

POPULATION PROBLEM OF DEVELOPING COUNTRIES

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Abstract

The Earth has now 6.1 billion inhabitants, in 2015 it should be populated by 7.1 to 7.8 billion people, the lower estimate margin for 2050 is 7.9 billion, the medium 9.3 billion and the top estimate 11.9 billion. During the next three to five decades, Europe, Russia and North America will decrease in proportion, Asia, Latin America and Oceania will stay at approximately the same level and Africa will increase considerably. As a consequence of the children mortality level decreasing in long-term, a great share of the DCs population is created by young people, what presents a certainty that population growth will rather continue. An image of the present world is given by – today already classical – picture of the world village (Meadows). If the world were one village of 1 000 inhabitants, there would live in it 584 Asians, 124 Africans, 95 East Europeans and West Europeans, 55 inhabitants of the former USSR (inc. Latvians, Lithuanians, Estonians and other ethnic groups), 52 North Americans, 2 Czechs. Solution of the population problem is to a great extent connected with the problem of governance quality, i.e. strengthening of the individual economic freedom and support of democratic institutions. Also the burden of the DCs indebtment, international trade liberalisation, financial assistance and approach to technologies supports reaching of economic progress and poverty relief.

Key words: Population, world population development, developing countries, population ageing, population growth, population problem solution, human population is getting older, population in years 2050 and 2100.

INTRODUCTION

World population development

The Earth has now 6.1 billion inhabitants, in 2015 it should be populated by 7.1 to 7.8 billion people, the lower estimate margin for 2050 is 7.9 billion, the medium 9.3 billion and the top estimate 11.9 billion. The first billion of human population was reached in

1804, the second in 1927 (after 123 years), the third in 1960 (after 23 years), fourth in 1974 (after 14 years), fifth in 1987 (after 13 years), sixth in 1999 (after 12 years). Therefore it is spoken of the overpopulation problem and the catastrophic scenarios (Tab.1,2).

Tab. 1. : World population development (in millions)

	1950	1990	1995	2025
Africa	223 967	632 669	728 074	1 495 772
Europe	548 711	721 734	726 999	718 203
North and Central America	219 633	423 658	454 229	615 549
South America	111 690	293 131	319 791	462 664
Asia	1 402 725	3 186 446	3 457 957	4 959 664
Oceania	12 612	26 428	28 549	41 027
World total	2 519 748	5 284 832	5 716 426	8 294 341

Source: FAO, www.fao.org

Tab. .2. : Development of the world population average growth rates

	Population average growth rate (In %)			Average yearly population increase (in ths)		
	1980-85	1990-95	2000-05	1980-85	1990-95	2000-05
Africa	2.9	2.8	2.6	14 627	19 081	22 960
Europe	0.4	0.2	0.0	2 676	1 053	17
North and Central America	1.3	1.4	1.1	5 097	6 114	5 492

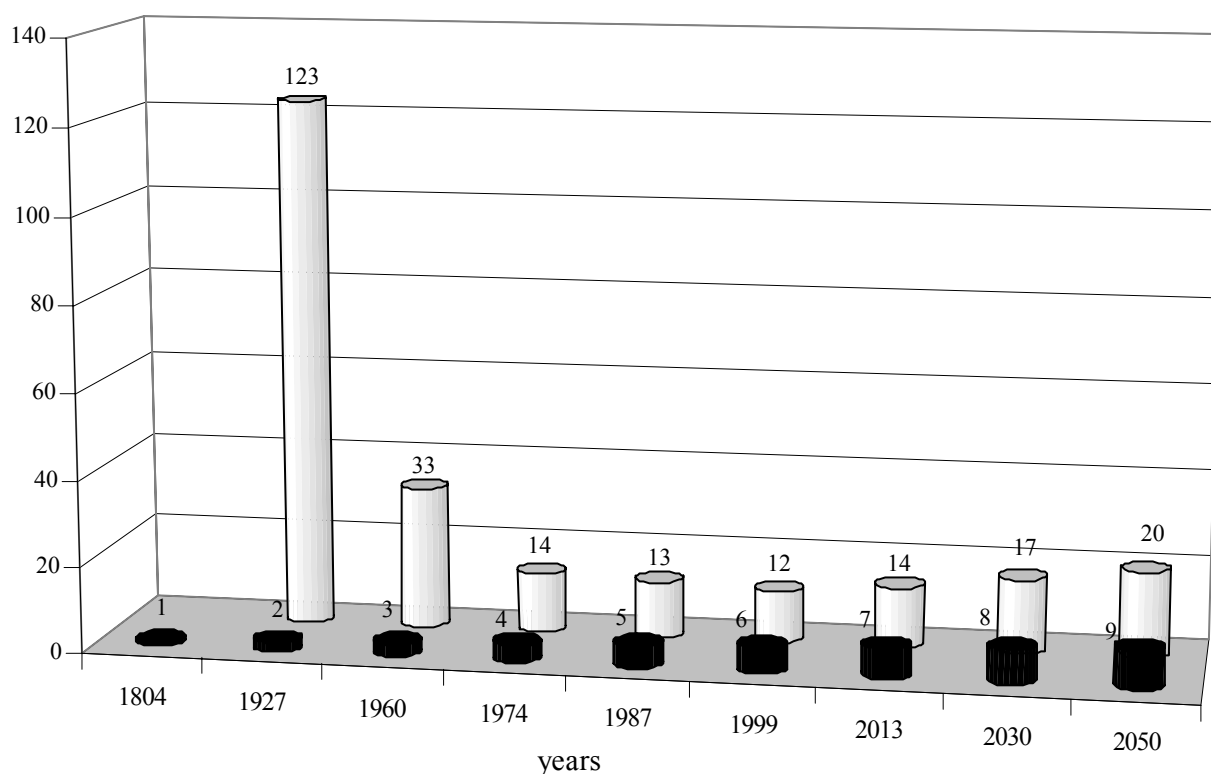
South America	2.1	1.7	1.4	5 301	5 332	5 172
Asia	1.9	1.6	1.4	52 331	54 302	53 473
Oceania	1.5	1.5	1.3	354	424	415
World total	1.7	1.6	1.4	80 319	86 319	87 270

Source: FAO, www.fao.org

The catastrophic scenarios need not be fulfilled, since population decreases even in developing countries (by 45 % during the last three decades), the size of families diminishes (by almost a half in the same period) and the knowledge and practical utilisation of contraception

extends. As an illustration, we can use the total fertility data, i.e. the number of children per 1 woman: in 50, it was 6.1 children in developing countries, at present, it is 3.5 – but considerable differences still persist.

Graph 1: Human population development



	1804	1927	1960	1974	1987	1999	2013	2030	2050
■ total population (bil)	1	2	3	4	5	6	7	8	9
□ reaching billion year differences		123	33	14	13	12	14	17	20

Note: In the graph, the lower margin of the world population estimate was used in 2050, i.e. ±9 million.
Source: U.N.

Graph 2: The most populated world countries in 2000 and 2050

1	China	2000	1.2 billion inhabitants
		2050	1.3 billion inhabitants
2	India	2000	1.0 billion inhabitants
		2050	1.7 billion inhabitants
3	USA	2000	275.5 million inhabitants
		2050	394.2 million inhabitants
4	Indonesia	2000	224.7 million inhabitants
		2050	330.5 million inhabitants
5	Brazil	2000	172.8 million inhabitants
		2050	228.1 million inhabitants
6	Russia	2000	146.0 million inhabitants
		2050	121.7 million inhabitants
7	Pakistan	2000	141.5 million inhabitants
		2050	260.2 million inhabitants
8	Bangladesh	2000	129.1 million inhabitants
		2050	211.0 million inhabitants
9	Japan	2000	126,5 million inhabitants
		2050	101.3 million inhabitants
10	Nigeria	2000	123.3 million inhabitants
		2050	337.5 million inhabitants

Source: Bureau of Census, U.S. department of Trade

Why the population in some developed countries is decreasing? The reason is double: first, demographic indicators – fertility following the natural movement of population, not only the mechanical one. migration; second: another demographic reason, namely ageing of the population. During the last twenty years, life expectation in developed countries has increased by 3.5 years and in developing countries by 8 years.

Prolonged life and lower fertility lead necessarily to the ageing of population – this phenomenon, known at present from the developed countries, will sooner or later become the planetary problem.

During the next three to five decades, Europe, Russia and North America will decrease in proportion, Asia, Latin America and Oceania will stay at approximately the same level and Africa will increase considerably. As a consequence of the children mortality level decreasing in long-term, a great share of the DCs population is created by young people, what presents a certainty that population growth will rather continue.

An image of the present world is given by – today already classical – picture of the world village (Meadows). If the world were one village of 1 000 inhabitants, there would live in it 584 Asians, 124 Africans, 95 East Europeans and West Europeans, 55 inhabitants of the former USSR (inc. Latvians, Lithuanians, Estonians and other ethnic groups), 52 North Americans, 2 Czechs. Of the village inhabitants would have communication problems - 165 will speak in Chinese, 86 in English, 83 in Hindu/Urdu, 64 in Spanish, 58 in Russian, 37 in Arabic. Only the mother tongues of one half of the villagers are included in this list. The other half would speak Bengali, Portuguese, Indonesian, Japanese, German, French and another 200 languages. In the village, there would live 329 Christians (among them, 187 Roman Catholics, 84 Protestants, 31 Orthodox), 178 Muslims, 167 “non-believers“, 132 Hinduists, 60 Buddhists, 45 atheists, 3 Jews, 86 other religions. One third (330) from 1 thousand world village inhabitants would be children

and only 60 people would be over 65. Half children would be immune against inoculable contagious diseases like mumps and polio. In the village, there would be 5 soldiers, 7 teachers, 1 medical doctor, and 3 refugees of war or drought. The total village budget, public as well as private, would be over 3 million USD – that means 3 000 USD per capita if evenly distributed. From 3 million USD, 181 ths. would be allocated for armament, 159 ths. for education, 132 ths for health care. Half of the married women would have approach to the modern contraception means and would use them. During the first year, 28 children would be born. In the same year, 10 people would die, in that 3 from undernourishment, 1 of cancer and also 2 children born in the same year. One person would be infected by the HIV: the AIDS symptoms will probably not have developed yet. With 28 births and 10 deaths, the village would have 1018 inhabitants in the second year.

In this society of 1000 people, 200 people would get 75% of all incomes; further 200 people would get only 2% of the total income. Only 70 people from 1000 would own a car (even if some of them would own several). About one third would have approach to clear drinking water; half of 670 adults in the village would be illiterate. The village would have 3 hectares of land per capita, thus altogether 3 000 hectares, 350 hectares of which would be fields, 700 hectares of pastures, 950 hectares of forest, 1000 hectares of deserts and other non-usable kinds of land. The area of forests would decline rapidly, non-used land would increase, and other categories would be more or less stable. The village would apply 83% of fertilisers on 40% of fields owned by 270 of the richest and best fed people. Over-fertilising of the soil would cause lakes and wells pollution. The remaining 60% of land would produce, using the remaining 17% of fertilisers, 28% of food and would feed 73% of people. The average fertility of this land would reach only one third of the rich villagers' fields. The village would hide beneath it the nuclear weapons arsenal with the explosive power able to destroy it several times over. These weapons would be under the control of about 100 people. The remaining 900 people will, under the conditions have only the possibility of passive fatal waiting for the future.

Similarly to the hitherto unknown world population growth rate, there continues also an enormous migration from rural to urban areas and also the migration among countries. Most countries are shifting gradually to the structure of low natality and mortality, but by different rates, from which the still more differentiated demographic situation issues.

The accelerated rate of urban immigration is partially the consequence of the resource concentration in the cities and also of the economic policy deepening the inequalities between urban and rural areas. Urbanisation is an inseparable part of the development and cities are the centres of economic and cultural activity, but the

growing city population creates social, economic and environmental problems.

An important role in the people movement among countries is played by economic conditions. Approximately one half from 125 million immigrants of the world are from developing countries. International migration usually ensures the back income transfer to the communities of the migrants origin and the necessary human resources to the communities they aim at. However, if international migration is supposed to be manageable in the long run, people must have the choice to stay in their own countries. The increase of labour force in the developing areas continually increases international migration, but the countries are not generally willing to accept an increased number of immigrants; therefore, it can be expected that illegal immigration will increase. The number of people seeking refuge against persecution and other forms of human rights violation has grown from 8.5 million in 1985 to 25 million in 2000. Most of them found asylum in developing countries. The number of refugees and applicants for asylum is growing considerably in the developed countries. Population growth, migration and urbanisation are interconnected to poverty, the consumption and production structures leading to waste, non-sustainable use of natural resources, environment deterioration, inequalities in the social sphere and in gender

All these relationships have to be considered in the endeavour for improving the present generation quality of life by the ways not preventing future generations in the satisfying of theirs. Poverty is often accompanied by illiteracy and limited approach to health care and family planning services, the position of the poor is often very bad. The mentioned circumstances contribute to high fertility, diseases, high mortality and low economic productivity. The result of population growth in many countries is a high share of young people, what demands the perpetual creation of jobs for the growing labour force in the

The problems of population explosion, poverty, inequality and environment endangering are so closely interconnected that none of them can be evaluated and solved in the isolated way. In the whole world, there are exploited the resources on which also the next generation will depend, also environment deterioration is growing at the hitherto unknown population growth, underlined by the social and economic inequality and the superfluous consumption and waste. In most countries, the slowing down population growth would strengthen economic progress and ease the endeavour at poverty relief. The burden of securing education, hygiene, housing, appropriate nutrition and urban infrastructure for the quickly growing population burdens the weak economies and limits the development possibilities.

Population problem solution

Solution of the population problem is to a great extent connected with the problem of governance quality, i.e. strengthening of the individual economic freedom and support of democratic institutions. Also the burden of the DCs indebtment, international trade liberalisation, financial assistance and approach to technologies supports reaching of economic progress and poverty relief.

Strengthening of the position of women is the main prerequisite of solving the population problem, since men and women have to participate fully in the productive and reproductive life and also to share the obligations in the child care and nutrition and keeping of the household. The position of women regards above all education, health care and economic activities. Improvement of the women position accelerates their ability to make important decisions, namely regarding reproduction, what subsequently is one of the main prerequisites of the long-term success of population programs, since the experience shows that population and, development programs are the most efficient when they are realised together with the steps for improving the position of women. Strengthening of the contribution of women lays in their engagement in the area of population, health, education and earning activities, both as participants and users. The legal, political and social barriers should be removed gradually in all countries and the measures to improving the possibilities of women to earn their own income, to reach economic independence, to own and dispose of property and finances should be taken.

Education is one of the most important means how to strengthen women and to supply for them such knowledge, qualification and self-esteem, which are necessary for them to become equal partners in the development process.

More than 5 years ago, the Common Declaration of Human Rights proclaimed that everybody has the right to education. In 1990 on the "Summit on Education for All", the states have accepted the goal of the universal approach to basic education. Notwithstanding this, there are still approximately 1 billion of illiterate adults in the world, two thirds of which are women. More than one third of adult people in the world, most of which women, have thus no approach to knowledge in the written form, to new qualification and the technologies which would improve the quality of their life and help them to adapt to the social and economic changes. About 150 million of children in the world do not attend even primary school, 70% from which are girls.

For reaching the fully equal rights, the sine qua non is the changes in the attitudes and behaviour both of men and women. The key role in introducing equality lies on men, since they apply the predominant power in almost all countries and in all spheres of life, starting from personal decisions regarding the size of family up to the measures and programs on the governmental level.

Equal participation of men and women in all spheres of responsibility towards family including family planning, upbringing of children and household chores is necessary, if both partners should have the same right in making decisions on the balance of their home as well as public obligations. Such equality can be further developed and inspired by informations, education, legal measures together with occupation and securing child care. Part of the process of the rapid demographical, social and economic changes everywhere in the world are considerable shifts through which the types of family formations and family life, and as a consequence of these changes, also the structure and numerousness of families are changing in many societies.

The traditional division of productive and reproductive functions in the family according to gender often does not reflect the reality and aspirations, since still more women in all parts of the world are entering paid employment outside home. The woman who wants to bear children in a time distance or to limit the numerousness of their family cannot do so, since they have no approach to the family planning services, what is consequently a key factor of the fact that in many countries, the high fertility and accelerated population growth persist.

The global aim of a considerable decrease of the world population increment through more efficient measures and programs in the individual countries is that the number of inhabitants gets into balance with the existing resources.

The unprecedented world population growth, the general poverty, social and economic inequality – including inequality between men and women – and waste in consumption accelerate depletion of the basic resources and deteriorate intensively environment. The efficient steps towards solution of these problems are inseparable, if the quality of life of the present as well as future generations is to be sustained or improved

Therefore, the action program of the U.N. International Conference On population and Development in 1994 (ICPD) obliges the world community to fulfilling of the quantitative goals for the period 1995-2015, in three mutually supporting areas influencing the strategic population growth:

- Education, namely for girls
- Lowering the mortality of newborn infants, children and mother
- Securing universal approach in the sphere of family planning and healthy reduction.

In this direction, the ICPD followed, among other, the results of the World Summit for Children in 1990, the U.N. Conference on Environment and Development (UNCED) in 1992 and the World Conference on Human Rights in 1993 and was a contribution to the World Summit on Social development in 1995 and the 4th World conference on Women in 1995.

The basic principle and the way how to influence population growth is the right of all couples to decide freely and with responsibility on the number and time sequence of their children, and to have the information and means to do it. The goal of the family planning programs is the maximum freedom of choice in the questions regarding child birth. The principle of choice based on information is necessary for the long-term success in the family planning area, not any pressure physical, economic or psychical. Any compulsion represents violation of human rights and is counterproductive to the main goal of the family planning programs, i.e. strengthening of the endeavour of individuals and couples to reach an efficient control over their reproductive life. Approximately 60% of married couples in developing countries use any of the family planning methods, what means almost five times as much compared to the mid-60s. In average, the fertility in developing countries has decreased approximately by half owing to the family planning program, from 6-7 children per family in the 60s to about 3-4 children at present.

The modern family planning methods are not accessible to at least 350 million couples. The research data show, that at present, further 120 million women would use any of the modern family planning methods, if they had more precise information and services, if they could afford it and if their husbands and the wider family community supported them.

One of the signs of a big unsatisfied demand for more and better services in the family planning area is the estimated number of 50 million abortions every year. The family planning programs are most successful if they are a part of or are closely connected to the wider programs of healthy reproduction, which solve the connecting health problems, and if women are fully engaged in their creation, implementation, management and evaluation of the services.

Special needs in the sphere of healthy reproduction are those of the growing up. Motherhood at a low age brings about a much higher risk of the mother's death and the children of young mothers have a considerably higher mortality and rate of illnesses. An early marriage and early motherhood of young girls are seriously limiting the educational and labour opportunities of women and have, with high probability, a long-term negative impact on their life. The first step to healthy reproduction of the growing up young people is to remove the legal and regulation barriers which block the access of young people to these services.

It shows that the programs for young people are most successful if they secure the full incorporation of young people both to the process of ascertaining their needs of reproduction and sexual health and into the programs reacting at these needs. Family planning and infant survival are interconnected. The natality and infant mortality are decreasing quickly in places, where the parents come to the conclusion that a lower number of born children and better time sequence of their birth

mean healthier children and a better chance for their survival.

The population problem and with its solution connected recommendations on the local, regional, national and international level can be characterised in short through the already quoted ICPD action program:

- Family is the basic unit of society, but it has different forms in different countries;
- Strengthened position of women is in itself of utmost importance. It has also basic importance for the tangible progress. Men and women have to participate in the productive and reproductive life and to share the responsibility for the child care and household. Education is one of the most important means for strengthening the position of women. The state has to remove inequality between men and women as soon as possible.
- Governments should respect the culture of the aborigines and to enable them to survive and prosper;
- People have reproduction rights which include also the right to decide freely and with responsibility on the number of their children, the periods between child births and their timing;
- All countries should endeavour at the commonly accessible system of the basic health and reproduction care, including the services and extension on family planning;
- Governments should help women to prevent abortions, which in no case can be recommended as a family planning method, but they also should in all cases secure the human care and advisory service for women who had to resort to an abortion. Governments should cope with unprofessional abortions which are endangering public health.
- Growing up young people should have to their disposal a reliable advisory service on sexual matters, but the responsibility on its management is up to the parents;
- States should try to reach such level of newborn infants mortality by 2015, which would not surpass the level of 35 per 1000 of the live born, and such a level of children up to 5 years mortality, which would not surpass 45 per 1000 living children (compared to world averages of the period 1985-90, which were 70 resp. 105 deaths);
- Governments have to accept the life importance of unifying families in legal migration cases;
- All the mentioned recommendations of the U.N. Conference on Population and Development are submitted to the supreme rights of each country, national legal frame and respecting of the religious and ethical values and cultural habits.

Human population is getting older

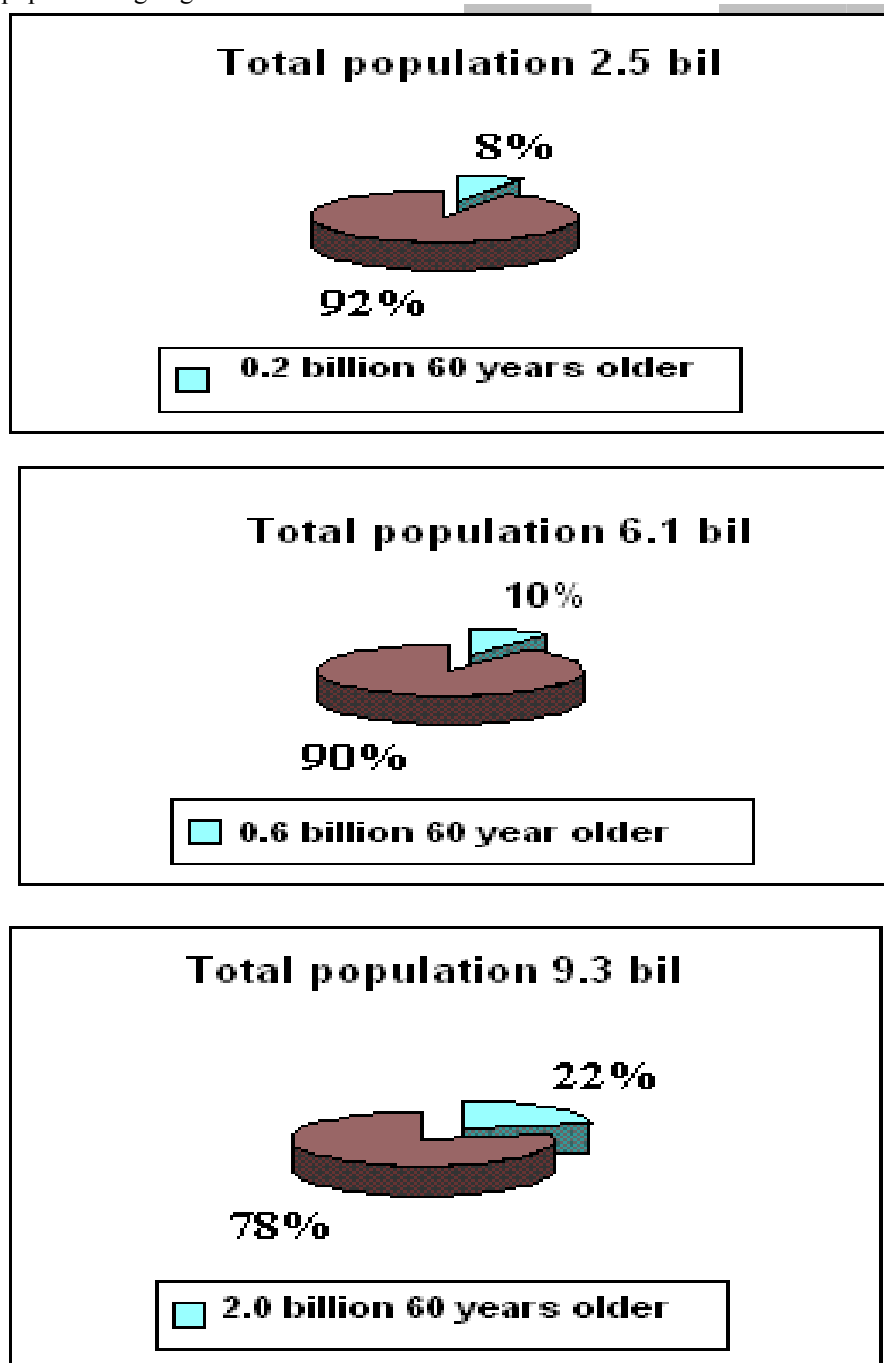
Human population – namely in the richer part of the world – becomes uncontrollably and irreversibly older, and that more quickly than ever before. This trend becomes to be more dramatic than the population

explosion. The U.N. demographist suppose that in the middle of this century, there will be more inhabitants older than 60 years at this planet than people younger than 15. Today, into the 60+ category, there belong 629 million people in this world, i.e. every tenth inhabitant.

However, it will be every third person in 2050, altogether about 2 billion people. And one hundred years later, it is supposed that even every third inhabitant of the planet will be a senior (Graph 3).

The non-precedent demographic changes, which have begun in the 19.s and 20. century, are doing their best to change the face of the planet.

Graph 3 : World population ageing



Source:
AFP/OSN

their predecessors. Many of them will even reach the desired one hundred years. On the other hand, it might be quite a problem. Ageing of human population becomes one of the main problems of the future of human civilisation.

The tendency poses a whole series of pressing questions. For example: Will the remainder of active population be able to feed the increasing number of old people? And what will happen to the nations in which even today mortality prevails over natality? Will they just leave the scene or will they endeavour aggressively for survival at any price?

The process already creates problems in developed countries. It regards Japan, Italy, Great Britain, Spain – which is supposed to be the oldest country in the world in 2050 – and also the Czech Republic, which is also slowly depopulating. However, not even the most populated countries of the world, India and China, do not stand aside – even there, with the growing level of living, better nutrition and health care, the number of old people quickly increases. Ageing of population in developed countries can soon endanger their prosperity. What, then, can be done? As one of the most efficient measure how at least to mitigate this development a little, the demographers regard later retirement. The well-known British analytical organisation Future Foundation imagines the life of our descendants as follows: People will live up to 120 years; they will be retired at the earliest in 80 and will marry at least three times. They will graduate from the university twice during their life, their working activity will prolong, and everybody will gradually learn several professions. In 2055, when the present generation starts thinking of retirement, the “new” people are supposed to start their third career in life.

Population in 2050

There will obviously be more than 9 billion of us by the middle of the century. The decisive majority of the population will by 2050 live in the developing countries, while the share of developed countries in world population will drop from the present 15% to less than 10%. It follows from the newest U.N. demographical projections.

The U.N.O. estimates, that the biggest population increments will register developing countries by 2050. In the least developed countries, there will live almost 2 billion people instead of the present 658 million.

That means that most people will be added in the poorest developing countries, at that notwithstanding the fact that these countries are most severely tried by the mortal disease of AIDS, and tens of million people live there with the HIV virus or directly with AIDS. It means that the whole parts of the world will have to cope with many difficulties: with increasing number of people, the area of cultivated land will decrease, therefore the fight for securing food and drinking water will be still fiercer. A very important problem will be, among other, creating new working opportunities for

young people, which will flood the labour market (Graph 1,2).

While in the developing world population explosion will be connected with poverty and lack of food, developed countries will probably face a different problem. Their population will stagnate and perhaps even decline. Still less babies will be born and the share of population over 60 will increase. By 2050, there should be twice as much of them than the young people up to 19.

The U.N. expects that the number of the sixty-years-old in the world will increase from the present 6060 million up to 2 billion. Therefore the governments will be faced by a difficult search of the ways to the efficient social protection of the ageing population as well as diverting the acute lack of labour force.

In the EU present countries, there are supposed to be only 154 million people in the productive age, while five years ago it was 169 million. The decrease of labour will impact all regions according to the EUROSTAT. All generations will have to work longer in future. It is necessary to take care that older people will stay longer in the economic process. Another possibility is the pension system reform and a more liberal immigration policy. One of the ways how to increase the share of active population is to bring into Europe the dynamic and qualified youth from outside.

One hundred years ago, one obscure German philosopher has written a short-lived bestseller called “Doom of the West”. His name was Oswald Spengler and his style smelled of the mysticism and nihilism of Nietzsche and Wagner, the same potion which has contributed partially to the rise of the Hitler and Mussolini fascism and, indirectly, also the Lenin-Stalin communism.

In the economic sphere, Spengler was totally and principally mistaken. He forecast that in the 20. century, the West will come to downfall, while the real history testifies on the explosive economic growth based namely on science, technology and global markets. The “curse” of Malthus and deriving that the tendency of humankind to overpopulation will lead human civilisation, limited by the space, unavoidably into the blind alley of decreasing yields, was broken for the first time.

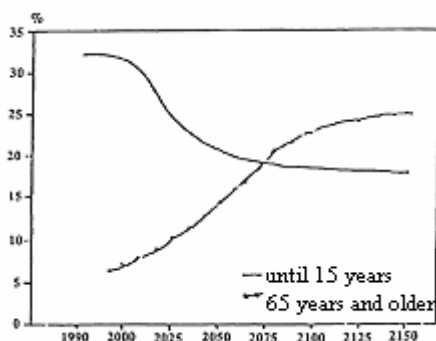
However, there emerged another “doom” which neither Spengler nor Marx and Toynbee foresaw. Since 1900 – and in France still earlier – the stable natality rate of the well secured and educated middle classes began to decrease. This decrease, expressed by the number of births delivered during the life, is not connected in any way with the failing reproduction ability of people between 16 and 45. On the contrary, the scientists state that enough of food and free time increased the biological fertility. What has changed in general is the ability to choose a partner and to adapt to conditions in the over-populated towns.

Is this valid in general? Practically yes. Japan is not in West; nevertheless it is on the top of the ladder of the societies, which are not successful in the prerequisite that everybody should produce at least two descendants – which is necessary if the unavoidable exponential decrease of population is not to begin. Neither China nor Korea are the exceptions. Neither even Italy, in past the country of the omnipresent *bambinos*. And in Sweden, future Nobel Prize winners Gunnar and Alva Myrdal got into newspapers headlines 70 years ago owing to their appropriate warning. The Scandinavian area is driven to the negative net population increase.

The problem will be also the natality increase to the simple reproduction, for which every woman, as has been already said, should bear in average 2.2 children. In the world average it is 2.7 children per woman, but the developed world sadly lags behind this indicator. The worst situation is in Europe, where it is only 1.4 children. And bad situation is even in the countries where families with many children belonged to the tradition – besides Bulgaria or Russia, also for example Spain. In some parts of the Russian Federation, it is less than 1 child per family.

Many, namely European countries, will compensate the demographical drop by accepting immigrants. The USA, in fact, “rejuvenates” their population in this way even now. Also in other countries, like Germany, Italy, Greece, Portugal and many other European countries the immigrants add to the population numbers.

Graph 4: Changes in the world population age structure



Source: Long-Range World Population Projection: Two Centuries of Population Growth, 1950-2150. UN, United Nations Division, New York, forthcoming, executive summary

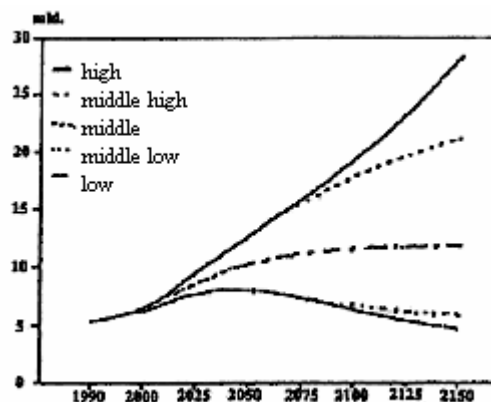
Let us concentrate the above mentioned population development trend up to 2050 into several main points:

- World population which amounts to 6.1 billion people at present will reach about 9.3 billion people. The maximal estimates are speaking even of 11 billion; the minimal estimate is 7.9 billion people.
- In 48 poorest countries of the world, the population will increase from the present 658 million to 1.8 billion people. By the half of the century, nine from

every world inhabitants should live in the developing world.

- An important population decrease is expected, among other, in Japan, Germany, Italy, Russia, Ukraine or Hungary.
- In the present EU member states, there will live the mere 4 % of the whole world population. At present, it is about 7 % according to the EUROSTAT.
- Humankind as a whole will live longer. The individual countries and continents will differ, however. While for example the average life expectancy in Japan will overreach the limit of 90 years, it will be about 75 in the developing world. Average life expectancy in the rich states should be approximately 82 years. People over 80 and older should form about 4 % of the world population and there will be about 379 million of them.
- Today, about one half of world population lives in towns, starting from 2030 it should already be two thirds inhabitants of the planet. In tens of enormous town agglomerations of more than 10 million inhabitants which would by the number of people be on the level of bigger states, there will concentrate social problems. It would be difficult to secure housing and jobs for these mega cities inhabitants, also the demands on water, energy supply and environment will grow up.
- People will fight with the shortage of drinking water: 50 years later, 2.4 billion people will lack water. Overburdening of the towns infrastructure will also lead to the danger of the contagious diseases epidemics.
- The Czech Republic should belong among the 10 countries with the oldest population. From 8.5 million inhabitants, 4 from 10 will be over 60. The average life expectancy should be 81 years. Natality rate should approximate the world average

Graph 5: World population estimate



Source: Long-Range World Population Projection: Two Centuries of Population Growth, 1950-2150. UN, United Nations Division, New York, forthcoming, executive summary

Graph 7: Average yearly population increment

Source: Long-Range World Population Projection: Two Centuries of Population Growth, 1950-2150. UN, United Nations Division, New York, forthcoming, executive summary

Population in 2100 - predictions

Nativity has already started falling down in many densely populated developing countries. According to the world demographers, it is possible that the forecasted overpopulation of the planet will never occur. During the last 30 years, the natality rate was decreasing in Western countries, what the demographers knew. They supposed. However, that natality will stay high in the big developing countries. However, it is falling even there at present to lower level than presupposed (Graph 4,5). For the first time ever, it can be regarded as possible that approximately 100 years later, the population of the Earth will start falling down, and that from the level of 10-11 billion down again to the present level, which is 6.1 billion, or even below it.

There exist together 13 countries which should get relatively soon below the basic statistical level of 2 children per 1 woman. There belongs Argentina, Brazil, Columbia, Mexico, Algeria, Egypt, Morocco, South

Africa, Indonesia, Iran, Philippines, Turkey and Vietnam.

Under the mentioned level, also 2 very important South Asia countries should get – even if later: India (at present, it has approx. 1.030 billion people) and the neighbouring Bangladesh (more than 131 million).

Seventy four countries of the world, which are showing the natality of 2.1 - 5 children per one woman and represent in total 43 % of the world population, should get down to the population index 1.85 before 2050. That will mean a considerable decrease – for example there will live by 85 million less people in India at that time.

Europe has at present the average natality 1.34 children per one woman and is closely behind Japan, where the mentioned indicator reached the value of 1.33. In the most populated country of the world, China, now 1.8 children falls per one woman after the draconic government measures.

And what is the reason that natality on the planet does not increase quickly as during the past decades? We can mention several reasons: spreading of contraception, a massive emigration of people from rural into urban areas. The consumer life style is spreading into all nooks of the world and its acolytes are, with growing expenditures on consumer's goods, losing the willingness to spend money on feeding children, respectively keeping a big family.

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