World Demographic Problems

Peter Čajka

Peter Čajka
Matej Bel University, Banská Bystrica, Slovakia Republic
E-mail: peter.cajka@umb.sk

Abstract

The rapid growth of the world population is a serious problem of the contemporary world. This problem's gravity was realized by humankind at the beginning of the 1960s. The term - population problem - has thus become a subject for many scientific discussions. Demographics significantly influence the functioning of society, therefore great attention to demographic processes was paid in the past and is still being paid even nowadays.

Keywords: demographics, globalization, population growth, global security

At the beginning of the 21st century demographic factors have become a crucial determinant of global security. They steadily and dynamically change the formal as well as contextual aspect of security issues. Some contemporary demographic trends have a specific character, and their diversity grows. Closer attention given in the recent years to demographic trends and developments in relation to globalization and dynamic changes in the security background leads to various demographic myths, frequently with a political background. The coincidence of various demographic, security-political and economic factors has produced several critical, or more exactly, catastrophic zones of development in the world. Among them there are, first of all, a larger part of Sub-Saharan Africa and Central and South-East Asia (Lupták 2005: 561-562). It is precisely in this area that we find most failed states (Kazanský and Adašková 2010: 311-315).

The research object of demography is population. Population cannot be taken as a static element; rather it is characterized by a strong dynamics in quantity, structure, spatial distribution and other features. At the same time, changes of various features are, as a general rule, mutually interconnected in a chain way, and they account for a characteristic and vital process of each population.

Populations' own dynamics involves a great amount of processes that at various geographical levels act in different ways and incorporate specific problems. Population growth requires a parallel growth of supplies and services to provide for basic human needs. Also, population growth exerts pressure on the employment market, GDP production and social stability (Rýsová and Dobrík 2009).

A qualified decision in the sphere of economy, social affairs, employment, education, health care and accommodation cannot be made without qualified, properly structured, variable and prompt demographic information. The importance of demographic information further increases with the significant changes in reproductive behavior leading to a transformation of the population structure as well as family and household composition. Apart from information about the past and current population development, information about expected development is needed for decision processes. Demographic prognoses are the basis for the contemplation about future social developments.
Changes in the structure of the world population are the subject of attention of many scientists as well as world organizations. Since the population changes have also economic and social effects, it is evident that in the period of rapid population changes there is a need and significant demand for information and data concerning the future development of population and its parameters.

In 2003 the UN published a prognosis of the world population, which in contrast to the previous long-term one for the period up to 2150, has a significantly longer time horizon - up to the year 2300. But it is necessary to say that the results for such a long-term prognosis have to be taken with a grain of salt. As more useful we can take results for the period up to the year 2050 (Abrahám 2008).

The prognosis is based on the finding that the population increase of the developing countries caused by high birth rate has slowed down, and it is proposed that it will be gradually slowing down in the next period. Thus it will be comparable to the situation in the highly developed countries, where, on the contrary, the prognosis supposes an increase in the contemporary low birth rate. Everywhere, an increase in the average life expectancy is expected.

In the UN projection the world population is supposed to be 8.92 billion people by 2050. The world population will reach its maximum in 2075 with 9.22 billion, which will be followed by a slow decrease, and in 2300, the size of world population should be stabilized at 8.97 billion. This prognosis of population growth is derived from the so called medium or, in other terms, optimal estimation. The justification of the statement concerning the achievement of the world population size at this level comes out from indicators of maximum, or in other terms, a relative year to year increase in the world. While the population increase of 2.19 % per a year achieved its climax in 1963, in the contemporary period this increase is around 1.14 %. At the same time in 1989 the maximum in-between year increase of the world population achieved 88 million people.

UN experts claim that even a small change in birth rate could alter significantly the prognosis for the year 2300. An estimate of nine billion is therefore only a medium parameter based on the assumption that each family in the world will have two children on average. If the average number of children per a family is one eighth lower, there will only be 2.3 billion people. Although it is impossible to exclude both possibilities, the UN does not reckon with them. Birth rates may change in different regions differently, but overall there is an assumption that regions and countries will show the same demographic trends on a long-term horizon, but the particular levels of development will be reached in a different period of time.

Together with the global population changes it is important to monitor regional population trends. There are 6.9 billion people in the world. Of those, 1.22 billion – that is, 17.9 % of the world population, live in developed countries and 5.69 billion (82.1 % of the world population) live in developing countries. But according to the UN, the prediction of the world population's increase by the year 2050 differs. Globally, there will be an increase of approximately 2.5 billion but most of this increase will take place in the least developed countries (namely Africa). The developing countries have “a kind of delay” of 75 years in their demographic development, compared to developed countries, and the process of demographic revolution in developing countries should be finished in these countries in some 50 years. However, population growth as such will continue for another 50 years. It means that a final solution to this problem can be expected in the second half of the 21st century.

A very problematic region in this respect is Africa where the population growth today is 2.9 %. Other problematic regions include Latin America and South Asia. This last region had 2.2 billion people at the end of the 20th century, which is the same number as the world population in 1950 (Veselá 2003: 163).
A different development is also expected in certain subregions within the larger regions (World Population to 2300). For instance:

Three African regions - east, middle and west Africa will have reached an unusually high increase comparing to other regions by the year 2100. In case of this region's countries there is an expected increase in the years 2000 - 2050 of more than 200 % (Chad – 282 %, Uganda – 250 %, Congo – 245 %, Somalia – 240 %, Mali – 230 %).

In Asian regions there is an expected steeper increase in the West, a slower one in the East (Oman – 218 %, Saudi Arabia – 185 %, Pakistan – 138 %, Nepal – 110 %, India – 58 %, Bangladesh – 57 %). By the year 2100 Asia will be 2.2 times more populated than Africa, comparing to today's 4.5 on the side of Asia.

Latin America and the Caribbean, as the most homogenous regions, will follow relatively parallel trends in natality and probable life expectancy (Paraguay – 155 %, Nicaragua – 122 %). North America as the only region will not reach the so called under the increase-level value by the year 2050, mainly due to migration.

In Europe, similarly as in Asia, a greater increase is expected in the West, and a lower one in the East. Eastern Europe stands out with its low values of life expectancy, and even in long-term predictions, it will not reach the level of other regions (http://www.nationmaster.com/).

At present more than 60 % of the world population (3.8 billion) live in Asia with China and India only having 37 % of the world population (2.5 billion), followed by Africa with 14 % (1 billion), Europe with 11 % (731 mil.), North America with 8 % (514 mil.), South America with 5.3 % (371 mil.) and Australia and Oceania with 0.3 % (21 mil.). (http://wapedia.mobi/en/).

Approximately 4.83 billion people (70.5 % of the world population) live in 20 countries of the world. The European Union has 501 million people which accounts for only 7.4 % of the world population. In case of the most populated countries of the world, it is possible to see significant differences in population development in the future. In the year 2050 there will be a population increase in, first of all, less developed countries of the world. India will become the most populous country, replacing China. That means that in the period of 100 years (1950 – 2050), we will witness the most significant absolute increase of population; more than 1.3 billion of the population.

According to the prognosis, life expectancy will steadily increase, differing from country to country. By 2100 life expectancy will vary between 66 and 97, and by the year 2300 between 87 up to unbelievable 106.

The population increase will naturally influence the ratio between the population and its life space. The density of population will keep on rising, but will differ significantly between various regions - in 2100 there will be, on average, only 3.6 of inhabitants per km$^2$ in Australia and 540 inhabitants per km$^2$ in Micronesia. Bangladesh will probably be the most densely populated country with 2000 people per km$^2$.

One of the most crucial trends of the future is the aging of population. While in 2000 the world age average was 26 years, in the year 2100 it will be 44 years, and in the year 2300 it will be about more that 48 years. Also between 2100 and 2300 we may expect a rise of population over the age of 65 by one third (from 24 % to 32 %), the number of people aged over 80 and more will double (from 8.5 % to 17 %) and the number of people aged 100 will multiply 9 times (from 0.2 % to 1.8 %). Unbelievably, in the year 2000 the average world retirement age was 65 years, which meant that retired persons would enjoy their retirement for only a short time. If the average age for retirement time did not change by the year 2300, we would be in retirement for 31 years on average.

An interesting demographic phenomenon is the so-called demographic window. This period is characterized by the fact the number of children and youngsters under the age of 15.
does not exceed 30% and the number of people over 65 years and more does not reach 15% of the whole population. During a period of 30-40 years, people in the productive age become a dominant part of population. This situation will be typical, e.g. in Africa approximately around the year 2045 or later. Europe had its demographic window before the year 1950, and at present it is experiencing the so called third age dominated by old people.

The UN prognosis for the year 2050 expects differences in population dynamics between less and more developed countries to continue. At the present time the population of more developed world regions is rising at a rate of 1.46% per a year, while the least developed countries are experiencing the fastest growth, up to 2.4% per a year. These growth tendencies of increase will continue to 2050. Due to low birth rates, the population of developed countries is expected to stagnate or even decrease. For instance, in the case of Japan, the decrease will be 14%, in Italy 22%, and in Bulgaria, Russia and Ukraine between 30 and 50%.

Less developed countries might expect a population increase 4.9 billion in the year 2000 up to 7.7 billion in 2050. The biggest increase will occur in the least developed countries, where population in the countries like Burkina Faso, Mali, Niger, Somalia and Yemen could increase even four times.

According to the prognoses international migration is not supposed to significantly change (Bolečeková 2010). More developed countries might expect 2 million immigrants annually in the next 50 years. Traditional destinations are supposed to be the United States of America, Germany, Canada, Great Britain and Australia. Most frequently immigrants will come from China, Mexico, India, the Philippines and Indonesia.

In 2000 the most populated world countries were China, India and USA. By the end of the year 2050 the leading position should be definitely taken by India. Other countries such as Indonesia, Brazil and Russia will be surpassed by extremely populated countries such as Pakistan and Nigeria.

According to the UN prognoses demographic changes to great extent influence and will influence the lives of individuals, but also countries and regions. Demographic determinants such as natality, mortality and migration can have influence on the position of states in the international system. Because population size is considered an attribute of power of a given state, it is possible that some power configurations might change in the future and new conflict may arise (Huntington 2001).

Most prognoses concerning population development agree that the world population size is stabilizing and population processes will tend to a simple reproduction. What different authors debate is the speed and magnitude of this stabilization. And even if population growth stops in the quantitative sense, the material demands of humankind will continue to grow and exert thus greater pressure on natural resources, public infrastructure, social services and political system (Kalický and Hitka 2006: 43-49).

The limits to such growth are often calculated in relation to the availability of arable land. The prognoses differ in their calculations though. For example, the American standard is 2000 m² of arable land per person, i.e. 40 – 50 billion of inhabitants total. According to the Japanese standard it is only 680 m² of arable land, which accounts for a top limit of 157 billion of people.

**Conclusion**

The issue of population growth is currently one of the most serious demographic problems. The world population continues to grow and particularly uneven population growth in different regions of the world causes significant economic, social and political problems. Negative consequences of this development are seen in the developing and underdeveloped countries, where we expect a strong demographic growth. In contrast, the developed countries
in the world are experiencing a significant population decline which brings another set of problems in economics and social security issues. For this reason, it is necessary to pay significant attention to current demographic trends in the world, as well as in individual countries.

References


WAPEDIA http://wapedia.mobi/en/World_population


Veselá, J. 2003. Pedagogicko-demografický pohled na aktuálnu otázku přelidněnosti světa. In: *Scientific papers of the University of Pardubice*. Series D Faculty of Economics and Administration. 8, s. 163.