PROVISION OF EFFECTIVE REGULATION OF LAND RELATION AND EFFICIENT AGRICULTURAL LAND USE

DOI: 10.24411/2588-0209-2018-10028

S.N. Volkov, Member of RAS, DSc (Econ), Professor, Rector of the State University of Land Use Planning.

A.A. Fomin, Professor of the State University of Land Use Planning, PhD in Economics, member of the Expert Advisory Panel affiliated with the Committee on Agrarian Issues of the State Duma of the Federal Assembly of the Russian Federation. ORHID: http://orcid.org/0000-0002-3881-8348, agrodar@mail.ru

Agro-industrial complex of our country has huge potential for agriculture development providing that there is effective regulation of land relations, and efficient, scientifically based land use focused on preservation, maintenance, and boost of the most valuable land property - soil fertility. Russia possesses 9% of the world's croplands, while it produces just about 2% of the world's agricultural output. Total agricultural land is 383.7 mln ha (22.4% of Russia's land resources). Over the past 25 years total arable land has decreased from 132.3 to 115.1 mln ha. Sustainable social and economic development of Russia is impossible without the efficient use of agricultural land. It is the key element in ensuring of food security, which is one of the major components of the national security, incremental growth and development of the economy, and which is the way of life and the means to improve the quality of life of a large portion of the home population. Therefore the primary tasks and objectives of the efficient use of these lands are: necessity of preservation and efficient use of agricultural and cultivated land, assistance to growth in production of high-quality and eco-friendly agricultural commodities while conserving soil and meeting the requirements of the environmental regulations. Analysis of the trends and problems of the land relations development is based upon the data of the studies funded through the grants from the President of the Russian Federation, and upon the recommendations delivered during the Parliamentary hearings and round tables held at the State Duma of the Federal Assembly of the Russian Federation in 2017-2018.

Keywords*: regulation of land relations, agricultural lands, land law, land protection, land use planning, cropland, soil fertility.*

Agricultural land is a special land category in the Russian Federation. Pursuant to the Land Code of the Russian Federation agricultural land shall be the land beyond human settlements either permitted to be used for agricultural activities or intended for agricultural use. This land category is the basic means of agricultural production, subject to special legal regime, and is of special concern so as to preserve its acreage, prevent degradation, and boost soil fertility.

According to the Report on the Agricultural Land Health and Use in the Russian Federation in 2015 (official publication of the Ministry of Agriculture of the Russian Federation, 2017), as on January 1, 2016 total agricultural land was 383.7 mln ha (22.4% of Russia's land resources). As compared to the previous year total land of this category has been reduced by 1.8 mln ha in the total land resources of the Russian Federation (as a result of change in the land category, mainly to forest land and settlement land).

This category comprises the land permitted to be used for agricultural activities to various entities (partnerships and associations, cooperatives, state and municipal unitary enterprises, research institutes). Land parcels permitted to be used by individuals as a smallholding, for their family farming, gardening, livestock farming, haymaking, and livestock grazing activities are also belong to this category. The land provided for Cossack and indigenous communities is also classified as the agricultural land. Besides, total land of this category comprises entitlements (including the unclaimed ones).

Total cropland, which is one of the agricultural land use categories, was 197.7 mln ha as on January 1, 2016.

Total non-cropland as one of the agricultural land use categories is 186.0 mln ha. The non-cropland is the land under buildings, structures, intra-organizational roads, forest stands, surface-water bodies, as well as the land parcels intended for the agricultural production servicing. Non-cropland "under forest" and "under water" is the land covered by pieces of forest assigned to permanent (perpetual) use of agricultural companies, as well as the land under water-surface bodies, which category hasn't been changed to the appropriate one in the procedure prescribed by law.

More than 101 mln ha of total non-cropland are the land, which is permitted to be used for and intended for reindeer herding. Much of it (28% of the total reindeer pastures) is the forest land, which eventually may be categorized somehow other than the agricultural land.

Total forest land is 6.5% (24.8 mln ha) of the total agricultural land.

In the Russian Federation agricultural activities are actually performed not only on the agricultural land, but on the land of other land use categories (such as settlement lands, forest lands, military lands, etc.).

Therefore focusing on conservation of the land of any land use category as the crucial component of environment and means of agricultural production instead of using the land as a real estate is one of the core principles of the land law.

It should be noted that the legal treatment of the agricultural lands has a substantial statutory and regulatory basis - more that a dozen of federal laws (Civil, Land, Forest, Water, Town Planning Codes of the Russian Federation, Code of the Russian Federation on Administrative Offences, Federal Laws "On Agriculture Development", "On Agricultural Land Turnover", "On State Control over Farmland Fertility Maintenance", "On Land Amelioration", "On Safety of Hydraulic Structures", "On Smallholding", "On Family Farming", "On Land Use Planning", etc.) and even much more regulations thereunder.

Guidelines for the state control over the efficient use of lands permitted to be used for agricultural activities are set forth, in particular, in the Principles of the National Policy for Use of Land Resources of the Russian Federation for the Years 2012-2020 (hereinafter - the Principles of the National Land Policy), Guidelines for the Russian Government Activity for a Period until 2024 dated 29/29/2018, Doctrine of Food Safety of the Russian Federation, Concept of Sustainable Rural Development of the Russian Federation for a Period until 2020, Strategy for Sustainable Rural Development of the Russian Federation for a Period until 2030, Concept of Development of the National System of Monitoring of the Agricultural Lands and the Lands Used or Permitted to Be Used for Agricultural Activities while Included in Other Land Use Categories, and Creation of the National Data Resources Relating to these Lands for a Period until 2020, as well as in other strategic planning documents.

Nonetheless it is obvious that, despite the substantial legal backup, there are still challenges related to the regulation of land relations, preservation and restoration of soil fertility in the lands used for agricultural activities.

Much of this land is being degraded - the soil suffers erosion, bogging, salinization, acidification, desertification, and waterlogging, the cropland is being invaded by subsidiary forest vegetation, weeds, and quarantine plants, and the result is the soil degradation and exhaustion, as well as the cropland retirement.

It should be noted that land evaluation, cadastral survey, and certification, as well as evolution of the national system of keeping records related to soil fertility status (national monitoring system), in particular the improvement of the legislative control of this state function are re-

quired to get the accurate and relevant information on the fertility status of soil in the lands used for agricultural activities.

For these purposes the Ministry of Agriculture of the Russian Federation has been drafting the Federal Law "On Amendments Being Made to the Federal Law "On State Control over Farmland Fertility Maintenance", and certain legislative acts of the Russian Federation", which is to add a new chapter "State Monitoring of Agricultural Land" thereto.

It is proposed that the information on the agricultural land got through the state land monitoring shall be recorded in the national agricultural land registry.

The bill prescribes that this registry shall be kept using the Integrated Federal Agricultural Land Information System (EFIS). This information system is to be created by means of modernization of the Federal State Information System "Functional Subsystem "Electronic Agricultural Land Atlas" operated by the Ministry of Agriculture of the Russian Federation.

Furthermore, in accordance with the instruction from the Russian President V.V.Putin No. Pr-1240 of June 29, 2016, the bill requires that there were plot passports for the agricultural land parcels.

As for the provision of resources for preservation and restoration of the land used for agricultural activities, the State Program for Development of Agriculture and Regulation of Agricultural Commodity Markets in 2013-2020 (hereinafter - the State Program) involves the state aid measures, for example, green box farm subsidies to crop growers (hereinafter - the green box subsidies).

The subsidies are granted for partial reimbursement of the expenses incurred by the agricultural producers as per 1 ha of the cropland and related, in particular, to the boost of soil fertility and improvement of soil quality. The agricultural producers may commit these funds to purchase and application of fertilizers, liming, phosphatization, and gypsuming of soil in the agricultural land.

In 2016 23.2 bln rubles were allocated for this kind of the state aid from the federal budget.

Unfortunately, only 11.3 bln rubles were allocated to per hectare support in 2017 although green box farm subsidies to crop growers are the most available, transparent, and popular form of the state aid to the agricultural producers of various business patterns. In view of the heavy debt load of the agricultural producers, their poor financial condition, much outdated facilities, the green box subsidies are committed to purchase of fuels and lubricants, as well as mineral fertilizers, crop protection chemicals and seeds, which makes it possible to perform the sea-

sonal field works on schedule and with the use of the appropriate materials and equipment, and contributes to the soil fertility maintenance.

It's worth noting that the best part of Russia's territory is marked by the adverse climatic conditions and natural environment and is regarded as so-called "area of risk farming". Consequently, the high-level and stable agricultural production can be provided largely through further land amelioration.

International agricultural production practices show that the key factor of the consistently high agricultural output is complex land amelioration, which includes, along with hydrotechnical amelioration, agroforestry, land clearing, biological amelioration, and other amelioration activities combined with the high-end farming technologies and equipment, high-yielding varieties of crops, targeted dosing of fertilizers and crop protection agents. In China the portion of the reclaimed land constitutes almost 45%, in India - over 35%, in the USA - about 15%/

In Russia even in the amelioration boon years the total reclaimed land was 10% maximum of the total cropland, and today it's only 7.9% of the total arable land.

According to the statistical survey data, as on January 1, 2016 in the Russian Federation there were 11.3 mln ha of the total reclaimed land of all land use categories, including 9.3 mln ha of the cropland. The total irrigated cropland was 4.6 mln ha, and the drained one - 4.7 mln ha.

In recent years cost-effective and efficient irrigation systems gain popularity and are widely used in the agricultural business, especially by smallholdings. The most effective of many crop irrigation methods used in practice (sprinkler irrigation, contour ditch irrigation, etc.) is drip irrigation.

Particular attention should be given to the problems of agroforestry. Over the entire history of the protective afforestation in Russia 5.2 mln ha of protective forest plantations had been created.

In steppe and forest steppe regions the protective forest plantations are the most strong and cost-effective protection from the snow and sand drifts, and contribute to the friendly environment in the agricultural land. Over 70% of the protective forest plantations occupy the land parcels, which are state-owned without delineation of ownership, and their condition has been assessed as a poor one.

It is advisable, when making the Strategy for Development of the Agricultural Land Reclamation in Russia till 2025 and for the period until 2030, to allocate more federal subsidies to amelioration activities so as to stimulate the investment activity of the agricultural producers, double the total reclaimed land, and, consequently, boost the crop production in the reclaimed land.

With a view to ensure the efficient use of the agricultural land and soil conservation the Ministry of Agriculture of the Russian Federation has recommended that the agencies responsible for the agro-industrial complex in the constituent entities of the Russian Federation, in cooperation with the local scientific institutions subordinate to the Ministry of Agriculture of the Russian Federation, establish through the local laws and regulations the scientifically grounded local cropping systems and cultivation technologies involving the agrotechnical requirements to the use of the land parcels permitted to be used for agricultural activities.

Land use planning laws and regulations are not always adequately considered in the case law. Moreover, the amendments to the Federal Law "On Land Use Planning" are occasional and non-systematic, and aimed not at the improvement of the land use planning proceeding, but mostly at the adjustment thereof to the land law novels, which address the challenge of regulating the ownership in the field of the immovable property turnover and town planning.

In that context it seems necessary to develop a revised version of the Federal Law "On Land Use Planning" targeting the following issues:

- identification of capacities of the Russian Federation and its constituent entities in the sphere of the state control over the land use planning;
- preparation of the land use planning documents proceeding from the aims and the objects depending upon any public or private interests in the land use planning procedures;
- establishment of the land use planning procedure, including improvement of the technical specifications and requirements to the land use planning activities, of the state supervision in the sphere of land use planning, and of the expert appraisal of the land use planning documents;
- development of the federal, regional, and local Government interoperability framework for the land use planning activities;
- setting of the rules and methods for the compulsory land use planning in the federal lands;
- harmonization of the land law and other laws and regulations governing the land use planning and cadastral activities with the international land use planning law, as well as the forest, water, town planning, and other law.

Then, along with the development of the conventional concepts of the land preservation and restoration, search for the innovative and scientifically grounded agricultural procedures and technologies, including soil quality management, begins to prevail.

Such concepts as "smart farming", "organic farming", and "satellite farming" have been dominating in the global agricultural industry in these recent times.

The "satellite farming" concept is based upon the variable rate application of fertilizers to the GPS-identified plots, for which the demand for a certain amount of fertilizers had been determined by an agro engineer with the help of the agrochemical survey and yield mapping. Therefore the application or sprinkling rate for some plots is below the average, and the fertilizers are reallocated to the plots, where the application rate is above the average - thus the application of fertilizers is optimized. It produces several positive effects at once: agronomic effect - the agricultural production is being improved with due account for a crop's actual demand for fertilizers; technical effect - agricultural activities scheduling is being improved, labour costs are being reduced; environmental effect - more accurate assessment of a crop's demand for the nitrogen fertilizers results in the limited use of the nitrogen fertilizers or nitrates; economic effect - increase in productivity and/or cost reduction.

Another mainstream agricultural technology is so-called organic farming, where the productivity is being improved by means of planning the cropland use with due regard to the cultivated land pattern, using the scientifically grounded crop rotation system, eliminating the agrochemicals and using the organic fertilizers, biologicals, and natural enemies for crop pest control. Today this concept is globally applied on more than 30 mln ha of cropland, and, according to the UN FAO survey, it may present to the mankind a real way to solve the food safety problem and combat climate change.

Reference List

1. Volkov S.N., Komov N.V., Khlystun V.N. How to Reach the Effective Management of Land Resources in Russia? // International Agricultural Journal. 2015. No. 3. – P. 3-7.
2. Kashin V.I. Priorities for the Russian Agriculture Development // Fodder Production. 2016. No. 6. – P. 3-8.
3. Land Law Development Trends and Problems. Materials Prepared for the Parliamentary Hearings in the Federation Council of the Federal Assembly of the Russian Federation and for Stolypin Readings at State University of Land Use Planning on April 19, 2018 / Eds S.N. Volkov, A.A. Fomin. Moscow, 2018. – P. 223-232.
4. Volkov S., Fomin A., Cherkashina E., Cherkashin K. Land Use Planning in the Transition from Land Categorization to Zoning in the Russian Federation // International Agricultural Journal. 2015. No. 5. – P. 3-8.

5. Shagayda N.I., Fomin A.A. Russia's Land Policy Improvement // Moscow Economic Journal. 2017. No. 3. – P. 71.
6. Fomin A. Import substitution in the agro-industrial complex of Russia. International Agricultural Journal. 2018. V. 61. No. 1. – P. 1.
7. Khlystun V.N. Twenty-Five Years of Land Reforms: Expectations and Outcomes // Economy of Agricultural and Processing Enterprises. 2015. No. 10. – P. 13-17.
8. Magel X., Thiel F., Espinoza X. Land policy and land management: international perspectives // International Agricultural Journal. No. 4. – P. 6-12.
9. Tsypkin Yu.A., Bliznyukova T.V., Feklistova I.S. Scientifically Based Assessment of the Efficiency of Management and Land Use of the Agricultural Sector of Municipalities. Moscow Economic Journal. – 2018. No. 1. – P. 5.
10. Economic Reforms of Russia's Real Estate: Analysis and Lines of Approach. Collection of Scientific Articles and Abstracts of the International Scientific and Practical Conference / 2017. – P. 12-18.
11. Volkov S.N. Land Policy of Russia. Millennium experience. Academic and scientific edition / Volkov S.N., Shirokorad I.I. – M.: SULUP (State University of Land Use Planning, Moscow), 2014. – 520 p.
12. Volkov S.N. The Contemporary Land Relations, Land Use, and Land Use Planning in the Russian Federation, and Scientific Ground for the Main Ways of Controlling them in the Agro-Industrial Complex / Materials Prepared for the Presentation at the Meeting of the Presidium of the Russian Academy of Sciences on March 28, 2017. – M.: SULUP, 2017. – 72 p.