



Coping with Demographic Decline in Croatia and Bulgaria

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CROATIA

- From January 1st, 2007 to December 31st, 2016, Croatia lost around 160,000 persons, and this figure will likely to approach 200,000 by the end of 2017.
- Over the last few years, out-migration has become the main demographic driver of depopulation in Croatia.
- Population decline attributable to negative net migration is even greater as large unregistered emigration is present, especially after joining EU in 2013.
- Low fertility should not be treated solely as a „problem to be solved“ but as a „symptom of some other social problems“.
- Population ageing is not a purely demographic problem, so its negative effects cannot be solved only by demographic policies.

BULGARIA

- The younger age structure of the urban population and the greater number of childbearing contingents determined also a higher birth rate for the population in the cities.
- Only seven countries in Europe (Greece, Spain, Croatia, Italy, Andorra, Bosnia and Herzegovina, Portugal) have birth rates that are lower than the birth rate in Bulgaria.
- Bulgaria has become a traditional donor of emigrants to Europe.

Recent Demographic Trends and Policy Initiatives in Croatia

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Main demographic trends in Croatia since 2007

From 2007 to date, the demographic picture of Croatia as presented by basic demographic indicators (i.e. natural growth, net migration and total population change) shows features not typical for most EU countries. Since the beginning of the economic crisis, Croatia exhibited, in total, a natural decline (more deaths than livebirths), a negative net migration balance, and a decline in population size. Moreover, Croatia belongs to a group of five EU countries (together with Lithuania, Latvia, Romania and Bulgaria) that recorded a loss of more than 3% of the total population during the observed period¹. From the beginning of 2007 until the end of 2016, Croatia lost around 160,000 people and this figure will likely to approach 200,000 by the end of 2017.

Since joining the EU, from mid-2013 until the end of 2016, Croatia lost 101,476 inhabitants. Out of these, 48,533 were due to a natural decrease, and 52,943 were due to a negative balance of net migration². Population decline attributable to negative net migration is likely even greater as large unregistered emigration is constantly present, and is probably around 50% or even higher than the official statistics. A revelation of this “ghost population”, i.e. under-estimated emigration that over-estimates current population estimates, will

have to wait for the next census in 2021. After that census, a revision of population estimates in the 2010s will reveal the real extent of emigration. Comparing population size in 2007 and 2017 (see figure 1), we notice an evident population decline due to the outmigration of younger age groups (below 50) and an increase in older population, especially those aged 80+. However, if these trends prevail, Croatia’s population will fall below 4 million at the beginning of the next decade.

Over the last few years, out-migration has become the main demographic driver of depopulation in Croatia. While it is very difficult to turn the negative natural increase into a positive one, a migration-oriented solution could be a lot easier. We believe that these negative net migration numbers could turn positive in the near future, especially with the continuation and acceleration of the current economic growth that should generate new jobs, which will then significantly mitigate outmigration and attract migrants to move in.

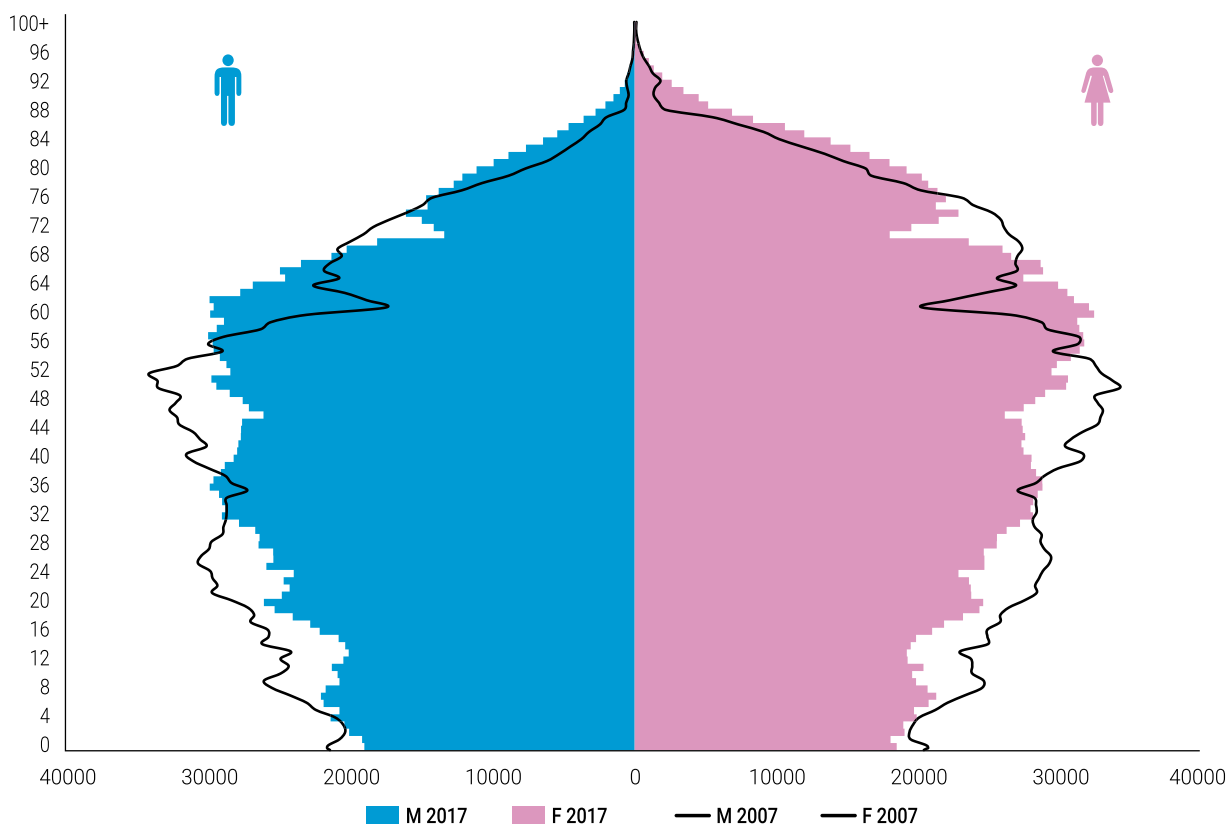
As already mentioned, the impaired age structure (due to long-term effects of low fertility and out-migration) is the reason why even a possible moderate increase in fertility (15-30%) will not stop a further decline of Croatia’s population in the next few decades.

At the same time, an ageing population is what holds the attention of many. According to various ageing indicators, Croatia is among the 10 oldest nations in the world. A constant yearly increase in the number of people aged 65 and over (today, one out of five belongs to that age group) and

1. Eurostat’s online database Population and social conditions. Accessed at <http://ec.europa.eu/eurostat/data/database>

2. Croatian Bureau of Statistics (CBS), unpublished tabulations.

Figure 1. Population of Croatia by age and sex, 2007 and 2017



Source: Author's calculations based on CBS' tabulations

a decrease in the working age population hide some potential economic and social problems. A shrinking working age population means fewer taxpayers to contribute to education and health expenditure, pensions and social welfare. This could further reduce the already low living standard of many pensioners. A decrease in population also means lower personal consumption, and, as personal consumption is the most important part of GDP, a plunging size of domestic consumers may hinder Croatia's growth and economic recovery. Shrinking generations of live births will reduce the need for maintaining the current number of teachers and professors in the future, and the enrolment quotas in higher education institutions will have to adjust accordingly.

Very low fertility – trends and causes

In Croatia, the rate of total fertility (TFR), as measured by the number of live-born children per woman in her reproductive age (15-49), has been below the "replacement level" of two children ever since the late 1960s. The current value of period TFR is around 1.4 children per woman³ (Eurostat, 2017). Although Croatia has never experienced the lowest-low fertility (TFR below 1.3), as most of the countries of southern, central and eastern Europe have, the adverse age structure is reflected in the insufficient number of live births. Every generation of children born in the last ten years is only a third in size of their parent's generation, and this generates imbalances in the age structure.

3. For more details see Eurostat's online database and recent CBS' Statistical Yearbook

Unemployment and job insecurity for young people under the age of 30, a lack of adequate income to leave the parental home and form one's own family, an increasing number of (mostly inadequately paid) jobs that require work in the so-called atypical working hours (overtime and night work, work on Saturdays and Sundays) are among the most cited reasons for low fertility in Croatia⁴. At the same time, prolonged education and the desire for career advancement lead to late childbearing, which shortens the primary reproductive period to only 10 to 15 years. Today, women aged 25 – 35 account for about two-thirds of all live-born children in Croatia⁵.

Croatian society, although traditional from the outside, is slowly changing, and ideals, norms and preferences related to childbearing are not exempt from these changes. Do Croats prefer small or large families? What about voluntary childlessness – a life free of children? Do they have a preference on the number of children they intend to have? Do they have time for children and what could encourage them to have more children? We do not have the answers to such and many other similar questions, and it should be a subject of further research in Croatia. However, according to the cultural explanation of low fertility, within the framework of the theory of the second demographic transition, self-fulfilment is the main goal in life, and having children becomes less important in the lives of individuals and couples. As a result, marriage and childbirth are postponed for later years until all other goals in life, such as acquiring the desired level of education and obtaining a satisfactory position on the labour market, do not materialize.

4. See Akrap et al. (2003) *Factors of Demographic Movements in Croatia*, Zagreb, State Institute for the Protection of the Family, Maternity and Youth.

5. CBS' unpublished tabulations.

Emigration – incomplete registration

The reasons for emigration are mostly but not exclusively economic: the bad economic situation and the inability of the Croatian economy to generate enough jobs, a desire for a higher standard of living and a better quality of life. There is also a search for an environment in which there are more opportunities for advancement in a career. Social networks probably play a key role in encouraging emigration: family, relatives, friends and acquaintances who already live abroad and pull in new emigrants.

Reliable data and research that would confirm that present emigration is mainly concentrated among the highly educated and that whole families are leaving is still lacking, leaving this to pure speculation. It is quite normal that today, as compared to the period of 50 years ago, there are more highly educated outmigrants simply because they take up a larger proportion of the entire population. But the figures of 50,000 or 100,000 young and highly educated who left Croatia in a single year is typically an exaggeration. In Croatia, no more than 35,000 students graduate annually⁶. The economic situation in the country, however, is not so critical that complete generations of graduates would leave.

Almost all countries have some problems with an incomplete registration of out-migrants. For many years now, the EU has been trying to find an efficient strategy of migration registration, but there is still no satisfactory solution. There is no easy way to encourage people to deregister when they change their country of residence. In the absence of a Central Register of Population, the Central Bureau of Statistics (CBS) uses partial registers of deceased and live births kept by the registrar's offices and the records of the Ministry of the Interior on residence registration. Based on this data and the last census, the CBS estimates mid-year and end-of-year population numbers.

6. See CBS' reports on graduates in Croatia.

Definitely, there is a great need to improve migration statistics and estimates to provide up-to-date statistics on population and demographic indicators. Without solid data, a proper evaluation of population trends seems impossible.

Macroeconomic and social consequences of the demographic developments

The interest of the domestic economists on the macroeconomic effects of population decline and ageing has intensified recently. When looking at the macroeconomic effects of low fertility, the attention has been put on the effects of demographic ageing on public finances, and in particular on pension and health insurance systems, and the social welfare system. Public health spending will probably increase, but the health care will not be available to the extent that we are accustomed to. As older people are effectively paying less taxes, in this case the younger ones will have to pay higher taxes, and as there will be less young people, it is likely to negatively affect the economy. In a country with a high debt-to-GDP ratio, as Croatia is, people are aware that they will have to work longer and harder, and they must already start saving for their old age. This increased imbalance between a retired and an economically active population will be difficult to sustain in the long run⁷. Increased expenditure on pensions, health care, social care, and other payroll payments to older people will not lead to the expected reduction in public spending, but on the contrary, it is likely that public spending will further increase.

The recent financial and economic crisis has been amplified by the impact of demographic ageing. EU Member States have been trying to react quickly and adapt to changes in labour markets. This has been done through various reforms, such

as encouraging as many people to work longer, and it has resulted in an increase in retirement age. The main aim of this measure is to improve the balance between the active and retired population. Some countries do not have an official retirement age limit, and people themselves can decide when they will retire. Rather than forcing themselves into retirement after the age of 65, prolonged labour market participation allows younger people to pay lower taxes, which would otherwise be higher when you have a large early-retired population, as is the case in Croatia.

Also, it is necessary to break down false beliefs and myths that an extended working life will reduce the youth employment. The Survey of Health, Ageing and Retirement in Europe (SHARE) has confirmed that in those European countries where people retire earlier, youth unemployment is higher. The number of jobs in the economy is neither immutable nor fixed, but depends on a multitude of factors.

Governmental responses on demographic crises – measures and policies

Demography and demographic issues are a hot topic in the political agenda in Croatia. From 1995 to date, Croatia formally adopted three policy documents with a goal to encourage more livebirths, but most of the proclaimed and officially acknowledged measures have never been fully implemented. Their implementation has usually been left for to the ministry that initiated the specific document. In 2007, the Ministry of the Family implemented several good policy measures that gave some positive results (delimitation of maternity benefits, the pro-natalist supplement for the 3rd and 4th child, etc.), but there was no political will for them to be equally followed by other ministries/institutions. Later, an economic crisis started, and almost everything stopped. The lack of political will for implementing family-policy changes or introducing sound populist measures were

7. See, for example, Hewitt, S, P. (2002) Depopulation and Ageing in Europe and Japan: The Hazardous Transition to a Labor Shortage Economy. *International Politics and Society*. Nr. 1/2002, January. pp 111-121

typical endeavours of the last two governments. The current government shows that political will exists, and now demography has its own ministry, which is rare in Europe. On the positive side, as part of the tax reform, tax deductions for dependent children have been increased for those who earn more, and partially delimited and increased the parental leave benefits for those who earn less or are unemployed. In the future, higher parental leave compensation should be given for those parents who earn more, as they pay more for the healthcare contributions out of which these benefits are funded.

Policy recommendation to tackle demographic issues

How can we ease the pressure that population ageing puts on the pension system? As long as the labour market in Croatia is not able to bring out the best of the country's current human capital, increasing fertility rates and immigration will only lead to greater human capital loss. It is a very difficult task for the government to deal with a declining and ageing population. There exists a combination of several options: increase fertility, increase retirement age, and increase immigration. All three options need to be considered, especially in order to achieve the effects in the medium to long term.

Children born today are human capital for the future of Croatia. The state must have a vision of what it wants to achieve in the near future with its demographic strategy. The common long-term demographic goals of all social actors and consistent demographic policy are the only way for Croatia's current demographic situation to change.

Croatia is a small country with a limited fiscal capacity, and these limited resources should be smartly invested. Prevention of the problem is certainly a more efficient way than dealing with problems as they come, as this is not sustainable in the long run. One way of preventing problems is to create a family policy that will make Croatia

a country where people want to have and raise children. It should be scientifically based, and its effects should be monitored over time. Also, it should be modified as depending on the efficiency in meeting the set goals. Finally, the society, the state, and the business community should adapt to the needs of the family rather than the other way around. Promoting the well-being of children and parents should be made a priority in all public mandates at all levels of political authority by legislation. Creating a family-friendly culture is the first precondition to possible success of various family policy measures.

Croatian society is heterogeneous, and family-policy measures do not have the same effect on everyone. Some will react on financial incentives for birth, others on childcare infrastructure, while some will not respond to any measure at all. However, in seeking optimal demographic policies, we must take into account the expansion of higher education that has occurred over the last decades. Today, almost 40% of live-born children are born to mothers who have some form of tertiary education. Ten years ago, this figure was half that size (20%)⁸. According to the 2011 Census, about 61% are employed, and another 12% are studying. When we add 13% of the unemployed, we have more than 85% of women in primary birth years who are active in the labour market. This must be a clear indicator of the direction in which family and demographic policy should be developed.

Finally, low fertility should not be treated solely as a "problem to be solved" but as a "symptom of some other social problems". Family policy should be more focused on families, their needs, and the challenges they face (including the achievement of the desired number of children), and less to the achievement of some direct state goals such as an increase in fertility rate or an increase of the total population, which are not on the list of people's priorities. If society is able to create a social climate and lay the conditions for a "family-friendly environment", then we can expect a higher number of births.

8. CBS' unpublished tabulations.

Although problems with demographic ageing have not yet come to a very critical stage, action should be taken immediately to mitigate their future adverse effects. Population ageing is not a purely demographic problem, so its negative effects cannot be solved only by demographic policies. It is important that the whole society adapts to the idea of a longer working life, but also that workplaces adapt to the ageing of the workforce. However, this is not a realistic option for all jobs (e.g. physical work or jobs where quick decision making is key to productivity). However, more individuals remain physically and mentally healthy for a longer period of time, and happier if he/she is still active and able to contribute more to a viable society. We should therefore provide greater prospects in the labour market for older workers.

Regarding Croatia's immigration policy, it is not for us demographers to determine or give instructions on who needs to move in and who does not. This should be part of the strategy of the country's political authorities, in line with the goals

of short-term and long-term economic and social development. Immigration policies in almost all countries are mostly dependent on labour-market needs. Some policies are more restrictive, some more selective, and least common are countries with a liberal immigration policy.

Furthermore, it is extremely important to make country-specific research as the socio-economic context in Croatia differs from the one in France and Sweden, whose demographic policies are often mentioned in the media. Likewise, it is necessary to make clear that these policies are very expensive, and we have no guarantee that they will deliver the results desired. Croatia has no economic power that enables it to have generous, long-term fiscal allocations for these purposes. That is why we need additional, high-quality demographic data (longitudinal demographic surveys) to assess the effects of the measures introduced and to show where they give the best results. Otherwise, throwing money randomly from the aircraft could be as equally (un) successful as those "blindly" implemented measures.

Territorial Characteristics of the Demographic Processes and Trends in Bulgaria

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Some of the biggest challenges before Europe and modern societies in the present day and in future decades are related to the trends in demographic processes. These issues display a strong differentiated nature in individual regions, while at the same time many common characteristics can be observed as well. Political and economic transformations of the last 25-30 years have had a decisive impact on the demographic development of the population in Central and Eastern Europe. Generally speaking, the demographic trends can be summarized in the following points: a decrease in population, low birth rates, aging, a concentration of population in the large agglomerations, an upsetting of the principle structures of the population, a deepening of regional demographic differences, as well as higher rates of mortality and intensive external migration, the last two being typical of the countries in transition. Bulgaria is not an exception to the above-listed trends. The characteristics of the historical, economic and ethno-cultural development of the country predetermine the modern trends in the demographic processes of the country's population. The unfavorable quantity changes in the parameters of the demographic situation, such changes characterizing the above-listed trends in Bulgaria, have reached such threshold values where the permanent destabilization in the population's natural reproduction can be observed. As a result, the country is suffering a deep demographic crisis. A demographic crisis relates to an extremely disadvantageous condition of the ongoing demographic processes.

According to Stephanov (2012), in the last years the demographic situation in Bulgaria can be referred to as a catastrophe rather than a crisis. The author claims that the term of "crisis" may be interpreted as an unstable situation, which gives a warning of the danger of the system's collapse. At the same time, it contains an opportunity for such crisis to be overcome and for orientating the system towards sustainable development and functioning. In contrast, a "catastrophe" has absolutely different content and features. It is characterized by the dysfunctionality of the system in the first phase, and in cases where the negative trends fail to be overcome, transition towards the second phase begins, i.e. the one of collapse, the final destruction and extinction of the system.

The primary objective of this study is to outline the demographic trends in Bulgaria with an emphasis on the period after the socio-economic and political transformations in the beginning of the 1990s and the spatial diversification of the processes under discussion.

The study is aimed at finding answers to the following questions:

- What are the characteristics of the demographic trends in Bulgaria?
- What is the degree of similarity between the observed demographic processes and those in the other European countries?

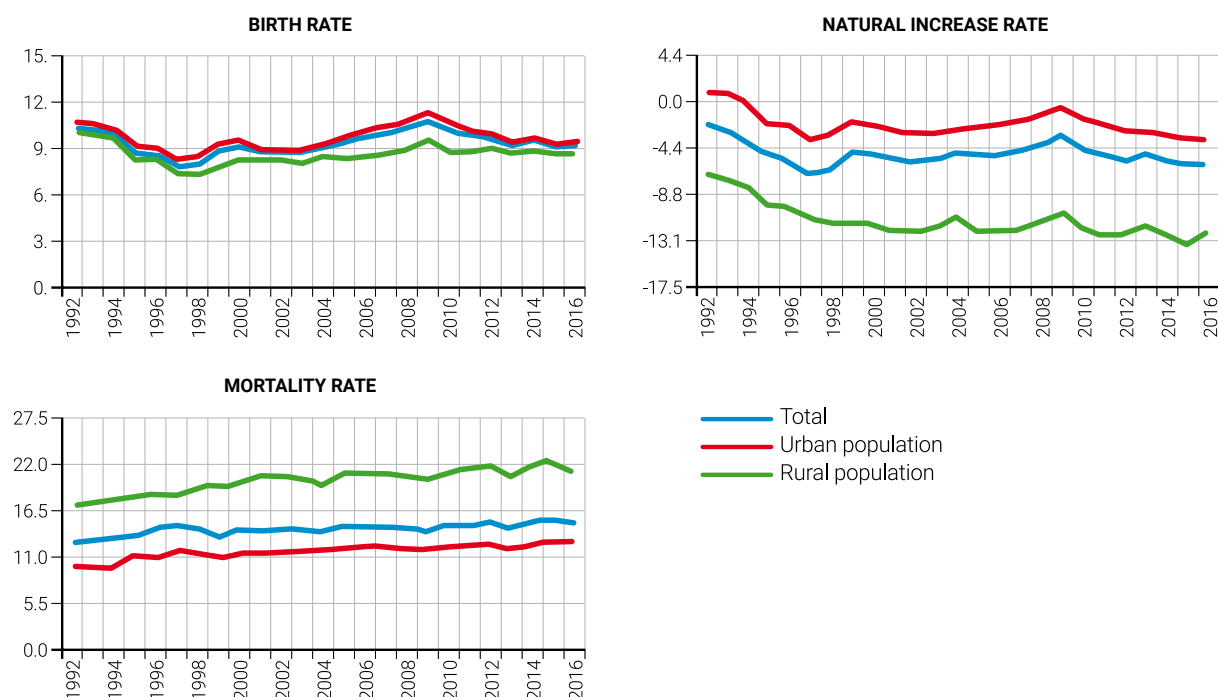
- What are the regional peculiarities of the basic demographic indicators in Bulgaria?
- Which territories have been most strongly affected by depopulation processes?
- What are the main factors with an impact on the regional differences as observed in the demographic processes?
- What is the influence of the demographic processes and trends on economic development, the labor market and social security?
- What are the points of emphasis of the present and futures measures for overcoming the demographic crisis?

Territorial features of the natural reproduction of the population in Bulgaria

To become aware of the intensive process of depopulation and the aging of the population we need to trace the dynamics of the population's natural reproduction, which is one of the basic factors in accelerating these processes. Bulgaria is not an exception when compared to the other European countries regarding the trends in the changes of indicators, which characterize the natural reproduction of the population. The analysis of the demographic situation in the country during the last three decades clearly brings to light a number of disadvantageous trends, which are similar to the trends in the other European countries. According to Eurostat data, the birth rate in the EU (28) in 2016 was 10.02 %. In the same year the birth rate in Bulgaria was 9.1 %. Only seven countries in Europe (Greece, Spain, Croatia, Italy, Andorra, Bosnia and Herzegovina, Portugal) have birth rates that are lower than the birth rate in Bulgaria.

The overall birth rate in the country has displayed a tendency towards decreasing throughout

the period under discussion. One of the causes lies in the very nature of the demographic transformation inasmuch as in the beginning of the 1990s the population entered into the fourth stage of demographic transition. Another major cause is the influence of the deep economic crisis on the negative trends of the demographic indicators, which deepened and accelerated the after-effects of the first crisis. In the beginning of the 1990s the birth rate reached 12.2 %. In that period "GDP /the gross domestic product/ suffered a decrease by more than 30%, while the real income eroded to one third of its level in 1990 (*National Strategy for Demographic Development of the Republic of Bulgaria (2006-2020)*). Growing inflation, the 1996 bank crisis and the subsequent financial destabilization of the country contributed further to the abrupt squeeze of the reproductive attitudes of the population. As a result of the economic instability and the absence of any clear development prospects, in 1997 Bulgaria reached one of the most unfavorable demographic indicators in Europe and recorded the lowest birth rate in its history (7.7 %). In the following years, based on the improved macroeconomic situation, decreased unemployment, observed economic growth and the entry of the fertile contingents born in the 1970s when a higher birth rate was recorded owing to the undertaken birth promoting measures, favorable prerequisites were established for an increase in the birth rate in the beginning of the 21st century. In 2008-2010 the birth rate reached up to 10 %, after which it decreased again. Although positive trends were observed, they were only temporary and could not reach the number of children born at the end of the 1980s, neither in absolute nor relative terms. The younger age structure of the urban population and the greater number of child-bearing contingents determined also a higher birth rate /by one-two points/ as compared to the rural population for the entire period under discussion. (Fig. 1a).

Figure 1. Birth rate, mortality rate and natural increase rate of the population in Bulgaria (1992-2016)

Another alarming demographic trend in Bulgaria is the high mortality rate. In the beginning of the 1990s it was of the order of 13 %, after which it continued to increase, thus reaching in 2016 15.1 %. A major factor that has determined growth of the mortality in recent years is related to the demographic aging or the increase in the share of population in the upper age groups and the decrease in the population of young people. Some additional negative impact should be assigned to the drop in living standards, the increase in unemployment, lower incomes, and the lack of access to quality health care, etc. In contrast to the birth rate, mortality rate displays substantial differences in its numbers in terms of urban and rural population. The faster pace of rural population aging has determined the greater numbers in the mortality rate in villages, whereas the difference of eight to nine points has been preserved for the entire period under discussion and in 2016 it reached 21.1 % for the rural and 12.9 % for the urban population. Bulgaria has the highest mortality rate in Europe, such rate being five points higher than the average European values in 2016. The countries whose mortality

rates are close to the mortality rate of Bulgaria are the Baltic republics of Lithuania and Latvia, as well as Serbia.

The trends in the dynamics of the birth and mortality rates testify to the presence of a permanent trend towards a reduction in the natural increase rate of the population in Bulgaria. The parameters of the demographic catastrophe in Bulgaria can be comprehended based on the comparative approach, i.e. a comparison should be made with both other countries and the Bulgarian data from the preceding periods. In recent years the country has ranked last in Europe. In the beginning of the 1990s the natural increase rate was of the order of -2 %, and reached -6 % in 2016. The differences in birth and mortality rates between the urban and rural population also determined the large differences in the natural increase rates, such differences being of the order of seven points in the beginning of the 1990s and reaching ten points in 2016 (-3.5% for the urban population and -12.6% for the rural population).

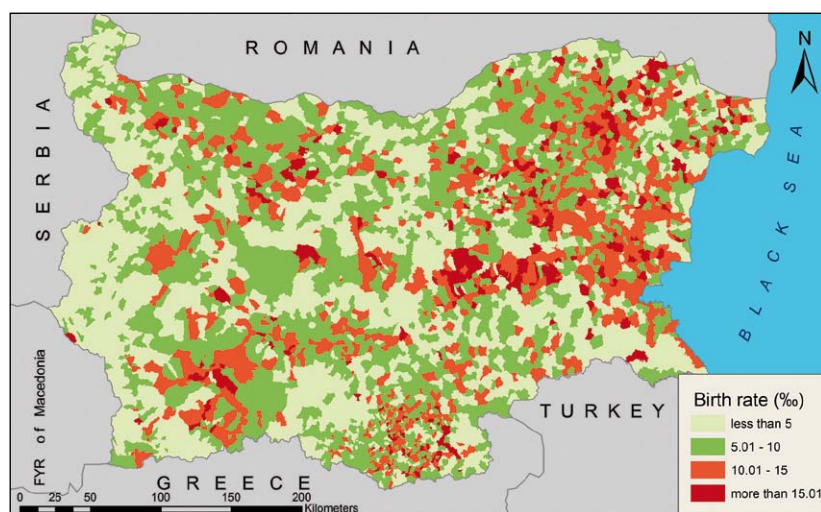
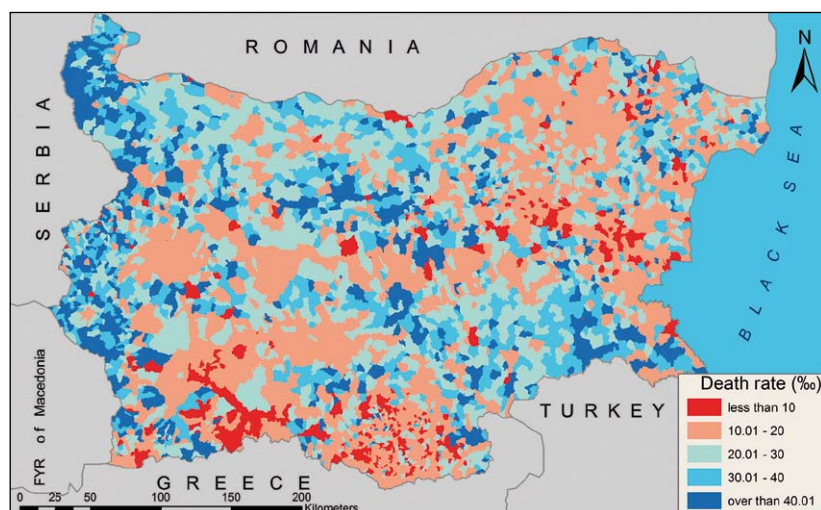
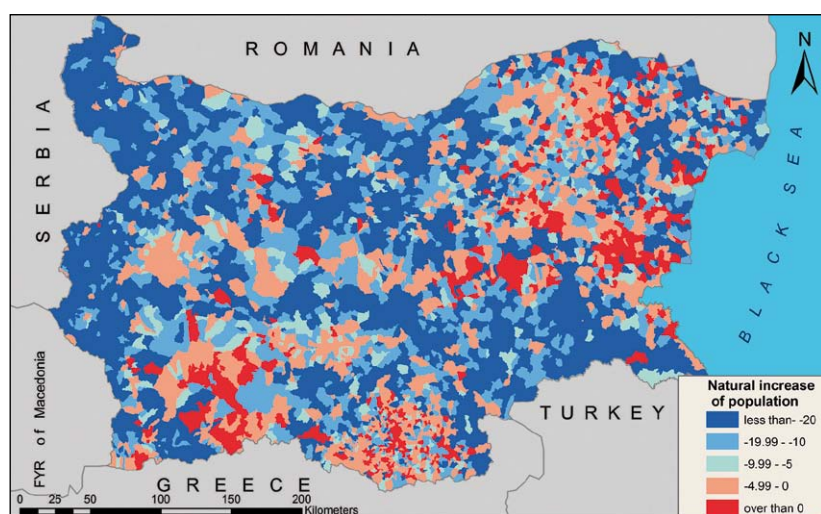
Figure 2. Birth rate, mortality rate and natural increase rate of the population in Bulgaria (2001-2016)**BIRTH RATE****MORTALITY RATE****NATURAL INCREASE RATE**

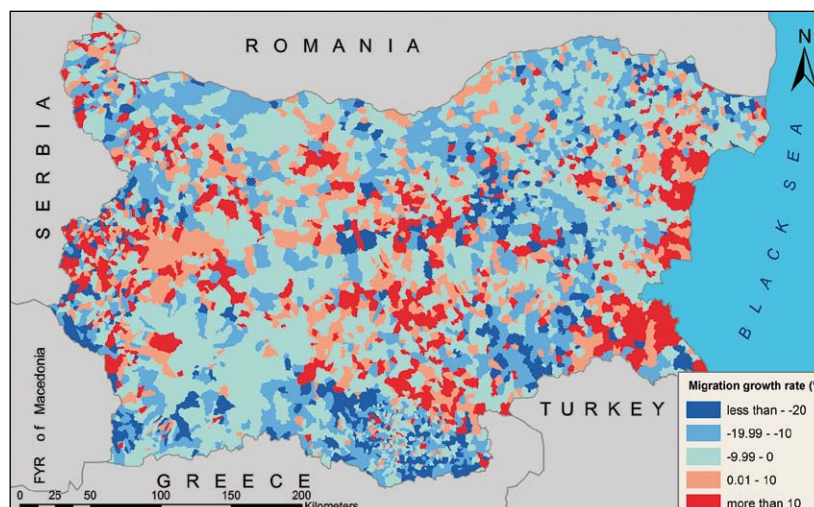
Fig. 2 illustrates the levels of birth, mortality and natural increase rates in Bulgaria in spatial terms. The lowest birth rate (up to 5%), a high level of mortality (over 30 %) and high values of negative natural increase (over -10 %) are typical for the settlements in northwestern Bulgaria, Kraishteto, Central Stara Planina /the Balkan Mountains/, Sredna Gora, the eastern parts of the Western Rhodopes, Strandzha. The most favorable demographic situation with a view to the Bulgarian conditions (a birth rate over 10%; a mortality rate up to 15 %; a positive or up to -5 % natural increase rate) is observed in the settlements inhabited by Bulgarian Muslims along the Mesta River valley and the Western Rhodopes, the settlements with a prevalent Turkish population in the Eastern Rhodopes, northeastern Bulgaria and Eastern Stara Planina, the settlements with a high relative share of Romani population, such settlements being scattered throughout the country without forming any compact territory, where the Romani share in the prevailing part thereof constitutes up to 30%, as well as some large urban agglomerations in Sofia, Burgas and Varna.

Territorial features of the migration of the population in Bulgaria

Common features in the political changes and the socio-economic development of the post-socialist countries have determined a number of common trends, especially in regards to the emigration processes, such trends being different from those in the other European countries. Bulgaria has become a traditional donor of emigrants to Europe. Under the conditions of the free movement of people and a common European labor market, a considerable contingent emigrates on an annual basis, such contingents comprising mostly of young people, who are capable of working and of fertile age. For the period 1989-2010 the population of Bulgaria has decreased by 865,000 ppl. as a result of external migration, which number

can be distributed by years as follows: 1989-1992 – 467,000 ppl.; 1993-2000 – 221,000 ppl.; and 2001-2010 – 175,000 ppl. After 2010 the emigration flow decreased but did not stop. Within the period 2011-2016 another 134,000 left Bulgaria. If the gender and age structure of the emigrants during the past ten years (2007-2016) is summarized, the following picture will emerge: males constitute 39%, about 48% of the emigrants are aged 20-39. The relative share of emigrants in the 40-59 age group is 31%. The youngest emigrants (under 20 yrs.) constitute 15% and those aged 60 – about 6%. A great part of the emigrants have had high qualifications, have completed their education in Western Europe and have settled down in their second home country. Every year an average number of more than 10,000 young people leave to pursue higher education abroad. This information is based on the estimates of the intermediary agencies, which arrange for admission to universities abroad. At least 70% of the graduates from the elite high schools of languages and mathematics, and from private schools as well, leave to study at universities in Western Europe, mostly Germany and The United Kingdom. Immigrants display a trend towards constant increase – for the 1991-2000 period they have been only 9,000. In the subsequent years they have reached the number of 19,000 ppl. for the 2001-2005 period; 29,000 ppl. for the 2006-2010 period and tripled in 2011-2016 reaching some 86,000 ppl. The latest trends are related to the Syrian conflict, which enables the settling of Afghans as well.

In regards to internal migration for the 2001-2016 period, the structure of migration directions is as follows: town-to-town direction is prevalent, constituting 44% of the total number, village-to-town migration flow ranks second with 25.1 %, followed by the town-to-village direction with 22%, and village-to-village flow has the smallest share of 9%. Fig. 3 illustrates the intra-regional characteristics of the ratio of the net migration rate.

Figure 3. Ratio of the net migration rate of the population in Bulgaria (2001-2016)**MIGRATION RATE**

In regional terms, the values of the net migration rate reveal certain trends and regularities. Only 27 towns, i.e. 11%, have shown a positive net migration rate for the 2011-2016 period. These include cities/towns of different sizes, geographical locations and functions. Apart from the largest cities in Bulgaria – Sofia, Plovdiv, and Varna, this group comprises some towns on the Black Sea coast or towns, which are in territorial proximity to, and functional interdependence with, the large cities. 24 (9%) towns show a high negative net migration rate (over -15%) and pertain mainly to the group of small towns with subsiding industrial functions and towns situated in the regions with the highest level of depopulation.

1,633 (32% of the rural settlements) villages have a positive migration increase rate. They are comprised of settlements of various categories. For example, 46 % are small settlements with a population of up to 200 ppl. The large villages with more than 1,000 ppl. constitute 7%. The villages with a positive migration increase rate are situated mostly along the Black Sea coast and in proximity to the cities – Sofia, Varna, Burgas, Plovdiv, Haskovo, Stara Zagora, Pleven, and pertain mainly to the group of highly populated villages. The rest of the settlements are situated in the depopulated territories such as Kraisheto, Central and Western Stara Planina and the adjacent Pre-Balkans, Strandzha. These pertain to the group of small villages and their positive values are formed based on a very small demographic mass. 712

villages (14%) have the highest negative values of the net migration rate (over -20 %), and two-thirds of them are settlements with a population of up to 50 ppl. In territorial terms, they are concentrated mainly in the Western Outlands, Sakar and the regions with a high relative share of the Turkish population (the Eastern Rhodopes, northeastern Bulgaria, Eastern Stara Planina), which are characterized by a preserved demographic potential /in the decades between World War II and 1989 their population did not take an active part in internal migration/ and are substantially underdeveloped in socio-economic, cultural, educational, household-hygienic, etc. terms.

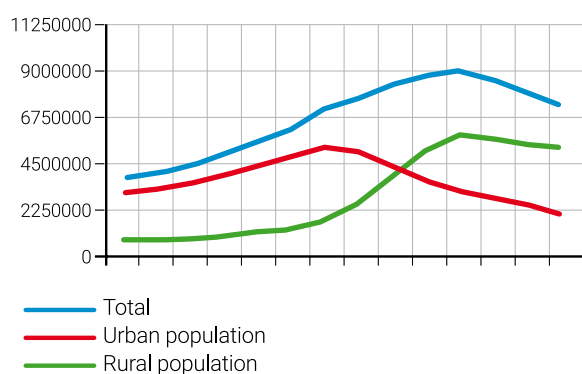
Size of population

For almost a quarter of a century now, Bulgaria has been suffering substantial demographic losses. The analysis shows that before the start of the transition its population reached a maximum number in 1988 – some 8,986 000 ppl. Between the two censuses, i.e. 1992-2001, the population decreased by 558 thousand (an average annual growth rate -0.9%). By 2011 it decreased by another 564 thousand (-0.7%), and until 2016 as a result of the increased birth rate and restricted emigration processes the growth rate reduced its negative tendency and reached -0.5%, while the population amounted to 7,127 000 ppl. That is to say, the Bulgarian population has

Categories of towns	Number of towns/ villages		Relative share of the settlements against towns/villages (%)		Relative share of the population against the total number for the country	
	2001	2016	2001	2016	2001	2016
Cities/towns						
Up to 3,000 ppl.	52	79.0	20.6	29.4	1.4	2.3
From 3,001 to 10,000 ppl.	121	106	47.8	39.5	8.5	8.5
From 10,001 to 100,000 ppl.	71	74	28.1	27.6	27.1	28.2
Over 100,000 ppl.	9	9	3.6	3.3	32.2	33.6
Villages						
Up to 100 ppl.	1308	1706	25.7	33.5	0.7	0.8
From 101 to 500 ppl.	1971	1901	38.7	37.4	7.3	6.2
From 501 to 1,000 ppl.	866	737	17.0	14.5	8.6	6.5
Over 1,000 ppl.	718	499	14.1	9.8	17.3	10.7
Without population	225.0	246	4.4	4.8	0	0.0

decreased by 16% for a period of almost thirty years, and by 10% only since the beginning of the new millennium. In the cities/towns the average annual growth rate varies between -0.3 and -0.5%, and in the villages – between -1.6% and -1.9%. As a result, the size of the urban population has decreased by 8.6% for the 1992-2016 period (by 4.7 % only for the 2001-2016 period), and the size of the rural population – by 31.3% (by 22.1 % only for the period 2001-2016). In the 2001-2016 period 68% of the reduction has resulted from the negative natural increase.

Figure 4. Dynamics of the population size



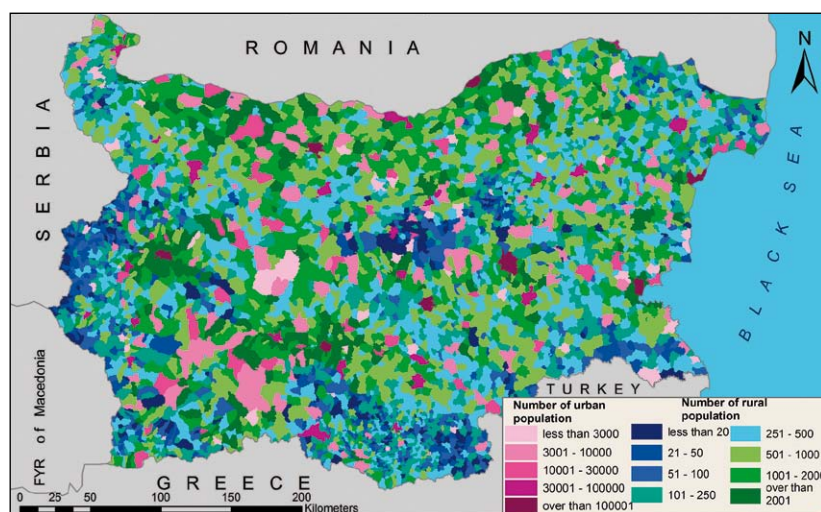
The deepening depopulation processes have changed the range, structure and stability of the network of settlements in Bulgaria. In 2001, 225 villages had no population. By 2016 their number increased by 21 villages. If the villages with up to 10 people are added, the number increases by 409 settlements in 2001, and by another 241 villages in 2016. These two groups of settlements constitute

over 10% of the villages. The depopulation of the rural areas is the basic reason for the tangible presence of the small, medium and especially the smallest villages in the rural settlement network. In 2016 the villages with up to 500 ppl. constituted 64% of the settlements. These accounted for only 8% of the population in the country. This share has increased at the expense of the large villages (of 500-1,000 ppl.) and very large villages (over 1,000 ppl.) – by three and five per cents in total. They accounted for one fourth of the population in the country in 2001, but their share dropped to 17% due to the faster decreasing rate of the rural population. As a result of the above-listed trends, a reduction in the average number of inhabitants per village – from 540 to 317 ppl., respectively is observed. The small and very small villages are situated mostly in Central Stara Planina and the Pre-Balkans, central western Bulgaria, the Eastern Rhodopes and Strandzha. Over the years, the territorial range of this group of settlements expanded around the areas so outlined (Figs. 5a and 5b). The large villages are concentrated mainly around the Sofia and Plovdiv agglomerations and in the regions, which are favorable for the development of agriculture in the Central Danubian Plain. During the last years reduction of the villages with over 2,000 ppl. was observed (the 178 villages in 2001 decreased to 127). Another important issue is the enhanced spatial polarization. The latter is confirmed by tracing the shares of population living in the capital city and the large towns. In 2016 33.6% of the population in the country was concentrated in the capital city and in 8 towns with more than 100,000 inhabitants.

Figure 5. Size of population by settlements in 2001 and in 2016 and changes in the size of population (in %) by settlements for the 2001-2016 period (c)

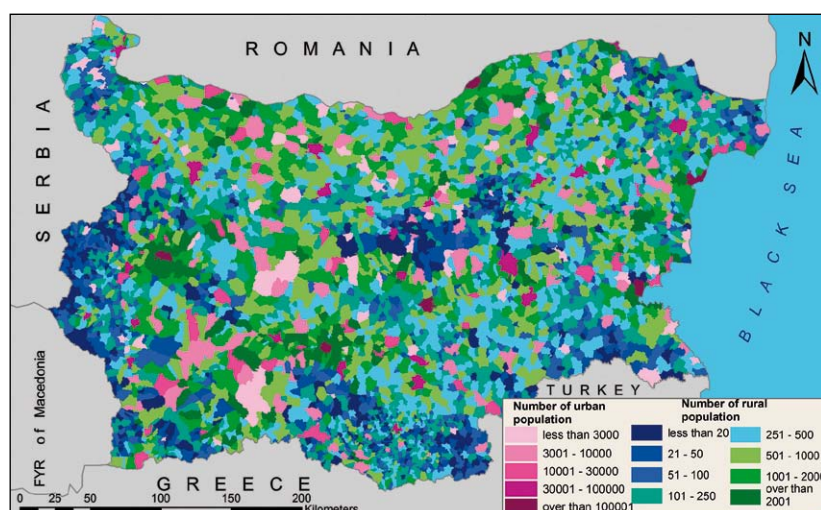
2001

SIZE OF POPULATION BY SETTLEMENTS



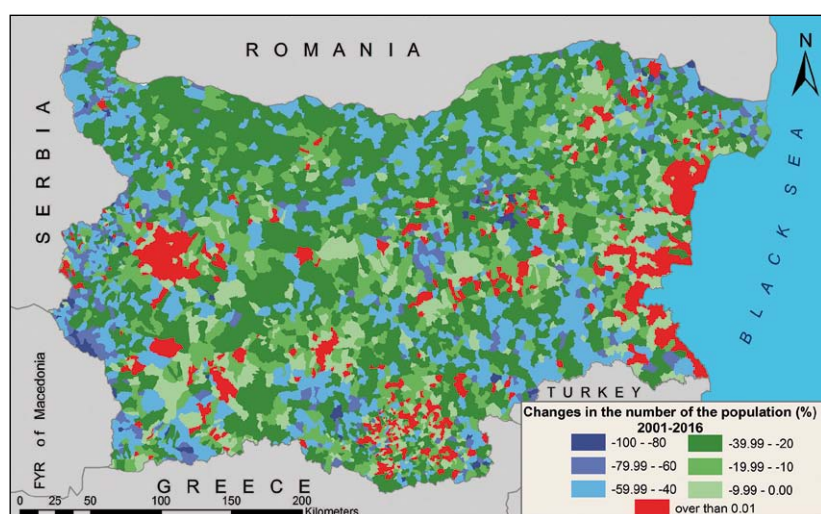
2016

SIZE OF POPULATION BY SETTLEMENTS



2001 - 2016

CHANGES IN THE SIZE OF POPULATION (IN %) BY SETTLEMENTS



The dynamics of the size in population displays substantial regional differences. Most settlements show a decrease of population with some exceptions. In the 2001-2011 period 578 villages or 11% of the rural settlements and 25 towns or 10% of the urban settlements have shown an increase in population. These comprise settlements with various sizes of population and the following patterns are revealed: the large settlements are concentrated around the Sofia and Plovdiv agglomerations, the Black Sea coast; the small villages inhabited by the Turkish population (the Eastern Rhodopes, the Ludogorie), and the Romani population (the eastern Sub-Balkan valleys). The processes of depopulation appear to have encompassed vast territories. The policy of industrialization carried out after World War II has created large disproportions in the distribution of population and has given rise to large migration flows to towns and cities. The territories, which were not involved in the process of industrialization and extensive development, started losing population. The intensity of the population drop is inversely proportional to the size of the settlement, whereas the smallest villages are the fastest to lose population. Most of the towns (2/3) are characterized by a low degree of depopulation. 9% of the villages in Bulgaria are characterized by a high degree of depopulation (with population decrease of over 60% for the 2001-2011 period), 21% of the rural settlements show a medium degree (of 40-60%), 32% show a moderate degree (of 20-40%) and 22% show a low degree (less than 20 %). The several, outlined areas with

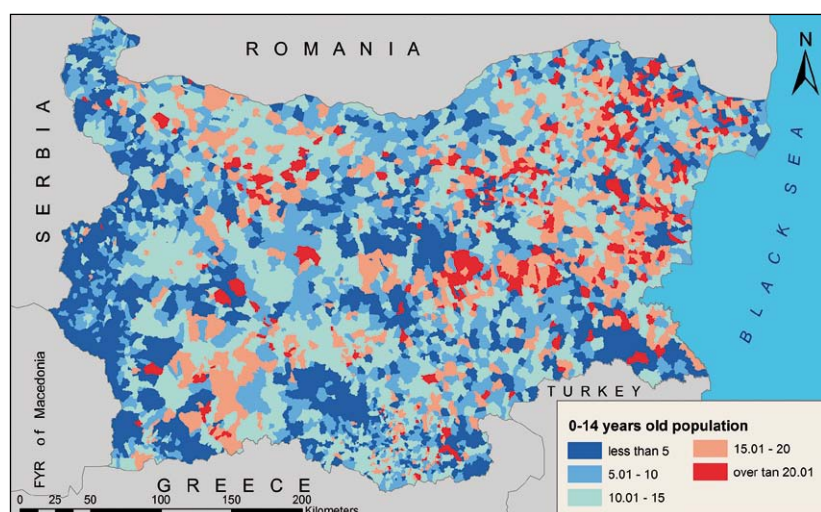
a high degree of depopulation are as follows: the northwestern area, which has been expanding over the years eastwards and will gradually encompass northern, central Bulgaria; the second area comprises Kraishteto; the third area comprises the Eastern Rhodopes and is expanding westwards; and the fourth area comprises Sakar-Strandzha and is gradually expanding towards the north.

Regional aspects of the changes in the age population structure

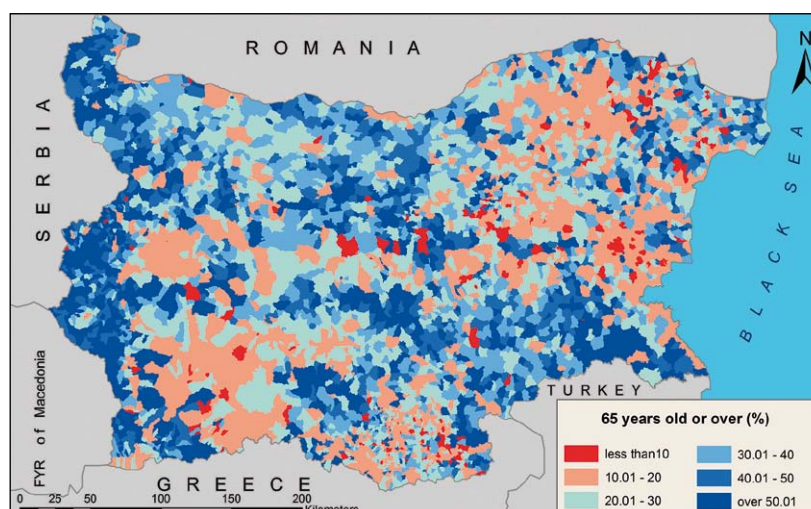
The process of demographic aging continues to unfold and is manifested in the reduction of the absolute number and the relative share of the population under the age of 15 yrs. and the increase in the share of the population aged 65 and above. The relative share of pre-working age population decreased from 20.5% in 1992 to 14% in 2016 (from 21.5% to 14.3% for towns and from 18.2% to 13.3% for villages). The absolute share of the population in pre-working age has shown considerable reduction (by 42.3%) for a period of 25 years. In 2016 the working-age population constituted 64.9% of the population in the country (67% and 59.4% in towns and villages, respectively). In absolute values, the working-age population has decreased by 2% in 2016 as compared to 1992. The increasing number and share of old people (aged 65+) poses serious

Figure 5. Under-working age and over-working age population in Bulgaria in 2011 (by settlements)

UNDER WORKING AGE POPULATION



OVER WORKING AGE POPULATION



challenges to the social security system, the social support system, health care and education. The post-working age population does not show any substantial changes in relative terms, i.e. from 23.7% in 1992 to 23.8% in 2016. In absolute terms, the post-working age population has decreased by 27% for the 1992-2016 period (by 9.7% in towns and 42.5% in villages). Bulgaria displays pronounced regional differences in the age structure of the population as illustrated in Fig. 6.

Demographic policy: ongoing and future ways to overcome the demographic crisis

The depopulation processes entail a number of economic and social issues – increased expenses for the technical and social infrastructure maintenance, financial difficulties related to the maintenance of housing stock and the provision of services, a threat to the development of the local economy, the deteriorated provisions of various services, the closing of schools, bus lines, reduced settlement functions, an increase of uncultivated lands, reduced investment activities, which completely lessens the opportunities for opening new workplaces, diminished opportunities for the development of rural tourism, etc.

The major strategic document for elaboration of demographic policies is the *National Strategy for Demographic Development of the Republic of*

Bulgaria (2006 – 2020). The specific tasks, measures and activities are aimed as follows: to encourage births; to increase the average life expectancy; to reduce the number of young emigrants of fertile age; to elaborate adequate immigration policies; to overcome the consequences from population aging; to improve the fertile health of the population; to enhance the general educational level, to restrict the disproportions in the territorial distribution of population and the depopulation of certain regions and the villages. In 2016 the current government of the Republic of Bulgaria undertook four specific measures to find a way out of the demographic crisis: the state agreed to fully take on the raising of a third child in the family, such commitment being subject to the child's regular school attendance and the parents' responsible care thereof; to elaborate regional demographic policies in conformity with the specific features of the regions, the demographic trends, the socio-economic condition and the ethno-psychology of the population; to grant long-term low-interest credits to families with two or more children provided that both spouses are not older than 29 yrs. and have completed secondary education; to conduct proactive labor and immigration policies directed mainly towards the Bulgarian communities in Moldova and Ukraine.

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