

*Section: Statistics*

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## **METHODOLOGICAL PRINCIPLES OF EVALUATION ENVIRONMENTAL COST**

Nowadays the main problem is the uncontrolled use of natural resources when nature can't reproduce them. Accelerated economic development and imbalance of natural processes leads to growing negative impact on the nature and society. Increasing negative component in the relations between nature and society leads to an overgrowth in environmental and economic costs.

The content of the economic costs from the environmental pollution are the environmental component of socially necessary costs, to put it in another way it is society costs caused by the negative impact on the natural component of production and consumption products. This is primarily costs related to the impact of pollution on human health (underproduction of the national income, additional costs for the treatment and prevention of diseases, payment of social funds), additional costs for compensation of depreciation of fixed assets intensive industry, housing and communal services and other [1].

In economic science theoretical aspects of evaluating economic losses was engaged many national and foreign scientists. Існує багато методичних підходів, які знайшли широке практичне застосування. There are many methodological approaches that have found wide application. The most important is the interaction of environmental and economic indicators, actually this is economic indicators that change due to changes in environmental parameters. Today the methodological foundations have many shortcomings,

despite the continuous improvement of quantitative calculation of economic loss.

There are two basic methodological approaches in evaluating economic damage from pollution: direct and indirect expense rating (Figure 1.1.). Evaluation of direct damage calculation requires collection and processing vast amounts of information, because of the high complexity inconvenient for widespread use in economic calculations, and usually serves as a tool to create an information base for the development of methods for determining indirect damage [2].

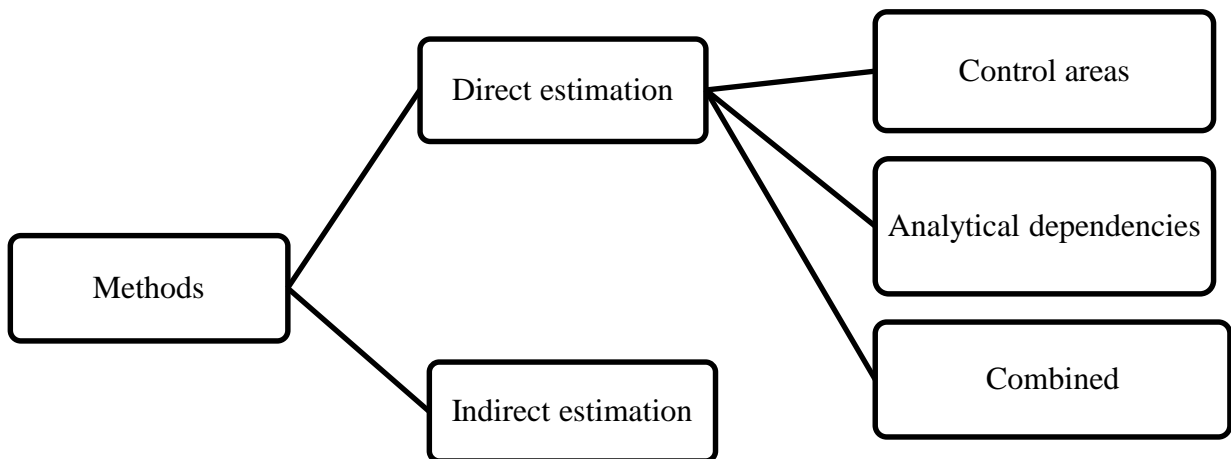


Figure 1.1. Methodological approaches to assessing the economic damage from environmental pollution.

*Source: Prepared by the author alone*

Indirect estimation method is based on the principle of transferring the object to a particular common patterns and suggests use of standard indicators that capture the dependence of the negative effects of the main factors that make a loss. In this regard, this method is useful for assessing damages from the processes that are massive. The main characteristics of this method are:

1. Environmental costs is different, it's depend from area when they arise (atmospheric, water, land environment).

2. The main step in determining environmental costs and economic damage is to determine the rate of conditional burden and natural users (mass index).
3. Mass index is adjusted for the action of external conditions sources of pollution on the environment that is exposed to this pollution.
4. The value of burden adjusted by using the correction factors translated into a monetary value with the help of specific damages.

Methods of direct calculations are: control areas (based on a comparison of of polluted and relatively clean areas) analytical dependencies based on obtaining a mathematical relationship (for example, by analyzing many factors) between indicators of appropriate economic systems and levels of pollution, and combined method [2].

Analyzing existing methods of evaluation, it should be noted that current economic indicators may not accurately estimate the cost both environmental and economic damage. Economic result from reduced environmental costs can be achieved by increasing the level of environmental technologies.

#### References:

1. Vasyukova, H.T. Ekolohiya: pidruchnyk / H. T. Vasyukova, O. I. Hrosheva. - K.: Kondor, 2009. - 524 s.
2. Danylyshyn B.M., Khvesyk M.A., Holyan V.A./ M. B. Danylyshyn, M.A. Khvesyk, V.A. Holyan. - Ekonomika pryrodokorystuvannya: pidruchnyk. – K.: Kondor, 2009. – 465 s.
3. Balatskyy O.F., Vakulyuk P.H., Vlasenko V.M. / O.F. Balatskyy, P.H., Vakulyuk, V.M. Vlasenko. – Spravochnyk: Эkolohyya y эkonomyka – K., 1986.– 308 s.