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GROUND RESOURCES AND INNOVATIVE DEVELOPMENT OF AGRICULTURE

Abstract: *The land plays an exceptionally large role in the organization of agriculture and by the fact that its innovative development is based on the suitability of the land for the introduction of new technologies, plant varieties, and animal breeds. Land resources should have appropriate properties and the organization of their use in relation to each type of innovation. Therefore, land management is a necessary mechanism to ensure successful and effective innovation in the agricultural sector.*

Key words: *innovations, innovative development of ground resources, innovative development of agriculture, technological processes, raw materials.*

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Introduction

The modern period socially - economic development entirely demands an innovation as the driver of acceleration of growth and maintenance of steady and effective development of a society. In the beginning of the XX-th century of N.D. Kondratev, in the research of the big cycles of market conditions has noticed that «before the beginning high waves of each big cycle, and sometimes in its most beginning are observed considerable changes in conditions of economic life of a society. These changes are usually expressed in this or that combination, in considerable technical inventions and opening, in radical changes of technics of manufacture and an exchange». The modern economy, especially agriculture, after spent reformation and the crisis phenomena which have followed it, is at such stage.

According to J. Shumpeter for increase of competitiveness of agricultural production in the world market, it is required:

- Use of the new technics, new technological processes or new market maintenance manufactures (purchase and sale);
- Introduction of production with new properties;
- Use of new raw materials;

- Changes in system of the organization and management of manufacture and its material support;
- Occurrence of new commodity markets.

Innovations can be successful when it creates corresponding conditions, in turn these conditions include as an important component resources, actions of legal and organizational character.

At the heart of steady and effective development of agriculture the balanced system of resources and their organization lies: ground resources - manpower - the basic means of production. Therefore they (innovations) first of all are connected with them. Thus in sphere of innovations basic value for agriculture has innovations in sphere of ground resources: they are both object of innovations, and a spatially-resource basis for an innovation of other factors of manufacture and processes.

Discussion. In the Republic of Uzbekistan, as well as in other Post-Soviet countries among others, there were global changes in sphere of ground resources which proceed and to this day.

These changes and changes events in an active phase of land reform had before the following maintenance:

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- Perfection of a legal basis of use of the earth - introduction of institute of long-term rent (rent for 49 years) for new organizational forms of conducting agricultural production, i.e. farms;

- Perfection of economic value and the maintenance of ground resources (from manufacture means-factor to real estate, object of the taxation, object of mortgage lending, uniform object of real estate and etc.);

- Reorganization of system of agricultural land tenure: occurrence of new subjects of managing - farmer and peasant economy playing predominating a role in landed property and land tenure.

At the same time, it is necessary to ascertain that the carried out reforms leading to some growth of quantity indicators, have not led to their qualitative improvement to what low productivity till recent times of the main culture of agriculture - a clap testifies. So, for example, its productivity, being one of important resultants of factors, remains low, not only in comparison with the leading countries manufacturers of a clap - fibers (the Republic of Uzbekistan receives 754 kg/hectares of a clap - fibers. Thus it is necessary to notice that in the lead positions of the People's Republic of China (1452 kg/hectares), Brazil (1418 kg/hectares) and Australia (2107kg/hectare) are based on high productivity of a cotton which more than in two-three times exceeds Republic of Uzbekistan indicators) [1,2], but also in comparison with the Soviet period of conducting agrarian manufacture. One of the main reasons of it is steady decrease in natural fertility of the earths, т.е fertility of soils in the Fergana area of the Republic of Uzbekistan, being the typical representative of republic on cotton growing. So, the mean score bonitet soils of the earths of agricultural purpose in the mentioned area as a whole 1991 - 1997 years has made 66 points, already in 1999 year and 2011 year it has fallen on the whole 10 points and has made 56 points [3].

It is necessary to tell that a state of affairs with a condition of fertility of soils on republic about same as well as in its Fergana area.

As it is known, fertility of soil is characterized by a point of fertility or a point бонитета. This key parameter of quality standard of the earth's depends first of all on indicators of economic fertility. Economic fertility of the earths represents symbiosis of natural soil indicators and anthropogenic activity. This indicator is influenced by qualitative soil characteristics such, as the maintenance granule-metric humus structure, the maintenance of fraction of physical clay, acidity, rockiness, eroded soils and other properties of soils. Nevertheless from all listed factors influencing on appraisal, the most significant can consider of humus soils [5].

The maintenance humus in soil is defined not only natural indicators, but also strongly depends on economic activities of the person. Irrational use of farmlands, infringement of the basic receptions of

technology leads to prompt process of loss humus. As it is known, disintegration process humus occurs much faster, than its accumulation. Now process de-humus us of soils on farmlands of the Fergana area occurs very intensively and the most fertile are subject to it even and is high humus us of soils.

Therefore in the Fergana area as any other sphere, land tenure demands innovative decisions. Immediate development of the earth as manufacture factor (especially in connection with formation of uniform object of real estate) control systems of ground resources - the account not only as spaces (on categories and grounds, but also as object of property relations, the goods), an estimation not only as object of the taxation, but also object of managing, credit relations, property turn Is required.

Considerable innovations in the maintenance of active management methods:

- Land management, forecasting, planning are necessary.

Without these innovations agricultural land tenure changes and will change chaotically enough, and the main thing is becomes a brake of development of agricultural production.

New qualitative changes of certain properties of the earth as external-power basis of manufacture are required.

Thus directions of innovations of properties of the earth are connected with those functions which the ground area carries out or will carry out:

- The earth as natural resources - development of technology of consumption, preservation, restoration of useful properties of the earth;

- The earth as manufacture space - the adaptation of its properties for placing of objects of real estate and activity kinds;

- The earth as property - development of technologies and the maintenance of actions for preservation and development of properties of the earth, important for its functioning as property;

- The earth as object of rent - development of technologies and the maintenance of actions for landed property and land tenure in system of long rent relations [3,4,5].

At natural properties of the earth the main line - spatiality, and is necessary for functioning of processes of manufacture, buildings and constructions a certain part of ground space. Therefore innovative actions of all directions demand their spatial organization: site definition, an establishment of the necessary size and quality of grounds, configurations of a ground or economic site and its borders concertizing sphere of use of the earths and innovations. Will be probably to resolve land management methods.

Land management is the system of actions for regulation of ground relations and the organization of protection and earth use as means of production. Set of actions of land management provides the ordered

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land tenure. As a result of land management preconditions for introduction of scientifically well-founded systems of housekeeping are created [4]. For maintenance of efficiency of innovations it is necessary to establish the sites needing similar actions and creating sufficient effect from their realization. The qualities of the earths which are subject to change, preservation, restoration, are individual enough and connected with many other factors both on the given site, and on the adjoining. Therefore detailed and complex studying of a condition, dynamics of changes of properties of the earth and their processes transforming should precede their realization that allows to model possible consequences of innovations. In the presence of proponent properties on which actions for improvement of properties of the earth are directed, the greatest effect on unit of innovative investments is provided. Anthropogenic influences without special support cannot keep long time the influence (arable land functioning). There is a necessity of new annual supporting investments. Their size depends of both at most initial influence, and at most occurring natural processes which are overcome or change the given actions. Improvements of the first sort are closely connected both with natural processes, and with manufacture development. The greatest effect is reached, if changes of a condition of the earth are supported by highly effective economic processes and are as though their component. In this case support of transformations of natural properties can be carried out not in the form of the additional isolated investments, and at the expense of the general economic results of manufacture [6,7,8,9,10].

Innovative actions of the second kind are directed on creation of buildings and constructions that provides change of economic properties of the earth. They do not create additional quantity of a product, but promote quantitative and its qualitative preservation, decrease in annual expenses of manufacture. Therefore their arrangement in territory depends mainly not on placing of natural processes, the phenomena, properties of the earth, and from placing (actual or assumed) industrial activity. At the same time, productivity and efficiency of functioning of buildings and the constructions connected with consumption of natural resources and properties of the earth, in certain degree depends on their qualities shown in territory. Constant innovative support of functioning of the earth as property and object of long rent is objective necessity of realization of manufacture. Thus for separate spheres of manufacture and a recreation the ground area is time object of innovations - initial arrangement of territory, building of buildings and the constructions which have been not connected with use of natural properties the earths (natural resources). For certain spheres of manufacture and a recreation there is a constant requirement for preservation, improvement and restoration of natural properties of the earth. In this

case the earth is constant object of influence. On the purposes, object and the maintenance in agriculture sphere it is possible to allocate four types of innovations: biological (selection -genetic); technic-technological; organizational-administrative and economic. Thus ground resources are a basis of all productions and the relations which are subject to innovative development. Especially the close connection of ground resources and agriculture innovations should be noted in sphere of plant growing [5]. Ground resources in the Fergana area, as well as in other zones, differ on the qualities, therefore innovations should be not as a whole for region, and with reference to conditions of the concrete ground area. The new or modified grades and technologies of their cultivation should be adhered to the grounds providing sufficient efficiency of their manufacture. In limits even one natural-agricultural zone of area of a variation of properties of soils (on size of natural and economic fertility) in the Fergana area are various that provide considerably differing productivity. It can as to support effect from plant growing innovations so actually to bring it to naught. Other properties of the earth essentially influence on cost-based manufactures (complexities of a relief, small contouring arable lands, remoteness of a site and etc.) That at growth of intensity of cultivation of a new grade provides a productivity gain, but does not provide sufficient level of profitableness, so, and efficiency. It is connected with arising considerable operational and technological expenses. At realization of innovations in sphere of mechanization of plant growing quality of the ground areas also has considerable influence on their efficiency. Application of high-efficiency, powerful technics (sowing, harvest complexes) can be complicated small contouring arable sites. In this respect in the Fergana area the position looks not in the best way.

According to the Fergana regional management of ground resources in area there is 247.1 thousand in hectare of the areas under crops located on 45.7 thousand contours. It means that on the average on one contour it is necessary 5.4 hectares. In these conditions use of high-efficiency, powerful technics with the greatest return is not necessary, and without it timely carrying out of agro technical actions, in optimum agro technical terms with the necessary quality of works not probably. Therefore in the Fergana area one of directions of the innovative approach in land tenure is optimization of contours of areas under crops and to result it according to requirements of an effective utilization of modern means of mechanization that will give the chance to realize a principle of technological stability of agricultural land tenure.

Organizational, administrative and economic innovations in existing practice are spent without concrete conditions of land tenure (the organization, a legal regime) or on the basis of their average

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conditions and its parameters. As a rule, it leads to inadmissible increase operational and transaction costs, i.e. economic discredit of innovations.

Presence of an order of formation of land tenure in republic on the basis of long-term rent which covers the period till 49 years does not provide necessary stability of manufacture that puts under doubts realization as innovations of properties of the earth, so innovations in sphere of technology and the manufacture organization.

Conclusions.

Necessary conditions of innovative development of agriculture are:

1. End of developments of systems of land tenure and the ground relations providing organizational support of various directions of innovative development of agriculture.

2. Maintenance of stability of system of land tenure.

3. The concrete account of properties of the ground areas and their parts at realization of innovations in agriculture, especially in plant growing.

4. At definition of conditions of realization of innovations and their economic efficiency it is necessary to lean not against average conditions (quality) of the earth on managing the subject or object of research, and on individual properties of economic sites, zoning of territories whenever possible and efficiency of realization of separate innovations within the managing subject for this purpose is necessary.

5. Carrying out of the land management creating a spatially-resource basis of realization of concrete innovations [6,8].

Proceeding from these problems, the control system of ground resources (cadaster, monitoring and

especially land management) should among the basic directions for agriculture has a special problem on support innovative and a branch sustainable development.

Innovative supporting land usage problems concern number of the cores:

- Maintenance with the objective, timely information on the earth and conditions of its use (carrying out of inspections of properties of the earths, an estimation of the earths).

- Formation of the ground areas, land usage, economic sites, suitable for realization of concrete innovations in plant growing, animal industries and the manufacture organization.

- Zoning of territory of rural municipal unions and managing subjects on unfitness and efficiency of the earths for realization of different kinds of innovations.

- Working out and realization of the project of intra economic land management on land tenure or the ground area of the managing subject for creation of a necessary land-resource basis of realization of certain innovations.

- Working out of technical workers projects on concrete economic sites (a file of a ground, a crop rotation, a field) for a binding of an innovation to a concrete place for maintenance of efficiency of innovation.

Summing up consideration of questions of influence of ground resources on innovative development of agriculture, it is necessary to tell that the correct account of available properties of ground both economic sites and the necessary actions spent in system of land management on the organization of use of the earth, will allow to strengthen an innovative vector of development of agriculture by increase of its organization and efficiency.

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