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ON MORAL ASPECT OF SUSTAINABLE DEVELOPMENT THEORY AND PRACTICE

Abstract

The paper deals with the modern processes of large-scale destabilization of the geosphere and the role of the scientific prediction of global environmental crisis. We also present an analysis of the reorientation process of civilization to sustainable development and ethical foundations of the relationship of humanity and nature.

Keywords: sustainable development, natural disaster, the destabilization of the geosphere, environmental ethics, the Earth Charter, the culture of moderation

To be sustainable, a steady state may require fewer natural resources, but much more moral qualities

Herman Daly

(op. by. Meadows et al, 1994, p. 16).

The XX century is considered to be the period of the full-scale process of destabilization of the geosphere, which is most obviously evident in the global climate change and increase/strengthening of various natural disasters – activation of volcanoes, earthquakes, tsunami, typhoons, mudflows and floods, droughts and wildfires, etc. are obvious. The listed processes are combined and aggravated with the accruing processes of environmental pollution, degradation of natural ecosystems, depletion of natural resources.

It is enough to give some evident facts.

- 2000-2009 years are designated as record decade in the context of climate change.
- The quantitative and qualitative depletion of the natural resources increases at all;

36% of types under the threat; in 25 countries forests are completely disappeared, and in 29 countries were reduced by 90%. Losses constitute 5,2 million hectares per year.

- During 1970-2007 population of vertebrates was reduced by 30%, sea types – by 24%, fresh-water – by 35%.
- 60% of the natural ecosystems are degraded or are used unstably;
- Anthropogenic pressure on the biosphere increased by ~5,5 times between 1910 and 2000, social and economic disharmony - by ~2,5 times.
- During 1980-2000 the quantity of droughts increased by 38%, and floods – by 230%.

- More than 90% of tests of water and fish are polluted by POP. Fish inventories are exhausted.
- The level of underground waters decreases as a result of the extensive use of aquifers.

The each next year is practically declared recorded from the point of view of one or another destabilization process. So, in February, 2016 in the Inter-Agency Secretariat of the International strategy for disaster reduction was declared that 2015 was the hottest for the whole history of observations and became yet another confirmation of the fact that natural disasters and the abnormal weather phenomena, which lead to death of a large number of people and to huge economic losses, became frequent in the world. Overall, in the last year were registered more than 30 large-scale droughts from which suffered about 50,5 million people, 27,5 million people suffered from mudflows, floods and storms, 1,2 million people suffered from a heat, from them 7346 died from overheating and sunstrokes, as a result of earthquakes and tsunami 9525 people, landslides – about 1400 people died. Judging by preliminary data, we believe that the results of 2016 will be less consolatory (see Danielyan, 2014; “Keeping Track of our Changing Environment,” 2011; “Global Assessment Report on Disaster Reduction 2015. Inter-Agency Secretariat of the International Strategy for Disaster Reduction”; “The United Nations General Assembly 2005, Report of the World Conference on Disaster Reduction”; “Climate change and health. Newsletter number 266”, 2016; “Protecting health from climate change. Treatment of different groups of the population and sectors. World Health Organization,” 2016; “Emerging Issues in

Our Global Environment. UNEP Year Book”, 2011; “Global Environmental Outlook -5, UNEP, Environment for the Future We Want. UNEP,” 2012).

The above-mentioned global process of destabilization is shown both in temporary, and in spatial measurements. Information on the alternating multidirectional temperature anomalies is combined with messages on the "geographical dispersion" of natural disasters – on the same continents of the territory with mudflows and floods literally adjoin to the territories, affected by droughts and widespread forest fires.

The above-mentioned numerous phenomena bring some scientists to the following hypothesis: "The Earth of the Gaia begins to reject humanity", which is shared also by the authors of this article (Yablokov, 2012). This assumption is based on the Le-Chatelier's well-known principle according to which "the system which is in equilibrium state is reconstructed so as to neutralize the impact of threats to its equilibrium". Currently the human civilization acts even as the similar destabilizing factor which the planet aims "to neutralize".

The question is periodically discussed in the scientific literature: How could happen, that the science having so powerful potential reacted to the above-mentioned processes with such a delay? Why the science only fixed the fact of the entrance of the civilization to deep ecological crisis, which already held on, but didn't promote prevention of this phenomenon due to the timely scientific foresight.

The answer generally is in the narrow differentiation of scientific disciplines, whereas the global problems require a comprehensive

interdisciplinary approach. As it accepted figuratively to say: "The nature isn't divided into faculties, like university". For this reason, within the framework of the "UN Decade of Education for Sustainable Development" the special emphasis was placed on carrying out multidisciplinary researches of modern environmental problems.

However, in fairness, it should be noted that a number of scientists timely specified danger of the approaching ecological crisis, but the humanity gave and continues to give much more attention to the ethnic/international conflicts, financial and economic interests of the countries and separate groups and to the other priorities.

So, for example, in the 30th of the XX century, Nicholas Roerich presciently wrote:

"The nature is sick with human madness. Spasms of the planet become frequent ... it is already possible to see how harmonic vibrations are disturbed, and the planet shudders in pushes of heat and cold. Several years there are daily earthquakes, Earth is in continuous trepidation.

In the increasing of the waves of Earth awe, it was possible to become more cautious and think out – weather is it all correctly?" (Nicholas Roerich, Op. by *Seven Great Mysteries of the Cosmos*, 1999).

In 1971 2000 scientists appealed to mankind to pay attention to the expanding environmental disaster and to take adequate measures.

Respectively, in 1972 the UN called the high-ranking representatives of the countries to Stockholm for discussion of this problem. As a result it was created UNEP (United Nations Environmental Program), the Commission of Gro Brundtland was formed and prac-

tically so-called process "The way to Rio" was started, which was crowned in Rio-de-Janeiro in 1992 by the Earth Summit on Environment and Development, which approved sustainable development as the cardinal way of modern civilization development. It became obvious that the cycle of development of the civilizations, based on the principles of conquest of the Nature lasting for millennia, comes to the end. It is necessary the transition to a civilization of essentially new type – a civilization of equilibrium environmental management, where all the constituting impacts of the human-being on the Nature are brought into accord with a capability of natural systems to carry the anthropogenic loading. Sustainable development is based on a harmonious combination of economic development to an ecological safety and social justice (see "Earth Summit. Agenda 21 – The United Nations Programme of Action from Rio", 1997; Danielyan, 1996).

At the Earth Summit the document "1992 World's Scientists' warning to Humanity" was presented to the country delegations, under which 1600 world's leading scientists from 71 countries, including the majority of Nobel laureates, issued this appeal. In particular, it is emphasized in the document:

"Human beings and the natural world are on a collision course. Human activities inflict harsh and often irreversible damage on the environment and on critical resources. If not checked, many of our current practices put at serious risk the future that we wish for human society and the plant and animal kingdoms, and may so alter the living world that it will be unable to sustain life in the manner that we know. Fundamental changes are urgent if we are to avoid the collision our present course

will bring about. ... No more than one or a few decades remain before the chance to avert the threats we now confront will be lost and the prospects for humanity immeasurably diminished" ("Caution Scientists of the World of Humanity," 1992).

20 years later, the Summit of the UN "Rio +20" in Rio de Janeiro, in 2012 noted that though the countries and the international organizations accumulated extensive positive experience in the sphere of sustainable production and consumption, of education on SD, in general on promotion to sustainable development, however, destabilizing processes in the ecosphere advance our efforts on prevention of destructive anthropogenic influence. Estimating the way passed by the civilization after the Earth Summit «Rio-1992», the final document of the "Rio +20" Conference of the UN on SD "The Future We Want" states:

"Point 20. We acknowledge that since 1992 there have been areas of insufficient progress and setbacks in the integration of the three dimensions of sustainable development, aggravated by multiple financial, economic, food and energy crises which have threatened the ability of all countries in particular developing countries, to achieve sustainable development" ("Resolution 66/288 adopted by the UN General Assembly," 2012).

Respectively, the UN Summit "Rio +20" urged the countries and the international organizations to intensify significantly ongoing efforts on promotion to development in line with the sustainability, as well as the Parisian agreement on climate, as the UN World Conference on Disaster Risk Reduction held in Sendai... (see "Paris Agreement on Climate";

"The UN General Assembly, seventieth session, paragraph 20 (c) of the Agenda," 2015).

And, finally, in our opinion, the Russian scientists attitude stated in the "Appeal of Russian Scientists to the International Scientific Community", from which (2007) fragments are stated below is absolutely fair:

"Qualitatively new, moral view on these problems and the scientific theory oriented to sustainable development of the terrestrial civilization are necessary today for providing guarantees of sustainable development. The Russian science addresses the international scientific community with the offer to be determined with the position of science in these questions ...

As the fundamental purpose of humanity it should be recognized the necessity of preservation of earth civilization and to suggest to enter this purpose as a constitutional basis of the states entering into the UN. This will allow to consolidate the humanity and to orient it in the direction of building a rational terrestrial civilization while preserving all its diversity of nationalities and cultures. The scientific theory of development of society constructed on this basis allows a possibility of preservation of a terrestrial civilization only on condition of all-round harmonious development of the whole world community" ("Appeal of Russian Scientists to the International Scientific Community /Vernadsky - Dmitriev Manifesto/", 2007). Thus, authors urge to include the postulates of sustainable development into the constitutions of all countries.

We consider, it is regularly, that the above-mentioned processes were crowned with the 70th anniversary session of the General Assembly, which approved the world

program on sustainable development until 2030, including 17 interconnected sustainable development goals.

If to address to the history of moral bases evolution of relations between human and the Nature, then it is possible to allocate the following series of stages:

- Nature worship, spiritualizing of components of the Nature (spirit of water, spirit of the forest, etc.), struggle for existence;
- struggle with the Nature, expansion of an ecological niche, gain of new ecological niches;
- conquest of the Nature, aspiration to master the maximum quantity of natural resources (in virtue of the achievements of a scientific and technological revolution illusion of omnipotence and absolute power of the human is created);
- awareness of the necessity of following the laws of Nature, coevolution of the human and the Nature (human – is not the lord, but an organic part of the Nature), Environmental ethics.

The present stage of development of moral of civilization and the Nature relations is characterized by one more essential principle – respect to the Nature, recognition of its rights to natural, harmonious development, including the rights of all types of biological diversity to life. Most brightly and generally these ideas are provided to the Earth Charter recognized by UNESCO as one of the main instruments of education for the benefit of sustainable development. The basic principles of the Earth Charter are given below:

- Respect Earth and life in all its diversity.
- Care for the community of life with understanding, compassion, and love.

- Build democratic societies that are just, participatory, sustainable, and peaceful.
- Secure Earth's bounty and beauty for present and future generations ("Earth Charter").

Discussing the way of development of Republic of Belarus and human civilization in general, V.F. Baynev, V.T. Vinnik write: "The present unprecedented aggravation of raw materials, energy, ecological, etc. problems, referred to only as the global civilization contradictions, shows that for an exit on a trajectory of sustainable development, the humanity lacks some important fundamental conditions. We are convinced that such missing factor is spiritual and moral component, ignoring of which is the authentic reason of the listed above global problems" (Bains & Vinnik, 2010).

Authors see the pronounced moral measurement of social and economic processes based on Christian values in specifics of the Belarusian model of development.

Accounting of moral aspect, and also responsibility is emphasized also in "The strategy of UNECE in the field of education for sustainable development" ("The UNECE Strategy on Education for Sustainable Development," 2005).

The analysis of the above-mentioned can bring us to the following assumption. With the Nature the Humanity passed in the sphere of development of moral of relations on a cyclic way, returning on a spiral to a stage of worship of the Nature, but at the new intellectual and technical and technological level. Now, when we know about a capability of water to store and transfer information, whether we think involuntarily of spiritual essence of the Nature.

It is known that one of the main determining components of sustainable development is the Culture of moderation designed to reduce considerably scales of modern super exploitation of natural resources, practiced by modern consumer society, to be exact, society of overconsumption. About thoughtless overconsumption of "the developed civilization" very strictly and figuratively it is spoken in widely known "Message of the leader of Seattle": "We know that our traditions are unclear to the white person ... It treats the earth as to the enemy, but not as to the brother, therefore it moves further when subdues the part of it. It concerns the mother – the earth and the brother-the sky as if they can be sold, plundered,

bought as sheep or bright jewelry. His appetite will devastate the earth and will leave behind only the desert ... Your purpose – a riddle for us.

Perhaps, transition to Culture of moderation is the most hard-to-reach, because requires radical reorganization of the value system on which vital practice of the vast majority of the population of Earth is based. Whether the person will be able to pass in general from self-affirmation in material values to self-affirmation in spiritual values? Whether will be able really to listen to the principles, approaches and recommendations, being basic for many world religions and beliefs of the ancient indigenous people (table 1).

Table 1. World religions and the ancient people about consumption (Durning, 1991).

Religion/people	Basic thesis
Christianity	"It is easier for a camel to go through the eye of a needle than for a rich person to enter the Kingdom of God". "Gospel of Matthew"
Buddhism	"The one who will overcome the desires in this world, from that grieves, as water drops from a lotus flower, will fall down". Dhammapada
Confucianism	"Both excesses, and a shortcoming equally create difficulties". Confucius
Hinduism	"The person, who lives free from desires, without passionate desires, achieves the peace". "Bhagavad Gita"
Judaism	"Don't give me either poverty, or wealth" "Book Solomon' parables"
Islam	"Poverty is my pride" Prophet Muhammad
Taoism	"The one who knows that he has enough - is rich" Dao De Jing

American Indians	"What pathetic we seemed in your eyes, we consider ourselves much happier, than you yourselves, because we are happy with that small, that we have" Leader Micmac
Ancient Greeks	"Nothing in excess" Inscription on the Delphic oracle

It is curious that the recommendation to keep an ecological food pyramid of fauna contains already in the Old Testament. We usually remember the phrase about the need of salvation from the flood "a pair of every creature," but in the next verse contains more specific recommendations to Noah, namely: "You shall take with you seven each of every clean animal, a male and his female; two each of animals that are unclean, a male and his female; also seven each of birds of the air, male and female, to keep the species alive on the face of all the earth" ("The Old Testament, the head of the Flood", verse 7). It is known that are meant by pure animals herbivorous, and dirty – predators, that is it is about need of preservation of an ecological pyramid.

Anyway, today it is obvious that modern civilization has two ways: to pass to sustainable development or to undergo self-destruction. And the main prerequisite for positive transition to sustainable development is transformation of the homo sapiens into the homo sapiens and moral.

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