# CAUSES AND CONSEQUENCES OF THE WORLD POPULATION EVOLUTION

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**Abstract:** This study intends to realize a critical debate on the content and the dynamics of the theoretical concepts connected to the world population growth, trying to explain the origin and sense of the expression demographic explosion and other expressions that completed, detailed or disproved this syntagm.

The research is founded on the idea that the debate on the terminology used in present to define the demographic evolution, the presentation of the global and the differential components of the population increase, the main factors and evolutive scenarios of the world population, throw light correctly on the dimension of the phenomenon and represent a guide for the demographic present time. Based on these relevant aspects, the study leads to the idea that our planet is structured in two diverging worlds: a poor one, still in a demographic expansion and a rich one, in a demographic stagnation, even in a virtual decline.

**Key words: demographic explosion, overpopulation, regional disparities**

## 1. DIMENSIONS AND CAUSES OF THE WORLD POPULATION GROWTH

For the last decades, the world population evolution was frequently presented by using the concept of *demographic explosion*. We consider important to explain the origin and real sense of this concept.

The expression *demographic explosion* became part of the current use since the 60$^{s}$. In the Pierre Rondiere' book appears the idea that the world is surrounded by *terrifying figures, explosive statistics, frightening formulae*. In the same year, the President of the American Association of Sociology pointed out that the world has become a *chaos society* because of the *demographic explosion*. The subsequent generalization of this formula obviously clear appears in the French dictionary "Le Petit Robert"; it explains the figurative sense of the word explosion like an *unexpected and violent manifesting* and mentions a nuance of this word defined like an *unexpected and spectacular expansion* giving the example of *demographic explosion.*

Relating to the legitimacy of using these two adjectives, the contemporary French demographer Gérard-François Dumont affirms that *the demographic evolution may be considered spectacular* though *in the population field the growth was lower than the increases in the economic and scientific fields.* The unexpected characteristic of the demographic growth is also debatable: the population increase was produced in the course of time - decades, even centuries; it was not sudden, but it accompanied the progress in economy, in medicine and in hygiene; it was not instant and simultaneous, because it was manifested in different periods, with different rates, on different spaces

of the planet; finally, it was not totally unpredictable, taking the explanatory factors into account. Gérard-François Dumont includes the expression *demographic explosion* among the clichés used for designation, in a mystical and fabulous manner, the phenomena which were not enough analyzed: the German economic miracle, the Asia dragons etc.

Alfred Sauvy, one of the greatest demographer of the 20th century, considered that the expression *demographic implosion* is more appropriate than the other - *demographic explosion* - to symbolize the evolutions for the last two centuries, but also the scenarios of the future evolutions, in so far as some regions of the planet are suffering a *demographic closure,* because of the population ageing or depopulation.

Working from these reasons, we think that the evolution of the world population from the beginning of the industrial revolution is a phenomenon that can be described and understood, which has a clear logic and follows its specific laws. The reality of the demographic evolutions must be considered by having recourse to a correct analysis: *after we have measured, we must understand*, says Gérard-François Dumont. Three adjectives allow the characterizing and understanding of the contemporary demographic history: *unpredicted* - nobody can imagine that during the period of a century (only three or four generations!), the infant mortality, the juvenile mortality and the maternal mortality would decrease, in most of the world countries, with almost 95%-; *unprecedented* - relating to the *demographic normal* of the world until the 18th century, the contemporary demographic situations are singular, but not extravagant or fantastical -; and *logical* - however unpredicted and unknown before are the demographic evolutions, they are also based on a very strong logic; thus, the quasi-tripling of the life expectancy at birth during the latest two centuries is not a spontaneous appearance, but the result of some accumulations that allowed this progress; at its turn, this demographic progress involves a series of consequences.

In order to give correct details of reality, we must measure the demographic evolutions that changed the world; within this approach, the regional dimension has, in present time, a greater significance than the global dimension of the population; the importance of this regional dimension comes from the considerable disparities among the continents, inside the continents or the countries. The geopolitics dimension of demographic information also underlines the attention that it must be accorded to the differential aspects.

The demographic dynamics at the present time can be essentially explained by four fundamental processes: the demographic transition, the population ageing, the mutations in women professional activity and the migration (politic, demographic or economic).

On the occasion of the International Conference for Population and Development- Cairo, 1994 - it was reaffirmed an older idea of humanity, *the fear of tomorrow,* under a new name: *the obsession of the planet overpopulation*. The main defect of this idea, according to Gérard-François Dumont opinion, is the fact that it is only a *dangerous ideology*; the antidote against such an ideology which blinds the people, is *the attent analysis of reality based on scientific methods.*

The world population estimations point out the slow evolution until the 19th century: 5 million inhabitants in the year 8000 b.c., 500 millions in the year 1650 (during that period of time, the world population was doubled at each 1500 years, with an average annual increase rate of 0.004-0.06%), 750 million inhabitants in the year 1750 and 954 million inhabitants in the year 1800. The world population exceeded a

billion inhabitants, for the first time, in the 19th century, reaching at January the 11th 1900 to 1.634 billion inhabitants. Between 1650 and 1850 ( when the world population was one billion inhabitants ), the doubling time was reduced from 1500 years to 200 years, and the average annual population growth rate was 0.3-0.4 %. The world population increase in the 19th century is estimated at 71%, superior to the rates of growth for the previous centuries: 23% in the 15th century, 25% in the 16th century, 17% in the 17th century and 40% in the 18th century. The 20th century achieved an accelerated evolution compared to the 19th century: the inhabitant's number of the planet was two billions in the year 1927, three billions in the year 1960, four billions in the year 1974, five billions in the year 1987 and six billions in the year 1998.

Between 1950 (when the world population number was 2.5 billions) and 2000 (when the world population number was 6.057 billions), the average annual rate of world population growth was 1.63 % (double than that of the first half of the last century: 0.88 %). Converting this average annual growth in absolute numbers, we can say that, during this period of time, the world population increased with 185000 inhabitants per day, or with 8000 inhabitants per hour! The period between 1965 and 1970 marked the greatest average annual rate of world population growth: 2.06%. After this period, the average annual rates of world population growth decreased, reaching 1.73% between 1985 and 1990, 1.55% between 1990 and 1995, 1.2% between 1995 and 2000 and 1.4% between 2000 and 2005. Though the average annual rate of population growth was placed on a descending line, the average annual natural increase of world population was placed on an ascending line until present: from 47.1 million inhabitants between 1950-1955 to 68.2 million inhabitants between 1995-2000 and 88.6 million inhabitants between 2000-2005. Based on these figures we can measure the levels of the indicators for the last century: the world population increased with 4.422 billion inhabitants (over 44 millions per year), that represents a natural increase rate of 270% (1.32% per year). These figures are unknown before for the humanity history; in the absence of an analysis of the influence factors and predictable consequences, they justify the use of the expression *demographic explosion*.

The world demographic growth during the last two centuries is, in reality, the direct result of the economic and public health changes due to the first industrial revolution. The export of new technologies, that sprang up from the European countries to the rest of the world – a process favored by the colonial policy – allowed the previously observed expansion of the planet population. If in the northern hemisphere countries the main engine of the demographic growth from the 19th century and the beginning of the 20th century was the industry, subsequently accompanied with the medicine and sanitary equipment progress, in the southern hemisphere countries, with a century delay, the medical science performed the leading part.

The progress in medicine, biology and chemistry, materialized in the substantial improvements of the means for investigation, diagnosing and medical treatment, simultaneously with the development of the network for supply of drinking water and for sewerage that secured the public hygiene progress, led to the amelioration of living conditions. The humanity discovers this way that it is possible to become reality a fact that was unimaginable in the past centuries and millenniums: the man can have the desired effect on the decreasing of mortality. This astounding changing became the first demographic revolution in the contemporary humanity history. The demographic growth from the 19th and 20th centuries is not then the result of a higher

fertility behavior, as in the previous centuries, but the result of the decreasing of mortality based on the economic and sanitary progress.

The knowledge of the number of inhabitants of our planet at a time is justified taking into account the world population *homogeneity* depending on its main characteristic: the human character of each individual. However, the homogeneity principle of the whole population is, in fact, only valid for this characteristic. Because of that reason, Georges Mathews affirms: *we can not talk about the world population without the danger to be deceived and any elaborate study of the world population obliges the analysis of its populations.*

Even at the level of the continents, appear important demographic differences, which are more powerful at the regional or national level. Between the two great areas of the earth, geographically marked as *North* and *South* or economically delimited as *developed countries* and *under-developed countries*, significant discrepancies persist for almost all the demographic indicators:

- concerning the density of population, some areas are outlined: over populated, scarcely populated and even depopulated;
- the structure of population by age clearly divides the six continents: on the one hand, Africa, Asia and South America with a young population, and on the other hand, Europe, North America and Oceania, with an aged population, both from a demographical point of view;
- the classification of continents depending on the decreasing levels of natality and fertility clearly follows the South-North axis; however, the world population hierarchy following the general mortality does not have the same configuration (Europe is placed before South America, Asia and Oceania).

These zonal disparities are due to the different evolutions, in the last half of the $20^{th}$ century, of the populations from the two areas of the planet: the population growth was faster in the under-developed countries (with an average annual rate over 2%) than the population growth in the developed countries (with an average annual rate under 1%). The range of variability of average annual natural increase, for an analysis on the continental level, is bigger: from 2.63% in Africa to 0.9% in Europe.

As a result of different evolution of population by regions, continents and countries, the structure of population by geographic areas knew and will continue to know great fluctuations. Thus, according to the ONU projections, Asia will continue to hold the first place in the international hierarchy (from 54.7% in 1950 to 60.6% in 2000 and 57% in 2025); Africa has passed on the second place (from 8.8% in 1950 to 13.1% in 2000 and 13% in 2025); South America will own the third place (from 6.6% in 1950 to 5.7% in 2000 and 9% in 2025). The projections relive the fact that the proportion of population of the North America and Europe in the world population will continuously decrease until 2025, from 8% in the present time to 4% for North America and from 12% in the present time to 6% for Europe (in fact, during the first years of the new millennium, only these two continents realized a decreasing percentage in the global population).

The profound demographic changes during the last two centuries had significant consequences, direct or indirect, concerning human life.

The direct effects are connected to the unprecedented decreasing of mortality, especially for three of its forms: the infant death rates reduced 40 times; the maternal mortality rates reduced 100 times; the children and teen-agers mortality rates also

reduced in a significant proportion. The decreasing of mortality has two complementary consequences:

- on the one hand, it is reflected in the increase of the life expectancy at birth; if at the beginning of the 18th century the life expectancy at birth was 25 years, at the ending of the 20th century it was 75 years (three times multiplied); the world population growth is, in the first place, a direct effect of extension of life duration;
- on the other hand, the decreasing of mortality with a faster rate than the natality generated high rates of population growth; it is the second important cause for the increasing of the number of inhabitants of the planet, starting with the year 1800 and especially from the year 1900.

The indirect effects of the first demographic revolution manifested in the population geography; two of them must be underlined:

- the changes in the relative demographic weight of the countries and the continents, that is explained by different calendar of the demographic processes: the different moments of time and the different mortality decreasing rates for each country led to the maximal rises with different intensities and in different periods; in this way, the population distribution of the planet changed;
- the urbanization phenomenon, as a result of the natural increase of the cities population and as that of the emigration of the rural population – partially due to the higher natural increase of the villages population.

The demographic data presented confirm the unprecedented character of the world population evolution during the last two centuries of the second millennium; the demographic changes were considerable. Can we though talk about a demographic explosion as far as it concerns the changes born from the human wills to improve their living conditions and standard?

Alfred Sauvy preferred to avoid this term, because *it gives the impression that the demographic movement was not always well understood, neither in its mechanism, nor through its consequences.* He prefers the term *implosion* because, often, *the population growth in a country was not accompanied, so far, by a flowing of the population into another country.* One of his arguments, pure pedagogical, is also the definition of the word implosion in the dictionary *Larousse en trois volumes* (1965): *an assembly of explosions combined thus its effects being felt by the center.* For Alfred Sauvy an *explosion* can not be produced without the significant *results*. The use of the term *implosion* underlines that, until the present time, the demographic growth reflected in international migrations with low intensity, in modest emigrations (from the regions with a strong increase to those with a low increase) in relation with the importance of the effective demographic growth. He concludes: *the demographic growth was concentrated on the place where it was produced; the implosion was not yet followed by an explosion.*

The Philip M.Hauser's analysis reconciles the mentioned terminology, taking into consideration that the two phenomena - explosion and implosion - can live together. Defining *the demographic implosion like a concentration of the world inhabitants on the small areas,* he shows that *the population explosion nourished the population implosion.* The American author adds a third characteristic, as a result of the two previous phenomena, *the demographic displosion*, defined like *a diversifying of the population by increasing of its heterogeneity which separates not only the same*

*geographical area, but also the same vital space, as concerning the economic activity, as the social and political activities.*

Irrespective of the concepts used for the summarizing the world population evolution during the last centuries, the conclusion is that this evolution was logical: the increase of the number of the planet inhabitants was not the fruit of a spontaneous generations, unpredictable or incomprehensible, but of some explainable and scientific analyzable mechanisms; these permit to strike a *balance* of the world population evolution:

- The decrease of mortality and the fight against the three plagues (infant mortality, maternal mortality and children mortality) permitted an unexpected and significant increase of the life expectancy at birth; during the last two centuries, the longevity of the planet inhabitants had the most important evolution.
- The increase of the life expectancy at birth, combined with a considerable deviation between the natality and mortality rates in the first phase of the demographic transition, involved *a significant increase of the world population*: 71% in 19$^{th}$ century and 270% in 20$^{th}$ century.
- These evolutions had as result *the populating of the unpopulated regions* of the globe beginning with the year 1800 and contributed to an *unprecedented urbanization.*

The knowledge of the demographic past and present of our planet, allows the anticipation of its demographic future. The perspective, *this vision over the future intended to give a lead to the present time action*, it benefits in demography by a series of advantages: the demographic phenomena have a great inertia, dependent on the population stocks at one time - as compared to these, the flows of the population: live-births, deaths, migration balance, are mathematically reduced – and an acquired speed, dependent on *the known past* of the population.

Any demographic perspective must have in consideration the evolutive factors of the population, which can be classified, depending on their probability, in three categories: the almost certain factors, the probable factors and the possible factors.

In the first category are included two evolution factors, which are globally summarized by the decrease of the world fertility with significant different values in the two great areas of the planet: the decrease of the fertility in the under-developed countries with a rate that will forward place the phenomenon over the border of the generations replacement; the decrease of the fertility under the border of the generations replacement in all developed countries, with predictable consequences on the decreasing of their populations number.

The probable factors are more difficult to take into consideration in a global manner, because they conduct to diverging results at the countries level, even contradictory results in the same country. They refer to the mortality conditions and include three factors favorable to the continuously decreasing of the mortality: the amelioration of the sanitary conditions (with direct effects in the decreasing of the infant, juvenile and maternal mortality); the medicine domination of majority of current diseases (especially reflected by reducing of the mortality rates for the third age and by increasing of the life expectancy at birth); and the behavioral factors (which aim the male population and will conduct to the reducing of the deviation between the life expectancies at birth for the two genders). Three other factors, that run the risk of exerting a contrary sense influences, are included in the same category: the

deterioration of the sanitary conditions (which does not necessarily advance in a positive manner in all countries); the development of new diseases, with direct effects on the mortality increasing, indirect effects by the load upon the health infrastructure and the countries economy and secondary effects by favoring the reappearance of some contagious diseases, which were considered, for a long time, eradicated in these countries; the armed conflicts, with significant demographic costs.

In the category of possible factors, there are included: the migration and the population policies. Taking into account the political and economic differences, but also *the increasing of the demographic lack of balance,* there are in succession expected human movements, considerable by its intensity and its effects on the fertility behaviors. Concerning the demographic policies, it is difficult to specify their future evolution, taking into account its character, rather implicit than explicit; depending on the applied policies, the Southern countries could accelerate the second phase of their demographic transition, and the Northern countries could resist against the ageing population process.

Besides the mentioned factors, another cultural and religious factors, whose influence is more difficult to estimate, they will act on the future demographic evolution; the religious conditions and the cultural values will continuously be at the bottom of the attitudes towards the nuptiality and the fertility.

Based on the hypothesis regarding the action and the influence of the evolutive demographic factors, there were outlined, until now, more scenarios of the world population future evolution.

The first of them, named *the demographic implosion scenario* was elaborated in 1989 by Jean Bourgeois-Pichat, the former director of the National Institute of Demographic Studies of France. Consisting in the prolongation of the present fertility behaviors for the Northern countries and their expanding on the Southern countries, the scenario estimates the ageing, the depopulation and even the demographic exhaustion of our planet around year 2400.

The demographic ONU projections, published in 1992, regarding of the world population evolution until 2150, are based on five different hypothesis of fertility (with values of the average number of live-births for a woman between 1.7 and 2.5) and on single hypothesis of mortality: the increasing of the life expectancy at birth until 2075 to 87.5 years for women and 82.5 years for men (for the planet population). In the maximal fertility variant, it is estimated for the year 2025 a world population of 9.4 billion inhabitants and for the year 2150 of 28 billion inhabitants. The minimal variant estimates 7.5 billion inhabitants in 2025 and only 4.3 billion inhabitants in 2150. A medium variant, with a fertility restricted around the border of the generations replacement (2.1 children per woman) and an ameliorated state of health, estimates 10 billion inhabitants in 2050 and 11.5 billion inhabitants in 2150. This last scenario, that was considered at that time the most probable, was named *the scenario of the world population stabilization.* It places Asia, from demographic point of view, in front of the other continents in the future centuries and considers that Europe will become, from the same point of view, a sub-continent around year 2100.

A more recent ONU projections (2003) estimate, in a *medium scenario* (with a fertility of 2 children per woman) a world population of 9 billion inhabitants in the year 2300; the *maximal scenario* (with a fertility of 2.35 children per woman) estimates 36.4 billion inhabitants; the *minimal scenario* (with a fertility of 1.85 children per woman) estimates only 2.3 billion inhabitants; the *constant scenario* (with the fertility of 2.68

children per woman, equal to the value of the year 2003) estimates 244 billion inhabitants in 2150 and 134000 billion inhabitants in 2300. This last scenario clearly indicates that the present level of fertility could not be preserved for an indefinite time. The medium scenario also estimates that Africa will have 24% of the world population in 2300 (doubled than in the present time) and Europe will have only 7%. The most populated countries will continuously be India, China and United Stares of America. The world population will continue to grow old: the average age, 26 years in the present time, will be almost 50 years in 2300; the proportion of the over 60 years people will increase, from 10% in the present to 38% in 2300; the proportion of the over 80 years people in the world population will increase from 1% to 17% in the future three centuries.

## 2. ECONOMIC AND POLITICAL CONSEQUENCES OF THE WORLD POPULATION EVOLUTION

The trends in the population dynamics in the postwar period brought up-to-date the problem of the causal relation between the population and the economy and, implicitly, the question: *the population growth is a stimulus or an obstacle to the economic and social development?* The demo-economic theories were separated into two diametrically opposed conceptions:

- the population growth is a negative phenomenon (Malthusians, neo-Malthusians);
- the population growth is a positive factor for the economic development (anti-Malthusians).

The answer to this question must take into consideration that, on the one side, the population is the most important consumer for the goods and the services and, on the other side, the active segment of the population represents the most important factor of production of those goods and services.

In a natural way, the population increase implies the satisfying of a greater volume of necessities: food, clothes, shelter, education, health, new places of work. The long series of statistic data pointed out the fact that the population dynamics was exceeded by the production dynamics and, on the long term, the necessities of the world population have been satisfied on the superior levels. This analysis operates with macroeconomic blocks – populations and national societies – and uses like statistic indicators the average annual growth rates of the population and the gross domestic product. Without denying the meaning of this kind of analysis, we agree to the opinion – also expressed in the specialized literature – that such manner of approach to the relation population-economy is over-simple and it have to go deeply into the study of the components of those macroeconomic aggregates, of the complex correlations between different variables of those macroeconomic blocks, by taking into consideration their manifesting in different periods of time and on different spaces.

At the International Conference for the Population and Development from Cairo, 1994, some participants pulled the wires about the future of the planet by imposing the concept of *the global population* or, more precisely, of *the global overpopulation.* Jean-Claude Chesnais characterizes the idea that *we will be too numerous* like *a superficial and incorrect conception on the reality* because *it does not exist a global population as it does not exist a global government; there are only national populations, with very different demographic rates, densities and economic, social and ecological living conditions.* The concept of world or global population denies the biodiversity of

mankind; it spreads the optical illusion of a uniform urgency for the decreasing of natality (while the fertility levels are extremely variable from one country to another) and dissimulates the international disparities.

We can say that the *human planet* is composed of two contrary universes:

- one that it does not renew, the industrial universe which comprises the three poles of the prosperous triad (Western Europe, North America and Eastern Asia) and the former Soviet block; it represents a quarter of the world population and it is, in the greater part, in the situation of virtual depopulating;
- and other that largely benefits of the spreading of the medical techniques and it is not yet suited to this exogenous shock by restricting, in consequence, the size of its off spring; through its mass and speed – more or less rapid and comparable with the local resources – it involves the unexpected multiplication of the planet population.

The heterogeneity of the world population – which expresses also inside the two antagonistic universes – it does deceitful the concept of world overpopulation, from two points of view.

Starting from the idea that the world population evolution has to be examined with calm and serenity, by refusing both the myths and the fears which it might cause, Gérard-François Dumont realizes a careful analysis of the greatest disparities which humanity is, at present, confronted. Regarding the double lack of balance, between the population, the natural resources and the environment, the author considers necessary to pose some questions: *the planet resources are sufficient to feed twice the population?* If the answer is negative, *we really point at an irreversible starvation of the planet inhabitants?* If the answer is affirmative, *which are the conditions that allow a judicious utilizing of the resources for nourish all the people?* These questions, and especially their answers with a scientific base, will permit the elimination of the two major fears of the humanity: the over-populating and the starvation.

The quantitative arguments in favor of the existence and the perpetuation of the lack of balance between the population and the natural resources of the planet are based on real figures which prove that, in the poor regions of the globe, the increase of the population – excessive in connection with the local capacity of supporting – it endangers the development resorts, threatening the political and social stability:

- on the 2/5 of the planet area live over one billion inhabitants whom the agriculture can not feed with the present level of the agricultural input;
- in the last 30 years, the number of people who lives under the social status of poverty, has continuously increased, exceeding one billion inhabitants; the malnutrition affects over 0.5 billion inhabitants; around 2.8 billion inhabitants – two of five people – yet struggle to survive with less than two dollars per day;
- every year, 6-7 million hectares of agriculture area become infertile; in the last 30 years, over 50 million hectares of arable area have been removed from the agricultural circuit for the other destinations;
- annually, over 11 million hectares of forest are cleared; one half of the forest resource was eliminated until the present time;
- one half of the planet population lives in countries with a few water resources.

The qualitative arguments were recently included in the name of the indispensable equilibrium between the being and the environment – that we name in the present time the *ecosphere.* It is, in the first place, the question about the appearance of

the greenhouse effect or the global rise in temperature as a result of increasing of the greenhouse gas volume emitted in the atmosphere. Though the men of science did not elucidate the effects of this process, there are evidenced until present the alarming consequences: the displacement of the ecological zones to the poles; the disappearance of a great number of plants and arbors; the reducing of the forest area and the increasing of the desert area; the melting of the glaciers and the raising of the oceans level.

The challenge for the humanity is real great, but not as urgent as these figures indicate, that, by omitting the relative character of those disparities, throws into the shade the real disparities, especially presents in the industrial regions of the north of the planet (North America, Europe and Eastern Asia). Because in matters of demographic behavior, the urbanization and the level of instruction of the female population are even more important than the level of income per inhabitant, the theoretical advanced countries area includes also the Eastern Europe countries. The real menace for the advanced countries, *the suicide by unnatality*, it carries on the germ of the demographic and ecological decline. The immigrations could not compensate the losing of the young people and the absence of the children from these areas; moreover, they involve xenophobe outbreaks, as more violent as the unemployment has a structural character. At the international level, the number of immigrants increased from 79 millions in 1960 to 175 millions in 2000 – more men and women trying this way to escape from the unemployment. Because *the unnatality, the ageing and the unemployment can attract to one another into an infernal spiral,* the survival of some civilizations from this part of the globe and their most important values – the liberty and the equality – become a real problem.

Analyzing the correlation population-development, we must not give to the concept of development only its strict economical sense; the development also means a hygiene improvement policy, a decreasing infant mortality policy and a liquidation of illiteracy policy. The development, in the most comprehensive sense of the word, permitted to the humanity to climb over the risks, greater in theory than in reality, of the starvation. *The planet can feed its people*, because the concept of *resource* is relative; we talk more often than not, about the known and at present utilized resources; the utilizable resources are unlimited: the progress of science and technology can multiply the means of subsistence for the people.

The earth really can and could feed its inhabitants, but between *to be able to* and *to effectively realize* this objective, it is a margin that depends on political, social and cultural factors. For the benefit of the elimination of the quantitative fear about the insufficient food resources of the world population, we have to avoid in the future some measures of economic policy, that were applied in the past in the under-developed countries (including the Eastern Europe countries): the priority of industry over the agriculture; the overwhelming fiscality for agriculture; the imports or subventions that falsify the real market prices of the agricultural products; the excessive urbanization that leads to *the crushing* of the rural economy.

The other fear, qualitative, which the humanity is confronted, is the ecological equilibrium of the planet. The application of some hyper-mechanized systems in the under-developed countries had also negative consequences: the decreasing of number of jobs, the excessive concentrated urbanization, the destruction of the soil and the other elements of the environment. But, besides those errors of abusive imitation of the industrial world, they proved a development models adapted for the different countries and regions, models that are not unfortunate for the ecosphere.

*If the man is an incorrigible contaminater, he also can be a greater preserver, a magnificent cultivator*, says Jean-Claude Chesnais. For that reason, we can add, a true equilibrium of the eco-system needs the man. René Dubos affirms that *the earth needs the people…because the people imagination and work create what we give the name Nature…it is a symbiosis between the earth and mankind, not an opposition.*

Referring to the same aspect, Theodore W. Schultz, a winner of the Nobel Prize, affirms that *the essential connection between economic productivity and human prosperity is rediscovered in all countries, poor or rich and the investments in population quality and knowledge are the decisive factors that allow the insurance of the standard of life and of the perspectives for humanity.* He declines the current but incorrect opinion corresponding that the resources, limited in space, energy, arable area and other physical characteristics of the planet, could constitute an insurmountable obstacle to the amelioration of the mankind destiny; he says that the acquired aptitudes of the people – education, experience, competence and health – are the determinants of the economic progress.

The partisans of the neo-ecologism, who give priority to the animal species over mankind, are afraid of *the mad expansion of the human specie* and vehemently affirm that the optimal population of the planet is eight times smaller than the effective population. Taking into consideration that the man is the most important enemy of the eco-system, they oppose to *the increasing in a cancerous manner of the population* and state the case for *the elimination of 350000 people per day*, but they also add: *it is so* d*readful to say that it must not be told.*

The data presented by them, a global data that deny the geographical differences, are not scientific argued, because they do not refer to the theory or the reality of the demographic transition. Therefore, Jean-Claude Chesnais concludes: *the demographer or the economist must challenge these sophisms of the neo-ecologism.* The disparities frequently presented, between population and resources or between population and nature, they are false disparities. The real alarming disparities are in the North of the planet: between the increased proportion of the full age population and the decreased proportion of the young population; between the increased number of the reduced families and the progressive decreasing of the numerous families; between the important urban agglomerations and the rural zones, in process of *the demographic desertification*.

One of the causes of the demographic metamorphosis in the developed areas of the planet is the spreading of a safer contraceptive techniques; thus, the natality become the object of a conscious calculation which has, in its turn, for prior cause, the pronounced decreasing of the infant mortality. Jean-Claude Chesnais describes very suggestive and also realistically this metamorphosis: *There where the death spectrum continues to obsess the age generations (in the disinherited regions of the planet), the fertility cult persists: each birth is celebrated like revenge against the death. There where the death disappeared long ago from the dailyscape and where it is pushing an old age, the people tend to behave as they are immortals; they forgot they are mortals and they stop their reproduction.*

Another cause of the demographic vitality loss in the advanced countries, it is the women condition changing, by the extraordinary raise of their level of education and by the access to the financial autonomy. Through the increasing of the women employment rate, the child opportuneness cost also increases and the living standard of the couples with children decreases; implicitly, the fertility also decreases. The social

protection system was not yet adapted to the new socio-demographic variable of the employee urban societies, where the child became one of the pivots of the consumption society. *The children are the great forgottens of the State Providence…the major beneficiaries are the old people, the risk of gerontocracy being real.*

The rich countries often wonder why the poor countries have a higher level of natality. For the inhabitants of the under-developed countries, the children represent: a fortune, a protection and a guarantee. That is why, Alfred Sauvy said: *not because they have children the people are poor; because they are poor, they give birth children.*

The population problems must not be studied independent of the whole society's problems, of their development and education policies. The great springs of the history can be reduced at three main factors: the technical progress, with its two major components, medical and economical; the ideologies which stimulate the people, creating the motivation to learn, to innovate and to produce; the demographic growth that, by causing reasons for investment and creating conditions for the investments profitability, it maintains a favorable environment for the economic expansion.

In order to avoid the biological collapse and the cultural shock, it is necessary a new humanism: an ambitious life policy, a wide opening to the world. The population growth, the economic development and the revival of all regions of the planet participate, in equal measure, to the future of our civilization. We can conclude that our planet is structured in two diverging worlds: a poor one, still in a demographic expansion and a rich one, in a demographic stagnation, even in a virtual decline. At the beginning of the third millennium, all major inequalities and differentiations of the planet remain to defend and to conquer: between man and nature, between rich countries and poor countries, between women and men, between new generations and old generations.

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