

**METHODOLOGICAL ISSUES OF LAND USE DESIGN**

**Adizov Shuhrat Bafoyevich**

*associate professor*

**Ahrorov Abdullah**

**Hajikulova Mahfuza**

**Roziboyev Boston**

**Salimov Shahzod**

**Tilyabova Elyanora**

*Bukhara Institute of Natural Resources Management*

**Annotation:** *The continuous growth of the population leads to a constant increase in the demand for food products and consumer goods. This demand can be met by regularly increasing the production of agricultural products, improving their quality and increasing their variety.*

**Key words:** *Project, land preparation, agriculture, mathematical methods, crop rotation.*

The main issue to be solved in the process of agricultural intensification is to organize efficient use of land and continuously increase soil fertility. protection of land and environment is currently the main tasks of land development.

The design of the land structure develops on the basis of the laws of development of nature and society, taking into account the scientific and technical achievements, constantly growing production requirements and social conditions, corresponding to the level of development of production forces and production relations, their develops the theoretical and methodological foundations of the organization of land areas to create a basis for continuous development and protection of nature. Each new technique and production process technology is developed and implemented on a project basis.

A project is a set of documents containing calculations, methods and drawings for the creation and implementation of structures, mechanisms, buildings, advanced technologies, etc.

The quantity, quality and cost of the produced product mainly depends on the area of the land in the agricultural enterprise, its productivity, the composition of land types, its shape, and the location of the land in relation to the road and external communication addresses. Therefore , land development projects are of great importance in the organization, regulation and improvement of the territories of agricultural enterprises.

The land planning project is a set of documents aimed at the creation of land landscapes that ensure effective use of land in the national economy, their economic, social and ecological evaluation , as well as a legal basis for them. Land planning works

are carried out in agricultural and non-agricultural enterprises, inter-enterprise associations.

Landscaping design is the basis and integral part of landscaping. Without its help, it is impossible to organize effective land use and land protection. And so The science of land development planning is a science that teaches the theoretical foundations, types, structure, practical implementation and ways of implementation of projects that organize the full and effective use of land.

In the process of land formation, land is considered as a source of socio-economic relations. The fact that the organization of land as a means of production is closely related to the production relations established in society gives it a socio-economic meaning. Therefore, the science of planning land use is part of the economic sciences.

Currently, the content of land acquisition in Uzbekistan is determined by the current laws. The "Land Code" of the Republic of Uzbekistan was adopted in 1998. The structure of land surveying includes topography, geodesy, cartography, soil, agrochemistry, geobotany, historical-cultural and other areas of investigation and research. Land surveying is a complex social- is an economic process that is constantly developing. Therefore, it is not a one-time event. Landscaping projects must be updated after certain periods. The land preparation process consists of the following stages:

1. land make up their work set ;
2. land make up their work transfer ( prep work , project make up and him land make up to the participants present reach );
3. the project confirmation and done increase ( in places border signs installation , project elements to places transfer and etc. );
4. land make up to the participants to be given documents preparation and to give

Land formation design development in the process designers by applied methods have also changed and improving came Before i g a , earth make up only land measure with depends technical from harakat ( lands to be , fields determination and boundaries designation ) consists of has been during the design in practice basically from mathematics are used was Lands to be and fields in the calculation graphic , analytical and mechanic of methods used and main the work weapons ruler , ruler , scale lines and from planimeters consists of was

Main land make up works lands limitation has been during the land to compose design importance much increased and count , measure works to the line of the earth quality assessment according to events added Lands to be , re distribution , addition in processes land make up projects much complicated them in making statistics , land h isobi , the earth assessment from the data wide in scope is used started In this period land make up solutions of preparation main method consecutively approximation ( iteration ) method ( from general to privacy ) became.

Project quality increase purpose there make up participants with agreed upon without structure and experts by evaluated to be need

Natural and economy of keeping economic conditions each kind of soil layer and of the earth ameliorative of the situation the variety of regions and latitudes from each other difference to do and population to live in systems each differences land to compose when designing one different solutions apply possible that it is not requirement is enough H now period complex projects a lot numerous each different specialists guru h i ( earth builders , agronomists , soil scientists , gardeners , hydraulic engineers and etc. ) by is processed . Land formation when designing present during the mainly the following of methods used:

calculation-constructive, economic-mathematical, economic-statistical, scientific abstraction, monographic and etc.

calculus-constructive method sure method and defined in order take to go accounts and to balances based on is , it is clear project the solution to get possibility will give .

For example , in the farm alternately planting system design and in the area for proper placement, it is necessary to calculate the balance of fodder and fodder crops needed for livestock. These calculations are carried out taking into account the quality of the land allocated for fodder crops, its location, the specified types of crop rotation, the number and area. If the natural, economic, social and ecological conditions of farms are complex , the calculation - the constructive method is replaced by the multivariate (multiple solution) method. In this method , several different project solutions are worked out, and they are evaluated using the specified system of indicators , and a good solution is determined.

science and technology, modern powerful computing techniques have been created and they are widely used in practical economic research. As a result, mathematical modelling, economic-mathematical and economic-statistical methods have been used in the process of planning land use. Mathematical modeling is based on creating models of the studied objects using mathematical connections. Economic mathematical modeling allows determining the general type of laws of territory organization, determining the reasons for their change, and finding ways to improve them in the modeling of various conditions.

Economic mathematical methods are aimed at solving large-scale problems of land structure design of an economic nature. It incorporates differential calculus, linear, dynamic, stochastic and other types of mathematical programming, and focuses on the practical use of mathematical models. When using this method, the optimal solution of the problem is mainly sought, that is, the best one is selected from among all the possible solutions of the land development project using the specified constraints, conditions and optimality index.

The economic statistical method is based on the determination of project solutions as a result of the analysis of data collected using mathematical statistical methods. These are the methods to the composition correlation or regression and dispersion analysis , expert assessment , development release functions enters

Land formation when designing above given methods land make up projects to work preparation in the process land make up being conducted of the farm economy , lands i the situation and of them use level in learning and design standards in preparation and projects economic in justification applied.Current period geoinformation (GAT) and land of information ( EEA ) systems , modern computer techniques and programming of supply appear to be , land make up information information of the base development as a result land make up methods system land to compose use of EHM of design using automated to technology circle started

Land formation according to scientific research take on the go monographic from the method also wide is used . This is the method processes and of events some to himself typical and exemplary sides deep to learn based on These are studies based on scientific conclusions will be offered and recommendations is prepared . Land formation design according to research during the mainly advanced village economy enterprises of the territories organize to be done or land make up their work done increase more efficient methods, ways , technologies and methods is evaluated .

Scientific achievements and advanced households experiences sure work release in objects try to see necessity at birth experimental land to compose from designing is used . Experimental at that design results according to another enterprises territories again organize of reaching to the goal compatibility about conclusion will be issued. Monographic and experimental of methods profit in the process the field observations and h ududin study , and timing using methods as well can

Land formation main duties Uzbekistan It is specified in the "Land Code " of the Republic they are from the ground scientific based on without full , reasonable and efficient to use organize is to do Land formation works above given from tasks come coming out general principles ( principles ) based on take will go them briefly as follows describe can :

1. Organization of the project achievement , technique and technologies in the field scientific and technical tara qyat achievements possible as long as maximum use principle . This is the principle design in the process the most modern technical tools and of methods used without project of solutions efficiency requires an increase . Village economy enterprises h areas modern from technique to use and work release advanced technologies current to do adapt only as a result we are from earth and etc work release of means efficient to use to reach can So we are the earth make up projects at work the most modern from technique to use and advanced technologies current to reach in the eye to keep need

2. First of all nature protection to do directed issues solve principle . Land formation projects of nature indispensable piece has been of the earth to the landscape change input because of their to nature effect significant will be This is the effect positive or negative to be can This is the principle land make up projects solutions ecological from ji h horse evaluate their from within only surroundings to the environment negative effect those who don't choose to receive requirement is enough

3. Natural area and ecological conditions full account get principle . Land formation projects Republic land while working fund natural village economy regions to be results , land make up the area being held is natural condition and of land location , terrain account is taken . With that one in line land cadastre from the information , ecological and another purposes conducted engineering and the field search works from the results wide is used .

4. Land use village of the farm priority provide principle . Village in the farm soil productivity big important have In our republic fertile earthy irrigated lands less that it was because of land make up in projects of them only village economy goals for to use provide need Village economy of land unsophisticated economy goals for to be separated road not to put need

5. The top of the project economic and social efficiency provide principle . of the project each one the solution economic justification need Economical justification in the project shown events done increase as a result removable addition the product counting to find the way with will be done . Economic efficiency with social efficiency closely depends . The reason of people living , working to do , to relax conditions and to them household service to show improve economy will receive economic to the effect straight away depends . Workers marriage and work conditions improvement while work of productivity to rise and As a result economic of efficiency to increase take will come .

6. Land use in the process him inappropriate extravagance , unreasonableness economy of nature and work release negative from the effect protection to do principle . of the project each one the solution legal and ecolo - geek justification need From the ground in the future use height - to be done Suggestions cultural Agrarian landscapes to develop , soil productivity storage and constant to increase directed and from the ground in use inappropriate to extravagances road who does not put normative h documents based on to be need

7. Placed in the project of issues each other with depends without full solution provide principle . of the project main parts and elements each other with , from the ground to use and with him depends work release tools organize to do directed another prediction , planning and design works with closely to be connected provide need To these the first district land next make up drawings , reclamation projects , road construction drawings and projects , population to live master projects of places and others enters If above given dependence if not in the project of course errors come comes out

8. Land preparation land about to laws full compliance the principle of doing . Land formation as a result from the ground use and to the ground ownership to do with depends legal issues will be resolved . And this own in turn the area defined land to relations according to organize requires to reach .

At the present time, a precise land formation system has been established in Uzbekistan, which is included in the field of land resources management of our country and includes the implementation of land laws, organization of effective and full use of

land, land protection, creation of a clean ecological environment and natural landscapes. performs tasks such as improvement.

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