

Basic Economic Trends in Terms of Socio-Technogenic Development of the World

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Abstract— The study of problems of socio-technogenic development of the world, which is actively studied by a group of scientists in Bryansk State Technical University under the guidance of the authors, has allowed to make a new analysis of the nature and economics and content of many modern transitional processes on Earth planet. This article discusses the evolutionary anthropo-technogenic change of life and global trends generated by it. The latter lead to degradation and even destruction of the biosphere and biospheric life in the next two or three centuries, and to global and controversial transformation of the human. In this paper we will focus attention mainly on some global economic trends that are determined primarily by economic-technocratic development of modern capitalism, and the socio-political and spiritual subjugation of planet's population to such development. Industrial development of society, harassed by selfishness not only of the technocrats but also of wider population, is towards the creation of the technosphere with its contradictory nature. Among global economic trends that have firmly established themselves and are now establishing on earth, the most important of these are noted by authors: destruction of the biosphere-biotic nutrient cycle and formation of socio-technological, or anthropo-technogenic cycle; the growth of the collective human mind (noos), directed by technocrats to meet their needs and interests etc.

Keywords— *Economic trends, Socio-technogenic development, Biosphere, Technosphere, Postindustrial society.*

1. INTRODUCTION. JUSTIFICATION OF SOCIO-TECHNOGENIC DEVELOPMENT TRENDS

Authors explored in their writings different aspects of a real transition of the evolution of life on Earth in terms of socio-technogenic development of the world. The development of life in this area began with the emergence of Homo sapiens, and gained increasing acceleration 10-12 thousand years ago or so with the transition of humanity from gatherer economy to producing, that is, to its first global shape, to agriculture. Research data of authors received in 2012 the support of the Institute of philosophy of RAS, and later RAS Presidium on results of work of group of experts, philosophers and scientists of Russian Academy of Sciences in 2011. Later in 2014 two closed conferences were held with experts from the Russian Academy of Sciences on the theme "Anthropo-technogenic

degradation of the biosphere: is there an exit from the crisis" [1].

These and many other studies were started by formed in 2002, independent and subsidized scientific and philosophical research school to study socio-technology processes and socio-technogenic development of the world at Bryansk State Technical University under the leadership of E.S. Demidenko and received broad support from the scientific community in the country. The study of problems of socio-technogenic development of the world (the methodology) has allowed to make a new analysis of the nature and content of many modern transitional processes on Earth planet [16]. This article discusses the evolutionary anthropo-technogenic change of life and global trends generated by it. The latter lead to degradation and even destruction of the biosphere and biospheric life in the next two or three centuries, and to global and controversial transformation of the human. In this paper we will focus attention mainly on some global economic trends that are determined primarily by economic-technocratic development of modern capitalism.

2. RESULTS

The concept of "trend" (from English trend – tendency, slope) is usually considered as the prevailing tendency, the general direction of development of something. This concept is most often used to characterize tendencies in economic, social, political, environmental, spiritual development, although does not exclude its use for individual phenomena, especially generated by contemporary globalization. This concept became used to begin to attract the attention of researchers after the release in 1982 of the book of J. Naisbitt "Megatrends", which became a bestseller in the US [11, p. 8]. But trends of only socio-economic development of the United States in the book are raised by him in the book to global trends, reflect the realities of the US unilaterally, the bright "positive" side which curtain hides not only American, but also world disaster of all over the world, especially the disaster of biosphere and its life.

At the beginning of the XX century V. I. Vernadsky for the first time from world scientists have created a scientifically satisfactory theory of the biosphere, and then comprehended a new originated direction of life development in the era of

industrial development [18]. This development is already determined not by centuries of self-development of the biosphere's nature, but by a "reasonable" humanity entered upon a scientific basis, its science and labor on the basis of its fundamental development. As society begins to define processes of life not only of humanity, thus this new development can be formulated in general terms as social and natural or socio-natural development. Vernadsky doesn't spoke about creating a new, scientific and technical productive forces and technosphere as inanimate artificial material-subject and field world. But since new, scientific and technical productive forces (with 98% of technical energetics) gave place of agricultural biological productive forces (even in 1800, which included 30% of human work, 68% of animals' work and 2% of technical energetics work), we can speak of previously unseen socio-technogenic-natural development of earth world and life [2].

But at the same time the modern socio-technologic-natural development in the era of capitalism domination and uncontrolled growth of humanity as social practice shows, is very much disperses with the classical prediction of V. I. Vernadsky about the biosphere is transformed into the noosphere as higher level of the biosphere. The socio-technological progress [4], as shown by practice in the world, is on a path of biosphere destruction and the formation with it not resources of the noosphere, but technosphere [13], where life processes of rapidly burgeoning humanity and nature, as biosphere, and also created in wider scale in scientific laboratories are transmitted.

V. I. Vernadsky was hoping that humanity will go the way of the noosphere creation, will improve its condition, to be creators of its organisms, as it was in agricultural society. Indeed, this process is evolving but it is not comparable with the other process – destruction the soil, and biosphere substances, and biotic nutrient cycle replacing it with socio-technogenic. Regarding soil cover, during the period of classical agricultural development of society (to 1700) was used and destroyed 1.3 billion of hectares of soil land, during the period of industrial development (1700-2000) – another 0.7 billion hectares [14, p.338-340], and used now 1.5 billion hectares, according to our approximate calculations will be enough for 1,5 centuries. According to the estimates of biologist soil scientist from Moscow State University A.S. Yakovlev, the remaining 1 billion hectares will be used up in 30-40 years when the increased world population [20].

In addition, over the past four decades (1970-2010) the estimated index of "living planet" was reduced by 52% which means: the number of the living population on Earth has halved, and in rivers and lakes by $\frac{3}{4}$ [3]. If urgent measures will not be taken, by the end of the XXI century the it will be around 10-15% of biosphere populations, according to our calculations, of those who still were on Earth in the early twentieth century. By this time, it will remain no more of biosphere landscapes, and only because of the reserves that are

critical to the preservation and restoration of biosphere by the understood humanity.

3. DISCUSSION. GLOBAL ECONOMIC TRENDS

Among global economic trends that have firmly established themselves and are now establishing on earth, you should know: along with the above mentioned, the most important of these are noted by us:

1. Global expansion, the full protection and promotion of the world capitalist system of social development as a seemingly eternal and inevitable in the modern civilized world of the market economy and corresponding to it universal socio-political model for democratic development of countries in the world without consideration of their national particularities, formed under the conditions of a long historical development.

2. Formation of global scientific, technical and technological productive forces in the name of the infinite multiplication by the economic and political elite of their wealth at the expense of natural biosphere resources of the planet, and primarily forces of nature. These forces are not yet directed to preservation and revival of the biosphere life, but to the hard exploitation of populations and natural resources.

3. Degradation and destruction of the biosphere as the result of destruction of the living biosphere-biological substance on the planet, especially forests and nutrients in soils. To describe briefly, on the planet already disappeared more than half of the forests, about half of the soil of the territories on which is possible to grow food, two-thirds of the nutrients in soils [6; 19]. The biosphere as a self-developing natural integrity finishes its development already in the XXI century, followed by a painful development of postbiosphere life with a yet unclear prospect not only for the existence of humanity, but of an individual human being in unity with microorganisms.

4. Destruction of the biosphere-biotic nutrient cycle and formation of socio-technological, or anthro-technogenic cycle. A significant change in the biotic circulation of substances (as part of the biosphere) occurred in the process of industrialization and urbanization of social development, when grown food from the village were sent to market in the city, and received bio-waste was mostly dumped in rivers, seas and oceans. Facts of the discharge via estuaries into the seas and oceans show the scope of such losses on land irrevocable for the life. According to the Soviet member of Academy of Sciences of USSR, biologist and soil scientist V. A. Kovda, in the 20th years of the twentieth century about 3 billion tons of humus were annually washed away from land, and 50 years later, in 70th years – more than 24 billion tons [9, p. 149, 156]. Now, apparently, every year about 30 billion tons are washed away.

5. Technospheration of planet, or the unprecedented growth of the technosphere as an artificial inanimate object-substantial and electromagnetic (field) world that will satisfy most of human needs not only in accelerating social and

economic, but biological development, to meet the diverse needs of today's society and people, and at the same time ignoring the future needs for conservation and safe development of the biosphere and biospherical human. As the formation of the technosphere and its uncontrolled expansion takes place on the territories of biosphere space, displacing and even destroying the biosphere, its component parts, absorbing the soil cover [8].

6. Especially noticeable is the gain in the world of technocracy and technogeneity of social progress. As you know, the American economist and sociologist of the social-democratic direction D. Bell created a quite popular in the modern world concept of social development, conducting fundamental differences between the agricultural, industrial and post-industrial society. In accordance with its concept, after an industrial public development comes the post-industrial, which supposedly overcomes the major negative effects of the first. Thus, in the mostly the developed informational (post-industrial) American society just over the past 10 years more than 80% of the bees [15] died, many other small animals and insects. The technocracy has already manifested itself not only in theories, like industrial and post-industrial society, but above all, in the practice of human society, especially capitalist one. Without continuously developing scientific and technical productive forces and the endless increasing of production, thereby discharging the biosphere substance in the inanimate artificial one, the capitalism cannot exist physically.

7. The growth of the collective human mind (noos), directed by bourgeoisie to meet their needs and interests. The last thing it cares for is the humanistic education of the people, moreover, it creates a such science that justifies the bourgeois existence of the and strengthens its dominance in the world. This is especially exemplified by the development and teaching of bourgeois economic science, which does not recognize the political economy and other types of economic development [10].

8. Infinite deepening of socio-technogenic development of the world. Supporting the ideas of the scientist-globalist, doctor of philosophical Sciences A. P. Nazaretyan, a great analyst of modern world evolution, fully justified concluded one of the most important trends (called a law by him) of earth life development: every successive period of life is increasingly artificial. "The core trend of changes," he writes, "pervading the history and the prehistory of society, was a consistent transition from more natural conditions to less natural" [12, p. 128]. It was said and by A. P. Nazaretyan very carefully, although we, the people of the Earth, are already drowned in the fierce technosphere – city life [7]. Socio-technological development of the world is considered by the authors not as a former independent biosphere and geological development, but as the development, already fully organized by the society, with the help of new scientific and technical productive forces and misleading "techno" not only in social life, but in the biosphere and biological life too artificial

objects and processes, new postbiospherical living organisms, wastes formerly unusual to the biosphere and unnatural for biospheric life. Only this realization and the purposeful study of life's evolution passing change on the planet can give the humanity a specific solution [5].

10. Creation and enhancement of socio-techno-natural globalization. This problem the first time in the world was thoroughly took up by E. A. Dergacheva, who dedicated her activity to the justification of technogenic social development and the formation of new, along with the socio-economic and environmental concepts, theory of globalization – socio-techno-natural [17]. If in science for many years, scientists have identified socio-economic globalization, and then socio-natural, eco-friendly, one phenomena of planetary life were extremely hidden from the people, the socio-techno-natural globalization, although the world several centuries ago already was firmly set on the path of socio-techno-natural development.

4. CONCLUSION

These trends and a number of other "didn't fell from the sky" but they were primarily the result of industrial-capitalist development and unregulated growth of the population determined by past historical necessity and traditions of the agricultural society. This is not a complete list of economic trends, characteristic for the contemporary socio-technogenic development of life and the process of globalization. The participants of the Bryansk scientific school of philosophy are not limited only to study of socio-technological development of the world and of life on Earth. They aim to find effective mechanisms to save the biosphere due to the reformation of social development, reducing the technogeneity of the progress of society and earthly world, as well as reducing spending biosphere-biological substances that were formed on land within 400 million years of evolution of the lithospheric component of the biosphere.

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