



1st International Conference 'Economic Scientific Research - Theoretical, Empirical and Practical Approaches', ESPERA 2013

Ecological evaluation of economic evaluation of environmental quality

Alexander Chervinski^{a*}

^a*Institute of Philosophy, National Academy of Sciences of Belarus, Surhanova str. ½, Minsk, 220072, Belarus*

Abstract

Environmental quality is a feature of the regulatory socio-natural relations, the functional significance of which lies in the ability to reflect the optimal processes of environmental safety. Philosophical and methodological interpretation of the problem, has the character to give solutions to the dialectical contradiction between the state of a natural element in biosphere, and the form that enables it to satisfy the needs of the society. Ecological and economic approach is based on identifying the environmental characteristics and interpreting their overwhelming majority, in quantitative terms. That is a problem of philosophical interpretation of qualitative and quantitative nature of the performance indicators. It is assumed that this approach should be supplemented with a qualitative assessment of the individual natural objects and reflect how the socio- economic significance of used and intended to use commercially valuable natural resources , and their system (bio- and geo-technological) status in the Biosphere complex. This approach can develop the methodological basis of a comprehensive assessment of the state of natural components, effective in an environment where nature a limited source of economic resources and the problem of optimization of social and natural cannot be reduced to optimize the quality of natural objects only by improving their economic performance.

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Selection and peer-review under responsibility of the Organizing Committee of ESPERA 2013

Keywords: Environmental quality, comprehensive assessment, rents, quality and quantity of conjugated indicators of sustainable development

* Corresponding author. Tel.: + 375172841864;
E-mail address: a.chervinski@gmail.com

1. Introduction

The problem of assessing the quality of the environment is a society-nature relationship optimization problem. It is not confined to the conservation and protection of nature from all forms of human impact. Quality of the environment cannot be kept static. It is a product of socio-natural interactions and a normal byproduct of human activity. People can only live in socially adapted conditions. Economic evaluation of environmental quality requires a set of economic, biological, medical, biological, aesthetic criteria. This approach poses the problem of conceptual integration of quantitative indicators of sustainability from the perspective of ecological and economic evaluation.

2. Research findings

The assessment of the natural environment quality under different circumstances is made using various evaluation criteria. If in one case the indicators of quality may be: the richness of species diversity, the diversity of forms and elements in food chains, the level of ecological plasticity of the species and so on, then, for example, to assess the quality of the polar biocenosis, the main indicators envisage the economization of metabolism, the ability to deposit in the body nutrient reserves and provide the necessary level of autonomy rhythm of life on the fluctuation of the external environment etc.

An even more specific qualitative assessment is the one for the agricultural ecosystems, the agrocenosis that are limited in the manifestation of their protective functions: nutrient cycling, regulation of populations, increasing species diversity, redundancy of system links etc. The functional incompatibility of the valuation techniques is a major obstacle in the development of social ecology as a scientific discipline.

The theoretical basis for the development of appropriate approaches to assess the quality of the environment, the formation of complex valuation principles allowing the assessment of the environmental quality in order to eliminate the internal contradictions between quantitative and qualitative indicators, is the philosophical methodology. The philosophical methodological development is the starting point for the valuation on environmental quality methodologies and allows one to create a comprehensive environmental function based assessment: environmental, economic, bio-geocenosis, medical-biological, aesthetical etc.

The ecological and economic unit is the most specific in the structure of a comprehensive assessment, as in the economic interpretation of the environmental issues dominating is the utilitarian approach of the assessment procedure. Since the first theoretical approaches on environmental economics of the human environment have been interpreted in strictly economic terms, and since that time the functional contradiction between quantitative and qualitative approaches to the study of the natural environment forced researchers to seek ways and means to shape comprehensive quantitative and qualitative interpretation.

In today's economy, such approaches are mainly developing mechanisms to assess significant characteristics of the material, expressed in certain cash equivalents, and in this respect the economic assessment of the environment has been developed on the areas of the environment, which is a source of raw materials.

Valuation approach from the perspective of identifying economically utilitarian benefits is based on the identification of quantitative characteristics and interpreted in their overwhelming majority, in numerical, that is, in terms of money. Trying to interpret the environmental assessment in neutral terms - points just does not solve the problem because the situation does not outweigh the highly specialized utilitarian approach. The use of "points" in the economic evaluation of natural resources is based on an integrative valuation of the natural environment, but the functional orientation of such an assessment is still utilitarian. It is based on the concept of economic expediency, and this shows the limitations of rent seeking assessment. The rent seeking approach is useful as a qualitative assessment from the point of view of society, the individual properties of the natural resources and reflects the economic importance of the exploited natural resources. Evaluation of natural systems in terms of industrial demand does not express the fullness of socio-natural relations, but its complexity, provides the necessary completeness and integrity of the evaluation operations. For example, a qualitative assessment of the land, i.e. system of comparing the relative productivity of the soil consists of:

- rents (i.e. qualitative assessment) for soil differences;
- valuation of land in terms of production costs, taking into account the efficiency, cost-effectiveness;
- land registration by groups of soils.

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