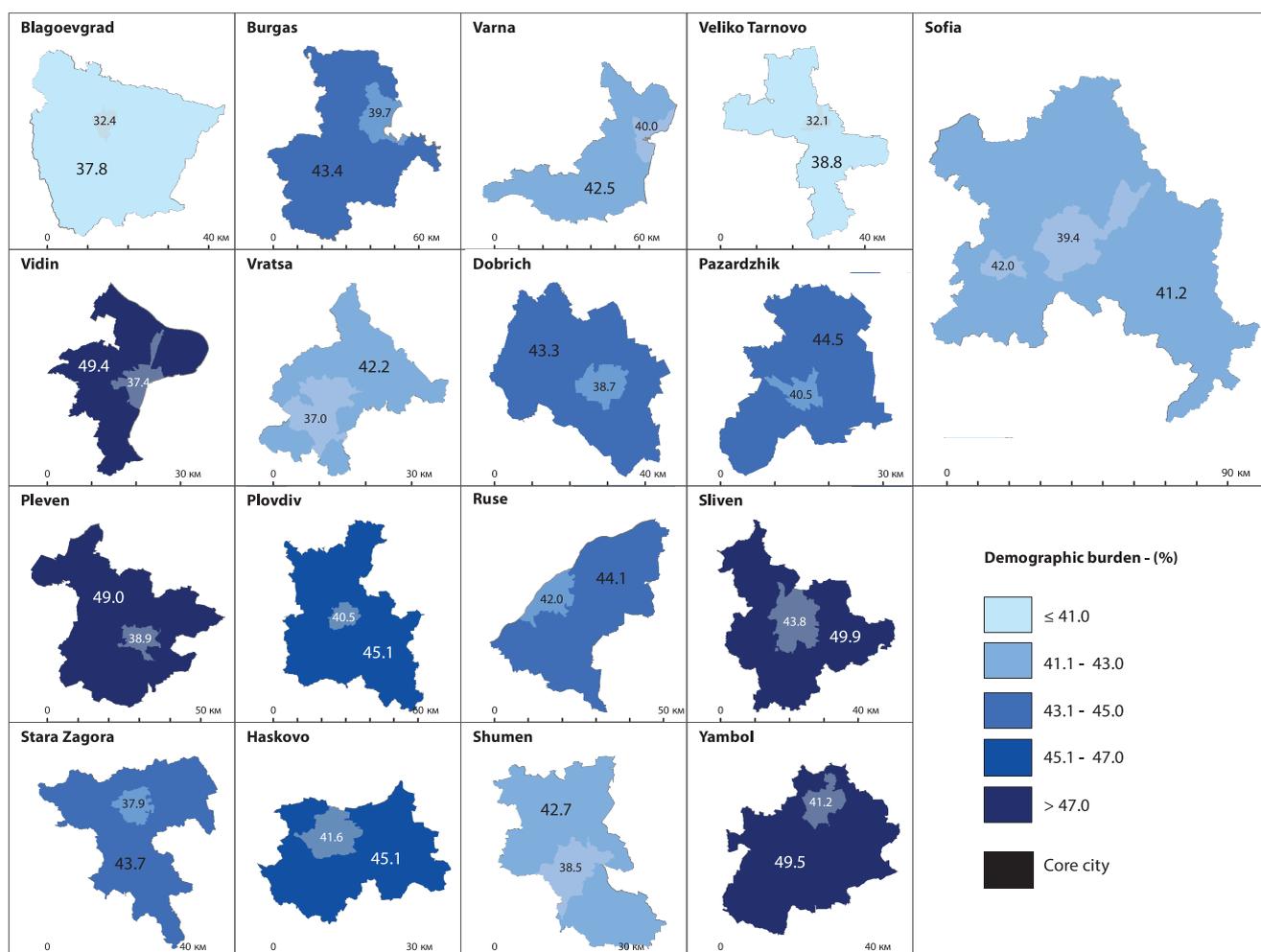


Figure IV.1.9. Demographic burden by areas and their cities-nuclei

The next is group of five areas (Stara Zagora, Ruse, Pazardzhik, Plovdiv and Haskovo) where the demographic burden of population in independent ages vary between 43.7% and 45%. Nearly 47% of the demographic burden in areas of Haskovo and Pazardzhik is due to young ages; lowest is the last in area of Ruse - 39.4%, while shares in the rest of areas are about 44%.

In the above three groups of areas the demographic burden is lower than the country average - 46.8%, but in some of them the demographic burden is due to the high share of elderly population.

Considerably higher is the demographic burden in areas of Pleven, Vidin, Yambol and Sliven - 49 to 49.9%. The last figure refers to area of Sliven, where 51.7% of the demographic burden is due to young population. The same share in the areas of Pleven and Yambol is 41% and 42%. Lowest is the burden due to young population in area of Vidin - 38%.

Demographic replacement rate is good for analysing the age structure and reproduction of population in working age. Total for the country in 2000 the last is 124%, or 100 persons exiting working age have been replaced by 124 persons aged 15 - 19 years. In 2005 the same ratio is 115%. During the next years the demographic replacement rate decreased quickly and in the period 2010 - 2012 reaches 71.3%.

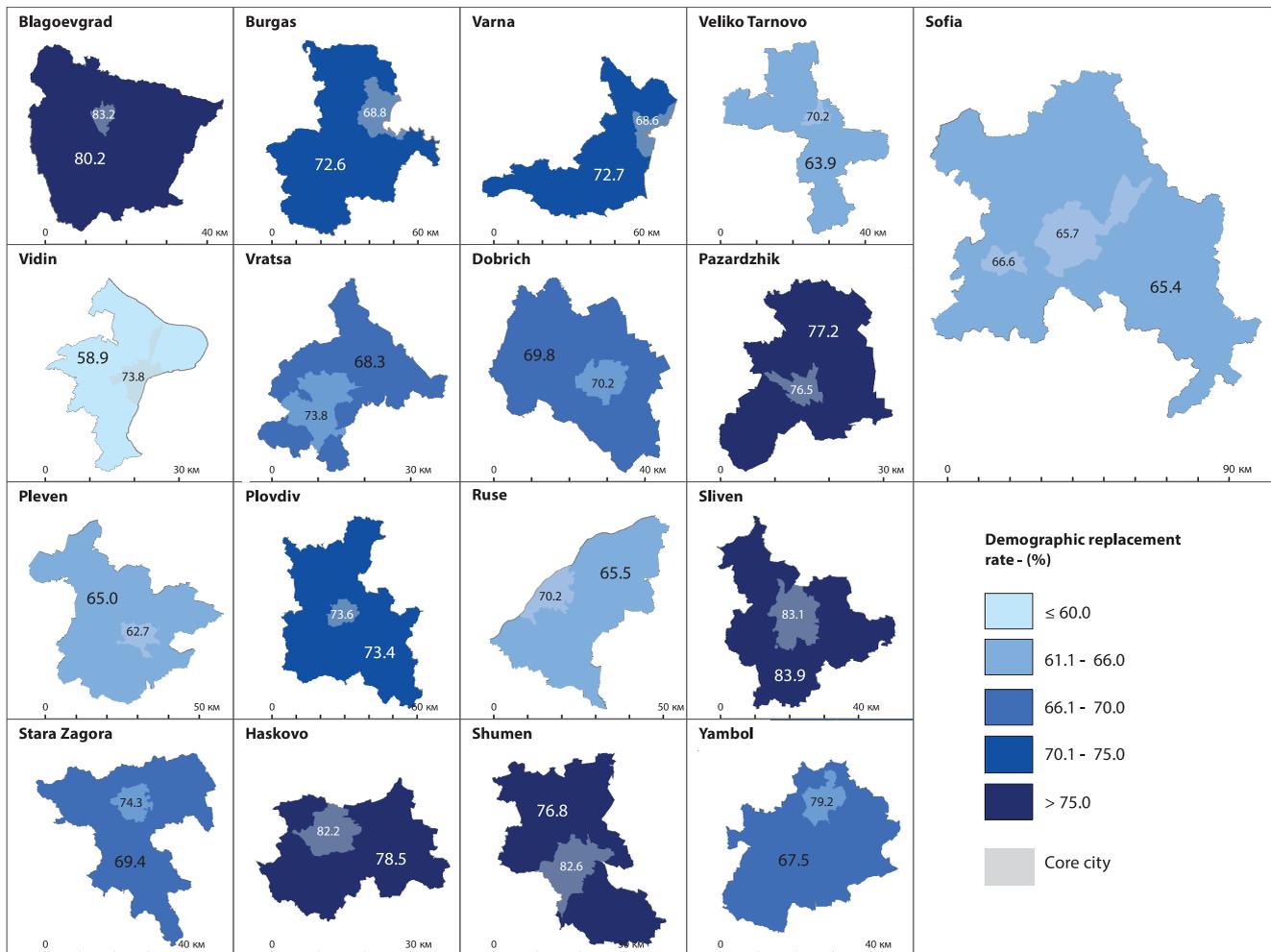
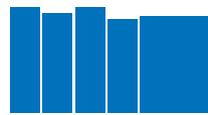


Figure IV.1.10. Demographic replacement rate by areas and their cities-nuclei

Lowest is the replacement of active population in area of Vidin - 100 persons exiting working age are replaced by 59 persons aged 15 - 19 years. Demographic replacement rate varies between 64% and 65.5% in areas of Veliko Tarnovo, Pleven, Sofia and Yambol. In the next group of four areas (Yambol, Vratsa, Stara Zagora and Dobrich) the demographic replacement rate is from 67.5% to 69.8%, or lower than the country average for the same period.

In areas of Burgas, Varna, Plovdiv, Shumen, Pazardzhik and Haskovo the replacement rate is between 73% and 78%. Most favourable is the situation in areas of Blagoevgrad (80%) and Sliven (83%), but even in them the replacement of labour force is not ensured.

## 2. Differences in the demographic development of cities. Cities and their areas

During the second half of 20<sup>th</sup> century due to migration and administrative changes in the country territorial structure the share of urban population increased quickly. Settlements status (urban/rural) in Bulgaria is administratively defined and therefore the degree of urbanization of separate settlements is under question. In parallel to the increase of population number, the share of urban population also increased. 73% (5 308 thousand) of the country population lives in towns/cities at the end of 2012. Out of total urban

population, 47% live in 7 cities, with a population over 100 thousand. The concentration of population strengthens the cities influence and limits the potential of smaller towns to create their own areas and urban zones of influence.

Based on the analysis of demographic processes and the main structural characteristics of population in the areas and their nuclei there are some important differences. The availability of such differences is due to the better human and economic potential of cities.

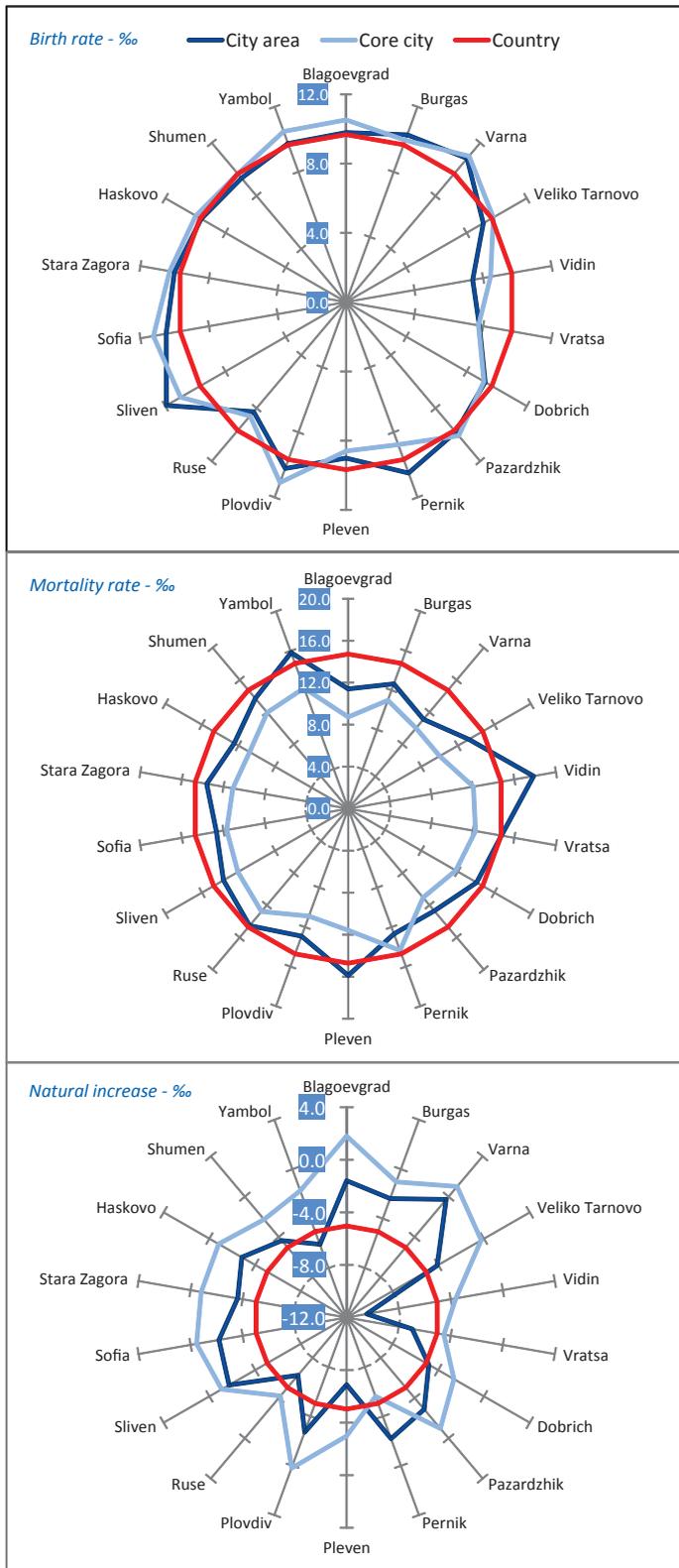
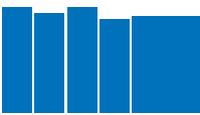
The total number of population of the areas observed is 4 261 thousand persons, 3 273 thousand or 76% of which are living in cities. Smallest is the number of population in city of Vidin - 48 thousand and highest in Sofia - 1 191 thousand. Out of the rest cities under observation (incl. Pernik, which is not area centre) in seven the population number is 60 to 79 thousand and in three 83 to 92 thousand. Population number is between 100 and 200 thousand in Pleven, Stara Zagora, Ruse and Burgas, while the population number in Varna and Plovdiv is 328 and 343 thousand respectively.

*Table IV.2.1. Demographic indicators of the area centres (cities)*

Area centres (cities)	Average annual rates (‰)			Total fertility rate - number of children
	Crude birth rate	Crude mortality rate	Natural increase	
Blagoevgrad	10.53	8.73	1.80	1.22
Burgas	9.96	10.98	- 1.03	1.35
Varna	11.01	10.00	1.00	1.36
Veliko Tarnovo	9.78	10.02	-0.24	1.09
Vidin	8.44	12.05	-3.61	1.36
Vratsa	7.74	12.26	-4.52	1.23
Dobrich	9.15	11.78	-2.63	1.37
Pazardzhik	10.07	11.05	-0.98	1.53
Pernik*	8.75	14.37	-5.62	1.38
Pleven	8.60	11.58	-2.98	1.32
Plovdiv	11.08	10.89	0.19	1.44
Ruse	8.59	12.79	-4.20	1.22
Sliven	10.99	12.07	- 1.08	1.73
Sofia	11.25	11.70	-0.46	1.31
Stara Zagora	10.29	11.10	-0.81	1.45
Haskovo	9.98	10.79	-0.81	1.47
Shumen	9.68	11.96	-2.27	1.25
Yambol	10.49	12.22	- 1.73	1.67

Highest is the crude birth rate in the three largest country cities - Sofia, Plovdiv and Varna. The crude birth rate for the period is a little above 11%. Crude birth rates vary between 10‰ to 11‰ in cities of Pazardzhik, Stara Zagora, Yambol and Blagoevgrad. In cities of Dobrich, Shumen, Veliko Tarnovo, Burgas and Haskovo the crude birth rate is about the country average - 9‰ and 10‰. Lower is the crude birth rate in cities of Pernik, Pleven, Ruse and Vidin - under 9‰ and lowest in Vratsa - 7.7‰.

\*Pernik is not an area centre.



In more of the cities the crude birth rate is higher, but the difference is from 0.3‰ to 1‰. Crude birth rates in cities of Vratsa and Dobrich are almost equal but yet lower by 0.1‰ than in their areas. Higher is the difference in cities of Burgas and Pleven - crude birth in the last is by 0.4‰ lower than in their areas. The difference is highest in city of Pernik - 1.75‰ compared to its area one.

In respect the fertility and especially TFR, larger discrepancies exist between the cities than between the cities and their peripheries. Highest is TFR for city of Sliven - 1.73 children per woman in fertile age. Close to the country average is the TFR in city of Haskovo - 1.47, city of Pazardzhik - 1.67 and city of Yambol - 1.67 children. Lowest is the TFR in city of Veliko Tarnovo - 1.1 children. In cities of Ruse, Blagoevgrad, Vratsa and Shumen TFR is 1.2 and in all the rest - between 1.3 and 1.5 children.

Figure IV.2.1. Crude birth and mortality rates and natural population increase in the cities and areas

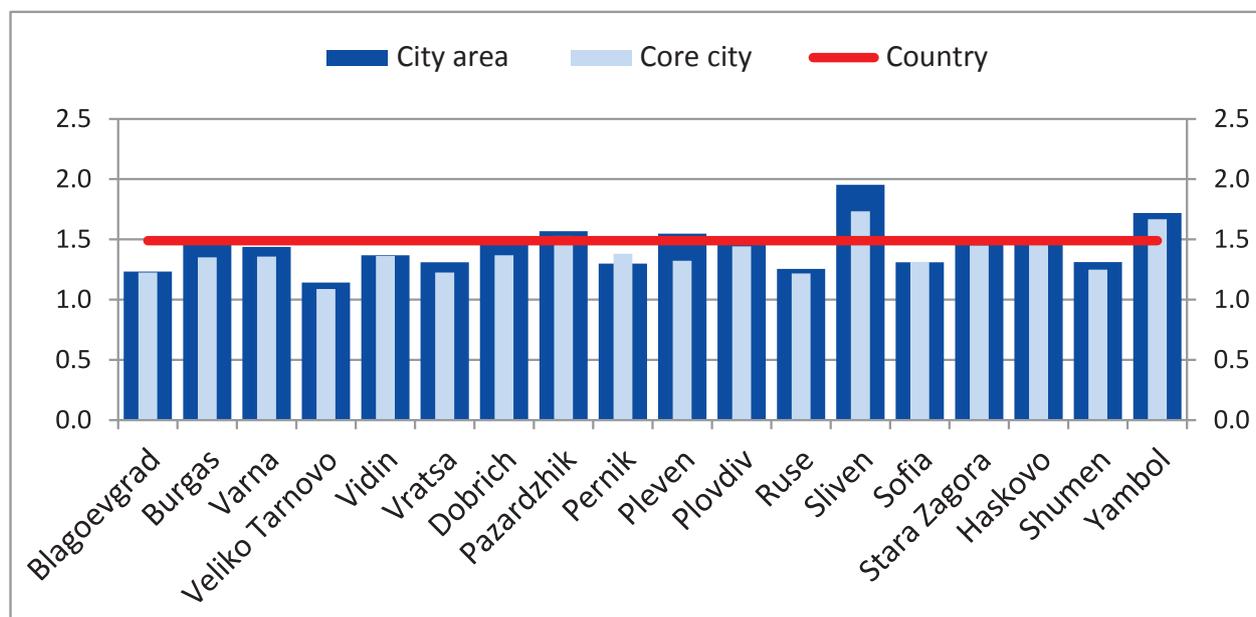


Figure IV.2.2. Total fertility rate in the cities and in the areas

In general fertility of female living in cities is lower than of those living in villages, but the difference between the areas and their centres is not so great. In cities TFR is lower than in their areas. Relatively bigger (0.22 children) is the difference in TFR between area and centre of Sliven and Pleven, as well as in Burgas - 0.15.

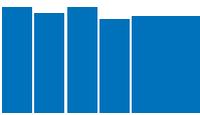
There are considerable differences in the mortality rates in separate cities, but all are lower than the country average. The only exclusion is city of Pernik where the mortality rate is 14.5‰ or close to the country average - 14.7‰. Moreover, the mortality rate in city of Pernik is higher than the area one.

Highest is the mortality rate in city of Blagoevgrad - nearly 9‰. Mortality varies between 10 and 11‰ in cities of Varna, Veliko Tarnovo, Haskovo, Plovdiv and Burgas. From 11‰ to 12‰ is the mortality in cities of Pazardzhik, Stara Zagora, Pleven, Sofia, Dobrich and Shumen. In Vidin, Sliven, Yambol, Vratsa and Ruse the mortality is higher - 12‰ - 13‰.

Areas periphery consists of small settlements (towns and predominantly villages), population in which is elderly. The last is the reason for higher mortality in the areas than in the respective city centre. Differences between the area and city mortality vary considerably. Highest is the difference between area and city of Vidin - 5.8‰, followed by Pleven - 4.3‰. Smaller differences are observed for Yambol - 3.6‰ and Veliko Tarnovo - 3.2‰. In the rest of areas the difference between the area and its centre mortality are smaller. Smallest is the difference in area of Varna - 1.1‰.

The levels of fertility and mortality lead to positive natural increase in three of the cities only - Blagoevgrad (1.8‰), Varna (1‰) and the insignificant one in Plovdiv (0.2‰). In all the rest, the natural increase is negative varying from minus 1‰ in cities of Veliko Tarnovo, Sofia, Stara Zagora, Haskovo, Pazardzhik, Burgas and Sliven to minus 3‰ in Yambol, Shumen and Pleven and minus 3.6‰ in Vidin. Highest is the negative value of natural increase in cities of Ruse and Vratsa - over 4‰ and in Pernik - minus 5.6‰.

Based on the data above it can be summarised that due to demographic processes in the observed areas their population decreases. The last is more intensive in the areas periphery or out of the cities territory, but as a whole population decreases in the area centres (except three cities). The decrease of cities population due to negative natural increase is lower by intensity.



Migration also strongly influences the city's population. For most of the cities the number of emigrants is higher than the number of immigrants. Highest is the negative migration growth in cities of Yambol and Vratsa. Due to emigration of their population to settlements outside their territories the population number decreases by 9‰ and 12‰ respectively. The respective figures for cities of Pleven, Sliven and Vidin are 8‰ to 9‰, and in Dobrich, Pazardzhik, Haskovo and Pernik - 5‰ to 7‰. Smaller loss of population is registered in cities of Blagoevgrad - 4.1‰, Shumen - 3‰ and Stara Zagora - 2‰. Migration does not influence the population number in cities of Ruse, Plovdiv and Varna. Positive is the migration growth in city of Veliko Tarnovo - 1.2‰ and in Sofia - more than 7 thousand persons annually or nearly 6‰.

*Table IV.2.2. Average annual migration growth in the cities centres of areas*

Area centres (cities)	Average annual migration growth due to migration outside the area		Average annual migration growth of the nuclei	
	Number	Share - ‰	Number	Share - ‰
Blagoevgrad	-289	-4.10	- 123	- 1.75
Burgas	-258	- 1.31	-260	- 1.32
Varna	41	0.13	-277	-0.84
Veliko Tarnovo	79	1.16	-62	-0.91
Vidin	-436	-9.06	-72	- 1.49
Vratsa	-738	- 12.33	- 134	-2.24
Dobrich	-446	-4.89	- 10	-0.11
Pazardzhik	-372	-5.09	- 12	-0.16
Pernik*	-536	-6.83	-292	-3.72
Pleven	-876	-8.11	-238	-2.20
Plovdiv	5	0.01	- 178	-0.52
Ruse	-56	-0.37	-73	-0.28
Sliven	-757	-8.24	-52	-0.60
Sofia	7085	5.95	-692	-0.58
Stara Zagora	-273	- 1.97	-235	- 1.70
Haskovo	-519	-6.82	-70	-0.92
Shumen	-257	-3.08	- 12	-0.14
Yambol	-823	- 11.03	- 155	-2.08

Analysis of migration between cities-centres and their zones of influence shows that all of the cities (except Dobrich where insignificant growth of 0.11‰ is observed) have negative migration growth. Due to the last highest is the decrease of population of Pernik - 3.72‰, followed by Vratsa - 2.24‰, Pleven - 2.20‰ and Yambol - 2.08‰. Lower (between 1.3‰ and 1.8‰) is the negative growth in cities of Burgas, Vidin, Stara Zagora and Blagoevgrad. Lowest (less than 0.5‰) is the influence of migration on the population number of cities of Plovdiv, Ruse, Pazardzhik and Shumen. In the rest of the cities migration growth is between 0.5‰ and 1‰.

\*Pernik is not an area centre.

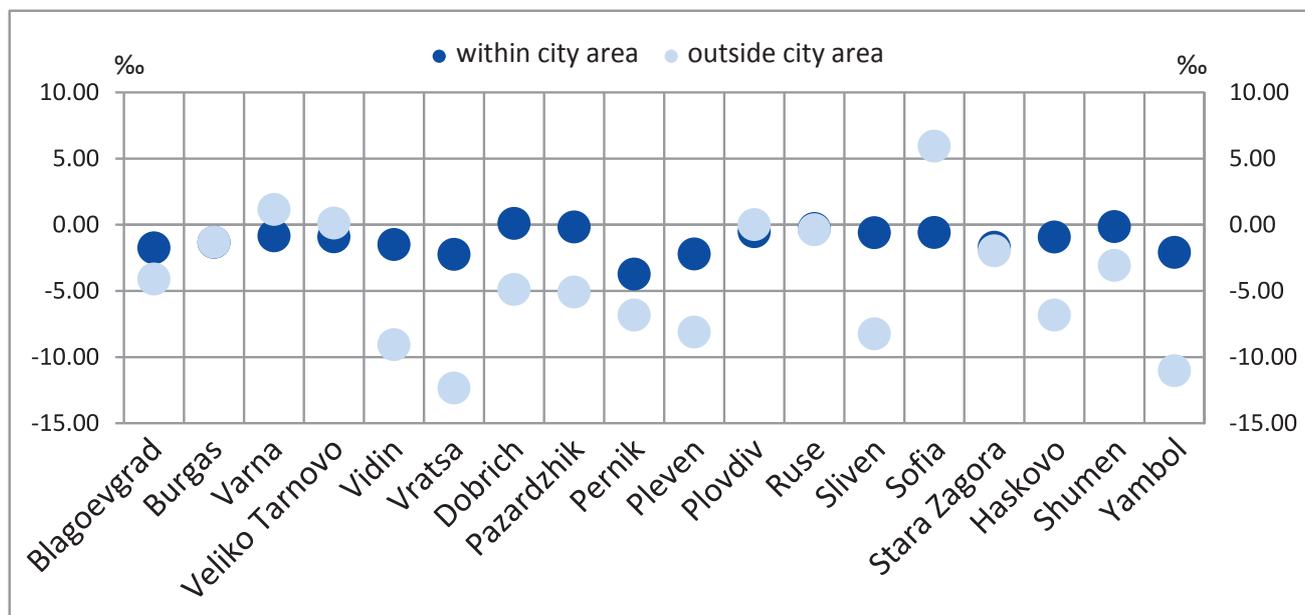


Figure IV.2.3. Migration growth of cities due to migration from their area and from other areas

Annually over 10 thousand persons migrate from the nuclei to the periphery, compared to 7 thousand who migrate from the periphery to nuclei. The intensity of these two flow is 3.21‰ and 2.32‰ respectively. As a result, the city’s population decreases by 3 thousand persons annually or 0.9‰ of their population.

Data for the three-year period show that migration from cities to villages became more intensive due to number of reasons - better environment in the surrounding territories, allowing building up of detached houses, improved transport infrastructure in some directions as well as the increasing number of cars - all these make it possible to combine the better living conditions outside the cities and availability of employment in bigger cities. Indirect indicator for existence of such opportunities is the increasing number of everyday labour migration. These directions of migration represent the influence of the nuclei-centre on urbanisation processes.

Functions and development of areas depends not only on the available and newly created production infrastructure, but also on the human capital development. Almost all country cities are influenced by the negative demographic processes, but their intensity is different.

Mean age of population is lowest in city of Blagoevgrad - 39 years. In city of Veliko Tarnovo the last is 8 months higher - 39.8 years. In eleven cities the mean age is between 40 and 41 years, while in Vratsa, Dobrich and Ruse - above 41 years. Highest is the mean age of population of Plevnen - 42.2 years and of Pernik - nearly 43 years.

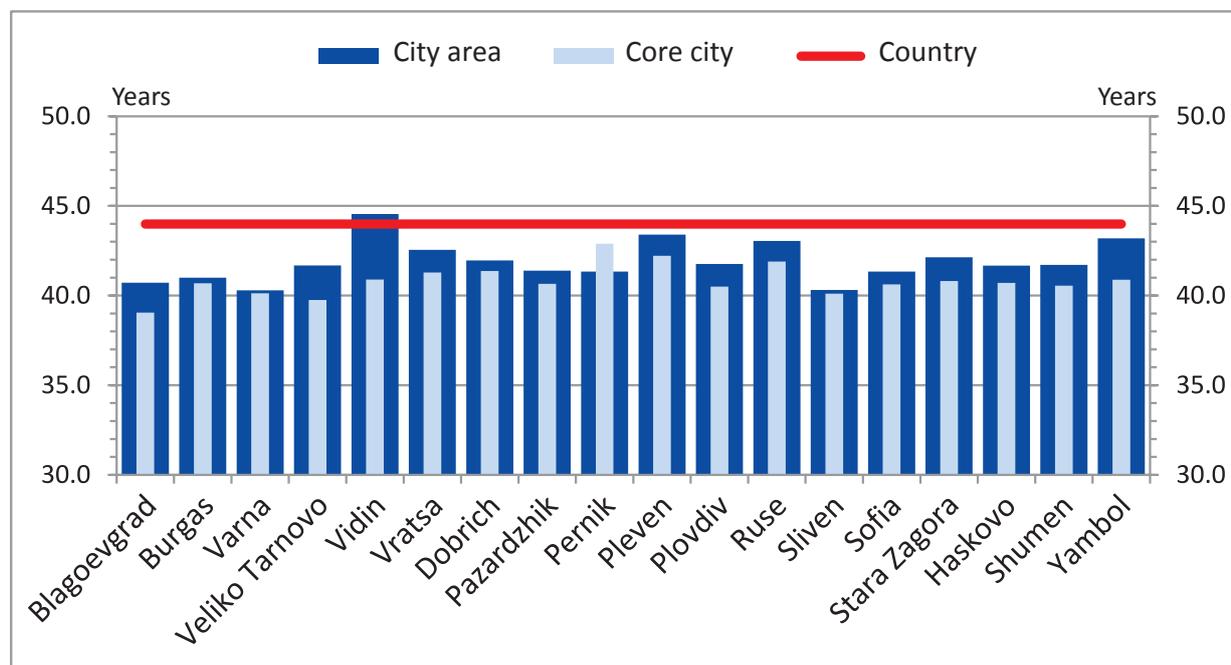


Figure IV.2.4. Mean age of city and area populations

Mean age of population in the cities is lower than in their areas. Population of city of Vidin for example is 3.7 year younger than in area of Vidin. In Yambol the difference is 2.3 years. Considerable differences are observed also in the following areas and their centres: Veliko Tarnovo - 1.9, Blagoevgrad - 1.7, Vratsa, Pleven, Stara Zagora, Shumen and Plovdiv - 1.3 years. The difference is smaller for the rest areas and their centre and even does not exist for Sliven, Varna and Burgas. The only exception is Pernik, where the mean age of city population is 1.6 years higher than the mean age in area of Sofia.

Population age structure predefines the demographic burden of population in independent ages (16 - 64 years). Highest is demographic burden in Sliven, but 53.2% of the last is due to young ages. Between 40% to 42% is the demographic burden in cities of Ruse, Pazardzhik, Plovdiv, Yambol, Haskovo and Pernik. In Pernik 42% of the last is due to young population, while in Ruse and Plovdiv - 43% and 48%. Demographic burden is above 50% in the rest cities.

In six of the cities (Shumen, Dobrich, Pleven, Sofia, Burgas and Varna) the demographic burden is lower and varies between 38.5% and 40%. Out of them, highest is the burden due to young ages in cities of Varna and Burgas - nearly 50%. Lower values (46% to 48%) are registered in Shumen, Dobrich, Pleven and Sofia.

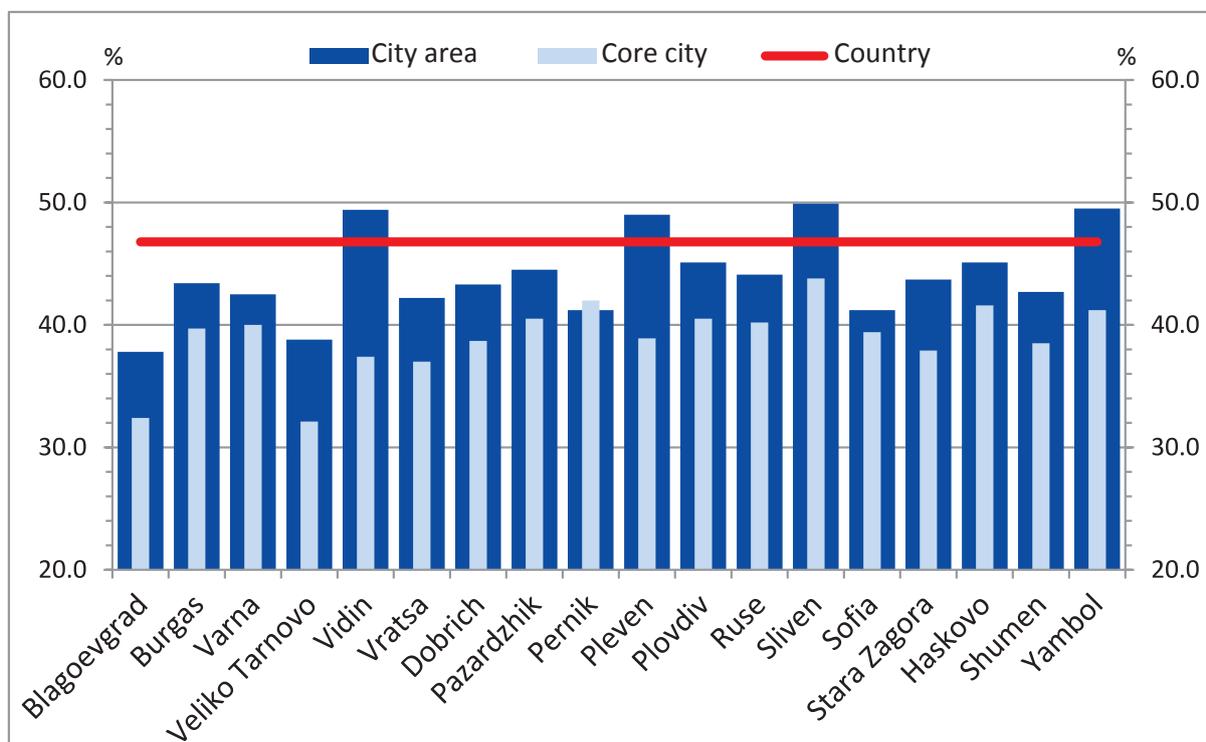


Figure IV.2.5. Demographic burden of active population in the cities and areas

In Vratsa, Vidin and Stara Zagora the demographic burden is lower - between 37% and 38%. In Vidin 52% of the last is due to young ages, while in Stara Zagora and Vratsa - about 50%.

Lowest (32%) is the demographic burden in cities of Veliko Tarnovo and Blagoevgrad, but the part if it due to young ages is different - 48% and over 53% respectively.

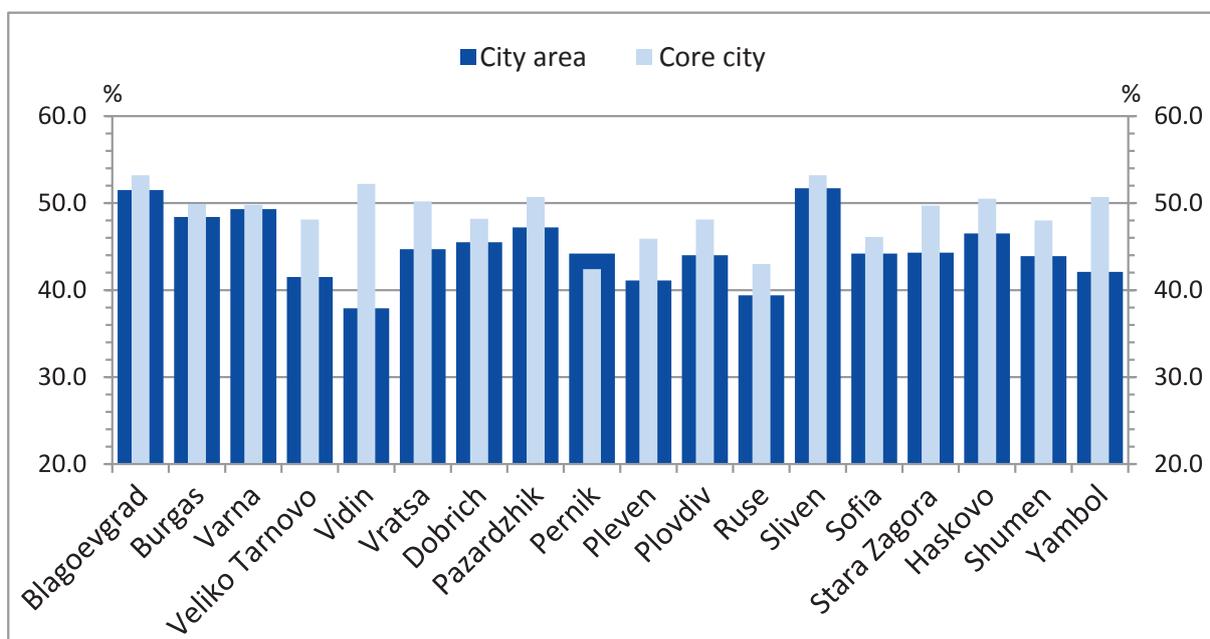
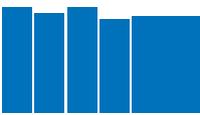


Figure IV.2.6. Share of young ages in the total demographic burden



Comparisons of the demographic burden show that it is lower in the cities than in their areas and the differences are considerable. Highest is the difference (12%) between city of Vidin and area of Vidin - 37% and 49% respectively. Second in size (10%) is the difference for Pleven - 39% and 49%. The big differences found are mainly due to the demographic burden in the peripheries, ones of the highest in the country. The difference for Yambol is also considerable - 8%, but the last is higher in city of Yambol (41%) than in area of Yambol (49%). The differences in the rest of areas vary between 2% to 6.7%.

Based on data above it can be concluded that in the areas as a whole the demographic burden indicators are systematically higher than in the cities and the shares of burden with young population in the cities are higher than the respective ones in the areas.

Demographic replacement rates of the population in active ages characterise not only the population reproduction at the moment, but also the expected developments in the future.

Different demographic development of the cities predefines different reproduction of the population in active ages. Compared to the demographic replacement rate total for the country, the cities can be separated in two groups:

In eight of the observed centres the demographic replacement rate is lower than the country average (71.3%). Lowest one is observed in city of Pleven where 100 persons exiting working age are replaced by 63 persons aged 15 - 19 years. Better is the situation in cities of Sofia, Pernik, Varna and Burgas (from 65.7% to 68.8%) and in Veliko Tarnovo, Ruse and Dobrich - from 65.7% to 70.2%.

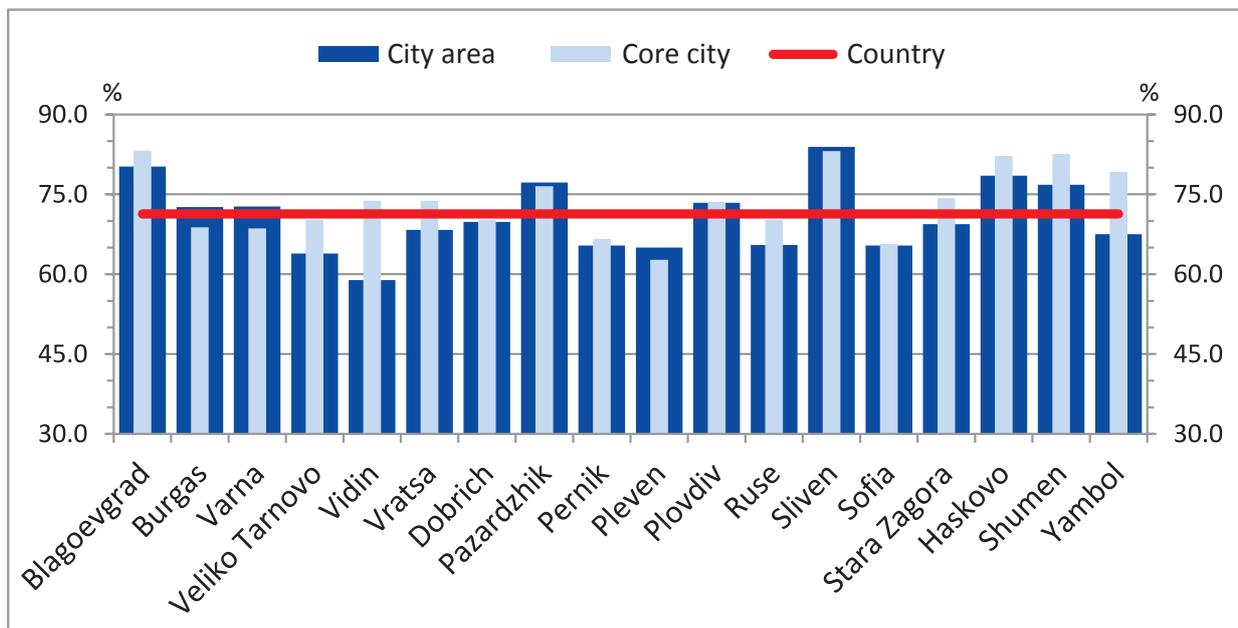


Figure IV.2.7. Demographic replacement rate in the cities and areas

In ten of the cities the demographic replacement rate is over the country average. The values vary between 73.6% to 74.3% in cities of Plovdiv, Vidin, Vratsa and Stara Zagora. Close to the last is the demographic replacement rate in city of Pazardzhik - 76.5% and higher in city of Yambol - 79.2%. Considerably higher are the values in cities of Haskovo and Shumen (82%), in Sliven and Blagoevgrad - 83%.

Comparison between the demographic replacement rates in the areas and their city-centres shows that the last are higher in the city-centres. Highest is the difference (15%) between the area of Vidin and its centre and the difference is mainly due to the lowest demographic replacement rate in the area (59%). Nearly 12% is the difference between city of Yambol and its area. The last is due to the relatively high rate in the city (compared to the country average) and the low one in the area. Between the areas of Veliko Tarnovo and Ruse

and their centres the difference is about 5 - 6%, but the demographic replacement in both cities is lower than the country average. The same are the differences in the areas of Vratsa and Stara Zagora, in which the demographic replacement of the city's population is over the country average, while of the area's one - below. Demographic replacement rate in city of Shumen is 6% higher than in the area of Shumen. The last is obvious at higher than the country rates in the area and its centre. Similar is the demographic replacement in the area of Haskovo. Highest are the demographic replacement rates in city of Blagoevgrad (83%) and its area (80%) - or the difference is 3%.

*Table IV.2.3. Demographic replacement rates in the cities-centres and areas*

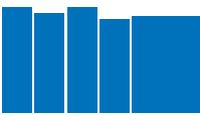
Population	(Per cent)		
	Area-total	City-centre	Differences
Pleven	65.0	62.7	-2.3
Sofia	65.4	65.7	0.3
Pernik*	65.4	66.6	1.2
Varna	72.7	68.6	-4.1
Burgas	72.6	68.8	-3.8
Veliko Tarnovo	63.9	70.2	6.3
Ruse	65.5	70.2	4.7
Dobrich	69.8	70.2	0.4
Plovdiv	73.4	73.6	0.2
Vidin	58.9	73.8	14.9
Vratsa	68.3	73.8	5.5
Stara Zagora	69.4	74.3	4.9
Pazardzhik	77.2	76.5	-0.7
Yambol	67.5	79.2	11.7
Haskovo	78.5	82.2	3.7
Shumen	76.8	82.6	5.8
Sliven	83.9	83.1	-0.8
Blagoevgrad	80.2	83.2	3.0
<b>Republic of Bulgaria</b>		<b>71.3</b>	<b>x</b>

Below 1% are the differences in Sofia, Pernik, Dobrich and Plovdiv, but only in Plovdiv the demographic replacement rate (73%) is over the country average.

In five of the cities the demographic replacement rates are lower than in the respective areas. Younger is the population and better are the replacement rates in the areas of Varna and Burgas. In both the demographic replacement of city population is 4% higher than in the respective area and higher than the country average. Lower is the difference (2.3%) between city and area of Pleven, but in both the replacement of active population is strongly limited - 63% in the city and 65% in the area.

It can be concluded that the reproduction of labour resources is limited due to small number of young population. The last is better expressed in the area periphery than in the nuclei, but concern the whole county.

\*Pernik is not an area centre.



### 3. Main aspects and differences in the areas socio-economic structure

Summarised data show:

1. Largest in respect the households' numbers are areas Sofia-capital, Plovdiv, Burgas and Varna.
2. There are no considerable differences in the socio-economic structure of households in the 17 areas. The only exclusion is the structure of area of Sofia.
3. It cannot be expected that smaller areas as Vidin and Vratsa are more negatively influenced by their own structures by socio-economic characteristics of one-member households, households of retired persons and households of lone parents.

*Table IV.3.1. Average annual number of households (2010 - 2012) and structure by areas and by main socio-economic characteristics*

Areas	Average annual number of households	Share of one-member households	Share of lone parents households	Share of households of retired persons	Share of households with children up to 18 years of age
		area/country	area/country	area/country	area/country
		%	%	%	%
<b>Total</b>	<b>2906397</b>	<b>x</b>	<b>x</b>	<b>x</b>	<b>x</b>
Blagoevgrad	37478	27.5/ 2.5	1.9/ 0.7	15.2/ 0.7	28.8/ 0.9
Burgas	111371	26.0/ 2.5	2.5/ 2.9	16.7/ 2.4	29.2/ 2.6
Varna	165795	26.9/ 3.8	2.6/ 4.3	15.9/ 3.4	29.2/ 3.9
Veliko Tarnovo	35217	31.1/ 0.9	2.2/ 0.8	16.4/ 0.7	26.4/ 0.7
Vidin	26348	27.7/ 0.4	2.3/ 0.6	20.0/ 0.7	26.4/ 0.6
Vratsa	28444	25.4/ 0.6	2.2/ 0.6	16.8/ 0.6	29.6/ 0.7
Dobrich	43327	24.4/ 0.9	2.5/ 1.1	16.5/ 0.9	27.8/ 1.0
Pazardzhik	42813	23.3/ 0.9	2.4/ 1.0	15.6/ 0.9	31.4/1.1
Pleven	63125	25.1/ 1.4	2.4/ 1.5	16.7/ 1.3	29.7/1.5
Plovdiv	214486	25.8/ 4.5	2.4/ 5.1	16.3/ 4.5	29.2/ 5.0
Ruse	77143	27.0/ 1.8	2.6/ 2.0	16.8/ 1.7	28.0/ 1.7
Sliven	46767	23.7/ 1.0	2.7/ 1.2	15.9/ 0.9	31.4/ 1.2
Sofia-capital	623067	28.4/ 15.3	2.7/ 16.7	15.6/ 12.4	27.8/ 13.9
Stara Zagora	65918	26.3/ 1.5	2.6/ 1.7	16.4/ 1.4	28.4/ 1.5
Haskovo	35009	23.0/ 0.7	2.6/ 0.9	15.3/ 0.7	31.7/ 0.9
Shumen	39657	26.1/ 0.9	2.6/ 1.0	16.0/ 0.8	29.5/ 0.9
Yambol	38318	25.5/ 0.8	2.4/ 0.9	17.4/ 0.8	28.7/ 0.9

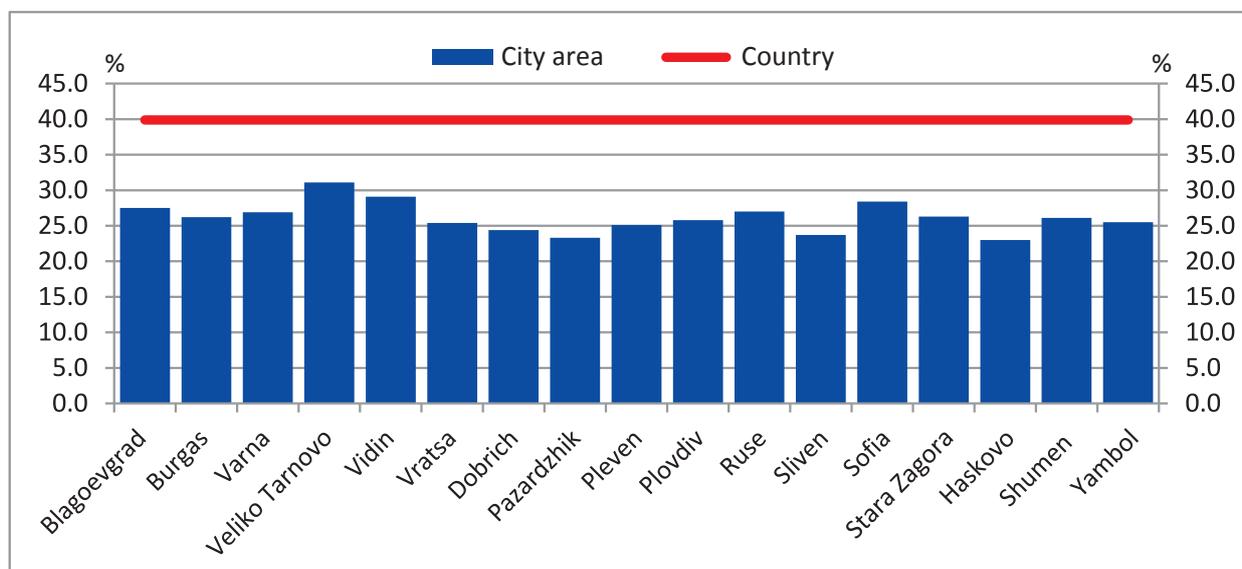


Figure IV.3.1. Share of one-member households by areas

4. Relatively higher number of employed and employment rate is registered in the four biggest areas - Sofia, Plovdiv, Varna and Burgas.

5. Bigger is the number of unemployed in the biggest areas, but the unemployment rate is relatively lower than in the other ones.

Table IV.3.2. Average annual number of employed and unemployed, employment and unemployment rates by areas in the period 2010 - 2012

Areas	Number of employed (20 - 64 years)	Employment rate %	Number of unemployed (15 - 74 years)	Unemployment rate %
<b>Total</b>	<b>2926111</b>	<b>62.5</b>	<b>345870</b>	<b>11.1</b>
Blagoevgrad	39436	60.3	5127	12.5
Burgas	118474	65.5	10994	8.8
Varna	179861	66.8	15730	8.5
Veliko Tarnovo	35607	59.7	4949	13.7
Vidin	23291	56.5	3642	14.3
Vratsa	29357	61.3	3836	12.4
Dobrich	45107	61.3	6065	12.3
Pazardzhik	45763	61.0	6177	12.0
Pleven	64141	62.2	8739	12.2
Plovdiv	229267	65.0	15049	8.0
Ruse	80859	65.5	7409	8.5
Sliven	46509	60.1	6322	11.8
Sofia-capital	690524	68.5	46148	7.7
Stara Zagora	72484	68.1	6106	8.2
Haskovo	38227	63.6	4964	12.1
Shumen	41959	62.7	5502	12.1
Yambol	37870	61.6	5231	12.4

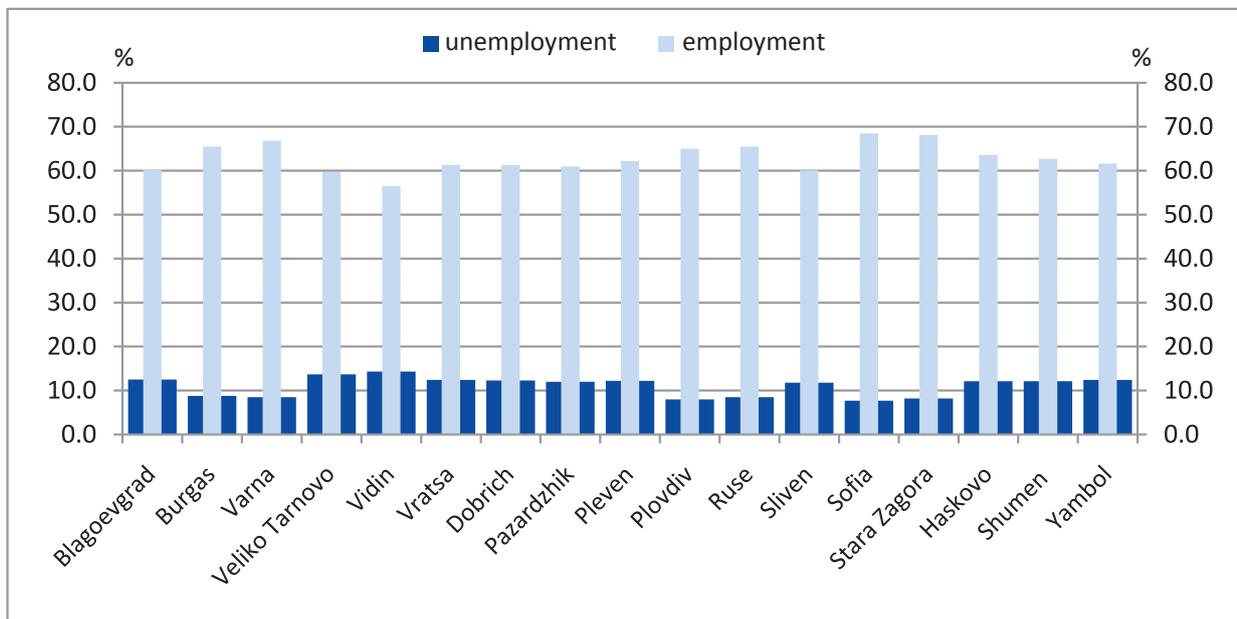


Figure IV.3.2. Employment and unemployment rates by areas for the period 2010 - 2012

6. Poverty indicators are relatively lower in the bigger areas. The last is due to the more favourable situation at the labour market, as well as to the higher number of population in working age.

Table IV.3.3. Poverty levels and deprivation by areas in 2012

Areas	Poverty level - %	Poverty level before social transfers - %	Deprivation level - %
<b>Total</b>	<b>21.1</b>	<b>49.4</b>	<b>44.2</b>
Blagoevgrad	25.3	53.3	46.8
Burgas	14.7	44.0	40.3
Varna	14.2	43.8	40.2
Veliko Tarnovo	27.5	55.5	50.5
Vidin	29.6	57.6	51.9
Vratsa	25.1	53.4	46.8
Dobrich	22.1	48.6	42.7
Pazardzhik	20.9	47.7	42.3
Plevan	21.6	48.4	42.7
Plovdiv	16.4	45.6	41.5
Ruse	14.2	43.7	40.0
Sliven	20.2	46.9	41.6
Sofia-capital	13.3	42.7	39.2
Stara Zagora	13.3	43.0	39.5
Haskovo	20.7	47.1	41.6
Shumen	21.3	47.8	42.2
Yambol	22.4	49.0	42.2

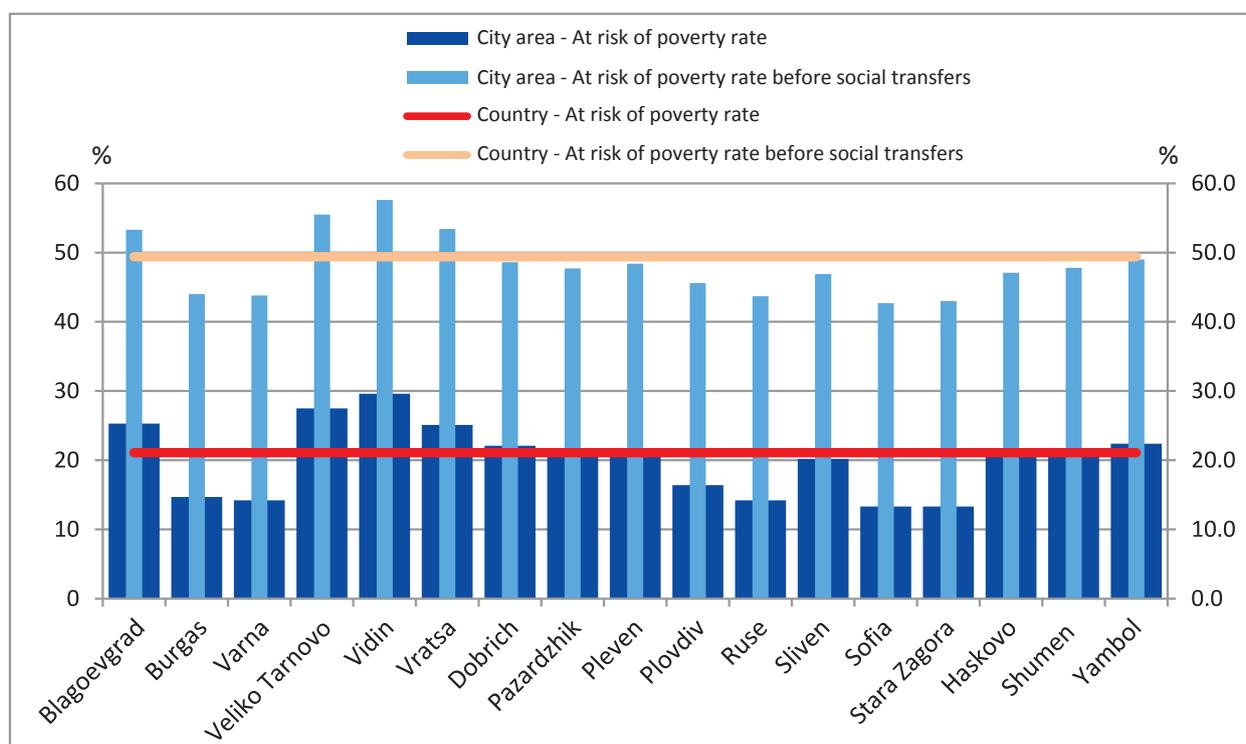


Figure IV.3.3. Poverty levels by areas in 2012

7. More favourable is the demographic situation in bigger areas where the number of children and young people is higher.

Table IV.3.4. Number of children and students in 2012 and average annual rate of early school leavers

Areas	Number of children aged 0 - 4 years	Number of students in the area cities	Early school leaver rate - %
<b>Total</b>	<b>146865</b>	<b>283959</b>	<b>14.6</b>
Blagoevgrad	2324	13466	8.6
Burgas	6345	9828	8.1
Varna	9112	33181	23.3
Veliko Tarnovo	1876	2863	23.7
Vidin	1143	-	12.8
Vratsa	1840	605	14.9
Dobrich	2169	1155	14.0
Pazardzhik	2024	-	14.5
Pleven	3494	1718	8.9
Plovdiv	11370	39717	6.8
Ruse	3641	10459	13.9
Sliven	2218	795	6.7
Sofia-capital	32637	114793	6.3
Stara Zagora	3420	4945	14.2
Haskovo	1954	146	14.2
Shumen	2139	7621	14.6
Yambol	1716	733	13.0

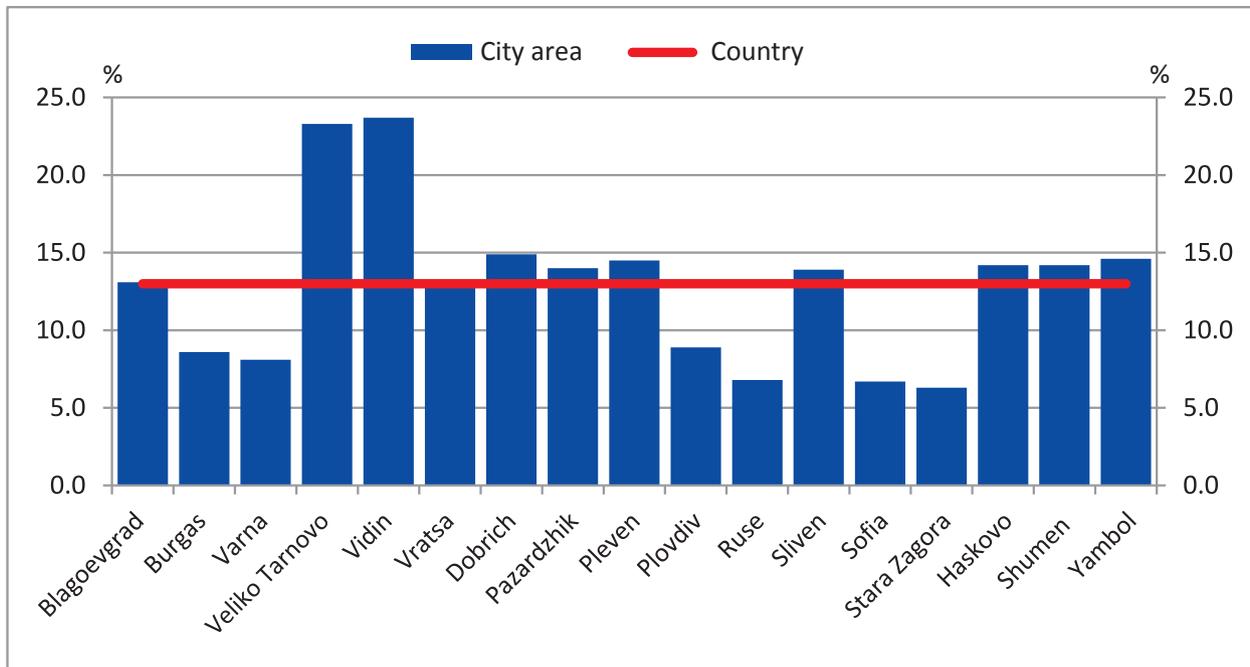
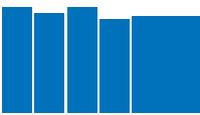


Figure IV.3.4. Early school leavers in 2012 by areas

8. Level of early school leavers in the bigger areas is lower.

In conclusion it can be noted that the area centres have significant potential for development, which determines their growth at the expense of smaller settlements.

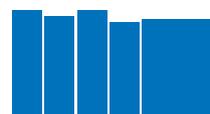
## CONCLUSION

Negative demographic tendencies during the last over 30 years make impossible the reproduction of population in active ages. Since 2007 the reproduction of working age population has been quite limited and even simple reproduction cannot be ensured. The last is true not only for the areas under observation, but for their nuclei also. National and local labour markets, the country economy potential as well as regional ones suffer in their development.

Current demographic situation and the projections elaborated by the NSI show that urbanisation and the influence of cities will be realised in unfavourable demographic situation. In 2014 the average annual population of Bulgaria is 7 224 thousand and according to the projections (2013) it will decrease to 6 967 thousand in 2020 and to 6 760 thousand in 2025. The tendency of decrease will continue and in 2030 the country population will drop to 6 555 thousand. Share of population up to 14 years of age will drop to 12% in the next two decades, while the share of population aged 15 - 64 years will remain about 63% and of elderly population - over 24%. Demographic burden will change from 56% in 2020 to nearly 60% in 2030. Small increase of the demographic replacement rate can be expected - from or 69% in 2020 to 75% in 2030, but the last will be result of the decrease of population aged 60 - 64 years.

Population decrease will delay creation of area communities and will influence negatively the impact of city-centres on the rest territory and the respective resources. The last may lead to irregular economic development of well urbanised (with a presence of big cities) and less urbanised territories (without big cities). Overcoming of such differences is connected to one of the strategic goals included in the 'National Strategy for Spatial Development in the period 2013 - 2025 година'. The last is directed to strengthening of the moderate polycentric network of cities with an improved urban environment, contributing balanced territorial development and decrease of the differences between the urban and rural regions'.

The role of government institutions in this process is to find the most accurate and optimal solutions to overcome the negative imbalance in the country development. The last means to prevent creation of country areas where the prosperity coexists alongside poverty. The last does not mean that the principle of egalitarianity should dominate. Rather it comes to fundamental politics based on which optimality, rationality, efficiency and effectivity of the resources have to be achieved.



# URBAN ATLAS



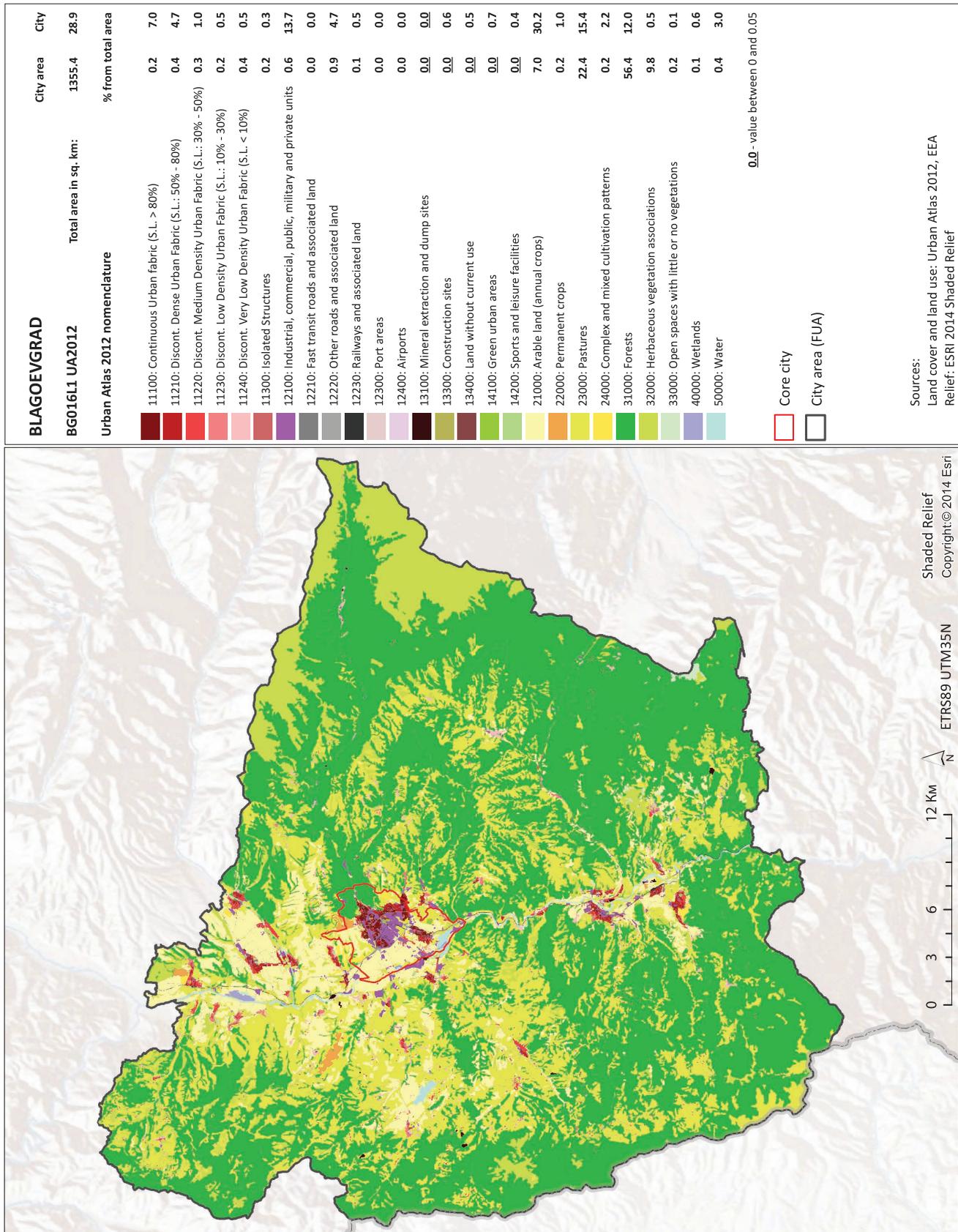


Figure A.1. Land use and land cover for area of Blagoevgrad. Urban Atlas 2012

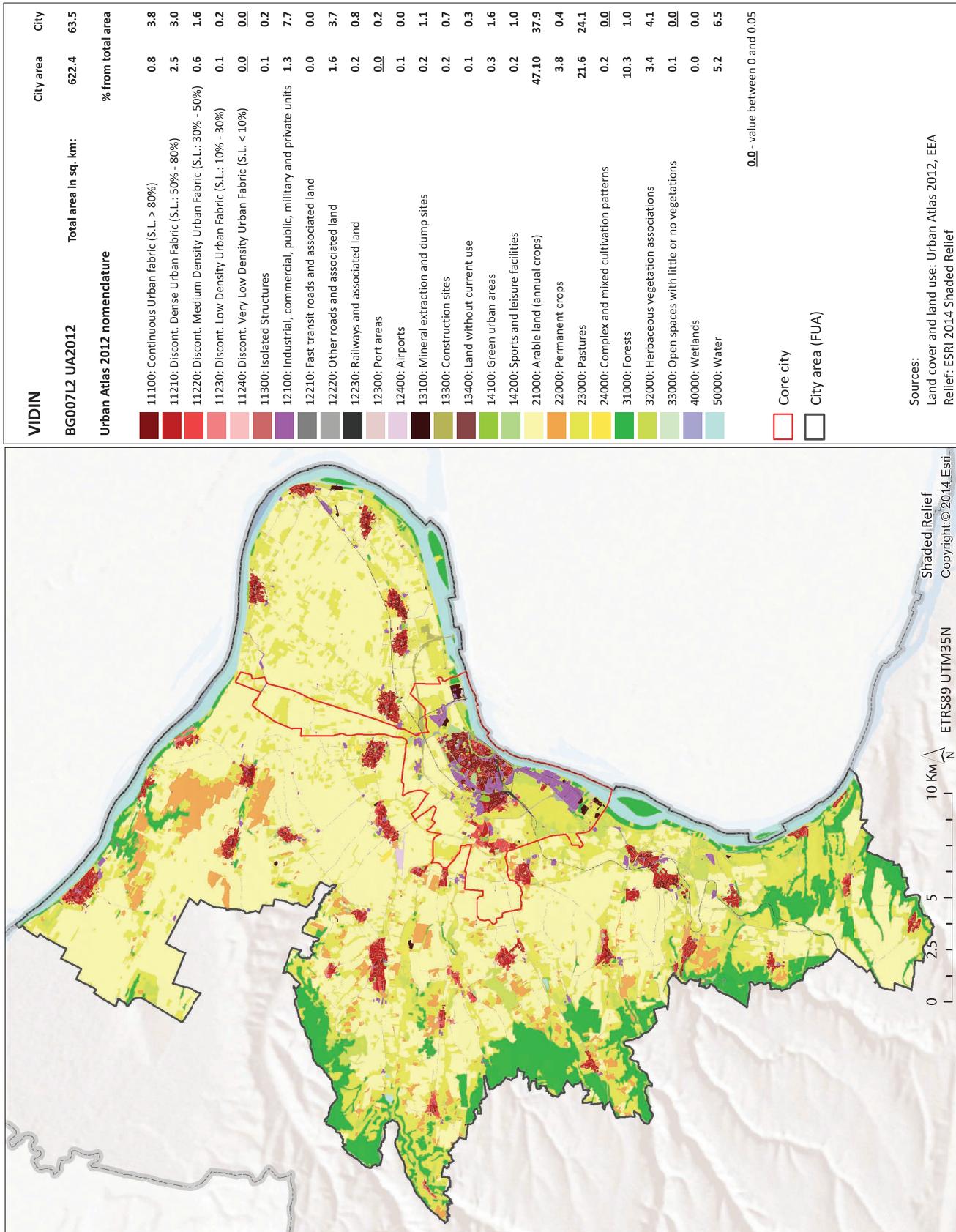


Figure A.2. Land use and land cover for area of Vidin. Urban Atlas 2012.

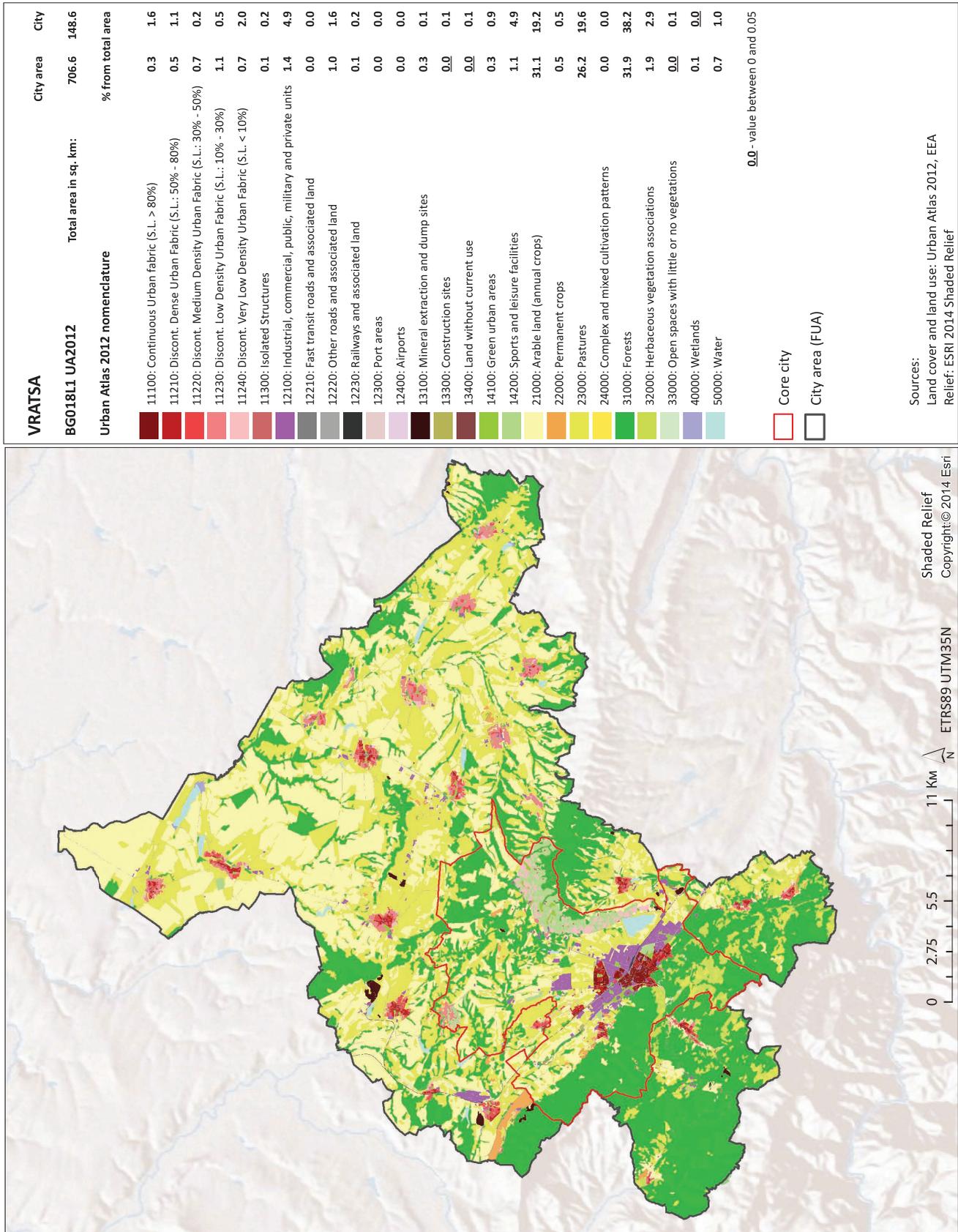
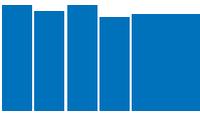


Figure A.3. Land use and land cover for area of Vratsa. Urban Atlas 2012

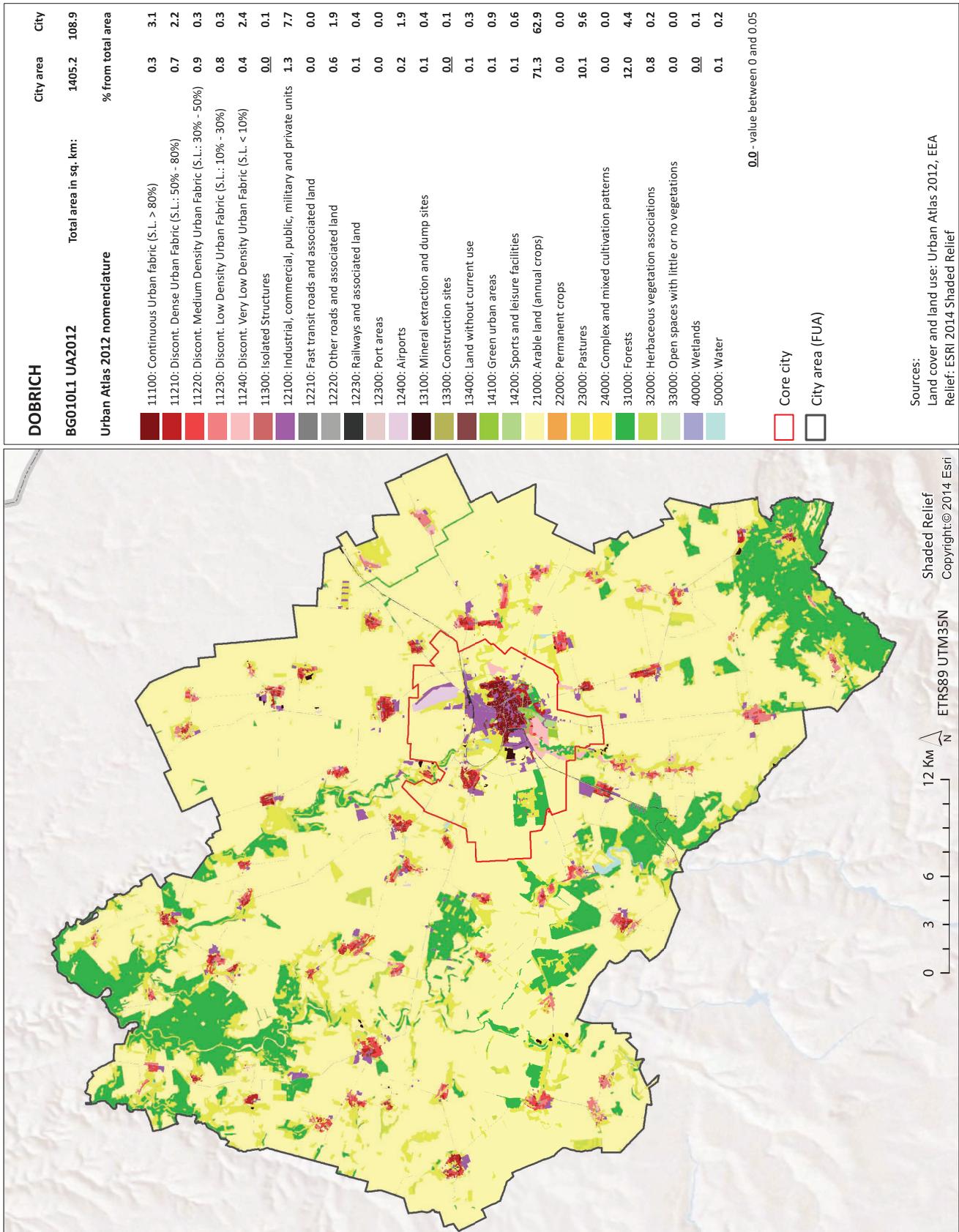


Figure A.4. Land use and land cover for area of Dobrich. Urban Atlas 2012

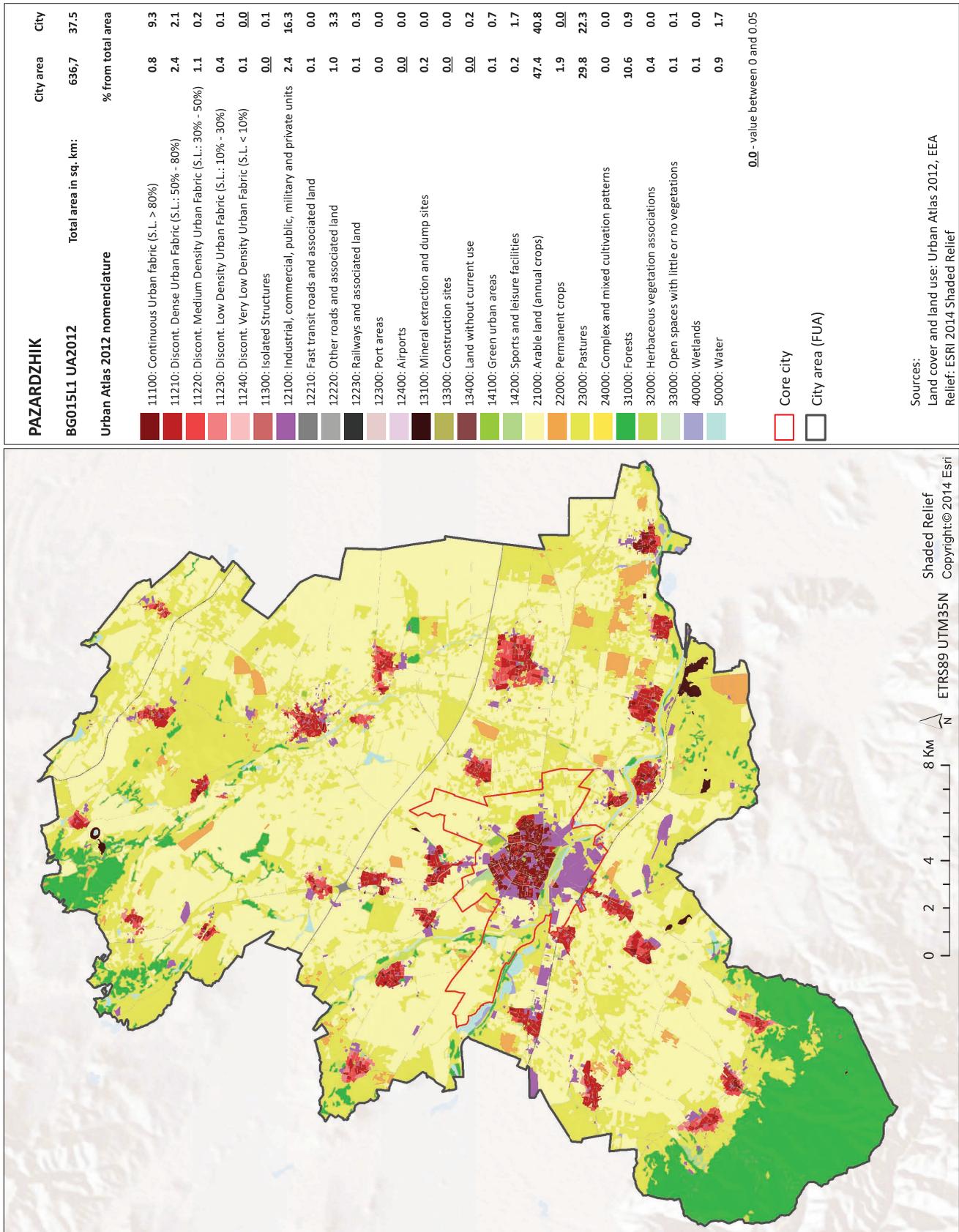
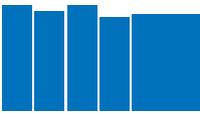


Figure A.5. Land use and land cover for area of Pazardzhik. Urban Atlas 2012

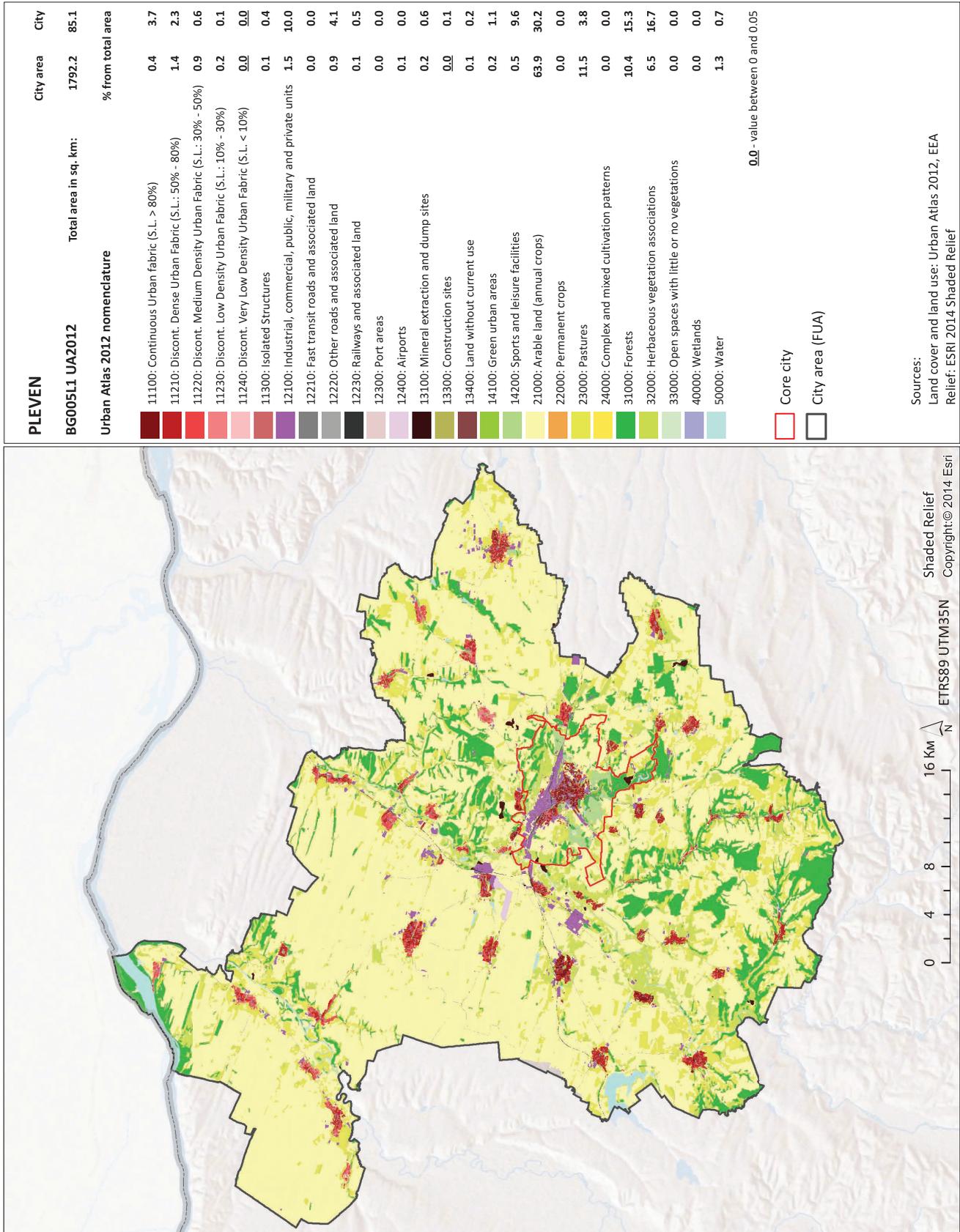


Figure A.6. Land use and land cover for area of Plevan. Urban Atlas 2012

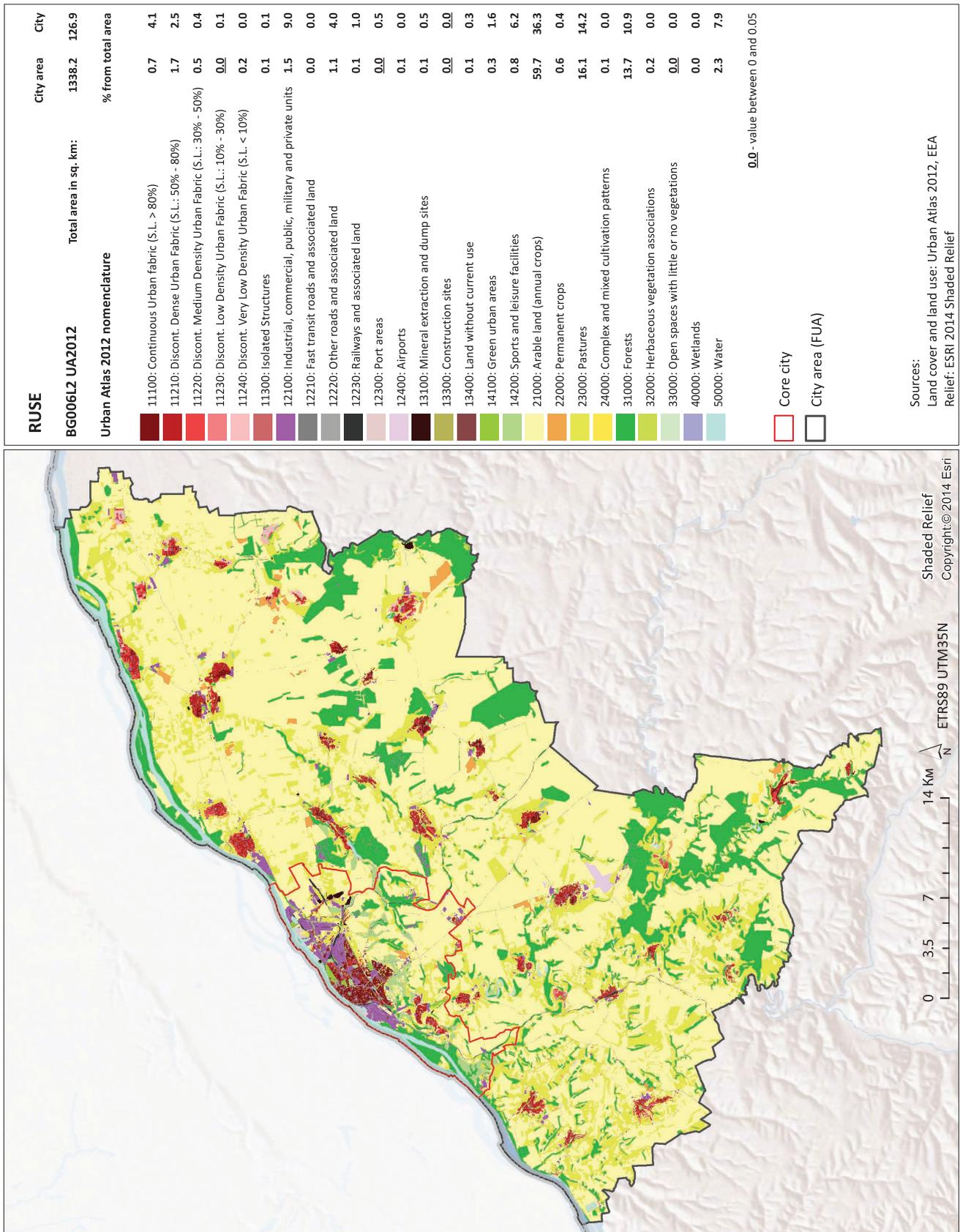


Figure A.7. Land use and land cover for area of Ruse. Urban Atlas 2012

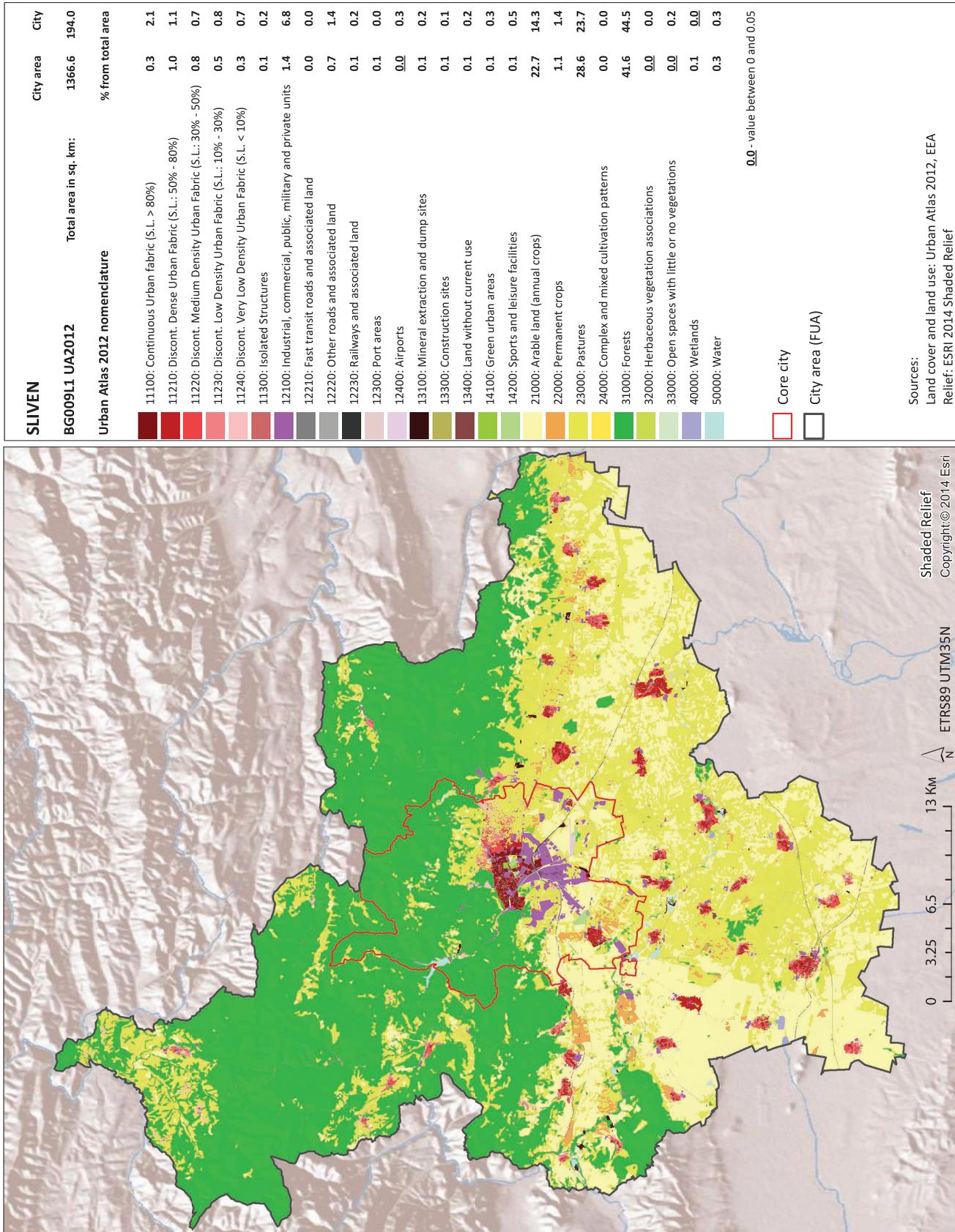


Figure A.8. Land use and land cover for area of Sliven. Urban Atlas 2012

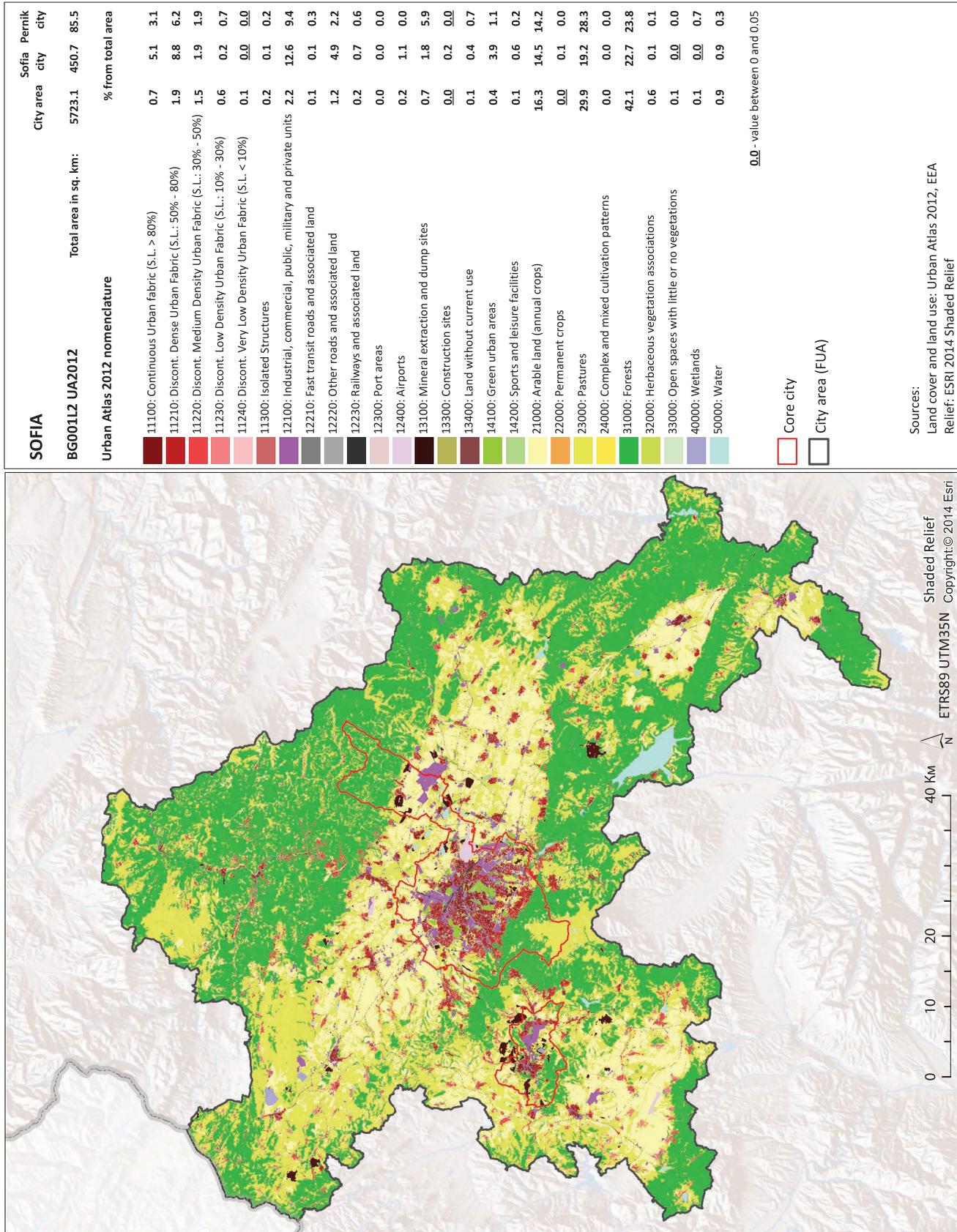


Figure A.9. Land use and land cover for area of Sofia. Urban Atlas 2012

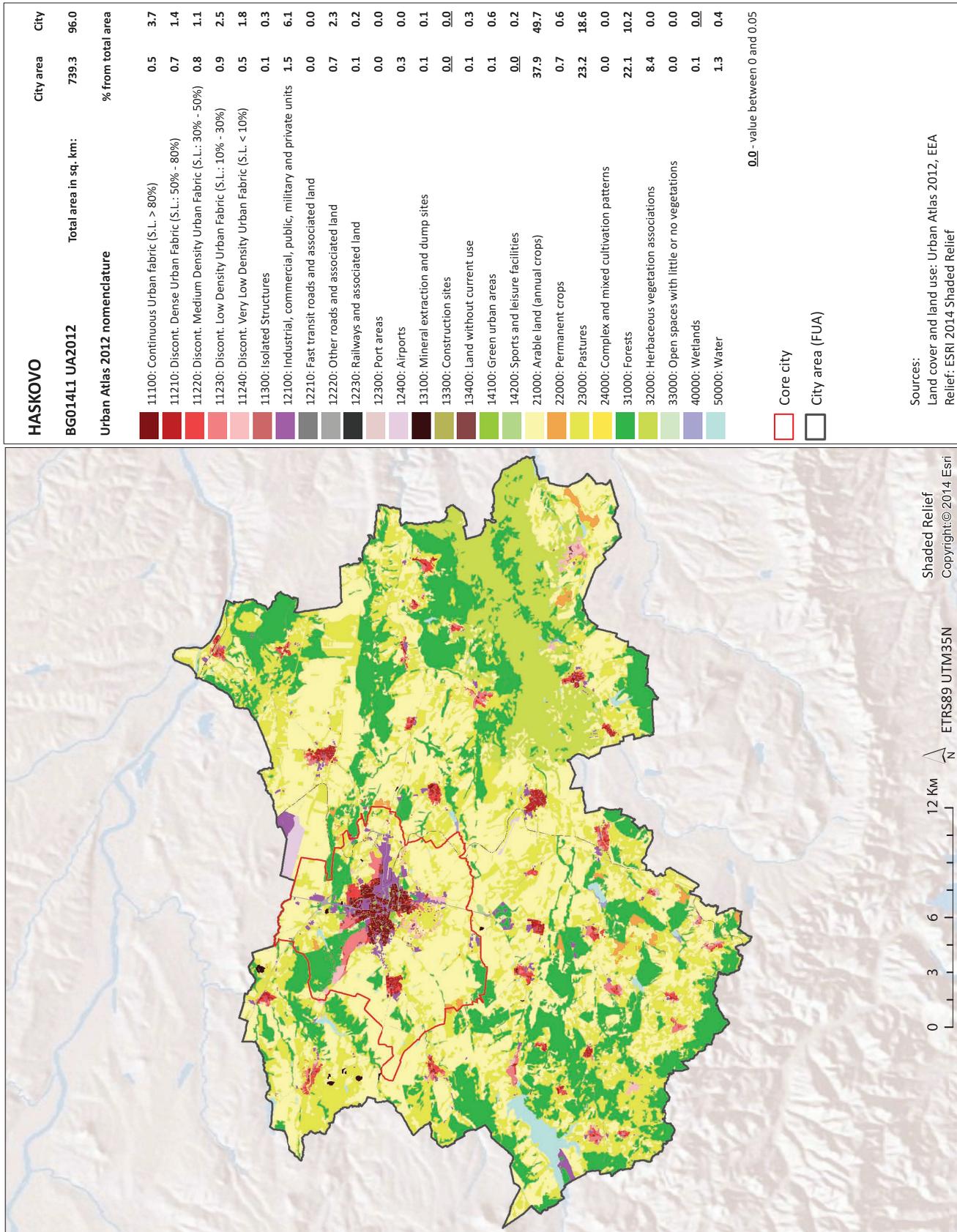


Figure A.10. Land use and land cover for area of Haskovo. Urban Atlas 2012

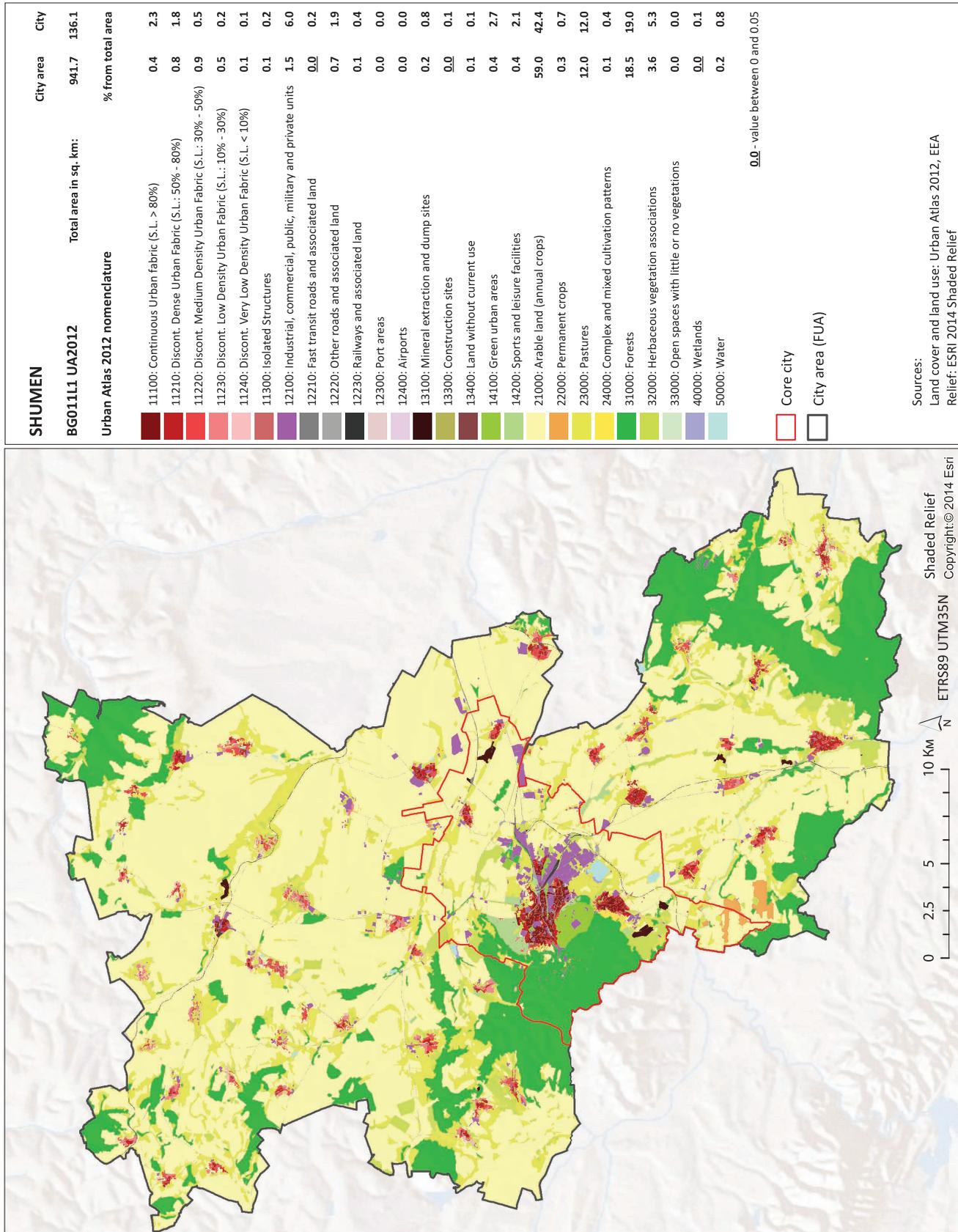


Figure A.11. Land use and land cover for area of Shumen. Urban Atlas 2012

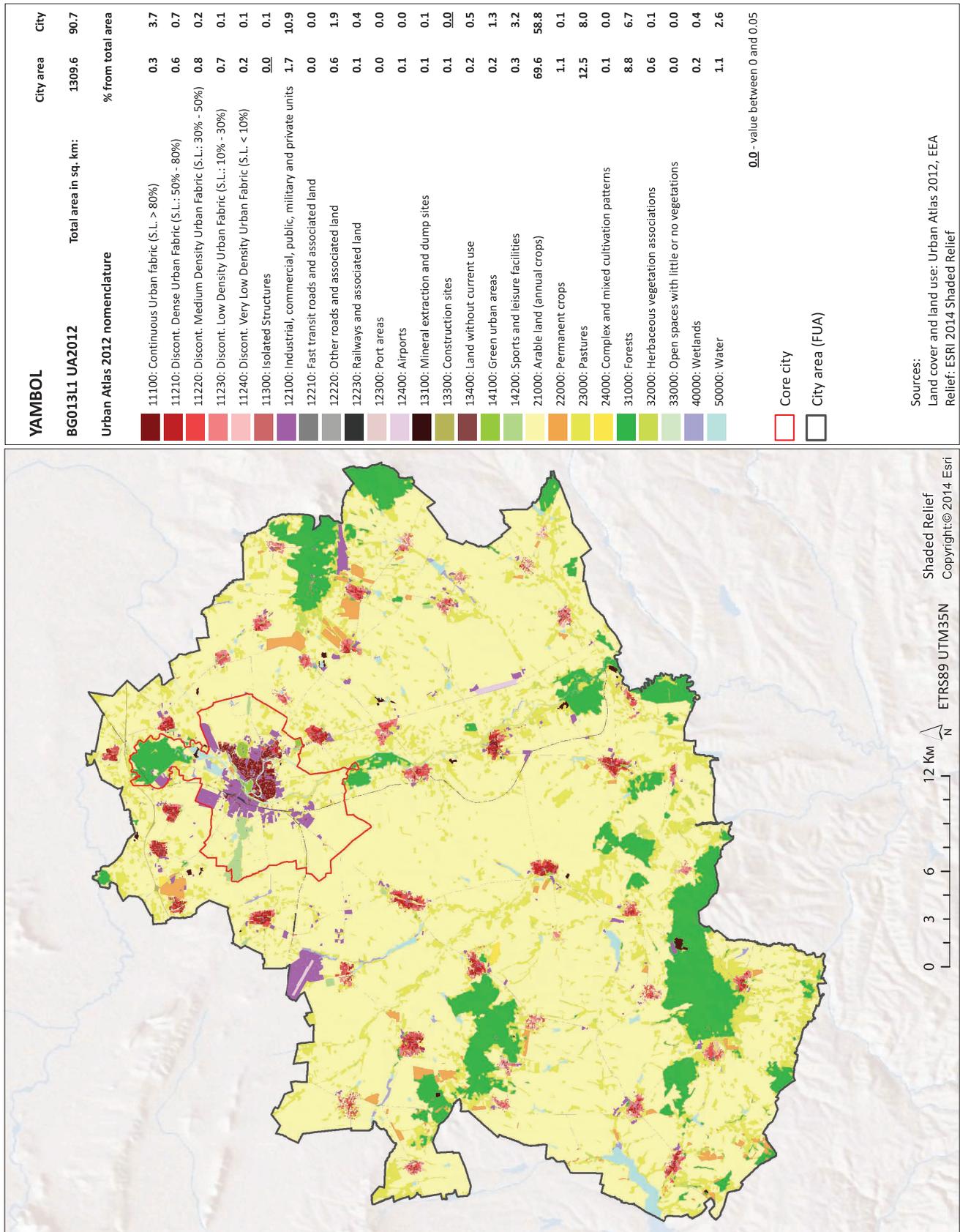
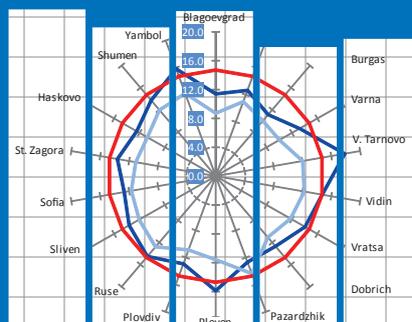


Figure A.12. Land use and land cover for area of Yambol. Urban Atlas 2012



**CITIES AND THEIR URBANISED AREAS IN  
THE REPUBLIC OF BULGARIA**