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Social Needs Structure and Ecological Threats

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Abstract

The paper is devoted to the issues of current, probable future and desirable trends of our civilization development from the point of view of a global ecological threat. It is not an attempt to examine and display with figures a possibility or probability of the global ecological threat prevention. The paper considers only major necessary prerequisites to prevent it. They may not be sufficient for Global Sustainability. The paper analyses main economic, environmental, informational and social factors of Sustainability, focusing on social need and demand structures, linkage between human consciousness and needs, linkages between informational and educational policy, on the one hand, and world outlook, environmental and spiritual (non-material) need, social demand structure, on the other hand. It emphasizes the significance of an interdisciplinary approach to developing principles and concrete measures for Sustainability building. It is a modest attempt to integrate at least several rather close scientific areas and discover new approaches. Major idea is that the main potential of Sustainability is hidden in the people's mind - in discovering genuine needs, genuine sense of life and developing spiritual (non-material) needs and demands.

Environmental protection management and specifically natural resource use control are the important points in preventing ecological threat and providing transition to sustainable development; natural resource control is especially important for Russia. Among management instruments most important are the economic ones which are to play a very significant role in incorporating environmental concerns into the economic, social and political development process. I would rather say that the global ecological catastrophe could hardly be prevented without adequate economic valuation of natural resources in terms of actual economic indicators.

The major contribution to environmental/ecological catastrophe prevention may not however belong to the pool of "perfect" economic instruments and, moreover, to environmental management as a whole. Even a more important prerequisite is changing social need and demand structures because it is able to induce changes in the functioning of economic efficiency criteria (ecologically sound goods that now are rejected by market in favor of ecologically dangerous should be "promoted" by the market in future) and, consequently, the resource allocation mode.

A current status of natural resources economic valuation and other environmental aspects of nature use is far from being satisfactory. The existing economic instruments do not create

incentives for prevention of environmental problems nor do they provide solutions thereof. In fact, they only somewhat reduce a tremendous stimulus for destroying the environment. In terms of political economy the main reason for such a situation is an inadequate structure of social needs and, accordingly, social demand that are in turn predetermined by the dominating world outlook and lifestyle which are reflection of an obsolete scientific paradigm.

I consider Environmental or ecological problem at large to be a direct result of resource misallocation under the deficient (inadequate) social demand structure conditions. And further the resource misallocation results from non-internalizing externalities. However, internalization of externalities does not completely guarantee solution or prevention of environmental problems because of lack of knowledge on the world “construction” and consequently on externalities. We simply are not able to see many and may be the most important externalities of our energetic activity to transform the world that was created in all probability by much more intellectual and powerful ...say...creature. No doubts that we can see now only an upper and smaller part of iceberg.

A society should attain a new level of knowledge, understanding, mentality and as a consequence - a certain level of environmental and spiritual needs and, further, an appropriate social demand structure. Internalization of externalities will be achieved when economic values of ecological aspects (natural resources in a broad sense) meet the conditions of Sustainable Development, i.e. economic development without any non-assimilated negative impact on Environment. The level of such an impact may be described as a set of environmental standards. Of course, the already fixed standards are not necessarily ideal but they will be being improved and ultimately perfected. So it is reasonable to assume that environmental standards reflect conventionally objective social environmental needs and demand.

Referring to the objectively substantiated level of environmental and spiritual needs we mean that the present social need structure does not comply with the sustainability principles though, to a different extent (in different parts of the world), the environmental/ecological need rate is everywhere considerably lower than it is required for at least preventing the global ecological threat, and even more important point is the misbalance between material and non-material needs. The baseline idea of the “sustainable development” definition is “needs.” Development is sustainable when meeting needs of the current generation does not inflict damage (does not undermine) on those of future generations. Sustainable Development is unachievable without restructuring social demand and discovering the most efficient ways for its satisfying. Creation of a new set of values in terms of environmental needs, wherein high quality of the environment becomes a priority (clean air, pure water, biodiversity and ecosystem’s health conservation, sound lifestyle, creativity and self-expression, developing of creative abilities of human beings, high quality products, etc. and finally thinking and feeling in categories of mental and emotional merging with Nature), is one of the critical issues.

Despite extreme significance of the environmental or ecological need growth, it is even more important to change balance between material and spiritual (so called non-material) needs and demand in the latter’s favor. One of the dangerous trends of a modern society is a tendency to mediate meeting needs through the market while in principle majority of these needs should be met without any market or even should not emerge at all. Increasing part of people’s genuine needs are substituted with surrogate needs forced, implanted by ideological and economic subsystems of a society. The major cause of such a situation is a rather primitive dominating world outlook based on an obsolete scientific paradigm and inertia of financial economic machine subordinating people’s mind, mentality, will, needs. I would roughly classify all needs on 3 categories: needs that normally should be met without market but now are involved to a

different extant in market relation (love, motherhood, fairness, religion, health etc.), existing harmful and destructive needs that ideally should not exist at all (narcotics, alcohol dependence, smoking, etc.), needs that normally should be met through economic subsystem, market (however, goods's and services's quality may vary tremendously from the ecological point of view). Of course, boundaries between the above groups are not absolutely firm. This is a rather qualitative classification. All the groups are sources and necessary factors of normalization of a social need structure but up to now they mainly evolve in an opposite, wrong direction.

Voluntary changing of the social demand structure would lead to evolution of the efficiency criteria functioning, a more rapid scientific and technological progress, re-allocation of consumed resources, and ultimately conservation of nature. So, the “paradox“ is as follows: **once the humanity gets less concerned about material values and more about spiritual (non-material) ones, it will have better possibilities for satisfying its material needs** (spiritual need growth will lead to extending human self-knowledge and thus to better realizing genuine needs and to more efficient meeting them).

Environmental needs of a society are reflected in the system of environmental standards set by appropriate state and cross-state bodies. Environmental standards supplemented with appropriate policies in the field of nature use, legal and economic instruments, state and international programs acquire the nature of social demand. Environmental demand as it was mentioned above can be described as a system of environmental standards supported by a set of methods, instruments and resources (economic, financial, legal, institutional) to achieve them.

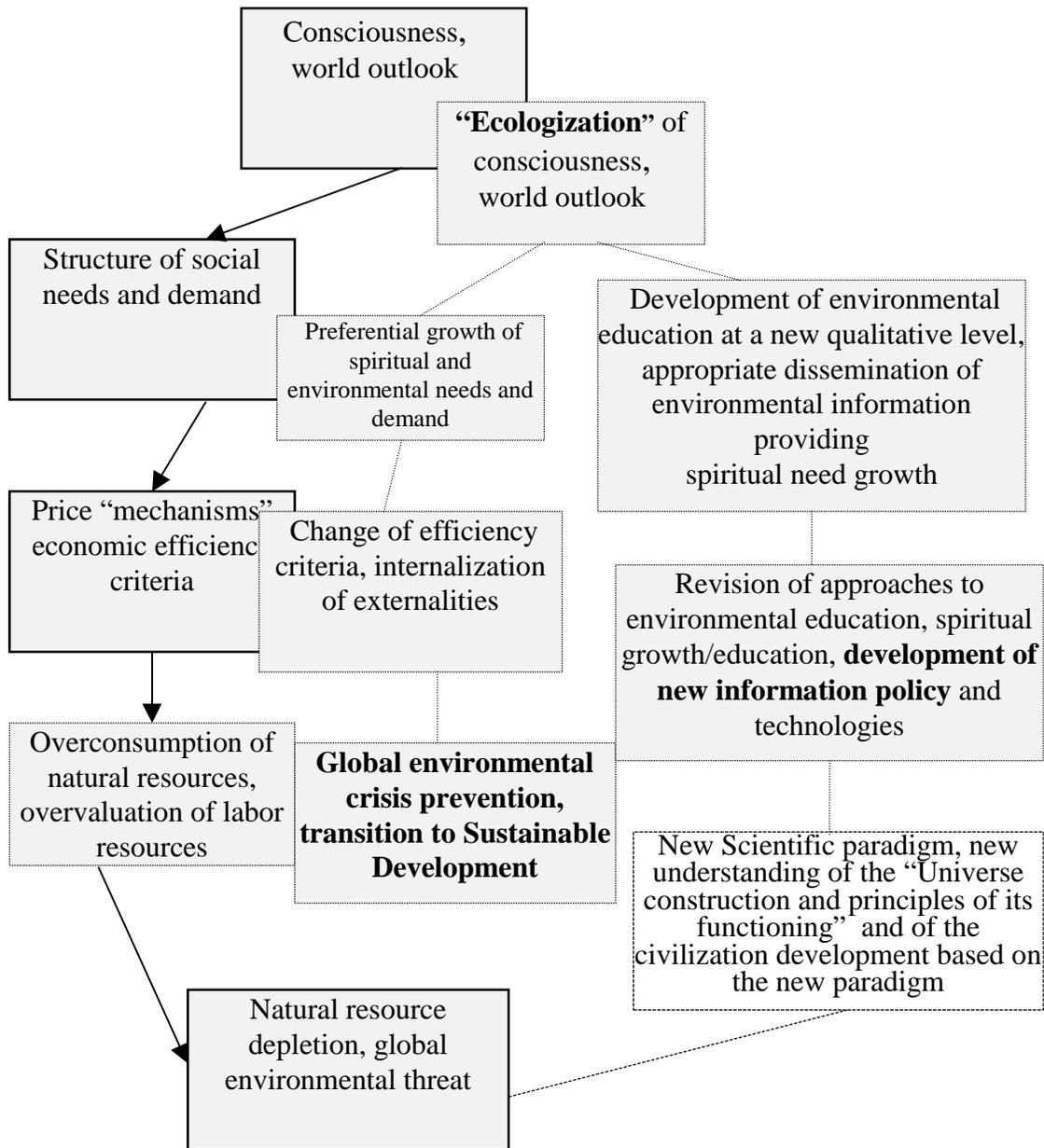
While resources assigned by a society are inadequate to the objectives of environmental solutions it is possible to conclude that social environmental needs are underdeveloped and a social need structure is not adequate. So, the notion of environmental needs allows to define “sustainable development” more precisely, i.e. as the development of a society that meets needs of current and future generations by forming a rational social need structure. By the term “rational” I mean an optimal balance of spiritual and material needs as well as environmental and other ones. Among the other factors, identification of such balance implies dissemination of “new” (mostly forgotten) knowledge about a human being, its spiritual, informational, energetic and physical “construction and working principles”. This knowledge inculcated in human consciousness in early childhood will alter a world outlook and consumption mode of a new generations.

Generation of environmental needs implies that a society will require certain environmental conditions to be defined through a system of environmental standards. Compliance with these standards will secure reproduction of all renewable environment components.

It is also reasonable to consider environmental standards as a qualitative reflection of the environment assimilative capacity. Such interpretation of environmental standards allows to view them in terms of political economy as a category integrating economic and administrative methods of environmental protection management.

Key objective is creating conditions for information pressure on the society with the purpose of changing a world outlook and forming adequate social demand for the introduction of efficient instruments and measures in the field of environmental protection management. The information pressure should be brought about through both special educational programs for various categories of students/audience and all kinds of mass media. Since roots of the environmental threat exists in people's consciousness, which is an information structure, the goal of the world-outlook evolution may be achieved by developing and fulfilling special informational strategy and policy

A simplified pattern describing profound causes of environmental problems and a mechanism for their solution (in principle) is presented below:



Note: a continuous line means that the box “describes” actual status of the system, dotted line - the one required.

Reforming of the education system (content and form) and also mass media should be based on a new scientific understanding of the civilization development as a part of evolution of biosphere, the planet and Universe. Such scientific understanding should come from new scientific paradigm versus so called Newton-Cartesian one based on Democrit’s atomism, Euclide’s geometry, Newton’s mechanics and Decart’s methodology.

Concerning the above scheme I would only notice that even more important factor is a voluntary changing of people’s subconscious but it is a separate topic which can not be stated in this paper.

In any case one can see from the above pattern that information policy is the main driving force of the transition process to Sustainable Development.

Now let me to describe in brief economic, institutional and environmental aspects of transition to Sustainable Development in Russia. A concept of developing natural resource ownership relations over natural resources was worked out. While elaborating this document we referred to the relevant experience (concerning property) of the USA, Canada and the situation in Russia. These are the most complicated issues in the above and other federate countries. In principle, now it is the right time for making an attempt to distribute wisely the property rights between the federal and regional levels of state authorities in Russia. We are currently attempting to incorporate the notions and principles of property rights distribution, internalization of externalities, greening the budget and changing social demand structures in some Federal level documents. However, I doubt these ideas being put into practice over a short term. Apart from concept documents, there were prepared a package of executive draft documents and methodologies.

Among the latter one can mention works on developing methodologies of natural resource economic valuation based on the principles matching requirements of transition to Sustainable Development, including the principles of physical reproduction of renewable resources, economic reproduction of non-renewable (depletable) resources or their use values, the Hartwick's Rule (transformation of natural resource capital into different forms of capital). Yet, the methodology will be simplified for the practical purposes. A very interesting area of methodological research is the development of approaches to the economic valuation of so called assimilative capacity of Environment.

Internalization of externalities or perfection of natural resource use "taxation", as it was mentioned above, is directly linked to the general taxation reform. Analysis on the existing practice in Russia as well as in the USA and other western countries allows to formulate certain conclusions and proposals on natural resource taxation.

In Russia, natural resource taxation exists in the form of payments for the use of natural resources (land, minerals, water, forest and other biological resources) and environmental pollution charges. They are governed by a number of respective laws (On Land Tax, On Subsurface Resources, Water and Forest Codes, etc.). The rates are, as a rule, substantially lower than the actual economic values. This is applicable, in the first place, to certain mineral resources, such as gas, oil, gold, diamonds and some other. Since tax rates for mineral resources were fixed at a very low level, the budget has to collect money mainly by means of indirect taxes, such as excise duties, VAT, profit tax, export duties. Direct resource taxes account for less than two per cent of the state budget revenues. It is a negligible figure if compared with the actual revenues brought into the budget by mineral resource exploitation. Incomes from mineral resource extraction constitute considerable if not a major source of budget revenues although collected in an indirect way. It is necessary to make accurate calculations of the budget revenues from the mineral resource sector in order to substantiate and propose radical changes in the present taxation scheme. Direct fees or taxes should replace indirect ones.

Pollution charges are also inadequately low and create neither perceptible incentives to reduce pollution nor a financial source for environmental protection. One promising area of activity aimed at radical changes in the system is (the development of) the concept of the above assimilative capacity together with the tradable permit system .

Economic valuation of different natural resources is the main factor in elaboration and implementation of sound economic instruments to provide incentives for solving and preventing

environmental problems. Thus, valuation of such specific resource as the environment (or environmental quality) is a very important task. In the Russian literature it is referred to as “assimilative capacity” or assimilative potential of the environment. In our opinion, this notion allows to consider the environment in terms of a resource as well as to integrate both natural and artificial properties of the environment status in the valuation process. For the economic purposes, it is advisable to define assimilative capacity of the environment as the capacity to respond to various anthropogenic impacts (to a certain point) without changing qualitative parameters in the indefinitely distant future.

As a rule, environmental pollution currently exceeds by far assimilative capacity. It is possible to conclude that polluters appropriate assimilative capacity. Such appropriation is not only extremely dangerous from the ecological point of view, but also leads to economic inefficiency under conditions of gradually changing economic instruments. On the other hand, better reflection of consumed natural resource values in economic efficiency criteria allows to increase both (ecological) environmental compatibility and economic efficiency of production. These circumstances make it necessary to develop and put into practice methods of assimilative capacity economic valuation.

As it was mentioned existing level of payments (for natural resource use), as a rule, is far below their objective economic values. That does not comply with the officially declared orientation on transition to Sustainable Development, because an undervalued resource is unavoidably ‘over-consumed’ under market conditions, thus, in its turn, leading to negative environment consequences.

Actual under-valuation of assimilative capacity results in over-consumption of the given natural resource, and, consequently, in its depletion and scarcity. This scarcity can be made up for and eliminated only by means of continuous artificially extended reproduction of assimilative capacity, i.e. by measures undertaken to reduce anthropogenic impact on the environment for complying with the existing “rigid” environmental standards (at the initial stage) to be furthered by compliance with some “perfect” or future environmental standards. Economic valuation of assimilative capacity should provide prerequisites for funding throughout the process. This work will allow to choose the best ways for economic regulation of environmental protection, proceeding from the current level of ecological knowledge. If we refer to the imperfection of today’s ecological knowledge to prove futility of the application of assimilative capacity economic valuation, the policy will be lagging behind requirements of the time to even a greater degree. The normal assimilative capacity use should correspond to the pollution level not exceeding the environmental standards.

In Russia, where industry is mostly privatized and taxes, charges, etc. for natural resource use and environmental pollution are far below (tens and hundred times) the appropriate economic valuations, the substantial part of resource rent is an object of exaggerated interest of certain financial and industrial circles. Formally it is an absolutely legal way for excess profit gaining though essentially it is economic appropriation of state-owned natural resources through the rent withdrawal.

As a result, the state budget under-collects a huge amount of money and this is a very important reason for budget deficit. Hence the state is able neither to promote economy restructuring at the expense of investment (and credit guarantees) for putting into practice new technologies and advancing consumer goods nor to finance scientific and cultural activities and even provide pensions and wages.

Instead of stimulating domestic consumer goods producers, Russian actual economic policy creates incentives for foreign ones (first of all - through a wide-scale import of “everything”).

So, tackling problems of property rights over natural resources together with greening the budgetary system, restructuring the environmental management system and other related efforts are measures necessary to solve simultaneously environmental and economic problems in Russia and provide the basic condition (*background*) for transition to Sustainable Development. However, all these measures should be requested by the society, which has so far had no well-formulated, clearly expressed appropriate needs.

The latter problem could be solved only on the basis of state and international information policies, as well as of information strategy and activities of horizontal systems integrating efforts, knowledge and experience of enthusiasts groups disseminating appropriate information through Internet and other telecommunication systems in order to acquire and involve as much allies as possible.