## Sholpan Omarova<sup>1</sup>, Onalbek Abraliev<sup>2</sup> CONTEMPORARY APPROACHES TO IMPROVEMENT OF ECONOMIC EVALUATION OF AGRICULTURAL LANDS

Specific features of lands' evaluation in the Republic of Kazakhstan is considered. New approaches to economic evaluation of agricultural lands are suggested, based on international experience. An emphagis is made on the quality and the productivity of land tracts.

Keywords: land tracts; economic evaluation of agricultural lands; qualitative indicators.

## Шолпан Омарова, Оналбек Абралієв АКТУАЛЬНІ ПІДХОДИ ДО ОПТИМІЗАЦІЇ ЕКОНОМІЧНОГО ОЦІНЮВАННЯ СІЛЬСЬКОГОСПОДАРСЬКИХ ЗЕМЕЛЬ

У статті описано специфіку процедури оцінювання земель у Республіці Казахстан. Запропоновано новий підхід до оцінювання сільськогосподарських земель на основі дослідження міжнародного досвіду. Акцент у новому підході зроблено на якості та продуктивності земельних масивів.

**Ключові слова:** земельні масиви; економічна оцінка сільськогосподарських земель; якісні показники.

Табл. 1. Літ. 10.

## Шолпан Омарова, Оналбек Абралиев АКТУАЛЬНЫЕ ПОДХОДЫ К ОПТИМИЗАЦИИ ЭКОНОМИЧЕСКОЙ ОЦЕНКИ СЕЛЬСКОХОЗЯЙСТВЕННЫХ ЗЕМЕЛЬ

В статье описана специфика процедуры оценивания земель в Республике Казахстан. Предложен новый подход к оцениванию сельскохозяйственных земель на основе исследования зарубежного опыта. Акцент в новом подходе сделан на качестве и продуктивности земельных массивов.

**Ключевые слова:** земельные массивы; экономическая оценка сельскохозяйственных земель; качественные показатели.

**Problem statement.** Substantial component of the agroindustrial complex development in Kazakhstan is the successful completion of land reform restructuring land relations and the introducing of different forms of land ownership. Establishing new economic relations at the land market necessitates the mechanism of their regulation to be revised and improved, the economic evaluation of land being a compulsory element here.

Despite considerable geopolitical advantages of territorial location of the country and high natural land potential, the problem of legal regulation, economic justification as well as social-and-ecological orientation of land relations remains unresolved. Securing the gradual development of the national economy is impossible without strict determination of agricultural lands cost in economic turnover and shaping of civilized land market, which ensures the protection of rights to absolute ownership of land and land tenure; without social justice during reparcelling and introducing land plots to market turnover; without taking into consideration the pri-

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ority of ecological requirements in the conditions of land conservation, fertility recreation, rational land use and arranging effective infrastructure at the land market and mechanism to regulate it.

Market relations require some mechanisms of economic land evaluation to be improved, since the suggested approaches not always provide fair land tenure by different business entities. It should be noted that the growth of interest of developed countries to the world land tracts promotes the increase of their striving to own and use lands in other countries. Under such circumstances the research on contemporary approaches to the improvement of agricultural tracts' economic evaluation proves to be an important scientific task.

Recent research and publications analysis. A number of scholars researched the issues of economic evaluation of agricultural lands, among which are the following: R.K. Abeldina (2008), A.P. Borisenko (2010), V.V. Garkushina and R.K. Abeldina (2008), G. Juxybekova and K. Jolamanov (2011), Y.M. Elfimova (2011), A. Kvochkin (2012), V.E. Koptev-Dvornikov and Yu.A. Tsypkin (2000), I. Maslova et al. (2011), R. Allemaras et al. (2008), A.K. Johnson and R.A. Ramb (2011). These scientists specify different approaches to land evaluation, but constant changes in operating conditions and market environment require seeking for improvement of the problem under study.

**Research objectives.** The paper aims at studying the contemporary approaches to improve economic evaluation of land in the Republic of Kazakhstan with application of qualitative indicators and productive capacity of agricultural lands.

Research findings. The Republic of Kazakhstan holds big areas of agricultural land resources covering 97 mln ha (Abeldina, 2008). This fact makes land evaluation in the country a very interesting and topical issue. The issues of land tenure, land use and other issues related to the lands in the Republic of Kazakhstan are regulated by the Constitution, Land Code, and other legal instruments of the state. Moreover, Governmental Decrees of the Republic of Kazakhstan are applied, approving land relations, land charges, procedure of determination the approaches to land cost evaluation etc. (Garkushina and Abeldina, 2008).

Available methodological approaches to economic evaluation of agricultural lands are applied in taxation, insurance, leasing, buying and selling, redemption of land tracts into private property, chartering of plots or the right for utilization as a pledge. For all that economic evaluation is carried out through several approaches and methods. Among them profit calculation, costs calculation and comparison of possible options of money investment are the basic ones. The most wide-spread approach is the hang-the-expense one (Juxybekova and Jolamanov, 2011).

Land tracts' evaluation is carried out by means of their overall cadastre evaluation and through market evaluation of a single land plot. Cadastre evaluation is performed to determine the cadastral value of territories within administrative areas (district, region, city, village) on a certain date. The evaluation of a single land plot provides for the calculation of market cost of a land plot by independent experts based upon available standards and evaluation procedures.

It should be noted that economic land evaluation is based on current approaches which don't take into account the quality of lands, as well as the indicators of productive capacity of land resources, defining their value in agriculture. In this field for-

eign experience has some peculiarities. Particularly, in Germany the evaluation procedure is carried out in two stages: agroclimatic and economic evaluations.

Initially, the value of land tracts is determined separately for arable land and natural pastures by means of comparative evaluation of land plots. The estimates in points reflect the relative fertility of a plot compared to the sample plot, i.e. the plot scoring 100. The obtained estimate for a land plot is adjusted to economic as well as organizational and productive specifics: distance from transport communications and outlets, state and possibilities of mechanization, price rates and wages in a given locality. For all that, the cost of a plot of a certain entity is expressed in capitalization of the objective net income (Borisenko, 2010).

Land evaluation system in Great Britain is divided into two stages. At the first stage the argoclimatic assessment is carried out. The difference in climatic conditions, soil quality, location are the basic criteria of attributing lands to a particular type. After lands' evaluation by natural factors economic evaluation is carried out, based on the indicator of the standard net production. The cost of a land plot is calculated by capitalization of net production value (Johnson and Ramb, 2011).

In Canada, the so-called agroclimatic assessment is initially conducted at evaluating agricultural lands, taking into account the following factors: the class of land fitness for agricultural use, nature and intensity of land utilization at a farm enterprise, land location within the bounds of municipality, special district, reclamation district and agricultural land reserve. It should be noted that the specifics of evaluation is that all statements specified above are reflected in unified field maps, and capitalized income calculation of a land plot cost is then carried out based on the data stated on these maps (Allemaras et al., 2008). Analyzing the foreign experience, it is possible to conclude that foreign countries pay more attention to qualitative indicators, which must be also combined with economic parameters.

Hence, in the Republic of Kazakhstan it is reasonable to attach more importance to qualitative indicators at economic land evaluation. The qualitative evaluation of land tracts must be carried out according to the recorded data of its qualitative parameters. This evaluation aims at identifying the differences of land tracts, soil classes and its agroproductive groups and at classifying them by natural qualities and productive value for cultivation particular crops, based on the most important natural soil properties connected with crop capacity. Systematization serves as relative land evaluation in the form of natural body with a certain number of corresponding properties (humus level, useful elements, thermal and water conditions, relief configuration and its peculiarities), and is scored (quality indicator) on the 10-point scale. Soils with the best properties and the biggest natural productivity are scored by the highest point (Maslova et al., 2011).

And with it, the only qualitative evaluation is not enough for market environment. Economic evaluation characterizes productive properties of land plots as means of production activity. Its distinction from qualitative evaluation is that the land is considered as not a natural basis, but as a means of production, interrelated with economic parameters of this process. That is land tracts similar in their natural characteristics and qualitative indicators, physicochemical and biological properties, may have different points of economic fertility because of different conditions of eco-

nomic management – location, specialization, road conditions (Koptev-Dvornikov and Tsypkin, 2000).

The data resulted from economic evaluation are used to regulate economic issues arising from different market entities. Evaluation might be carried out in two aspects: by common indicators and by partial indicators (the level of cultivation effectiveness of some crops or fruit plantings). Topical approaches to economic evaluation of agricultural lands are systematized in Table 1.

Table 1. Indicators of total and partial economic evaluation of agricultural lands

Indicator	Calculation methods
Total evaluation of agricultural lands' areas	
1. The cost of gross	Evaluated by the unique specially developed cadastral prices
production	
2. Cover of expenditures	Ratio of total production value to expenditures for its cultivation
3. Differential income	Additional net income on the lands of better quality and location
Partial evaluation of each crop cultivated	
1. Crop productivity	Calculated by the ratio of gross gather in crops to the acreage planted
2. Cover of expenditures	Ratio of total production value to expenditures on its cultivation
per one crop	
3. Differential income	Additional net income from cultivation of each crop on the lands of
per one crop	better quality and location

Developed by the author based on (Elfimova, 2011; Kvochkin, 2012).

Resulted from partial evaluation of cultivation effectiveness of a particular crop, there is a possibility to make right decisions concerning the choice of the most effective crop sectors for enterprises, to define the optimal structure of acreage planted, to fairly evaluate the activity of individual crop complexes provided functioning on the qualitative land. Scheduled work contributes to reasonable establishing of expected crop productivity level and other corresponding parameters of economic activity (expected production and realization volume, transport expenditures and improvement cost etc.).

The topical issue in the methods researched is also the necessity to compare the indicators from Table 1 to determine the level of economic fertility of plots at different land tracts. The scoring scales in absolute and relative measurement are formed for this purpose based on the basic criteria for each evaluated territory. These scales allow carrying out qualitative comparison of economic fertility of land plots.

It is possible to state that the indicators of crop productivity, gross production value, cover of expenditures and differential income play an important role among topical approaches to the economic evaluation of land. Increasing importance of agriculture in the world economy would complicate the methods of economic evaluation of land, which value is constantly growing.

Conclusions. Economic evaluation of agricultural lands in the Republic of Kazakhstan is applied at taxation, insurance, leasing, buying and selling, redemption of land tracts into private property, chartering of plots or the right for utilization as a pledge. The determination of qualitative indicators and productive capacity of land tracts, providing economic calculation of total and partial indicators, is among the contemporary approaches to land evaluation. These approaches allow evaluating the level of utilization of land areas, comparing with other relatively similar areas, and detecting the factors influencing the results obtained. There is also a possibility to

correct the acreage planted structure and production program of crop and livestock sectors based on such economic evaluation.

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