

## СЕКЦИЯ «ЭКОНОМИКА, ПРАВО, СОЦИОЛОГИЯ»

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### **Methodological approaches to the definition of the category environmental capital\***

Mazurenko O. M., post-graduate student of the Department  
«Economics and Law»

Belarusian national technical university  
Minsk, Belarus

The aggravation of problems in the environmental sphere necessitates the inclusion of an environmental component (environment and natural resources) into the System of National Accounts (SNA). In the traditional SNA, there were revealed some flaws, which do not allow an adequate consideration of environmental parameters: GNP and Net National Product (NNP) cannot be the indicators of long-term sustainable development, because they do not take into account the consequences of environmental pollution; GNP and NNP do not allow an adequate assessment of the well-being of the population, since most natural resources and services are not valued and are not included in the SNA; the inclusion in the GDP and GNP of the costs of pollution damage preventing or eliminating increases the size of these macroeconomic indicators and is seen as an increase in the well-being of the population, since the negative externalities caused by the depletion and degradation of environmental benefits are not taken into account in calculation of GNP and GDP. Elimination of these shortcomings requires the improvement of the existing SNA and the development, on its base, the Integrated System of Economic and Environmental Accounts (ISEEA), which would involve the expansion of the environmental assets (environmental funds) concept and implementation of its new classification.

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Environmental assets, or environmental (natural) capital, represent elements of nature or ecological systems (a combination of elements of nature) that are directly or indirectly affected by any human activity. These include atmospheric air, land and water resources, all types of biological resources, minerals. Economically, natural assets can be used quantitatively (with a change in the supply of resources) or qualitatively (no changes). The negative result of the use of environmental goods is the depletion of natural funds, and the degradation of natural resources is a negative consequence of the consumption of environmental services. Different types of natural funds use for economic purposes are interpreted as economic functions of natural funds.

Estimation of the natural capital economic functions is carried out by use a system of natural and monetary indicators. The qualitative use of natural assets is expressed indirectly through the volumes of pollutants entering the environment. In this case, material and energy balances are applied. Quantitative use is measured in physical units. For the economic valuation of natural capital and its functions, the following basic methods are used: the method of direct market valuation; method of indirect market valuation; direct nonmarket valuation method.

However, in practice, such an assessment involves significant problems. The main methods of estimating natural resources are the method of depletion and the method of user costs. The method of exhaustion is analogous to the depreciation method for fixed capital. Such a method involves calculating the discounted value of a deposit or a section of a natural resource. The user cost method does not require a monetary estimate of natural resources. It based on the division of net income from field operation into two parts: the owner's income and depreciation of the resource.

In practice, implementation of ISEEA requires time and considerable resources. The scale, sequence and pace of its implementation should be determined by country-specific factors, which include: assessment of natural and resource potentials and their impact on the production process; availability of the main types of natural resources (primarily fuel and energy); assessment of the level of environmental pollution and the degree of degradation of ecological systems; the ability to use the information contained in ISEEA by the government and other public authorities to develop environmental policies; sustainable information support for ISEEA by making the necessary changes to the statistical reporting documents; assessment of the degree of environmental safety of the country's population.