

New Trends In Development Of Agricultural Land Consolidation In The Russian Federation

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Key words: Agricultural Land Consolidation, Agricultural Land Market, Orel Region, Russian Federation

SUMMARY

Agricultural Land Consolidation is a merging, enlargement, eliminating of mosaic land ownership and improvement of configuration as well as optimization of size of land plots in order to increase the efficiency of agricultural production via rational use of scarce resources: land, labor and capital based on reduction of transaction costs. The specific objectives of Agricultural Land Consolidation are the following: increasing the efficiency of agricultural production; providing sustainable development of agrarian sector; rational use of land, labor and capital in agriculture; optimization of agricultural production structures both in territorial and production aspects; increasing the competitiveness of agricultural producers in domestic as well as foreign markets; environmental protection; development of production as well as social infrastructure in agriculture. Agricultural Land Consolidation should be carried out based on the following principles: voluntariness; openness and transparency; financial and economic feasibility; taking into account the interests of the population groups involved including women and youth as well as indigenous people; step by step implementation; consideration of local conditions; state and NGO support.

In theory, Agricultural Land Consolidation can be carried out as Voluntary Land Consolidation and Compulsory Land Consolidation as so-called compulsory “collectivization” as well as compulsory consolidation of the collective farms (kolkhozes) and compulsory transformation some of them into the state farms (sovkhozes) took place respectively in the former Soviet Union in the thirties and the fifties of the last century.

The present stage of Agricultural Land Consolidation in the Russian Federation is featured by development of agricultural holdings and increasing size of private farms. Currently there is a trend of development of Agricultural Land Consolidation at the regional level. There are different models of Agricultural Land Consolidation in Russian agriculture. The first of them - Nizhny Novgorod Model was intended to consolidate the land shares with the aim of creating production cooperatives. However, due to the absence of post-privatization support this task remained unfulfilled. In this regard, noteworthy Belgorod and Orel Models, which are used respectively in Belgorod and Orel regions based on buying and renting of land shares by private farms, agricultural holdings as well as local authorities. Development of Agricultural Land Consolidation in the Russian Federation is mostly depended on Regional Land Policies. One of the successful examples of them is Orel Region (Oblast) Land Policy.

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1. INTRODUCTION

We can treat Agricultural Land Consolidation as a merging, enlargement, eliminating of mosaic land ownership and improvement of configuration as well as optimization of size of land plots in order to increase the efficiency of agricultural production via rational use of scarce resources: land, labor and capital based on reduction of transaction costs.

The specific objectives of Agricultural Land Consolidation are the following: increasing the efficiency of agricultural production; providing sustainable development of agrarian sector; rational use of land, labor and capital in agriculture; optimization of agricultural production structures both in territorial and production aspects; increasing the competitiveness of agricultural producers in domestic as well as foreign markets; environmental protection; development of production as well as social infrastructure in agriculture.

Agricultural Land Consolidation should be carried out based on the following principles: voluntariness; openness and transparency; financial and economic feasibility; taking into account the interests of the population groups involved including women and youth as well as indigenous people; step by step implementation; consideration of local conditions; state and NGO support.

In theory, Agricultural Land Consolidation can be carried out as Voluntary Land Consolidation and Compulsory Land Consolidation as so-called compulsory “collectivization” as well as compulsory consolidation of the collective farms (kolkhozes) and compulsory transformation of some of them into the state farms (sovkhozes) took place respectively in the former Soviet Union in the thirties and the fifties of the last century.

In the result of collectivization in the 20-30-ies of the last century about 25 million peasant farms were converted into 240 thousand collective farms. In the 50-60-ies of the last century took place the consolidation of the collective farms. It was also carried out mainly by administrative methods. Many collective farms were transformed into the state farms. As a result, the number of collective farms decreased to 44.5 thousand by 1960 and to 29.1 thousand by 1990. In 1990 the average size of collective farm and state farm was amounted respectively 5,873 hectares and 15,276 hectares of agricultural land.

The present stage of Agricultural Land Consolidation in the Russian Federation is featured by development of agricultural holdings and increasing size of private farms. Currently there is a trend of development of Agricultural Land Consolidation at the regional level. There are different models of Agricultural Land Consolidation in Russian agriculture. The first of them

- Nizhny Novgorod Model was intended to consolidate the land shares with the aim of creating production cooperatives. However, due to the absence of post-privatization support this task remained unfulfilled. In this regard, noteworthy Belgorod and Orel Models, which are used respectively in Belgorod and Orel regions based on buying and renting of land shares by private farms, agricultural holdings as well as local authorities.

Both administrative and economic methods, for example, development of Agricultural Land Market could be used for Agricultural Land Consolidation. In our opinion, preference should be given to Voluntary Land Consolidation. In that sense, development of Agricultural Land Market is very important for stimulation of Agricultural Land Consolidation.

However, Agricultural Land Market in Russia is still not formed, which impedes the formation of a flexible system of land tenure and land use. Most of Agricultural Land Market Transactions are leasing of land shares now. Meantime, agricultural land selling and buying transactions as well as agricultural land mortgage transactions are limited.

By its nature, Agricultural Land Market represents a market of imperfect competition. This is manifested in the following. The number of sellers and buyers of land plots does not match among themselves. Market information on the transactions is incomplete and non-transparent. Transactions are mostly local in nature. The supply and demand for the land plots are inelastic.

In this market, there are externalities, such as the state registration of the deals, restrictions on the sale and purchase of agricultural land, which prevent the formation of equilibrium prices of agricultural land plots. There is also inappropriate agricultural land use, pollution, and illegal allotment for commercial needs.

The agricultural land is the product of a special kind, the main means of production in agriculture, the cost of which may increase if the normal use for a period. The price of the land is determined based on the interaction between market regulators: land rent and interest rate. Fertility and location of the land plot as well as the additional costs of capital determine the amount of rent.

With increasing size of land plots used for agricultural production, efficiency of farming is increasing due to the relative reduction of transaction costs per unit of land area. The maximum efficiency of agricultural production is achieved in the case when the level of transaction costs per unit of land is reduced to a minimum.

However, further increasing the size of land plots used in agriculture leads to decreasing of efficiency of agricultural production due to the increase in transaction costs per unit of land area.

The major problem is to evaluate the effectiveness of projects related to consolidation of agricultural lands. In our opinion, evaluation of the effectiveness of mentioned above projects should be carried out based on benefit-cost analysis. The most important condition for application of benefit-cost analysis for evaluation of land consolidation projects is to ensure comparability of indicators of costs, benefits as well as efficiency based on international financial reporting system. It could create additional incentives to attract outside investors in Russian agriculture.

Thus, the consolidation of agricultural land is the basis for the development of investment process in agriculture, which allows increasing its efficiency by reducing transaction costs and attracting outside investors to allocate their capital in agriculture.

2. LAND TENURE

According to the Federal Service on State Registration, Cadaster and Cartography of the Russian Federation (Rosreestr), the state and municipal owned land amounted 1,579.1 million hectares, or 92.2 %, private land -115.3 million hectares, or 6.7 % and land owned by legal entities - 18.1 million hectares, or 1.1 % of the total Russian Federation's territory in 2015.

The most important piece of the Russian Federation's territory is agricultural land. According to the Rosreestr, the state and municipal owned agricultural land amounted 255.3 million hectares, or 66.5 %, private land -111.1 million hectares, or 29.0 % and land owned by legal entities - 17.3 million hectares, or 4.5 % of the total Russian Federation's agricultural land in 2015. The total agricultural land area was estimated 383.7 million hectares, or 22.4 % of the total Russian Federation's area in 2015. The cropland, perennial, pastures, hay field lands as well as idle land were amounted 197.7 million hectares, or 51.5 % of total agricultural land area in 2015 (See Table 1).

Table 1. Agricultural Land, Russian Federation, 2015, million hectares

Item	Area	%
Agricultural Land	197.7	51.5
Forest Land	24.8	6.5
Bush Land	19.2	5.0
Road Land	2.3	.6
Building Site Land	1.1	.3
Water Land	13.1	3.4
Others	125.5	32.2
Total	383.7	100.0

Source: Rosreestr, 2016

The dominant role in the Russian agricultural land use has played joint stock companies as well as production coops (See Table 2). The share of joint-stock companies and partnerships in the total area of agricultural land of parastatals amounted 51.8% and in the area of cropland

- 56.8% in 2015. The share of production coops in the total area of agricultural land of parastatals was amounted 36.9% and in the area of cropland – 33.2 % in 2015.

Table 2. Land Use of Parastatals, Russian Federation, 2015, 1000 hectares

Item	Total	Cropland	Idle Land	Perennial	Hay Field Land	Pasture
Joint Stock Companies and Partnerships	60,526.9	42,930.5	935.4	216.9	4,380	12,064.1
Production Coops	43,100.5	25,064	1,043	78.8	3,972.4	12,942.3
State and Municipal Enterprises	6,116.5	2,779.7	80.8	45.1	597	2,613.9
Research Institutions	1,713.5	1,309.4	19.8	13.4	108.2	262.7
Subsidiary Farms	923.9	572.6	22.8	3.5	108.2	216.8
Others	4,405.2	2,818.8	71.4	13.8	309.4	1,191.8
Tribal Land	15.8	.3	-	-	8.8	6.7
Kazak Society Land	89.5	60.4	.1	.1	6	22.9
Total	116,891.8	75,535.7	2,173.3	371.6	9,490	29,321.2

Source: Rosreestr, 2016

Land tenure of the largest agricultural holdings in the Russian Federation in 2016 is shown in Table 3. As we can see from Table 3 these businesses have consolidated large area of agricultural land.

The average size of agricultural holding amounted 490 thousand hectares in 2016. It varied from 340 thousand hectares to 790 thousand hectares in 2016. However, compared to the total area of agricultural land used by parastatals, the land ownership of agricultural holdings are insignificant. It was not exceeded 5% of the total agricultural land area used by parastatals in 2015-2016.

Table 3. Land ownership of agricultural holdings, Russian Federation, 2016, 1000 hectares

Item	Agricultural Land Area	%
Prodimex & Agroklutura	790	16.1
Miratorg	594	12.1
Rusagro	594	12.1
Ivolga-holding	511	10.4
HK Ak bars	505	10.3
Agrokomplex	456	9.3
Rosagro	400	8.2
Avangard-agro	370	7.5
Krasny Vostok agro	350	7.1
Cherkizovo & Napko	340	6.9
Total	4,910	100.0

Source: Who owns Russia. The largest owners of farmland in Russia <http://www.business Life> dated April 19, 2016.

Private farms have played an important role in the Russian agricultural private land use (See Table 4). The share of private farms in the total area of the private agricultural land use amounted 31.5% and in the area of cropland – 39.9 % in 2015.

Table 4. Land Use of Private Farms and Citizens, Russian Federation, 2015, 1000 hectares

Item	Total	Cropland	Idle Land	Perennial	Hay Field Land	Pasture
Private farms	23,901.7	16,424.7	124.8	18.1	1,074	6,260.1
Individual Entrepreneurs	2,737.1	2,029	32.3	13.5	117.7	544.6
Personal Subsidiary Farms of Citizens	7,439.7	5,116	71.6	215	1,010.1	1,027
Service Land	53.4	10.7	-	.4	37.5	4.8
Horticulture	1,109.7	49.8	1.5	1,053.7	1.5	3.2
Vegetable Growing	271.4	270	.7	.4	-	.3
Dacha Land	79.6	63.2	1.3	6.9	2.8	5.4
Housing	559.6	466.9	.6	63.2	9.3	19.6
Livestock Farms Land	319	45.7	.1	.1	65.8	207.3
Grazing	15,134.2	1,239	108.8	8.2	3,198.9	10,579.3
Agricultural Land Owners	10,679.8	7,983.4	159.4	23.5	616.9	1,896.6
Land Shares	13,508	7,417.7	904.9	31.1	1,475.2	3,679.1
Total	75,793.2	41,116.1	1,406	1,434.1	7,609.7	24,227.3

Source: Rosreestr, 2016

However, the total agricultural land area has been reduced (See Table 5). According to the Rosreestr, the total agricultural land area decreased by .3 million hectares in 2015 compared to 1990 from 222.4 million hectares to 222.1 million hectares, or by .1%.

The cropland area decreased by 9.5 million hectares in 2015 compared to 1990 from 132.3 million hectares to 122.8 million hectares, or by 7.2%. Moreover, in 2015 compared to 1990, the area of pasture land increased by 5.2 % and idle lands- in 16.3 times.

Table 5. Agricultural Land, Russian Federation, 1990-2015, million hectares

Item	1990	2000	2010	2011	2012	2013	2014	2015	2015/1990, %
Agricultural Land - total, including:	222.4	221.1	220.4	220.3	220.2	220.2	220.2	222.1	99.9
Cropland	132.3	124.4	121.4	121.4	121.4	121.5	121.5	122.8	92.8
Pasture	87.9	90.9	92.0	92.0	92.0	92.0	92.0	92.5	105.2
Idle Land	.3	3.9	5.1	5.0	5.0	5.0	4.9	4.9	16.3 times

Source: Rosreestr, 2016

After boom at the first period of reform, the number of private farms has been decreased due to severe macroeconomic instability and lack of market infrastructure as well as market economy knowledge. In 2015 the number of private farms decreased by 6.3 % compared to 1995(See Table 6). However, the average size of agricultural land occupied by private farm has been increased due to land consolidation. It was estimated 69.3 hectares in 2015. Thus, it increased by 61.5 % compared to 1995.

Table 6. Private Farms, Russian Federation, 1995-2015

Item	1995	2000	2010	2013	2014	2015	2015/ 1995,%
Number of farms, 1000	279.1	263.7	261.7	258.5	258.9	261.6	93.7
Total land area, 1000, ha	11,982.1	15,368.7	16,284.1	17,128.8	17,681.6	18,130.4	151.3
Average land size, ha	42.9	58.3	62.2	66.3	68.3	69.3	161.5

Source: Rosreestr, 2016

3. LEGAL FRAMEWORK

The legal framework for Agricultural Land Consolidation in Russia includes the Constitution of the Russian Federation, the Civil Code, the Land Code as well as other legal acts. In 2010-2017, some existed legislative acts were amended and adopted new laws that have a significant impact on the development of Agricultural Land Consolidation in Russia.

The Federal Law of the Russian Federation issued on December 29, 2010, #435-FZ “On amendments to certain legislative acts of the Russian Federation in terms of improving turnover of agricultural lands” amended the Federal Law of the Russian Federation issued on July 24, 2002, #101-FZ “On turnover of agricultural lands” as well as some other laws. The right and the order of compulsory withdrawal of the agricultural land plots were settled. According to the Law, it is possible through court in case when the land is not used 3 years and more, and at essential decrease in fertility or considerable deterioration of ecological conditions.

The Federal Law of the Russian Federation issued on June 23, 2014, # 171-FZ “On amendments to the Land Code of the Russian Federation and certain legislative acts of the Russian Federation” amended the Land Code of the Russian Federation. According to the Law, the goal of the amendment was to optimize the procedure for transferring land plots available in state or municipal ownership via development of land auction trading in Russia. The possibility of allocation of land plots for development, not only for housing, but also for other types of construction, including social was recognized.

Land plots had to be transferred without bidding only for the construction of important infrastructure projects, for individual housing construction, personal subsidiary farming and in other specific cases. The authorities had to put up for sale vacant land plots based on applications of citizens and legal entities, except if they were reserved for state or municipal needs, limited in circulation, etc. According to the Law, the starting auction price of the land

plot was the cadastral value. Information on the availability of free land plots authorities had to oblige to show on the official websites. The Federal Law #171 was entered into force on March 1, 2015.

On December 24, 2014, in accordance with the Order # 540 of the Ministry of Economic Development of the Russian Federation issued on September 1, 2014, a new classification of types of permitted land use within the land categories was introduced. According to it, owner of the land plot shall have the right to choose any type of permitted use of the installed for the given land plot. The order identifies 12 target types or zones. They are agricultural, residential, public, business, recreational, industrial, transport, defense and security, special protection, forest, water, general use. In turn, each zone is divided into smaller sub-zones. For example, agricultural zone divided into crop, animal husbandry subzones, etc.

The Federal Law of the Russian Federation issued on July 3, 2016, # 354-FZ “On amendments to certain legislative acts of the Russian Federation to improve the procedure for seizure of land plots from lands of agricultural purpose when they are not in use for the intended purpose or use in violation of the legislation of the Russian Federation” amended some earlier issued federal regulations including the Civil Code of the Russian Federation and the Federal Law of the Russian Federation issued on July 24, 2002, #101-FZ “On turnover of agricultural lands”. The Law is focused on development of Agricultural Land Market and Agricultural Land Consolidation via involvement of unused agricultural land in turnover and improvement the procedure of withdrawal of agricultural land plots in case of their misuse. The mentioned above law stipulates that agricultural land plots located less than thirty kilometers from the borders of rural settlements could not be used for nonagricultural activities. Agricultural land plot, except land subject to mortgage, or land, in respect of the owner which the court instituted bankruptcy proceedings, could be forcibly withdrawn from the owner in a judicial procedure in case if such land not used for agricultural production for three or more consecutive years.

According to the Federal Law #354, the starting auction price of the withdrawn agricultural land plot is the market value of such land, determined in accordance with the Federal Law of the Russian Federation issued on July 29, 1998, #135 “On valuation activity in the Russian Federation” amended on July 29, 2017, or the cadastral value of such land if the results of the state cadastral valuation approved no earlier than five years before the date of the decision on public tenders.

The method of determining the starting auction price of the seized land plot at public auction must be stated in the court decision on seizure of a land plot and selling it at public auction. Private farms and parastatals involved in state agricultural production support programs could lease state and municipal land up to 5 years without bidding or via land auction in case of availability of several applications. Thus, the implementation of the mentioned above law will allow redistributing and consolidating unused agricultural land in order to increase the efficiency of agricultural production by reducing transaction costs.

According to the Federal Law of the Russian Federation issued on July 13, 2015, # 218-FZ “On State Registration of Immovable Property” the state registration of real estate procedure became more accessible and clarified as well as simplified. The Federal Law # 218 replaced the law on state registration of rights to immovable property and transactions with it. The Federal Law #218 was entered into force on January 1, 2017. The Federal Law # 218 allows in some cases to record restrictions of rights and encumbrances to immovable property, including an easement, mortgage trust management and lease. It provides unified recording and registration procedure for real estate.

According to the Law, the Unified State Register of Immovable Property (EGRN) will be introduced. It will be carried out exclusively in electronic form. It will include the Real Estate Cadaster, the registry of the rights on Real Estate, the registry of the boundaries, registry of the deeds, cadastral maps and registry of the of documents. The EGRN will register the land rights without the application of the owner or transferee. The procedure will be performed based on information received from notaries. The Law reduced duration of cadastral registration and registration of rights. For example, it constitutes 5 working days for the cadastral registration and 7 working days for registration real estate rights.

The Federal Law of the Russian Federation dated December 30, 2015, # 431-FZ “On geodesy, cartography and spatial data and on amendments to certain legislative acts of the Russian Federation” was issued to ensure the creation of national geodetic, levelling and gravimetric networks to carry out geodetic and cartographic works. Owners of real estate objects, which are points of the above networks, are required to ensure their safety and notify the authorized body about all cases of damage or destruction. In addition, they must provide the possibility of performing to geodetic, cartographic and repair as well as restoration works.

According to the Law, the federal, departmental and regional spatial databases will be established. Access to these databases will be possible via the Internet. The state information system of maintenance of a unified electronic cartographic base will be introduced. The use of this information will be paid. In accordance with the article #32 of the Law, it came into force since January 1, 2017. According to the Law, on January 1, 2017, were changed the names of licensed types of activities and reduced the list of types of geodetic and cartographical works of federal appointment, subject to licensing. Reissuance shall be subject to all existing licenses to conduct such work. The legislation also clarifies the education requirements related to the mentioned above activities. Territorial bodies of the Rosreestr are issued licenses for execution of geodetic and cartographic works. Officials of the Rosreestr must supervise the licensing of geodesic and cartographic activities, carry out inspections and issue orders to eliminate violations. Since January 1, 2017, a subject of licensing is determination of the parameters of the figure of the Earth and gravitational fields, the creation or updating of state topographic maps and plans, the creation of the state geodetic networks, leveling networks, gravimetric and geodetic networks special purpose networks, including networks of differential geodetic stations. Surveyor organizations must have a license to carry out works

for establishment, modification and refinement of data related to the state border of the Russian Federation, borders between subjects of the Russian Federation and municipal boundaries. Other types of geodetic and cartographic works can be carried out without registration of the license.

The Federal Law of the Russian Federation issued on July 3, 2016, # 237-FZ “On State Cadaster Valuation” is focused on improving procedures of the cadastral valuation. It introduces the Institute of cadastral surveyors. The Law also transfers the authority on determination of cadastral value to state budget institutions, which will deal with cadastral valuation on a regular basis. According to the Law, these bodies should use a uniform methodology that will improve the quality of the state cadastral valuation. The Law was entered into force January 1, 2017. Article #19 of the Law devoted the peculiarities of conducting urgent cadastral valuation will enter into force on January 1, 2020.

4. INSTITUTIONAL FRAMEWORK

On December 25, 2008, in accordance with the President of the Russian Federation Decree #1847 “On the Federal Service of State Registration, Cadaster and Cartography”, the Federal Service of Real Estate Cadaster as well as the Federal Agency of Geodesy and Mapping were dissolved. According to the Decree, the Federal Registration Service was renamed into the Federal Service for State Registration, Cadaster and Cartography (Rosreestr). The functions of mentioned above agencies were transferred to the Rosreestr, which is now under authority of the Ministry of Economic Development of the Russian Federation. At the regional level local offices of the former Federal Service of Real Estate Cadaster as well as Land Cadaster Chambers were transferred to the Rosreestr.

An important role in providing the institutional framework for the development of Land Consolidation in Russia plays the Federal Target Program “Development of the unified state system of registration of rights and cadastral registration of immovable property for 2014 – 2020” approved by the Resolution of the Government of the Russian Federation issued on October 10, 2013, # 903 and amended by the Resolution of the Government of the Russian Federation issued on December 22, 2016, # 1444.

The state customer and the program coordinator is the Ministry of Economic Development of the Russian Federation. The Government customers of the program are the Ministry of Communications of the Russian Federation, the Rosreestr, the Federal Tax Service and the Federal Property Management Agency.

The super goal of the program is harmonization of land and property relations based on respecting the balance of interests, mutual responsibility and coordinated efforts of the Government, businesses and society, enabling the transition to innovative socially oriented type of economic development of the Russian Federation. The objectives of the program are the following:

- Merging the unified state register of rights to immovable property and transactions with it and state property cadaster into a unified state information resource;
- Ensuring the provision of services on the principle of "one window" and the transition to assessing the quality of service;
- Improving the quality of these information resources to ensure investment attraction and enhance the efficiency of real estate taxation.

The total funding of program is amounted 27,100.65 million rubles. Expected outcomes of the program implementation can be described as the following:

- The increase the number of the Russian Federation’s regions which implemented the unified state register of immovable property up to 85 units;
- The increase the number of the Russian Federation’s regions which ensure the transition to the state system of coordinates from the local coordinate system adopted for conducting uniform state register of immovable property of up to 85 units;
- The increase the proportion of individuals who report positively on the quality of the work of the registration authorities in the total number of respondents to 90 percent;
- The reductions of waiting time in queues for applicants for uniform state register of immovable property information up to 10 minutes.

5. REGIONAL LAND POLICIES

Development of Agricultural Land Consolidation in the Russian Federation is mostly depended on Regional Land Policies. One of the successful examples of them is Orel Oblast Land Policy. Orel Oblast Land Policy is based on legal framework included the Federal Legislation as well as local regulations.

Orel Oblast Land Legislation is based on the following legislative acts: The Decree of the Head of Administration of Orel Oblast # 616 issued on December 12, 1997, on farm reorganization and land privatization; Target Program on development of the Legal Basis of Orel Oblast Land Reform approved by the regional authorities on October 10, 1998; Orel Oblast Law issued on June 5, 2003, #331-OZ “On turnover of agricultural lands in Orel Oblast”; Orel Oblast Law issued on May 8, 2015, # 1785-OZ “On amendment to Decree of Orel Oblast Government “On turnover of agricultural lands in Orel Oblast”.

Orel Oblast agricultural land was amounted 2, 031.7 thousand hectares, or 82.4 % of total regional land in 2015 (See Table 7). However, the total agricultural land area has been reduced in the region.

Table 7. Orel Oblast Land Categories, 2008-2015

em	2015		2008		2015/ 2008, %
	1000 hectares	%	1000 hectares	%	
Agricultural Land	2,031.7	82.4	2,106.6	85.5	96.4
Urban Land	197.9	8.0	196.0	7.9	101.0

Industrial Land	23.1	1.0	22.6	.9	102.2
Special Protected Regime Land	35.5	1.4	32.1	1.3	110.6
Forest Land	169.2	6.9	100.0	4.1	169.2
Water Land	1.2	-	1.2	-	100.0
Reserve Land	6.6	.3	6.7	.3	98.5
Total	2,465.2	100.0	2,465.2	100.0	100.0

Source: Orelreestr, 2016

Break down of Orel Oblast's Land in 2015 is shown in Table 8. As we can see from Table 8 the cropland was amounted 79.5 % of the agricultural land in the region in 2015. The share of the agricultural land in the total area of land available in agriculture was amounted 93.3% in the region in 2015.

Table 8. Break down of Orel Oblast's Land, 2015, 1000 hectares

Item	Total	Agri Land	Crop land	Forest Land	Water Land	Building Site Land	Road Land
Agricultural Land	2,031.7	1,896.4	1,508.0	62.9	12.4	4.9	38.2
Urban Land	197.9	143.2	57.1	10.6	2.6	14.7	22.4
Industrial Land	23.1	2.8	.8	4.8	1.3	2.1	10.8
Special Protected Regime Land	35.5	2.0	.7	32.9	.1	-	.4
Forest Land	169.2	1.7	.2	165.5	.6	.1	.6
Water Land	1.2	-	-	-	1.2	-	-
Reserve Land	6.6	5.1	3.3	.6	-	-	.4
Total	2,465.2	2,051.2	1,570.1	277.3	18.2	21.8	72.8

Source: Orelreestr, 2016

The private land ownership plays the dominant role in the regional land tenure (See Table 9). The share of private land ownership was amounted 49.4 % of the total land in the region in 2015. The share of the state and municipal land amounted 40.0 % and legal entities – 10.6 % of the total land in the region in 2015.

The private land ownership plays the dominant role in the regional agricultural land tenure too. It consists mostly of land shares owned by the former collective and state farmers (See Table 9). The private land ownership was amounted 56.9 % of the total agricultural land in the region in 2015. The share of the state and municipal land amounted 30.3 % and legal entities – 12.8 % of the total agricultural land in the region in 2015.

Table 9. Land Tenure, Orel Oblast, 2015, 1000 hectares

Item	Total	Private ownership	Ownership of legal entities	State and municipal ownership				
				Total	Citizens		Legal entities	
					In use	Lease	In use	Lease
Agri Land	2,031.7	1,156.4	259.1	616.2	-	.7	28.7	13.9
Urban Land	197.9	60.1	1.7	136.1	.2	.1	5.6	1.1
Industrial					-	-		

Land	23.1	.2	.9	22.0			8.8	1.4
Special Regime Land	35.5	-	-	35.5	-	-	33.2	-
Forest Land	169.2	-	-	169.2	-	-	-	-
Water Land	1.2	-	-	1.2	-	-	-	-
Reserve Land	6.6	-	-	6.6	-	-	-	-
Total	2,465.2	1,216.7	261.7	986.8	.2	.8	76.3	16.4

Source: Orelreestr, 2016

Break down of Orel Oblast's land use of private farms and citizens are shown in Table 10. As we can see from Table 10 the private land use tends to increase in the region. The total area of land used by private farms amounted 201 thousand hectares, or 9.9% of the total agricultural land in the region in 2015. The total area of personal subsidiary farms of citizens increased in 2015 compared to 1990 by 43.3 thousand hectares, or by more than 2 times. The total area of land shares owned by the former collective and state farmers as well as land used for grazing and haymaking amounted 289.4 thousand hectares, or 14.2 % of the total agricultural land in the region in 2015.

Table 10. Land Use of Private Farms and Citizens, Orel Oblast, 1990-2015

Item	Year	Total Land, 1000 hectares	including	including	Total Land, 2015/1990, (+,-) 1000 hectares
			Agri Land 1000 hectares	Cropland, 1000 hectares	
Private farms	1990	-	-	-	-
	2015	201.0	200.2	183.0	+201.0
Personal Subsidiary Farms of Citizens	1990	42.0	39.9	33.6	-
	2015	85.3	82.3	74.3	+43.3
Individual Housing	1990	-	-	-	-
	2015	4.9	2.4	1.9	+4.9
Collective Horticulture	1990	3.7	3.7	-	-
	2015	9.9	8.8	.1	+6.2
Collective Vegetable Growing	1990	2.7	2.7	2.7	-
	2015	2.4	2.4	2.4	-.3
Land Shares, Grazing, Haymaking Land and etc	1990	-	-	-	-
	2015	289.4	288.9	131.4	+289.4
Total	1990	48.4	46.3	36.3	-
	2015	592.9	585.0	393.1	+544.5

Source: Orelreestr, 2016

The main role in Orel Oblast agricultural land use plays joint stock companies and partnerships (See Table 11).

Table 11. Land Use of Parastatals, Orel Oblast, 2015, 1000 hectares

Item	Area	Land Shares	Including not claimed land shares	Legal entities land ownership	State and municipal land ownership
Joint stock companies and partnerships	1,305	762.1	146.0	95.8	284.9
Production coops	143.5	90.1	37.8	.8	41.8
State and municipal enterprises	6.1	.2	-	-	5.9
Research Institutions	27.3	-	-	-	27.3
Subsidiary farms	19.1	2.6	-	-	10.1
Others	15.8	1.3	-	-	4.3
Total	1,516.8	856.3	183.8	96.6	374.3

Source: Orelreestr, 2016

They occupied 1,305 thousand hectares, or 86 % of agricultural land of parastatals of the region in 2015. They have also rented the most of agricultural land shares in Orel Oblast in 2015.

The production coops occupied 143.5 thousand hectares, or 9.5% of agricultural land of parastatals of the region in 2015. The state and municipal enterprises, research institutions and subsidiary farms as well as other parastatals occupied 68.3 thousand hectares, or 4.5% of agricultural land area of Orel Oblast in 2015.

In 2015, there were 1,292 private farms in the region. The number of private farms has been decreased. In 2015, compared to 1994 the number of the private farms decreased by 26.3% in Orel Oblast. However, their total area and cropland have been increased. In 2015, compared to 1994 the total land area of the private farms increased by more than 2.2 times in the region. In 2015, the average size of the private farm was amounted 155.6 hectares. In 2015, it increased by 3.1 times compared to 1994 due to land consolidation (See Table 12). This trend reflects the process of development of consolidation of agricultural lands in Orel Oblast.

Table 12. Private Farms, Orel Oblast, 1994-2015

Item	1994	2000	2010	2013	2014	2015	2015/1994,%
Number of farms	1,754	1,420	1,247	1,293	1,302	1,292	73.7
Total land area, 1000 hectares	89.2	124.6	177.5	196.2	198.2	201.0	225.3
Average land size, hectares	50.8	87.7	142.3	151.7	152.2	155.6	306.3

Source: Orelreestr, 2016

CONCLUSION

The following measures must be implemented to strengthen the organizational as well as institutional sustainability of development of Agricultural Land Consolidation in the Russian Federation.

- The Agricultural Land Market and Agricultural Land Consolidation Legislation must be revised and improved both at the federal as well as regional level;
- The institutional framework for implementation of Agricultural Land Consolidation must be improved both at the federal as well as regional level too;
- The Agricultural Land Auctions must be introduced to stimulate development of Agricultural Land Market and Agricultural Land Consolidation in the regions of the Russian Federation;
- The training and retraining programs related to Agricultural Land Consolidation issues must be introduced;
- The public relation campaign to strengthen people's ability to understand the role and importance of Agricultural Land Consolidation Development must be initiated;
- The pilot projects focused on Agricultural Land Market as well as Agricultural Land Consolidation Development should be launched in the some of the regions of the Russian Federation to make demonstration effect;
- The Agricultural Land Consolidation Development Experience should be collected, scrutinized and disseminated.

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