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THE RATIONAL LAND USE OF AGRICULTURAL PURPOSE IN THE LAND LAW OF THE REPUBLIC OF KAZAKHSTAN

Abstract. A necessary condition for the rational use of land is to increase the efficiency of their use in agricultural production. One of the methods of identifying inefficient land use is inventory. The purpose and objectives of the inventory of land plots are to increase the efficiency of land use, identify unused, inefficiently used land plots that are not intended for their intended purpose, their registration and determination of the quality status.

Keywords: Land resources, rational, full, efficient land use, land degradation, soil fertility, land protection, natural environment, agricultural land, crop yield, crop rotation.

Introduction. The rational use of agricultural land is an ensuring the owners of land plots and land users in the process of agricultural production and effective use of land resources, including the prevention of a significant reduction in soil fertility and land reclamation condition, the optimal use of land in order to obtain the necessary productivity indicators.

The rational use of agricultural land includes:

- maintenance and improvement of land fertility (a certain level of total humus, easily hydrolyzed nitrogen, mobile phosphorus and exchangeable potassium in the arable layer);
- maintaining and increasing a certain level of yields of the main agricultural crops;
- compliance with crop rotations;
- preservation and improvement of fertility and ameliorative state of the soil;
- prevention of disposal of agricultural land from economic circulation, prevention of land overgrowing by weeds, trees and shrubs, as well as littering with household and industrial waste;
- revention of the burning of crop residues and by-products of agricultural crops on cultivated agricultural land.

To determine the rational use of agricultural land from agricultural producers, you must have the following documents:

1. statistical data on the statistical form of the nationwide statistical observation "Report on the results of sowing for the harvest" index 4-ag, annual periodicity, statistical form of the national statistical observation "On harvesting agricultural crops" index 29-ag, annual periodicity (in land use for crop production), approved by order of the Chairman of the Committee on Statistics of the Ministry of National Economy of the Republic of Kazakhstan from December 4, 2014 No. 67, (registered in the Register of State registration of regulatory legal acts No. 10134);

2. crop rotation plan according to the form, according to Table 1 (in using land for crop production);

3. projects of internal land management;

4. passports of agricultural land plots.

Rational land use for agricultural purposes. When growing crops, agricultural commodity producers observe crop rotations in accordance with the crop rotation plan which is approved on the basis of recommendations of scientific organizations published for general use.

The crop rotation plan is approved by the agricultural commodity producer for a period corresponding to the full turnover of agricultural crops, depending on the selected rotation system of the crops grown. One copy of the approved crop rotation plan is sent to the local executive body at the location of the land plot.

No significant decrease in soil fertility is allowed for the following indicators:

- a decrease in the arable horizon (0-20 centimeters) of the total humus content by more than five percent, the weighted average content of easily hydrolyzed nitrogen, mobile phosphorus and exchangeable potassium by more than twenty percent;
- land areas increasing with a very low and low indicators of the supply of humus and nutrients by more than ten percent;
- pollution of agricultural land with pesticides and mineral fertilizers above the maximum permissible concentrations;
- reduction due to erosion of the capacity of the upper humus horizon by more than 5 centimeters;
- increasing in the soil layer to 30 centimeters of the amount of toxic salts:
- chloride more than 0.4 percent;
- sulphate more than 0.8 percent;
- an increase in alkalinity in the soil by more than 5 percent;
- withdrawal of a land plot from agricultural use due to overgrowing by weeds (with the number of weeds, above the permissible economic threshold) or quarantine vegetation.

Information on fertility and ameliorative condition of agricultural land is reflected in the passport of the agricultural land, the form of which is approved in accordance with subparagraph 7) of paragraph 1 of article 14 of the Land Code of the Republic of Kazakhstan.

Agricultural producers maintain crop yields at the average level in the corresponding region of the region, but not less than eighty-five percent of the average area indicator.

The order of ensuring rational use of agricultural land.

Agricultural land fertility monitoring and the compliance of agricultural producers with the requirements are monitored by the agrochemical service and the State Corporation "Government for Citizens" based on the data obtained from soil, agrochemical and phytosanitary surveys of agricultural lands and land monitoring.

In order to ensure the rational use of land, the local executive body of the region, the city of republican significance, the capital, districts, cities of regional significance informs the agrochemical service about the newly granted agricultural land plots within a month after issuing title documents.

The agrochemical service conducts an agrochemical examination of the soil during the first calendar year after the production of title documents by the agricultural commodity producer.

The indicators of the total humus content in the arable horizon, the weighted average content of hydrolysable nitrogen, mobile phosphorus and exchangeable potassium are determined by the results of an agrochemical soil survey conducted cyclically once every seven years - on irrigation, and compared to indicators, fixed primary (base) round and subsequent rounds of agrochemical survey.

1. Agricultural land for crop production is a comparison of data on agricultural yields.
2. The concept of land Fund of Kazakhstan
3. Rules of rational use of land of agricultural purpose
4. The order of ensuring rational use of agricultural land
5. The concept of a passport for agricultural land
6. Passport content
7. Preparation of a passport for agricultural land - preparatory work, filling in a passport, approval
8. Report on the implementation of the preparatory work of the passport in the regions of the Republic of Kazakhstan.

The average yield is calculated in the context of crops, as well as in the context of irrigated and non-irrigated agricultural land.

Obtaining by an agricultural commodity producer a level of crop yield of less than eighty-five percent of the average regional indicator for the relevant crop for three consecutive years is an irrational use of agricultural land [1].

Table 1 – Crop rotation plan of the crops obtained by agricultural producers,
with indicators of the average yield for the respective crops

Cadastral number of the land plot on which the corresponding field (land) is located	Field number in accordance with the land use plan and/or passport of the land plot, its area, hectare (ha)	Predecessors (cultures) before the year of drawing up the plan of crop rotation			Placement of crops in the planning period		
		20 _ year	20 _ year	20 _ year	20 _ year	20 _ year	20 _ year
	1 _____ ha						
	2 _____ ha						
	3 _____ ha						
	4 _____ ha						
	5 _____ ha						
	6 _____ ha						
	7 _____ ha						

The passport form of the agricultural land is approved by the Order of the Acting Of the Minister of National Economy of the Republic of Kazakhstan dated April 17, 2015 No. 344.

The passport of the agricultural land includes the following items:

1. General information. Explication of land. External land users (owners) within the boundaries of the land plot. Land plan (with contours of land)

2. The quality of the land. The distribution of agricultural land on soils. Humus content of arable land (in a layer of 0-20, 0-50 centimeters). Reclamation of arable land. The alkalinity of the soil in the horizon B1,%. Changes in the thickness of the upper humus A + B1 horizon as a result of erosion of arable land. The content of the sum of toxic salts in irrigated arable land (in a layer of 0-30 centimeters).

3. Cultural and technical condition of forage lands. Soil map. Legend to the soil map. Geobotanical map. Legend to a geobotanical map: Cadastral evaluation of land. The score of bonitet. Cadastral (evaluated) value of the land.

In the article 97 of the Land Code of the Republic of Kazakhstan (amended and supplemented as in June 29, 2017) it is clearly stated the importance of a passport for agricultural land “For the purpose of state control over the quality of agricultural land transferred to land use and property to citizens and legal entities, a passport of agricultural land plots is compiled on the basis of data from soil, soil-reclamation, geobotanical surveys and grading materials due to budgetary funds.

The passport form for agricultural land plots is approved by the central authorized body.

The organization of work on drawing up a land passport and its issuance is carried out by authorized bodies of regions, cities of republican significance, the capital, districts, cities of oblast significance at the location of the land plot. ”

And the 153 article of the Code is written on the maintenance of the land

“The maintenance of the state land cadastre and the activities technologically related to its maintenance of the manufacture of passports of land plots.

The activities related to maintaining the state land cadastre include:

- the establishment of the borders of administrative-territorial units, specially protected natural territories, lands of the state forest and water funds;

- drawing up projects for the education and streamlining of land use, projects for the reclamation of disturbed land, the establishment of the boundaries of land on the ground;

- development of on-farm land management projects for land plots owned by the state and provided for use of land for agricultural production;

- conducting land inventory”.

The financing of certification of land plots is specified in Article 163 of the Land Code of the Republic of Kazakhstan “Land management carried out when establishing the boundaries of regions, capital and cities of republican significance, maintaining a land cadastre and monitoring land, drawing up

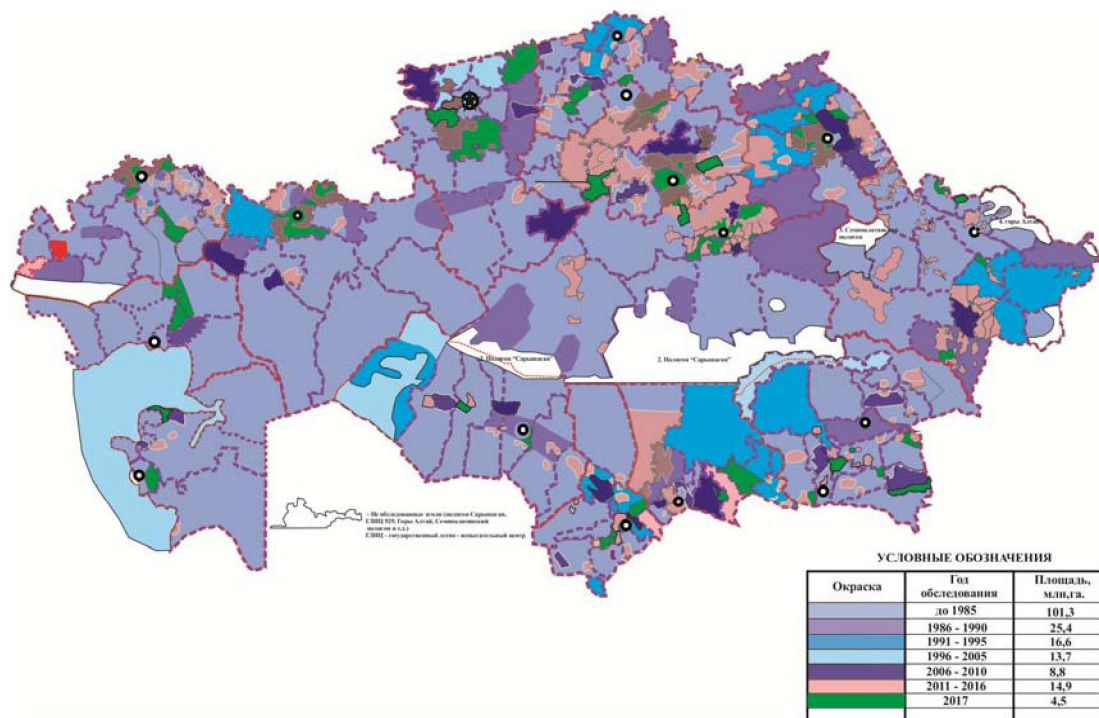
passports for agricultural land plots and other works carried out by decision of the Government of the Republic of Kazakhstan are carried out at the expense of budget funds” [2].

In the reporting year, in accordance with the budget subprogramme 100 “Formation of State Land Cadastre Information” of the budget program 259 “Increasing the availability of information on land resources”, a soil survey of agricultural land was conducted on an area of 4,500.0 thousand hectares and updating soil materials for certification purposes agricultural land on an area of 650.0 thousand hectares. The state order for soil surveys has been completed.

The volumes of soil surveys for the state order in 2017 by regions are shown in the table 2.

Table 2 – Completion of volumes of soil surveys by regions in 2017, thousand hectares

Name of areas	Volume, total	Including	
		soil survey of agricultural land	updating soil materials for land certification
Akmola	739,5	639,5	100,0
Aktobe	279,0	259,0	20,0
Almaty	661,0	576,0	85,0
Atyrau	200,0	200,0	–
East-Kazakhstan	394,3	334,3	60,0
Dzhambyl	322,0	242,0	80,0
West-Kazakhstan	351,1	326,1	25,0
Karagandy	307,2	277,2	30,0
Kyzylorda	195,0	165,0	30,0
Kostanai	445,1	385,1	60,0
Mangistau	231,1	231,1	–
Pavlodar	295,0	245,0	50,0
North-Kazakhstan	409,7	374,7	35,0
South-Kazakhstan	320,0	245,0	75,0
Almaty	–	–	–
Astana	–	–	–
Total	5150,0	4500,0	650,0



Cartogram of the availability of soil survey materials

In the reporting year, the largest areas of the new soil survey of agricultural land were performed in Akmola oblast - 639.5 thousand hectares, Almaty oblast - 576.0 thousand hectares and Kostanay - 385.1 thousand hectares, in the agricultural areas - in Akmola (100.0 thousand hectares), Almaty (85.0 thousand hectares), Zhambyl (80.0 thousand hectares), South Kazakhstan (75.00 thousand hectares) oblasts.

Conclusions. The problems of watering vast pasture areas are also closely related to issues such as water mechanization, the establishment of operational services, the protection of structures from seasonal and permafrost and the economic efficiency of these measures.

The vast majority of mine wells in the steppe and desert areas have a small flow rate, so they are operated in a periodic mode. This implies the relevance of the study of the mode of operation of mine wells in conditions of periodic water withdrawal on pastures for watering animals.

Method. The indicators of the total humus content in the arable horizon, the weighted average content of hydrolysable nitrogen, mobile phosphorus and exchangeable potassium are determined based on the results of an agrochemical soil survey conducted cyclically once every seven years on raincoat and once every five years on irrigation, and compared with the indicators recorded by the primary (base) round and subsequent rounds of the agrochemical survey of the Republic of Kazakhstan

Research results and discussion. A soil survey in the republic is carried out mainly on intensively used agricultural lands and in areas where there are no benign materials. The main scale of the survey in the irrigated area is 1:10 000, the rest of the territory is 1:25 000.

Since 2003, a new soil survey was conducted on an area of 32.3 million hectares, which is 17.4% of benign materials from the entire survey area, and from the area of all agricultural land is 14.6%. The existing rates of soil surveys do not allow providing even arable land with new survey materials in the required amounts. As a result, the deadlines for updating soil surveys are violated [3].

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РАЦИОНАЛЬНОЕ ИСПОЛЬЗОВАНИЕ ЗЕМЕЛЬ СЕЛЬСКОХОЗЯЙСТВЕННОГО НАЗНАЧЕНИЯ В ЗЕМЕЛЬНОМ ЗАКОНОДАТЕЛЬСТВЕ РЕСПУБЛИКИ КАЗАХСТАН

Аннотация. Необходимым условием рационального использования земель является повышение эффективности их использования в сельскохозяйственном производстве. Одним из методов выявления неэффективного использования земель является инвентаризация. Целью и задачами инвентаризации земельных участков являются повышение эффективности использования земельных ресурсов, выявление неиспользуемых, нерационально используемых, не по целевому назначению земельных участков, их учет и определение качественного состояния.

Ключевые слова: земельные ресурсы, рациональное, эффективное использование земли, деградация земель, плодородие почв, охрана земель, природная среда, земли сельскохозяйственного назначения, урожайность сельскохозяйственных культур, севообороты.

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ҚАЗАҚСТАН РЕСПУБЛИКАСЫНЫҢ ЖЕР ЗАҢНАМАСЫНДА АУЫЛШАРУАШЫЛЫҒЫ ЖЕРЛЕРІНІҢ ҰТЫМДЫ ПАЙДАЛАНЫЛУЫ

Аннотация. Ауыл шаруашылығы өндірісінде жерді пайдалану тиімділігін арттыру әдістерінің қажетті шарты болып жерді ұтымды пайдалану табылады. Жерді тиімсіз пайдалану мақсаты мен міндеттері оларды түгендеу болып табылады. Жер телімдерін түгендеу пайдалану тиімділігін арттырады, жер ресурстарын, анықтау пайдаланылмайтын, тиімсіз пайдаланылатын, нысаналы мақсаты бойынша пайдаланылмаған жер учаскелерін, оларды есепке алу және сапалық жай-күйін анықтауға атсалысады.

Түйін сөздер: Жер ресурстары, тиімді, толық, жерді тиімді пайдалану, жердің тозуы, топырақтың құнарлылығы, жерді қорғау, табиғи орта, ауыл шаруашылығы мақсатындағы жерлер, ауыл шаруашылығы дақылдарының өнімділігі, ауыспалы егістер.

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