

CONCEPT OF QUALITY ASSESSMENT AND PROTECTION OF LAND IN UKRAINE

S. Yu. Bulygin

<http://orcid.org/0000-0002-1525-595X>

National University of Life and Environmental Sciences of Ukraine

S.V., Vitvitskyy

<http://orcid.org/0000-0002-6856-3817>

National University of Life and Environmental Sciences of Ukraine

L.I. Kucher

<http://orcid.org/0000-0002-7211-693X>

National University of Life and Environmental Sciences of Ukraine

O.I. Vitvitska

<http://orcid.org/0000-0001-5658-1199>

National Scientific Center "Institute of Agriculture of NAAS"

Modern methods of land and soil quality assessment have been analyzed, as their main and integral component, since from the point of view of agricultural production, high quality of soil means ensuring high productivity of production without significant degradation and pollution of the environment. Advantages and disadvantages of methods of evaluation of individual indicators of soil and soil quality have been identified. The concept of land quality assessment has been developed based on the optimal set of indicators for adequate soil quality assessment and quantitative assessment of land quality change in the course of their agricultural use. Modern approaches to land valuation in Ukraine, prospects for introducing effective land valuation and forecasting are outlined. Recommendations have been given to improve the current land legislation and to establish a system of state control over land users in the field of land protection by identifying major degradation processes, calculating damage from erosion, man-made pollution, negative humus balance.

The concept of "land" absorbs the concept of "soil", but they are almost synonymous when it comes to land productivity, which means that they mainly refer

to the fertility of soils located on a particular land plot. Land degradation is an almost inevitable companion to the existence of mankind for many centuries of its development. Of course, there are differences in this process, and they depend mainly on the level of development of society, understanding of the laws of the soil, the economic state of the states.

To date, there are about 4.3 billion hectares of unproductive land in the world, of which about 2.0 billion hectares is the result of anthropogenic impacts that humanity has lost over 10 thousand years of agricultural history, with an average annual rate of 0.2 million hectares; of this total area of 300 million hectares - in the last 50 years. The current practically irreversible loss of productive land is 30 times higher than the historical average and 2.5 times higher than in the last 300 years.

Most of the causes of deep degradation of the soil cover in Ukraine are due to the sectoral approach to land use, the imperfection of the state policy on land protection, so nowadays special attention is given to the issues of soil protection and rational use, adequate assessment of soil quality and control over their change. An important component of the methodology of land quality assessment is a system of indicators, the choice of which is due to the need for adequate characterization of the basic functions of soils, soil-forming - or soil-destructive processes, as well as the basic modes and parameters of the most important for plant growth and development.

Land quality assessment is both theoretical and practical. First, land quality indicators are used in the land monitoring system to predict and timely prevent degradation processes, protect and rational land use. Secondly, accounting for the quantity and quality of land, soil boning are components of the State Land Cadastre, the information from which is used to regulate land relations, determine the amount of payment for land and the value of land in the composition of natural resources.