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## DETERMINATION OF CONCEPTUAL PRINCIPLES OF SUSTAINABLE DEVELOPMENT

**Statement of the problem.** Since the second half of the last century, scientists, politicians and public figures began to subscribe in the opinion that the current trends in socio-economic and demographic development in almost all countries can dry terrestrial biosphere ability to maintain ecological balance and to provide the necessary resources for life, constantly growing, population of the planet.

**Analysis of recent research and publications.** Sustainable development is clearly discussed in the literature of XX century. This issue has been considered by a lot of foreign and Ukrainian scientists: M. Ben-Eli, M. Hoexter, R. Ciegis, R. Jolita, M. Bronislovas, Daly, E. Herman, YS Berezhna, V. Tregobchuk, each clearly represents this concept and brings to his interpretation of this definition.

**Problem.** The need to move to a model of sustainable development for all countries due to demographic "explosion" of modern scientific and technological revolution and the crisis in the terrestrial biosphere, a significant reduction in its recovery, and reconstituting assimilative capacity due to excessive loads.

Radical changes in the paradigm of sustainable development have become a must, otherwise the ecological and environmental protection measures, even complex, large-scale technical and technological innovations can not provide everything necessary for the humanity [6].

**The main material.** The term "sustainable development" became widespread after the publication of the report "Our Common Future", prepared in 1987 by the International United Nations Commission on Environment and Development. The above concept was introduced to determine the relationship between society and nature. According to that report, sustainable development is understood as: "... a development that meets the needs of the present, but without compromising the ability of future generations to meet their own needs" [9, p. 29].

In 1990, Harwood describes the sustainable development of the economy as a system that can evolve indefinitely to one that is useful for people more efficient use of resources and balance with the environment, his work was entitled "Environmental Challenges in the management of agriculture."

In 1987, Goodland and Ledek described sustainable development as the transformation of the economy, optimizing economic and social knowledge gained now without risking capabilities in order to obtain a benefit in the future.

In 1977 Pyradzhes stated that sustainable growth means growth that is supported by the social environment. Thus sustainable development can be defined as the process of economic development and structural changes that help extend human capabilities.

In 1997 Veyttsman said that sustainability - a measure of future consumption.

Conway and Barbyr (1990) indicated that economic sustainability - the ability to maintain productivity in agriculture and the country as a whole [7, p. 87].

Pierce and Barbyr (1989) gave a generalized definition of sustainable development, which requires a socio-economic system and guarantees the support of the following: an increase in real income, better education, improved health and overall quality of life [7, p. 89].

In 1993, Holgate said that the development is determined by the initial potential resources. Sustainable development is development in which natural resources are restored, given the limits of the development process, even if the boundaries change technologies. Resistance technology can be estimated by increasing productivity while maintaining environmental and other boundaries [7, p. 91].

Definition submitted by Pierce in 1993, sustainable development relates to the development of society whose costs do not undermine the well-being of future generations, or at least made the effort to give compensation for such costs "Environmental Problems in the management of agriculture." This ethical requirement should make the development of a burden for future generations and to ensure similar opportunities available to those generations preceding generations, should be determined by the normative basis for sustainable development (Norton, 2007). Consideration of the fact that sustainable development is opposed to economic, social and cultural restrictions, sustainability could be defined as an ethical ideal and legal and ethical principle for further development [3].

The term sustainable development should mean the following: improving quality of life, including the ability to regenerate ecosystems, which can be described as the maximum continuous load on the environment and capacity - the largest number of people that can survive in the presence of ecological balance. At the same time, this may be applied in some aspects of sustainable development, including analysis of the conditions under which ecosystems can retain the ability to regenerate. [1]

Sustainable development - development of society so that it can in order to achieve complete well-being through combining environmental, economic and social goals of society, without exceeding the allowable limit environmental impact. The need to transition to a new type of development became apparent after the results of development. The problem of ozone depletion, global climate change, acid precipitation, pollution of the oceans, dramatically reducing desertification and deforestation, are just a few of the global environmental challenges faced by mankind. The concept of sustainable development is to provide unlimited long existence and development of mankind. [4]

In Sustainable development has three dimensions: economic, environmental and social. This is what is often called the triple bottom line, and are used to measure the success detail development program or project. This balance is evident when each component is examined individually.

Economic approach: maximize income while maintaining a constant or increasing capital reserve [12, p. 43].

From an economic point of view the concept of sustainable development is based on the definition of income that J. Hicks. "In real life definition of income pursues indicate to people how much they can eat without making yourself while poorer ." This is consistent with the concept of sustainable development, for which the most fruitful comes from Hicks made in order specifying the successive steps of the definition of income: "... the income of the individual - is that he can eat for a week and yet still expect that the end of the week his position is the same as it was at the beginning. "

Indeed, on the understanding that the present income actually received is not income if the same can not be received tomorrow, to realize the futility of not correlated with resource capabilities of economic growth had to do only one step, and this step was taken by the concept of sustainable development. From the definition Hicks is releasing a key to the concept of sustainable development values economically optimal use of scarce resources .

Limited resources have long been defined as a fundamental economic fact. Currently, a large number of different approaches to the valuation of natural resources [2, p. 125].

The economic approach is the core concept of sustainable development. At the same time, the concept of sustainable development has allowed for a fresh look at the notion of " economic efficiency ". Moreover, it was found that long-term economic projects in the commission taking into account the natural laws are ultimately cost- effective and implemented without taking into account long-term environmental effects - loss.

From the point of view of environmental sustainability should ensure the stability of biological and physical systems. Of particular importance is the viability of local ecosystems which depend on the global stability of the entire biosphere as a whole. Moreover, the concept of natural systems and dwelling area can be understood broadly to include them in the environment created by man [2, p. 126].

The focus is on preserving ability of such systems to change, rather than saving them in some "ideal" static state. Degradation of natural resources, pollution and loss of biodiversity reduces the ability of ecosystems to heal itself.

Saving the biosphere, thus, can not be an end in itself for sustainable development. His goal - survival of the human species. At the same time, more and more people realize that it is the continued existence of mankind will be impossible if the degradation of the natural habitat of its existence exceeds some, as yet unknown, the critical level [ 2, p. 127].

The main objective of sustainable social development is improving the level and quality of human life. A special role for the preservation of social and cultural sustainability, including reducing the number of armed conflicts and equitable division of resources between people, which is the common heritage of mankind.

The main objectives of sustainable social development is to create an egalitarian society, the elimination of poverty, reducing unemployment, expansion of productive employment and promote social integration. A special role is given free of human involvement in public affairs that affect the scope of its activity, which is essential for democracy and social development.

It actually was a continuation of the concept of the ionosphere, formulated by Academician VI Vernadsky in the early twentieth century. It was a necessary platform for the development of the theory of the triune ecological and socio -economic development. Its essence - mandatory coordination of economic, environmental and human development so that from generation to generation does not diminish the quality and safety of human life,

the environment is not adversely affected, and ensured social progress in its sustainability and harmony [9, p. 34]. It should be noted that the concept of sustainable development includes two key interrelated concepts:

1 ) the concept of needs, including initial per Maslow pyramid (necessary for the existence of the poor ) ;

2 ) the notion of constraints ( due to the abundance of technology and social organization ) imposed by the environment 's ability to meet current and future needs of humanity [2, p. 129].

The main objective of sustainable development was proclaimed human needs and aspirations that are most important to life and giving all to meet their aspirations for a better life equally.

The concept of sustainable development is based on five key principles:

1. Humanity can really add sustainable development and long-term in nature, so as to conform to the needs of people living today, while not depriving future generations to meet their needs.

2. Existing restrictions in the use of natural resources relative. They are associated with the current level of technology and social organization, and the ability of the biosphere to cope with the effects of human activity.

3. Necessary to satisfy the basic needs of all people and all provide an opportunity to realize their hopes on rosier life. Without this, sustainable and lasting development is simply impossible. One of the main causes of environmental and other disasters - poverty that has become commonplace in the world.

4. It is necessary to coordinate the lifestyle of those who has large assets ( cash and property ), the environmental features of the planet, including the energy consumption.

5. Size and population growth must be coordinated with the changing productive potential of the global ecosystem [2, p. 130].

A special feature of the concept of sustainable development is the integration of environmental components along with economic and social. With that in mind, we can formulate the following three principles of sustainable development from the standpoint of environmental management :

1) the rate of consumption of renewable resources should not exceed the rate of recovery ;

2) the rate of consumption of non-renewable resources does not exceed the rate of development of sustainably renewable replacement;

3) the emission of pollutants shall not exceed the capabilities of the environment to absorb them [ 10, p. 21].

These principles were formulated by the American economist and professor of public policy department at the University of Maryland, Herman Daly. They are extremely important because they contain the basic rules of environmental management. Imitation of these rules is a necessary condition for achieving sustainable development, as opposed variant nature leads to environmental problems and environmental degradation, and no natural basis, without any natural resources development is not possible. Fullest sustainable development principles were formulated in Rio de Zhaneyrskoy Declaration on Environment and Development. This document proclaimed 27 international sustainable development principles [12, p. 47].

Since sustainable development is three-pronged base, in this regard, there are difficulties allocation of clear economic, environmental and social components of it. Thus, the equitable distribution of resources lies at the intersection of social and environmental components of sustainable development, the creation of cleaner production lies at the intersection of economic and

environmental components, and the creation of social justice is not possible without economic stability [4].

Construction of sustainable development is to create a balance between two opposing points of view - anthropocentric and biocentric. At the core of anthropocentric approach lies interests of man as core values, and based biocentric approach underlying interests of nature as core values. Often the concept of sustainable development has been criticized, especially for its determination. Indeed, the phrase "sustainable development - a development that meets the needs of the present, but without compromising the ability of future generations to meet their own needs" is pronounced anthropocentric connotation. However, in its essence is the embodiment of sustainable development co-evolution of man and nature, as "sustainable development strategy aimed at achieving harmony between people, society and the environment" [4].

One of the central issues of building sustainable development is the organization of human activities within the environmental capacity of the biosphere. The biosphere should be considered as the fundamental basis of life, not as a source of resources, because without the biosphere functioning socio-economic system is impossible [5].

Work on a concept of sustainable development can not be completed. Some reflection imposes that fundamental document on sustainable development was created as a result of a long search for a compromise between various people and opinion [2, p. 124].

If more consider sustainable development in each case always appear all 1 ( environmental, social, economic ) components of sustainable development. In this context, sustainable development requires a balance between its components, which is a very difficult task [1].

**Findings from the study.** Analysis of describing the concept of sustainable development has shown that there are many definitions of sustainable development, including all aspects of the concept and provide an understanding of it. The transition to sustainable development - is the preservation of natural ecosystems at a level that ensures the implementation needs of present and future generations, while maintaining the stability of ecosystems. With the above spoken, sustainable development can be defined as a common human survival and the biosphere.

Based on the theory presented different versions of applications defenders - Sustainable development can be defined in three groups of indicators. These groups will be considered for further analysis of sustainable development as an interaction of environmental, eco-

nomical and social system. Thus sustainable development is not based on economic, social, environmental, and soon their whole integrated system.

Since the problem of stability should be analyzed and addressed at the system level, where they develop and manifest can consistently formulate appropriate policy objectives of sustainable development, some dimensions of sustainable development at each of these levels of economic development policy, thus obtaining a matrix of policy goals of stability, which can be used in the preparing of the sustainability of scenarios .

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