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Land Use in Russian Federation and in Tyumen Province

 $\label{eq:partial} Part\ I-Land\ Use\ Planning \\ Part\ II-Property\ Rights\ in\ Agricultural\ Land$

Dr. Nataliya Stupak, Humboldt University Berlin

Based on the analysis of legal documents and reports

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Preface

This document provides information on land use in Russian Federation and Tyumen province. First, it discusses the legal foundations of land use in the country and its specificity, namely the double accounting of land use according to land use category and land use purpose. After, the current state of land use in Russian Federation and Tyumen province by land use category and purpose as well as land conversion is considered. Part II of the report discusses the outcomes of agricultural and land reforms in Russian Federation and Tyumen province, and includes information on the property rights in land.

The content of the document is based on the analysis of legal documents, official reports, expert opinions and interviews with stakeholders in Tyumen province.

The purpose of the document is to assist the project partners in the implementation of project results, in particular

- in identifying the main land use stakeholders,
- designing land use plans for the selected regions of Tyumen province,
- developing a strategy towards sustainability of agricultural production in Tyumen province.

The document is intended for the internal use by the researchers of all SASCHA sub-projects.

This report should be quoted as follows:

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Abbreviations

ha hectare

n/a not available

RF Russian Federation

RSFSR Russian Soviet Federative Socialist Republic

TP Tyumen province

USSR Union of Soviet Socialistic Republics

WTO World Trade Organization

Glossary

Abandoned land

Farmland which neither used nor is not intended to be used by its owner for agricultural production.

Agricultural land

One of the land use categories. Covers land already included in agricultural production as well as land allotted for its needs of agriculture and can be used so in the future (Article 57 of the Land Code). By land use purpose, all land within the category is divided into two types: farmland (used directly as means of production) and land used for placement of roads, buildings and constructions service agricultural production.

Arable land

Refers to land use purpose. Covers cultivated land.

Fallow land (Zalezh')

Farmland used previously as arable land, but which has not been used for crop production (as arable land or a ley) since one calendar year, dating from autumn. In some steppe and forest-steppe agricultural areas setting aside land for several (up to 15) years for natural land rehabilitation and increase in soil fertility. Thus, fallow land is considered a part of crop production system (not to confuse with ley farming) and is not considered abandoned land. The difference between the fallow land and abandoned land is the objective of terminating land cultivation: in the former case land is set aside deliberately with a clear goal of its further use some years later; in the latter case land cultivation ceases because there is no intention on the part of land owner or user to be further engaged in agricultural production.

Decollectivization

A component of agricultural reform in Russian Federation after the breakup of the Soviet Union. Refers to the process of liquidation of large state and collective farms and establishment of private farms who operate on own or leased land. Refers to land use purpose. Covers land used directly for agricultural production, including arable land, hayland, pastures, fallow land and land under perennial plants.

Forest land

Farmland

One of the land use categories. Includes land covered with forest as well as land not covered with forest vegetation but designated for forestry (roads, bogs etc.) (Article 101 of the Land Code).

Free terminable use of land

One of the types of property rights in land. Arises from written agreement between two parties: the one granting a land plot into free terminable use, and the second party who receives the land plot and agrees to return it to the first party by the date specified in the agreement in the condition equal to the one at the moment of the plot being granted, or as specified in the agreement. Plots can be granted into free terminable from land in state, municipal, corporate and private property.

Individual entrepreneur

One of the organizational forms of agricultural producers. Is a physical person from reporting (financial and statistical) and taxation perspective. Describes a situation where an individual start commodity agricultural production and upon registration receives a special certificate which describes this individual as the head of peasant farm. The head of peasant farm may then conclude agreements with other members of the peasant farm.

Industrial land

One of land use categories. Includes land used by industrial, energy, transport, communication, broadcasting, television, informatics, space-related and other enterprises. Refers to land located beyond the territory of settlements (land occupied by above-mentioned enterprises within the territory of settlements is included into the land use category "Land of settlements).

Land demarcation

Land demarcation is the process of redistribution of land in state property into the property of Russian Federation, property of federal subjects and property of municipalities.

Land lease

One of the types of property rights in land. Arises from a land leasing contract according to which one party provides land plots for the use by another party who uses the land on a paid basis and in accordance with the contract conditions. Upon the expiry of the land lease contract, the renting in party has a preferential right in concluding a new lease contract. If the state or municipality wishes to sell the land plot which is being rented out, the party who rents in this plot has the preferential right of buying it out. Land can be rented in by physical as well as juridical persons, and rented out by all types of landowners: the state (some restrictions exist for Russian Federation as land leaser), municipalities, other juridical persons, and physical persons.

Land of settlements

One of the land use categories. Includes land already used or designated for building up and development of settlements.

Land privatization

A component of agricultural and land reforms in Russian Federation after the breakup of the Soviet Union. The process of land registration in private property of physical or juridical persons.

Land redistribution fund

Was initially established for land plots which remained after the free transference of land of state and collective farms into the property of joint-stock companies which were created on the basis of those state and collective farms. The land within the fund can to be used solely for agricultural production and expansion of peasant farms, subsistence farms, animal production, gardening, mowing and pastures. Currently land is included in the land redistribution fund in cases of:

- voluntary renunciation of land plot;
- absence of heirs by law or by testament, or if one of heirs refused the inheritance, or all heirs are disinherited, or a heir relinquished the inheritance either in favor of the state or without indicating the beneficiary;
- confiscation of land;
- liquidation of agricultural enterprises.

Land sharing

A step of land reform when each (former) member of a state or collective farm received the documented right in a share of land. Partition in kind was the next step. Not to be confused with 'land sharing' as used in the field of biodiversity conservation, i.e. integration of agricultural production and environmental conservation on the same land.

Land under nature protected areas

One of the land use categories. Includes: (1) protected areas; (2) land serving the nature protection purpose; (3) recreation land; (4) historic-cultural land; and (6) particularly valuable land.

Land use category

The type of economic activity for which land is designated

Land use purpose

Actual use of land in terms of its cover and benefits derived.

Lifelong inheritable possession

A type of property rights in land which was a transition form between state property and private property in land. Introduced in early 1990s, lifelong inheritable possession implied that individuals (land possessors) were granted all bundle of property right in land except of the right to dispose of it (sell, lease out, granting into free terminable use etc.).

Ownership

Ownership relates to registered rights to land and benefit streams which may be derived from it. Usually land ownership implies absolute property rights in land, i.e. land owner is granted the whole bundle of property rights from cultivating the land to selling it. Such situation is, however, difficult to find, as land owners may still be restricted in their land-related activities, for example, being owner of a land plot categorized as agricultural land, an individual cannot built a house on it.

Partition of land in kind

One of the steps of land reform when land shares (a document specifying a property right of an individual in a land plot) possessed by individuals were exchanged for land plots in kind and land titles.

Peasant farm

One of the organizational forms of agricultural producers defined as an independent operating unit represented by an individual, a family or a group of individuals who are engaged in agricultural commodity production, processing and marketing of agricultural produced by using the property and land in their ownership, life-long inheritable or lease. Though the definition of a peasant farm as an agricultural production unit is straightforward, there ambiguity as regards their legal status. Thus, till 1995 peasant farms were registered as juridical persons. From 1995 on, due to some amendments to legislation, peasant forms were to be registered as physical persons. The legal procedure of registering an organization as a physical person is, however, absent. Therefore, the peasant farms as physical persons were officially registered an "Individual entrepreneur – head of peasant farm".

Property rights in land

Property right in land is a claim to a benefit which arises from specific land use (agricultural production, land lease, mortgage, sale etc.). Property rights should be seen as a complex concept which single elements are identical to rights on specific benefit streams.

Reserve land

One of land use categories. Includes all land which use purpose is not yet determined, nor is its use granted through ownership, possession, usufruct or lease by physical or juridical persons (Article 96 of the Land Code). Depending on its condition, this land can in principle be used for any purpose: construction, industry and infrastructure, agriculture etc. Reserve land is in state or municipal property, and is managed out by respective village, town or regional administrations. These authorities also take decisions on converting reserve land into specific land use category and assigning property rights in it to physical or juridical persons for carrying out respective activities.

"reserving (booking) land", the process of

Reserving the land is a process when the state, represented by public authorities at different administrative levels, or municipalities determine the land areas which are needed in the future for the implementation of large-scale public projects, such as construction of a high-way or establishment of a national park. There are two possible scenarios of land reservation:

(1) The land in state or municipal property is being "frozen" for the maximum of seven years, meaning that it cannot be privatized by or granted to physical and/or juridical persons. In this way land is being reserved for infrastructural project, nature protected areas, construction of water reservoirs and other artificial waterbodies.

- (2) The land under all types of property regimes, including the land in perpetual (termless) or lifelong inheritable possession of individuals is reserved with its further confiscation in the following cases:
 - execution of international obligations of Russian Federation,
 - accommodation specific objects of state or municipal importance (these are listed in the law) if alternative options of their accommodation are not available.

Service allotment

A land plot which free terminable use is granted to employees within specific economy sectors such as transport, forestry, game farms, state natural reserves and natural parks.

Subsistence farm

Is one of the organizational forms of agricultural producers who produce for own consumption. For the establishment of subsistence farms two types of land plots may be granted:

- (1) land plots within the territory of settlements. These belong to the land use category "Land of settlements" and can be used for agricultural production as well as housing and other constructions.
- (2) land plots outside of the territory of settlements. These belong to the land use category "Agricultural land", and are designated solely for agricultural production; any constructions or buildings on such plots are prohibited.

Usufruct

A type of property rights in land. Implies perpetual (termless) costless use of land. In RF this right can be assigned to the state and municipal establishments, federal state enterprises, public authorities and local governments. Usufruct cannot be granted to citizens, companies, producer cooperatives etc. (Article 20 of the Land Code 2001). Physical persons who were granted usufruct prior to the Land Code of 2001 may continue to exercise their right, and the change of the usufruct into land ownership is not limited in time. Juridical persons who were granted usufruct prior to the Land Code of 2001 must have registered their land use as land lease or acquired the respective land plots by 1 January 2004.

Water land

One of the land use categories. Includes land under waterbodies (rivers, lakes etc.) and water protections zones around waterbodies, land used for hygrotechnical construction and other water management facilities.

PART I:	LAND USE CATEGORIES, LAND USE PURPOSE AND LAND USE IN
	RUSSIAN FEDERATION

1 Brief history of land reforms and land use categories in Russia

In order to understand the formation and operation of property rights in (agricultural) land in contemporary Russia, as well as the implications of the existent property rights in land for agricultural land use and protection, it is worthwhile to consider the development in property rights regimes at different stages of Russia's history.

1.1 Russian Empire (till 1917)

Until 1860s large share of land relations in Russian Empire was regulated by the serfdom regime, in which a small share of population – mostly nobility – owned land, and the peasants cultivated this land and produced food and fiber. Land ownership implied property rights in all surface goods (agricultural produce, forests, water resources) and all subsoil goods. Two types of land ownership were legally recognized: the inherited and the acquired. Land inheritance was regulated by primogeniture. Serfdom regime organized peasants in communes. These communes were allocated a share of landlord's land for subsistence food and fiber production, and next to that were imposed a duty to cultivate the land rest of landlord's land. Serfs did not have individual rights and personal freedoms, were prohibited the exit from a commune and individual land cultivation.

In 1861, the first land reform was initiated, which proclaimed serfdom abolishment and granted peasants the right of land ownership and individual land use. Two land property regimes were legally recognized: private property regime and common property regime. Land transfer from property owner into the communal or private ownership of peasants was allowed by means of sale-purchase. Due to this land redistribution mechanism, land reform did not change much on the ground.

For peasants, the transition from the common towards private property regime in land was particularly promoted in the 1900s-1910th, when a number of legislative acts abolished communal and introduced individual land ownership. The process of land allocation into the private property of peasants was not completed, and was terminated by the revolution of 1917.

1.2 Russian Soviet Socialistic Republic (1917-1991)

The revolution of 1917 marked the transition from the political ideology based on orthodoxy and autocracy and the economic system of feudalism¹ towards the political ideology and economic system of socialism. As an outcome, the Union of Soviet Socialist Republics (USSR) was established, the Russian Soviet Federative Socialist Republic (RSFSR) being one of its members. This transition implied radical change of property rights institutions.

The first legislative acts passed by the temporary government in 1917 abolished land ownership by the landed gentry and abolishment of private property rights in land, all surface

One may consider capitalism prevailing within short period in between the Stolypin reforms and the October Revolution.

and subsoil resources, and transfer of all this goods into state property², individuals or their groups (communes) being granted only user rights for specific resources. At the same time all market land transactions, such as sale-purchase, lease and sublease, were prohibited.

Already in this time the first classification of land use by categories is introduced: land for cultural-enlightening purposes, agricultural land, construction land, land for communication lines.

Starting from 1919 socialization of agriculture commences with the Decree "On Socialistic Land Use and the Means of Transition towards Socialistic Agriculture" issued by the Allrussian Central Executive Committee on 14 February 1919. The Decree set the objective of replacing all forms of individual farming with collective farming, and laid down the legal foundations for the emergence of state farms.

The first Land Code of the RSFSR from 30 October 1922 considered two land use categories: agricultural and urban. Use of land in other way than agriculture and housing was regulated by a range of special legislative acts, such as Forest Code, Decree (and later Law) "On Mining" and so on.

In 1930s, all remaining individual land use for agricultural production was abolished and individual producers forced to collectivization. The collective farms were thus established; the legal rule was introduced which prohibited alienation of land and other means of production by the members of collective farms who wished to exit.

Following the unfavorable climatic conditions and hunger after the Second World War, the first legal recognition of the natural factors influencing generation of agricultural output came in 1948 with the adoption in 1948 of the so-called Stalin's Plan for the Transformation of Nature³.

On 13 December 1968 the Law of the USSR "On the Approval of the Foundations of Land Legislation of the USSR and Member Republics" integrated all existent pieces of legislation of land and land use and protection into one document. The Law defined six land use categories:

- (1) agricultural land in the use of collective farms, state farms and other land users for agricultural production;
- (2) land of settlements (cities, towns and villages);
- (3) land of industry, transport, recreation, nature protection and other non-agricultural use;
- (4) forest land;
- (5) water resource land⁴;

See Decree "On Land" passed by the Allrussian Central Executive Committee on 26 October 1917, and the Main Law "On Land Socialization" from 19 February 1918, which replaced the Decree.

Decree of the Council of Ministers of USSR and the Central Committee of the Allrussian Communist Party of (Bolsheviks) from 20 October 1948 "On the Plan of Field Protecting Afforestation, Implementation of Grassland Crop Rotation, Construction of Ponds and Water Reservoirs for Ensuring High Sustainable Yields in the Steppe and Forest-Steppe Regions of European Part of the USSR".

⁴ land under water bodies, glaciers, bogs and mires excluding tundra and forest tundra zones, hydro technical constructions

(6) reserve land. The law also regulated allocation of subsistence plots to rural families by collective and state farms. For the first time in the USSR history land protection and rational land use were legally regulated.

1.3 Russian Federation (from 1991)

For most of the USSR member Republics, the break-up of the Soviet Union meant transition in the dominant political ideology and economic system. This transition was probably the most radical in the part of property rights in land: the state property in land was abolished and private property in land introduced (see section 2.1 for more information on agricultural transition and land reform in Russia).

For 10 year of transition land relations in Russia were regulated by the Land Code adopted by the Supreme Council of RSFSR on 25 April 1991. The document introduced several land use categories:

- (1) agricultural land;
- (2) land of settlements (cities, towns and villages);
- (3) land of industry, transport, communication, broadcasting, television, informatics, energy, defense, and other use;
- (4) nature protection, nature reserves, health recreation and historic-cultural use;
- (5) forest land;
- (6) water resource land;
- (7) reserve land.

As we observe, in contrast to the Soviet times, the nature protected areas and recreation land form a separate land use category and are not put in one box with industrial and transport land.

After the constitutional crisis in September-October 1993 and until the adoption of the new Land Code on 25 October 2001, land relations in Russian Federation (RF) were regulated mostly through Presidential Decrees and Decrees of the RF Government.

2 Land use categories and land use purpose

The Land Code of RF adopted on 25 October 2001 defines the following seven land use categories:

- (1) agricultural land
- (2) land of settlements
- (3) land of industry, energy, transport, communication, broadcasting, television, informatics, space-related activities, defense, security, and other specific use;
- (4) land under protected areas and objects;
- (5) forest land;
- (6) water resource land;
- (7) reserve land.

The rest of this document focuses on the two land use categories: "agricultural land" and "land under protected areas and objects".

Besides the seven land use categories, the RF legislation also distinguishes different land use purposes which are:

- (1) farmland;
- (2) forests;
- (3) forest plantations not assigned to forest land;
- (4) roads;
- (5) building and constructions;
- (6) water;
- (7) bogs and mires, and
- (8) other lands which include landfills, waste dumps, sand, ravines and gullies, and parts of tundra suitable for deer pastures

This means that in order to understand the actual use of specific land parcel, one should consider both, land use category assigned to this parcel, and its use purpose. For example, land assigned to land use category "agricultural land" might be used for all land use purposes mentioned above, i.e. directly for agricultural production as farmland, for infrastructure, landfills etc., or could be covered with forests and forest plantations, bogs and mores or water bodies.

Not each land use purpose is compatible with each land use category. For example, the land use category "land under protected areas and objects" cannot cover lands under landfills or waste dumps (land use purpose).

2.1 Agricultural land

Article 77 of the Land Code defines agricultural land as land located outside the borders of settlements and provided for the needs of agriculture, or also land that is intended for agriculture. Agricultural land may be used for a range of purposes:

- directly for agricultural production farmland which includes arable land, hayfields, pastures, fallow land, land under perennial plantations, and
- for other purposes such as intrafarm roads, communications, forest plantations for land protection from negative natural, anthropogenic and technogenic phenomena, buildings and constructions used for production, storage and primary processing of agricultural produce.

Particularly valuable productive farmland, which cadastral value is higher than the average cadastral value in municipality, can be listed as land which use for other than agricultural purposes (conversion) is prohibited.

The paragraph 5 of the Presidential Decree 323 from 27 December 1991 "On the Immediate Measures to Accomplish Land Reform in RSFSR⁵" established the so-called "land redistribution fund" within the land use category agricultural land. Initially, this fund should have included the land plots which remained after the free transference of land of state and collective farms into the property of joint-stock companies which were created on the basis of those state and collective farms. This land, managed by the municipalities, was to be sold through a competitive bidding of rented out to juridical or physical persons who wish to expand or start individual or subsistence agricultural production.

Article 80 of the new Land Code of RF from 25 October 2001 indicates that land in the land redistribution fund is to be used for agricultural production and expansion of peasant farms, subsistence farms, animal production, gardening, mowing and pastures. Land plots may be included in the land redistribution fund in cases of:

- voluntary renunciation of land plot;
- absence of heirs by law or by testament, or if one of heirs refused the inheritance, or all heirs are disinherited, or a heir relinquished the inheritance either in favor of the state or without indicating the beneficiary;
- confiscation of land

Within the last decade significant areas of agricultural land are included into the land redistribution fund following the liquidation of agricultural enterprises.

2.2 Land under protected areas and objects

Article 94 of the Land Code (2001) specifies that the land use category "Land under protected areas and objects" covers the following land use subcategories:

- 1) protected areas;
- 2) land serving the nature protection purpose;
- 3) recreation land;
- 4) historic-cultural land;
- 5) particularly valuable land.

⁵ Russian Soviet Federal Socialistic Republic

<u>Protected areas</u> include land of nature reserves (including biosphere reserves) and game reserves, natural monuments, national parks, natural parks, dendrological parks and botanic gardens. These lands can only be in state property, their management can, however, be assigned to public authorities of different administrative levels: federal, federal state, or municipal. Protected areas are surrounded by protecting zones – areas, within which all activities with negative impact on nature are prohibited. Land parcels within protecting zones can be privately owned, are, however, to be used in accordance with nature protection regime. In cases when single federal states wish to create new or expand the already existing protected areas, public authorities of these states have the right and authority to "reserve" some land, declare it a nature protected area, and expropriate (including buying out) it or restrict the rights as to its use.

The land use category "Land serving the nature protection purpose" includes land under protective forest strips and other land which plays nature protection functions. The use of this land is restricted to the activities which improve and do not hinder its protection functions. Land of this category can be in private property; its expropriation or buying out is not foreseen.

2.3 Reserve land

Article 96 of the Land Code of RF specifies that reserve land covers all land which is not placed into ownership, possession, usufruct or lease. The reason, why this land is not used in any way mentioned above, is that their land use category has not been determined yet. Depending on its condition, this land can in principle be used for any purpose: construction, industry and infrastructure, agriculture etc. Reserve land is in state or municipal property, and is managed out by respective village, town or regional administrations. These authorities also take decisions on converting reserve land into specific land use category and assigning property rights in it to physical or juridical persons for carrying out respective activities. All such decisions are subjective decisions of the local administrations, as no regulation exists, which indicates either strategy and objectives of reserve land use or the norms (shares) of reserve land conversion to other land use categories.

3 Land use in Russian Federation

3.1 Land use objectives

Land use in Russian Federation is regulated by a range of laws and by-laws. In relation to the land use categories, these legislative documents consider purposeful land use is the main objective of legal regulation and control. Purposeful land use means that land assigned to specific land use category – for example, agricultural land – is to be used only for specific type of activities – agricultural production – and in compliance with the legal rules regulating the permitted and forbidden actions.

In contrast to many countries which express their land use objectives in target shares of land assigned to specific economic activity (agriculture, industry, forestry, nature protection etc.), this is not the case in Russian Federation. Here, land use objectives are verbally formulated. In general, these objectives aim at expansion of agricultural and nature-protected land.

The main policy instrument to achieve expansion of agricultural land is not the rules restricting land conversion⁶, but land redistribution. For this purpose a reserve for redistribution of agricultural land has been created in RF. The initial purpose of numerous reserves established by public authorities within single federal states in the beginning of 1990s was creating a possibility of establishing a peasant farm for those individuals, who had not been previously involved in agricultural production⁷. The unified reserve for redistribution of agricultural land was established by the new Land Code of RF in 2001. This unified reserve included the land which at the moment of the Land Code adoption was in the respective reserves of the federal states. The land at the balance-sheet of the reserve is dynamic; its change (increase or decrease) depends on the redistribution and acquisition of agricultural land within particular calendar year.

The absence of numerically expressed land use targets can be explained by the size of RF and the availability of land resources: at the moment there is sufficient amount of land within each land use category to ensure operation of specific sector of the economy. Therefore, there is no need to set strict targets or forbid land conversion.

3.2 Land use in Russian Federation by land use categories

Table 3.1 presents the dynamics of land use change in RF within the last decade. We observe continuous decrease in the area of agricultural land and reserve land, and increase in the area of all other land use categories except the category "water resource land" which, logically, remains stable. In this section we will have a closer look at the change in the area of agricultural land and land under protected areas and objects.

For example, in Ukraine, which is the neighbor of RF and also one of the former Soviet republics, conversion of agricultural land, in particular arable land is legally forbidden.

In the beginning of 1990s land reform was initiated which aims at decollectivization and privatization of agricultural land which in Soviet times was managed by soviet and collective farms. The general objective of the reform was to create a class of small and middle farming units. To achieve this objective, the land in the possession of state and collective farms was cut in parcels and distributed between the members of state and collective farms.

Table 3.1: Land distribution in Russian Federation by land use categories (million hectares)

Land use by categories	2004	2005	2006	2007	2008	2009	2010	2011	2012
Agricultural land	401.0	401.6	402.6	403.2	402.3	400.0	393.4	389.0	386.1
Land of settlements, including:	19.1	19.1	19.1	19.2	19.4	19.5	19.6	19.7	19.9
- cities and towns	7.9	7.8	7.8	7.8	7.9	8.0	8.0	8.0	8.2
- rural settlements	11.2	11.3	11.3	11.4	11.5	11.5	11.6	11.7	11.7
Land of industry and other specific use	16.7	16.7	16.7	16.7	16.7	16.7	16.8	16.9	16.9
Land under protected areas and objects	34.2	34.2	34.2	34.4	34.4	34.8	34.9	36.5	46.1
Forest land	1104.8	1104.9	1104.9	1105.0	1106.5	1108.5	1115.8	1120.9	1121.9
Water resource land	27.9	27.9	27.9	27.9	27.9	28.0	28.0	28.0	28.0
Reserve land	106.1	105.4	104.4	103.4	102.6	102.3	101.3	98.8	90.9
Land in total	1709.8	1709.8	1709.8	1709.8	1709.8	1709.8	1709.8	1709.8	1709.8

Source: National report "On the State of Land and Land Use in Russian Federation" for 2005, 2006, 2007, 2008, 2009, 2010, 2011 and 2012; Report "Land Fund of Russian Federation" by 1 January 2010, 2011, 2012 and 2013

Table 3.2: Distribution of agricultural land in Russian Federation by land use purpose

I and was norman	200	6	200	7	2008		2009		2010		2011		2012	
Land use purpose	mln ha	%												
Farmland	195.1	48.4	195.6	48.5	196.0	48.7	196.1	49.0	196.1	49.8	196.3	50.5	196.2	50.8
Forests	40.8	10.1	40.7	10.1	39.4	9.8	37.4	9.3	30.9	7.9	29.1	7.5	28.8	7.5
Forest plantations not assigned to forest land	19.3	4.8	19.5	4.8	19.5	4.8	19.4	4.8	19.3	4.9	19.3	4.9	19.3	5.0
Roads	2.3	0.6	2.3	0.6	2.3	0.6	2.3	0.6	2.3	0.6	2.3	0.6	2.3	0.6
Buildings and constructions	1.1	0.3	1.1	0.3	1.1	0.3	1.1	0.3	1.1	0.3	1.1	0.3	1.8	0.4
Water	13.2	3.3	13.2	3.3	13.2	3.3	13.2	3.3	13.2	3.3	13.1	3.4	13.1	3.4
Bogs and mires	25.5	6.2	25.5	6.3	25.5	6.3	25.5	6.4	25.4	6.5	24.8	6.4	24.8	6.4
Other lands	105.3	26.2	105.1	26.1	105.3	26.2	105.0	26.3	105.1	26.7	103.0	26.4	100.0	25.9
Total	402.6	100	403.2	100	402.3	100	400.0	100	393.4	100	389.0	100	386.3	100

Source: National report "On the State of Land and Land Use in Russian Federation" for 2005, 2006, 2007, 2008, 2009, 2010, 2011 and 2012; Report "Land Fund of Russian Federation" by 1 January 2010, 2011, 2012 and 2013

3.3 Agricultural land use

As mentioned in section 2.1, the land use category "Agricultural land" consists of several subcategories, namely "farmland" which is land used specifically for cultivation or fodder production, and a range of other land use types which are used indirectly for agricultural production, for example, land under buildings and constructions, land under roads etc. Looking at the data in Table 3.2, we observe that though the total area of agricultural land has decreased by 4% over the last decade. This was not at the expense of farmland, which area tends to slight increase, but at the expense of the 29.4% (2.9% of total agricultural land) decrease in the area under forests assigned to agricultural land, and the 5 % (1.3% of the total agricultural land) decrease in the area of lands assigned to the subcategory "other lands".

The change in the area of forests assigned to agricultural land is explained by changes in legislation, so that agricultural produces transmitted lands covered with forests to forestry organizations. Such lands are then assigned to the forestry land, and not anymore to agricultural lands.

Farmland within the agricultural land category is further subdivided into arable land, land under perennial plantations, hayland and pastures. The data on land use change for these subcategories is presented in Table 3.3. We observe that the total farmland area has slightly (by 0.9%) decreased in the period from 1990 by 2010. This occurred at the expense of arable land, which decreased by 8% within the same period, and perennial plantations, which decreased by 26.6% within the same period. On the contrary, the area of hayland and pastures and fallow land increased by 4.7% and in 14 times respectively.

The increase in fallow land might indicate the unwillingness of individuals to engage in agricultural production. The National report "On the State of Land and Land Use in Russian Federation in 2011" indicates continuous voluntary refusal to further cultivate farmland because of profitability reasons, and further dissolution of agricultural enterprises and peasant farms. Often, as the procedure of accounting the abandoned farmland is not available, such lands continued to be considered farmland in the ownership or possession of physical or juridical persons. As a result, the actually used farmland may up to 17 mln ha less than indicated in statistical documents (National report "On the State of Land and Land Use in RF in 2011").

The farmland abandoned by agricultural producers is at some point included into the redistribution reserve for agricultural land. Table 3.4 provides data on the dynamics of the reserve for redistribution of agricultural land. We observe that the amount agricultural land in the reserve increases, as well as the amount of farmland. The amount of arable land within the reserve remains stable with slight tendency to decrease. Therefore, the increase in the amount of farmland within the reserve must take place at the expense of other land use subcategories, namely, perennial plantations, fallow land, hayland and pastures. The increase of the reserve for redistribution of agricultural land corroborates the information about the abandonment of land by Russian agricultural producers.

The subcategory "other lands" includes landfills waste dumps, sand, ravines and gullies, and parts of tundra suitable for deer pastures

Table 3.3: Distribution of farmland in Russian Federation by subcategories *(thousand hectares)*

			includi	ng	
Year	Farmland	arable land	fallow land	perennial plantations	hayland and pastures
1990	222409.2*	132304.2*	347.2	2458.3	87899.5*
1991	222407.9*	132068.7*	374,7	3104.3	86860.2*
1992	222486.3*	132004.6*	393.4	2007.2	88081.1*
1993	222122.0*	131587.3*	481.2	1804.7	88248.8*
1994	221794.6*	130656.2*	1097.8	2028.2	88012.4*
1995	221985.2*	130197.6*	1456.4	2102.0	88229.2*
1996	221634.2*	128870.9*	2003.1	1977.2	88783.0*
1997	221491.6*	127825.7*	2501.9	1943.1	89220.9*
1998	221161.8*	126488.6*	2874.6	1854.8	89943.8*
1999	221151.3*	125331.9*	3360.8	1873.0	90585.6*
2000	221088.8*	124373.8*	3927.2	1864.4	90923.4*
2001	221003.6*	123859.6*	4143.3	1857.7	91143.0*
2002	220896.2*	123464.4*	4245.0	1835.4	91351.4*
2003	220832.6*	122558.4*	4556.3	1814.3	91903.6*
2004	220729.7*	122146.0*	4750.2	1809.8	92023.7*
2005	220679.0*	121780.9*	4998.9	1800.4	92098.8*
2006	220632.7*	121573.9*	5144.3	1797.4	92117.1*
2007	220567.9*	121573.5*	5105.7	1794.2	92094.5*
2008	220491.6*	121648.9*	4998.0	1792.7	92052.0*
2009	220,461.6*	121648.7*	4956.2	1803.7	92053.0*
2010	196098.6	115136.5	4376.5	1169.7	75,415.9
2011	196269.0	115149.5	4390.9	1169.5	75559.1
2012	196163.3	115121.0	4369.0	1164.0	75509.3

^{*} including subsistence agriculture

Source: National report "On the State of Land and Land Use in Russian Federation" for 2005, 2006, 2007, 2008, 2009, 2010, 2011 and 2012;

Report "Land Fund of Russian Federation" by 1 January 2010, 2011, 2012 and 2013

Table 3.4: Land redistribution fund in Russian Federation (thousand hectares)

Land use by categories	2004	2005	2006	2007	2008	2009	2010	2011	2012
Land redistribution fund, including:	34863.6	39907.7	43554.8	46581.7	48410.4	50753.4	48819.8	46019.0	45664.1
- farmland, including:	8701.5	9769.7	11315.8	11740.7	11759.7	12043.9	12082.2	11968.8	11801.7
- arable land	n/a	n/a	3641.5	3710.5	3647.2	3681.2	3604.4	3476.2	3352.7

Source: National report "On the State of Land and Land Use in Russian Federation" for 2005, 2006, 2007, 2008, 2009, 2010, 2011 and 2012; Report "Land Fund of Russian Federation" by 1 January 2010, 2011, 2012 and 2013

3.4 Use of land under protected areas and objects

As already mentioned in section 2.2, the land use category "Land under protected areas and objects" is further divided into the land use subcategories "protected areas", "land serving the nature protection purpose", "recreation land", "historic-cultural land" and "particularly valuable lands". The distribution of land by these subcategories is presented in Table 3.5. Most of land is assigned to the subcategory "protected areas" which area has been increasing within the last decade. Lands of other subcategories comprise a minor share with "recreation land" and "health-cultural land" being the next large subcategories covering respectively around 0.5% and 0.04% of land under protected areas and objects. When we look at the distribution of land according to land use purpose (see Table 3.6), we observe that most of land under protected areas and objects has been covered with forest, ranging from 48.2% in 2006 and 38.7% in 2012, and "other lands" their share ranging from 36.6% in 2006 and 47.6% in 2012. Most of protected areas are located within the Far Eastern (39.3%), Siberian (35.8%) and North-Western (12.9%) federal districts (see Table 3.7). This implies that the main strategy in establishing protected areas is to locate the mostly on lands which are not suitable for economic activities, such as agriculture, industrial production, energy generation etc. 11 The significant increase in lands under protected areas and objects in 2012 (by 26.3% in comparison to 2011) and particularly sharp increase in the area assigned to the subcategory "other lands" (by 54.2% in comparison to 2011) is explained by the significant increase (by 4,907.9 million hectares, from 1.627 million hectares in 2011 to 6534.9 million hectares in 2012) in lands assigned to the "areas with tundra vegetation" within the subcategory "other lands". This change occurred in Far Eastern federal district where within 2012 areas with tundra vegetation increased from 515 million hectares to 5422.9 million hectares (by 4907.9 million hectares). The Federal Law "On Protected Areas" was adopted already in 1995 (Law 33 from 14.03.1995 which, however, became outdated due to (1) changes in the legislation related to land and land use, and (2) increasing requirements towards the organization and management of nature protection sites. Therefore, in order to modernize the regulation of nature protection, amendments to the Federal Law were passed in December 2013 and entered in Force on 30th of January 2014 (see Federal Law 406 "On Amendments to the Federal Law "On Protected Areas" and other Legislative Acts" from 28.12.2013). According to these amendments, (1) not only subcategories of land under protected areas and objects are legally determined, but also the particularities of their establishment and development are legally fixed (2) the subcategory "Health and beauty resorts" was abolished; (3) the property rights in protected areas are abolished, instead, property rights in land located within protected areas is introduced; (4) payment for visiting state natural reserves and parks is introduced.

Please observe that the *total area* covered by forests within the land under protected areas and objects has been continuously increasing. The decrease in the share of land covered by forests is explained by the sudden increase in the area of land assigned to the category "land under protected areas and objects" at the expense of the subcategory "other lands".

The subcategory "other lands" includes landfills waste dumps, sand, ravines and gullies, and parts of tundra suitable for deer pastures.

For example, 5.6% of protected areas are located in Ural federal district where extensive areas are covered with taiga and tundra vegetation, however, these areas are also main oil and gas fields within RF.

Table 3.5: Distribution of land under protected areas and objects in Russian Federation by land use subcategories

Land use subcategory,	2006		2007		2008		2009		2010		2011		2012	
including:	mln ha	%												
Protected areas	34.015	99.4	34.215	99.5	34.172	99.5	34.649	99.5	34.756	99.5	36.313	99.5	45.865	98.2
Recreation land	0.160	0.5	0.166	0.5	0.171	0.5	0.174	0.5	0.177	0.5	0.182	0.5	0.183	0.4
Historic-cultural land	0.028	0.08	0.013	0.04	0.013	0.04	0.015	0.04	0.016	0.04	0.016	0.04	0.018	0.04
Total	34.2	100	34.4	100	34.4	100	34.8	100	34,9	100	36,5	100	46.1	100

Source: National report "On the State of Land and Land Use in Russian Federation" for 2005, 2006, 2007, 2008, 2009, 2010, 2011 and 2012; Report "Land Fund of Russian Federation" by 1 January 2010, 2011, 2012 and 2013

Table 3.6: Distribution of land under protected areas and objects in Russian Federation by land use purpose

Land use purpose	2006		2007		2008		2009		2010		2011		2012	
	mln ha	%												
Farming land	0.5	1.5	0.6	1.5	0.5	1.5	0.6	1.7	0,6	1,7	0.6	1.6	0.6	1.3
Forests	16.5	48.2	16.6	48.3	16.6	48.3	17.0	48.9	17,1	49,0	17.1	46.9	17.8	38.7
Forest plantations not assigned to forest land	0.6	1.7	0.6	1.7	0.6	1.7	0.6	1.7	0,6	1,7	0.6	1.6	0.6	1.4
Water	1.8	5.3	1.8	5.2	1.8	5.2	1.8	5.2	1,8	5,2	1.8	4.9	1.8	3.9
Bogs and mires	2.3	6.7	2.3	6.4	2.3	6.7	2.2	6.3	2,2	6,3	2.2	6.1	3.3	7.1
Other land	12.5	36.6	12.5	36.9	12.6	36.6	12.6	36.2	12,6	36,1	14.2	38.9	21.9	47.6
Total	34.2	100	34.4	100	34.4	100	34.8	100	34,9	100	36.5	100	46.1	100

Source: National report "On the State of Land and Land Use in Russian Federation" for 2005, 2006, 2007, 2008, 2009, 2010, 2011 and 2012; Report "Land Fund of Russian Federation" by 1 January 2010, 2011, 2012 and 2013

Table 3.7: Distribution of land under protected areas in Russian Federation by federal districts

Federal districts	2007			2008			2009			2010			2011			2012		
	mln ha	% ^a	% ^b	mln ha	% ^a	% ^b	mln ha	% ^a	% ^b	mln ha	% ^a	% ^b	mln ha	% ^a	% ^b	mln ha	% ^a	% ^b
Central	0.634	1.0	1.8	0.635	1.0	1.8	0.642	1.0	1.8	0.642	1.0	1.8	0.701	1.0	1.9	0.702	1.1	1.5
North-Western	4.346	2.6	12.6	4.347	2.6	12.7	4.351	2.6	12.5	4.351	2.6	12.5	5.961	3.5	16.3	5.962	3.5	12.9
Southern	0.956	1.6	2.8	0.957	1.6	2.8	0.725	1.7	2.1	0.725	1.7	2.1	0.726	1.7	2.0	0.777	1.8	1.7
North-Caucasus ^c	-	-	-	-	-	-	0.249	1.5	0.7	0.249	1.5	0.7	0.249	1.5	0.7	0.249	1.5	0.6
Privolzky	1.131	1.1	3.3	1.084	1.0	3.2	1.074	1.0	3.1	1.183	1.1	3.4	1.183	1.1	3.2	1.185	1.1	2.6
Ural	2.573	1.4	7.5	2.573	1.4	7.5	2.575	1.4	7.4	2.575	1.4	7.4	2.575	1.4	7.1	2.577	1.4	5.6
Siberian	16.048	3.1	46.7	16.051	3.1	46.7	16.513	3.2	47.4	16.513	3.2	47.2	16.470	3.2	45.1	16.500	3.2	35.8
Far Eastern	8.706	1.4	25.3	8.712	1.4	25.3	8.710	1.4	25.0	8.711	1.4	24.9	8.646	1.4	23.7	18.114	2.9	39.3

^a share of land under protected areas and objects within the total territory of the federal district.

Source: National report "On the State of Land and Land Use in Russian Federation" for 2005, 2006, 2007, 2008, 2009, 2010, 2011 and 2012; Report "Land Fund of Russian Federation" by 1 January 2010, 2011, 2012 and 2013

^b share of land under protected areas and objects within the total area of land within this land use category.

^c some data for the North-Caucasus federal district are absent, as the district was established only in 2010 by the Presidential Decree from 19 January 2010. Before that, the district was part of the Southern federal district.

3.5 Conclusion

In the above sections of this report we have observed that land use change in Russian Federation is an ongoing process. This concerns both, the reallocation of land resources among different land use categories (for example, transference of land under forests from the category "agricultural land" to the category "forest land"), as well land use change within single categories (for example, the decrease in arable land and increase in pastures within the category "agricultural land").

Land use change is determined by both, economic/demographic, as well as legislative factors. The former refer to the profitability of agricultural production, demographic changes (in particular decrease of rural population) and willingness to engage into agricultural production. The latter refer to change in legal rules regulating assignment of land resources to specific category, land conversion etc.

The double accounting of land use, i.e. by land use categories and land use purpose (see section 2), is a phenomenon which originated in Soviet times when use of land resources was centrally planned according to the land use objectives also planned centrally. Land conversion within this system was difficult if at all possible (in particular, conversion of agricultural land was prohibited).

The RF system of land use planning and control does not have analogy in most of the European countries (in particular members of the EU) where land use is determined by and carried out in accordance with the plans of territorial development.

According to the opinion of RF experts, the double accounting system for land use in current conditions makes the legal regulation of land use very complex. First, land use categories and land use purpose are regulated and controlled by different authorities. Besides, depending on the case, land use change requires one or two decisions by public authorities: (1) change of land use category, and/or (2) change of land use purpose. For example, if an owner of land planted with forest wants to log the trees and start wheat production, then:

- in case their land is assigned to the "forest" land use category, they need first to convert land into agricultural land (decision on the change of land use category), and then needs to change the land use purpose from land being covered by forests to farmland;
- in case the land is already assigned to agricultural land, then the owner needs only a decision on the change of land use purpose within the land use category from "land under forests" to "farmland".

The RF experts suggest the following arguments against the double system of land use accounting 12:

(1) the duration and opaqueness of the land use change procedures;

Information taken from the article "Territories will be divided into zones" published in the Rossiyskaya Gazeta (RG.ru) on 23.10.2012. Accessed on 20.10.2014 at: http://www.rg.ru/2012/10/23/zemla.html

- (2) absence of clear indicators of sufficient justification of land conversion and the resulting arbitrary decision-making and corruption;
- (3) absence of borders indicating land belonging to different land use categories and, therefore, frequent opacity as to assignment of specific land parcel to specific land use category;
- (4) difficulties in assigning land use categories to land in state and municipal property, as land within these property regimes is not accounted by land use categories.

Because of these considerations, the draft Law "On amendments to the Land Code of Russian Federation and other legislative acts of Russian Federation in the part of transition from land division into categories towards territorial zoning" was considered by the governmental decision from 27 February 2014, and submitted by the RF Government to the RF Parliament for consideration¹³. This law, which, if adopted by the RF Parliament, would enter in force on 1 January 2018, foresees the abolishment of the concept "land use category" and, therefore, the procedures of land assignment to specific category and land conversion. Instead, land use will be regulated by the territorial plans. The procedure of developing territorial plans as well as the procedure of changing the borders of territorial zones is still to be developed. In its current version, the document foresees special regulations to be developed for land in agricultural use in order to protect particularly valuable agricultural lands and prevent their use for other purposes, e.g. constructions.

The expert opinion on the draft law is ambiguous: while some consider it able to solve the problems of opacity in land use accounting and corruption related to land conversion, others consider it possible that the implementation of the law mentioned above might lead to disadvantages for agricultural sector and decrease in soil fertility¹⁴.

http://government.ru/news/10786, accessed on 20.10.2014.

¹⁴ Information taken from the article "Territories will be divided into zones" published in the Rossiyskaya Gazeta (RG.ru) on 23.10.2012. Accessed on 20.10.2014 at: http://www.rg.ru/2012/10/23/zemla.html

4 Land use in Tyumen province

4.1 Land use in Tyumen province by land use categories

The land fund of Tyumen Province comprises slightly more than 16 million hectares. Of these, over 90% belong to the land use categories "Forest land" (around 60%) and "Agricultural land" (around 30%) (see Table 4.1, Figure 4.1 and Figure 4.2). The dominant share of land assigned to these two categories characterized the resource potential and the main pillars of the province economy. Within the last 10 years we observe slight change in the share of forest land and agricultural land in Tyumen province: the former increased by 2%, and the latter decreased by 1% (see Figure 4.1 and Figure 4.2). Other land use categories, such as "Land of settlements", "Land of industry and other specific use", "Land under protected areas and objects", "Water resource land" and "Reserve land" cover altogether only 7-8% of the total land fund in Tyumen province. For these categories only minor change in the share of land has been observed within the last 10 years. Land under protected areas and objects comprised only 2.3% of the territory of Tyumen province (South) in 2013 (see Table 4.1). This could be interpreted as low importance of nature protection on the agenda of Tyumen province; alternatively, the extensive areas covered with forests, in particular in the northern regions, might be considered sufficient to maintain and protect biodiversity, so that there is no need to designate specific areas for that purpose.

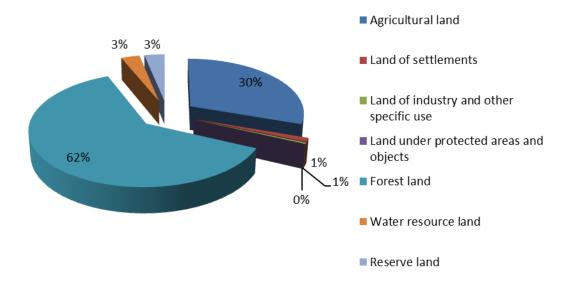


Figure 4.1: Land distribution in Tyumen province (South) by land use categories in 2003 (%)

Source: Own graph, based on the data from the report "On the State of Environment in Tyumen Province" for 2007, 2008, 2009, 2010, 2011, 2012 and 2013

Table 4.1: Land distribution in Tyumen province (South) by land use categories (thousand hectares)

Land use by categories	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Agricultural land	4861.1	4571.3	4573.5	4572.5	4569.8	4570.0	4549.9	4540.0	4540.2	4540.5	4547.1
Land of settlements	180.5	180.7	179.8	179.8	180.9	180.9	204.1	215.1	215.1	215.1	215.1
Land of industry and other specific use	60.8	60.9	61.8	64.2	65.3	65.8	62.7	63.1	63.2	63.3	63.4
Land under protected areas and objects	1.4	1.3	1.3	1.4	2.2	2.2	2.3	2.3	2.3	2.3	2.3
Forest land	9914.3	10259.0	10259.0	10259.2	10259.2	10259.2	10259.2	10257.8	10257.8	10257.8	10257.8
Water resource land	476.5	476.5	476.5	476.5	476.5	476.5	476.5	476.5	476.5	476.5	476.5
Reserve land	517.6	462.5	460.1	458.6	458.3	458.3	457.6	457.4	457.1	456.7	449.9
Land in total	16012.2	16012.2	16012.2	16012.2	16012.2	16012.2	16012.2	16012.2	16012.2	16012.2	16012.2

Source: Report "On the State of Environment in Tyumen Province" for 2007, 2008, 2009, 2010, 2011, 2012 and 2013

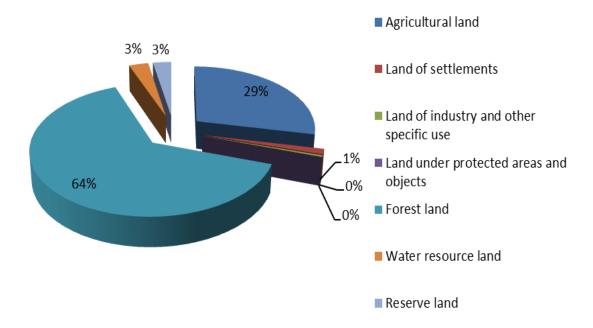


Figure 4.2: Land distribution in Tyumen province (South) by land use categories in 2013 (%)

Source: Own graph, based on the data from the report "On the State of Environment in Tyumen Province" for 2007, 2008, 2009, 2010, 2011, 2012 and 2013

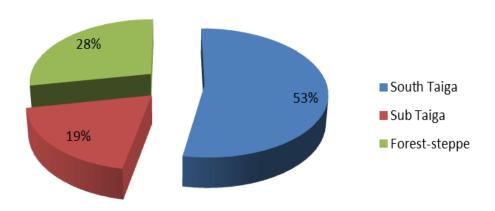


Figure 4.3: Share of land located within different natural-agricultural zones in the total area of Tyumen province (South) in 2013

Source: Own graph, based on the data from the report "On the State of Land and Land Use in Tyumen Province in 2013"

4.2 Agricultural land use

About 30% of land in Tyumen province is assigned to the category "Agricultural land". Most of this land -68% (see Figure 4.4) - is located in the forest-steppe zone¹⁵ which, though comprising only 28% of the Tyumen province territory (see Figure 4.3), is characterized by the most favorable (in the province) natural-climatic conditions for agricultural production.

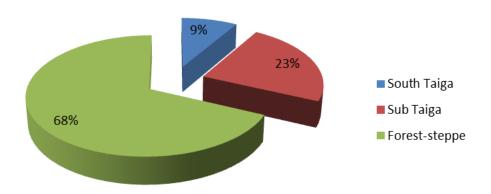


Figure 4.4: Share of agricultural land located within different natural-agricultural zones in the total area of agricultural land of Tyumen province (South)

Source: Own graph, based on the data from the report "On the State of Land and Land Use in Tyumen Province in 2013"

Over 60% of agricultural land in Tyumen province is farmland (see Table 4.2). The rest of land is categorized as nonfarm land and includes areas under water, forests and shrubland, bogs and infrastructure.

The terms "natural-agricultural zone" and "natural-agricultural zoning" are broadly used in RF when talking about land use planning and land management. These concepts are also mentioned in federal legislation: for example, article 14 of the Federal Law "On Land Management" (Law 78 from 18.06.2001) natural-agricultural land zoning is one of the necessary elements of rational land use planning which aims at improvement of land (re)distribution among land use categories in accordance with the potential of economic development and improvement of territorial organization. At the same time, no legal definition, methodology or guidelines of the natural-agricultural zoning is available in Russian legislation. The procedure seems to be inherited from the Soviet times and have scientific rather than legal and administrative foundations. The disciplines related to land management in RF suggest that natural-agricultural zone, as the main unit of land use planning, is characterized by particular balance of warmth and moisture which are further related to the particularities of soil formation processes and mineral nutrition of plants. The borders of such zones are drawn based on the soil and vegetation maps. Within each zone different types and subtypes of soil and vegetation are distinguished, for which, in accordance to their characteristics, a set of agrotechnical and land improvement measures are developed.

Table 4.2: Agricultur	al land in Tyumen	province (South	n) (thousand hectares)
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Land within the category "Agricultural land"	2009	2010	2011	2012	2013
Total, including:	4549.9	4540.0	4540.2	4540.5	4547.1
- farmland	2914.3	2905.1	2905.1	2905.4	2912.1
- nonfarm land	1635.6	1634.9	1635.1	1635.1	1635.0

Source: Own graph, based on the data from the reports "On the State of Land and Land Use in Tyumen Province" for 2009, 2010, 2011, 2012 and 2013

The land which remained after the land sharing process was included in the redistribution fund for agricultural land (see section 2.3). The dynamics of agricultural land within this fund is shown in Table 4.3. Though there are some cases when the land from redistribution fund was included into agricultural land turnover (see year 2012 in Table 4.2), in general we observe that the area of land within land redistribution fund has been increasing, which might indicate the decreasing willingness of individuals to involve in agricultural production.

Table 4.3: Land redistribution fund in Tyumen province (South) (thousand hectares)

Year	Agricultural land within land redistribution fund	
2009	101.8	
2010	106.0	
2011	106.3	
2012	105.1	
2013	111.8	

Source: Own graph, based on the data from the reports "On the State of Land and Land Use in Tyumen Province" for 2009, 2010, 2011, 2012 and 2013

In Table 4.4 (see also Figure 4.5) we observe gradual decline in the area of farmland ¹⁶ starting from 1993. This holds true for all land use subcategories: arable land as well as hayland and pastures. The area under hayland and pastures has been decreasing more rapidly due to significant decrease in the livestock in Tyumen province. Talking about the decrease in farmland, we rather mean the decrease in farmland used for commodity production.

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¹⁶ Here we talk about land use purpose, not land use category.

Table 4.4: Area of farmland in Tyumen province (South) by sub categories (thousand hectares)

	Farmland		including		Farmland used
Year	total	arable land	hayland	pastures	for commodity production ^a
1992	3416.7	1707.6	846.1	744.4	3300.0
1993	3419.1	1700.9	720.2	683.0	3107.0
1994	3418.1	1689.9	699.7	684.2	3085.1
1995	3416.6	1670.6	676.4	666.1	3033.8
1996	3409.5	1564.3	629.7	626.0	2939.7
1997	3406.1	1500.2	585.7	543.2	2766.8
1998	3395.8	1443.8	11	.02.8 ^b	2723.7
1999	3395.5	1428.7	11	.03.3 ^b	2720.5
2000	3004.0	1368.1	428.7	416.2	2349.3
2001	2974.7	1361.9	415.1	403.6	2312.8
2002	2691.2	1272.5	335.5	346.6	2036.0
2003	2586.8	1201.8	323.3	325.6	1938.3
2004	2455.8	1161.4	290.4	302.7	1806.3
2005	2409.5	1157.2	270.6	288.7	1763.6
2006	2347.0	1133.4	258.7	277.4	1709.2
2007	2287.3	1111.2	240.3	255.3	1644.6
2008	2262.2	1097.2	227.8	247.8	1616.7
2009	2259.3	1096.2	225.5	247.0	1618.3
2010	2260.3	1087.0	223.2	245.2	1621.9
2011	2348.9	1117.4	242.3	265.1	1711.6
2012	2355.8	1123.7	244.3	264.8	1712.1
2013	2369.1	1133.4	245.5	265.3	1722.8

^a Meaning here the commodity agricultural production by agricultural enterprises of different legal forms, thus excluding subsistence agricultural production.

Source: Report "On the State of Environment in Tyumen Province" for 2007, 2008, 2009, 2010, 2011, 2012 and 2013

b In the reports from 1998 and 1999 hayland and pastures were accounted together.

Table 4.5: Use of farmland in Tyumen province in the period 1989-2013 (thousand hectares)

T 7	Farmland used for			Including			House	holds		used for gai	_	Total
Year	commodity production	arable land	perennial plantations	hayfields	pastures	fallow land	agricultural land	incl. arable land	fruit gardens	vegetable gardens	animal husbandry	farmland
1989	3397.1	1729.3	1.7	881.1	784.4	0.6	28.8	25.4	4.0	0.3	-	3430.2
1990	3372.1	1718.5	1.9	890.1	761.1	0.5	30.1	26.7	4.5	0.7	-	3407.4
1991	3358.6	1709.6	1.9	889.4	757.2	0.5	33.2	30.2	7.5	9.7	1.1	3410.1
1992	3300.0	1707.6	1.8	846.1	744.4	0.4	34.4	32.1	11.1	9.8	1.1	3416.7
1993	3107.0	1700.9	1.7	720.2	683.0	1.2	33.0	32.9	12.1	10.3	256.7	3419.1
1994	3085.1	1689.9	1.7	699.7	684.2	9.6	39.1	32.7	13.0	8.2	272.7	3418.1
1995	3033.8	1670.6	1.3	676.4	666.1	19.4	39.8	33.2	13.7	6.5	322.8	3416.6
1996	2939.7	1564.3	1.3	629.7	626.0	118.5	41.0	33.5	12.9	9.0	406.9	3409.5
1997	2766.8	1500.2	1.1	585.7	543.8	136.0	54.6	36.4	11.5	8.9	564.3	3406.1
1998	2723.7	1443.8	2.1	1102	2.8^{a}	-	175.0	91.3	58.3	11.7	10.6	3395.8
1999	2720.5	1428.7	1.0	1103	3.3^{a}	-	187.5	116.3	66.7	11.5	8.7	3395.5
2000	2349.3	1368.1	0.9	428.7	416.2	135.4	107.8	69.2	11.4	10.2	525.3	3004.0
2001	2312.8	1361.9	0.9	415.1	403.6	131.3	112.8	72.9	11.5	8.5	529.1	2974.7
2002	2036.0	1272.5	1.0	335.5	346.6	80.4	115.1	73.7	11.5	8.6	520.0	2691.2
2003	1938.3	1201.8	0.9	323.3	325.6	86.7	109.7	69.0	11.5	7.1	520.2	2586.8
2004	1806.3	1161.4	0.8	290.4	302.7	51.0	111.1	70.6	11.5	7.1	519.8	2455.8
2005	1763.6	1157.2	0.8	270.6	288.7	46.3	105.5	72.4	11.6	7.1	521.7	2409.5
2006	1709.2	1133.4	0.9	258.7	277.4	38.8	96.3	69.0	11.6	7.0	522.9	2347.0
2007	1644.6	1111.2	0.7	240.3	255.3	37.1	101.1	72.1	11.8	7.4	522.4	2287.3
2008	1616.7	1097.2	0.7	227.8	247.8	43.2	104.6	66.9	11.9	6.9	522.1	2262.2
2009	1618.3	1096.2	0.5	225.5	247.0	49.1	103.8	65.5	10.6	6.8	519.8	2259.3
2010	1621.9	1087.0	0.6	223.2	245.2	65.9	107.3	66.4	10.7	6.7	513.7	2260.3
2011	1711.6	1117.4	0.5	242.3	265.1	86.3	106.7	71.5	10.7	6.3	513.6	2348.9
2012	1712.1	1123.7	0.3	244.3	264.8	79.0	113.3	75.1	10.8	6.3	513.3	2355.8
2013	1722.8	1133.4	0.3	245.5	265.3	78.3	116.0	77.8	10.8	6.7	512.8	2369.1

^a In the reports from 1998 and 1999 hayland and pastures were accounted together.

Source: Report "On the State of Land and Land Use in Tyumen Province in 2013"

As regards the subsistence agricultural production, the area of land used for its purpose has been increasing starting from 1992 when land reform in Russian Federation was launched, and the population of Tyumen province received shares of agricultural land (see Table 4.5). Besides decrease in the total area used for agricultural commodity production including arable land hayland and pastures, we also observe decrease of land under perennial plantations and vegetable gardens (see Table 4.5 and Figure 4.5). At the same time the area of fallow land has a tendency to increase. As regards the households, here, as already mentioned above, starting from 2006 we observe increase in the area of land used for subsistence production, most of which has been used as arable land.

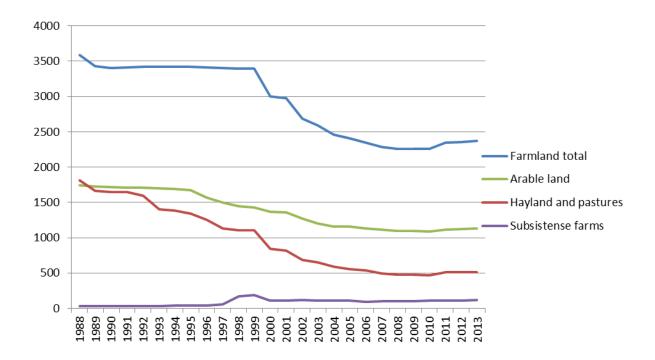


Figure 4.5: Use of farmland in Tyumen province (South) (thousand hectares)

Source: Own graph, based on the data from the report "On the State of Land and Land Use in Tyumen Province in 2013"

The use of farmland, also by different subcategories, is unequally distributed among the three natural-agricultural zones of Tyumen province, but also among different regions within those zones (see Table 4.6). We observe the highest rate of land development in the forest-steppe zone of Tyumen province: here more than 50% of land is used as farmland. In the South Taiga and sub Taiga zines land development constitutes 3.5% and 25.9% respectively. Total farmland within the three natural-agricultural zones is distributed almost equally between arable and fallow land on the one hand, and forage land on the other hand. Forage land, defined as land covered with grass-like vegetation which is used as forage; the category includes both, natural and organized (cultivated) forage land.

Table 4.6: Distribution of farmland in Tyumen by natural-agricultural zones in 2013 (thousand hectares)

				Arable and f	allow land	Forage	land	Perennial pl	antations
Region	Total area	Including farmland	% of land development	thousand	% of agr.	thousand	% of agr.	thousand	% of agr.
				ha	land	ha	land	ha	land
South Taiga zone	8414.3	2907	3.5	143.7	49.4	145.7	50.1	1.3	0.4
Vagaisky	1837.0	118.5	6.5	66.8	56.4	51.7	43.7	0.0	0.0
Tobolsky	1744.4	121.3	7.0	57.8	47.7	62.2	51.3	1.3	1.1
Uvatsky	4832.9	50.9	1.1	19.1	37.5	31.8	62.5	0.0	0.0
Sub Taiga zone	3036.8	785.9	25.9	408.4	52.0	375.3	47.8	2.2	0.3
Aromashevsky	344.6	131.1	38.0	78.5	59.9	52.5	40.0	0.1	0.1
Vikulovsky	579.9	178.9	30.9	94.4	52.8	84.4	47.2	0.1	0.1
Nizhnetavdinsky	735.6	154.5	21.0	79.6	51.5	72.9	47.2	2.0	1.3
Sorokinsky	270.1	119.8	44.4	60.4	50.4	59.4	49.6	0.0	0.0
Yurginsky	440.9	81.2	18.4	46.1	56.8	35.1	43.2	0.0	0.0
Yarkovsky	665.7	120.4	18.1	49.4	41.0	71.0	59.0	0.0	0.0
Forest-steppe zone	4561.1	2306.3	50.6	1171.2	50.8	1127.1	48.9	8.0	0.3
Abatsky	408.0	234.5	57.5	102.6	43.8	131.8	56.2	0.1	0.0
Armizonsky	310.9	143.9	46.3	58.8	40.9	85.1	59.1	0.0	0.0
Berdyuzhsky	282.9	146.9	51.9	77.3	52.6	69.6	47.4	0.0	0.0
Golyshmanovsky	408.5	194.4	47.6	109.5	56.3	84.8	43.6	0.1	0.1
Zavodoukovsky	295.9	131.9	44.6	87.6	66.4	43.9	33.3	0.4	0.3
Isetsky	275.1	140.9	51.2	91.1	64.7	49.5	35.1	0.3	0.2
Ishimsky	555.4	312.9	56.3	154.0	49.2	158.0	50.5	0.9	0.3
Kazansky	309.5	188.5	60.9	99.7	52.9	88.7	47.1	0.1	0.1
Omutinsky	282.8	143.0	50.6	71.5	50.0	71.3	49.9	0.2	0.1
Sladkovsky	402.3	228.7	56.8	92.2	40.3	136.4	59.6	0.1	0.0
Tyumensky	439.0	144.6	32.9	71.7	49.6	68.1	47.1	4.8	3.3
Uporovsky	300.8	171.3	56.9	103.7	60.5	67.6	39.5	0.0	0.0
Yalutorovsky	290.0	124.8	43.0	51.5	41.3	72.3	57.9	1.0	0.8
Total in Tyumen province	16012.2	3382.9	21.1	1723.3	50.9	1648.1	48.7	11.5	0.3

Source: Report "On the State of Land and Land Use in Tyumen Province in 2013"

Since the Soviet times the abandonment of farmland has been taking place in Tyumen province. Its dynamics for the period 2005-2013 is presented in Table 4.7, Table 4.8, Figure 4.6 and Figure 4.7. Starting from 2005 no clear trend in land abandonment can be traced for both farmland, and arable and fallow land. Rather, we observe fluctuations in the demand for land which might be explained by the initiation and cessation of business in agricultural sector.

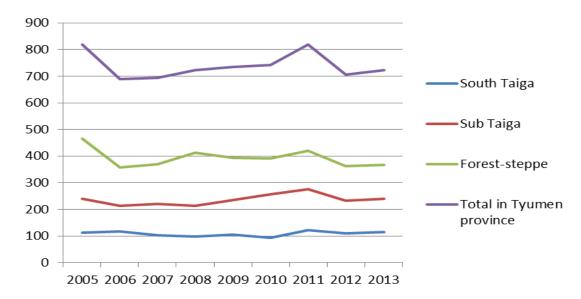


Figure 4.6: Abandonment of farmland in Tyumen province (South) by natural-agricultural zones (thousand hectares)

Source: Own graph, based on data from the report "On the State of Land and Land Use in Tyumen Province" for 2009, 2010, 2011, 2012 and 2013

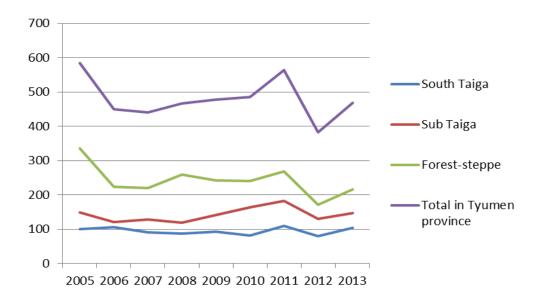


Figure 4.7: Abandonment of arable and fallow land in Tyumen province (South) by natural-agricultural zones (thousand hectares)

Source: Own graph, based on data from the report "On the State of Land and Land Use in Tyumen Province" for 2009, 2010, 2011, 2012 and 2013

Table 4.7: Abandoned farmland in the period 2005-2013 by regions of Tyumen province (thousand hectares)

n .				Aband	oned farmland				
Region	2005	2006	2007	2008	2009	2010	2011	2012	2013
South Taiga zone	113.5	117.8	103.8	98.9	105.3	94.3	122.8	110.9	115.6
Vagaysky	46.1	50.0	50.0	47.7	53.7	30.6	52.8	40.2	47.7
Tobolsky ^a	46.9	48.1	33.5	31.9	32.4	44.2	46.2	51.3	44.2
Uvatsky	20.5	19.7	20.3	19.3	19.2	19.5	23.8	19.4	23.7
Sub Taiga zone	240.4	213.6	221.1	212.2	234.8	255.9	276.0	231.7	240.2
Aromashevsky	31.3	27.9	31.4	33.7	51.0	41.4	50.1	44.9	49.2
Vikulovsky	77.6	68.2	41.3	40.6	40.2	75.8	71.0	70.2	70.5
Nizhnetavdinsky	48.3	48.7	63.5	62.5	66.8	58.5	55.1	51.7	52.0
Sorokinsky	44.2	42.3	48.7	43.6	42.4	43.6	42.2	40.0	36.2
Yurginsky	25.4	13.8	23.8	19.6	23.4	18.8	26.0	14.9	19.7
Yarkovsky	13.6	12.7	12.4	12.2	11.0	17.8	31.6	10.0	12.6
Forest-steppe zone	465.8	357.4	368.9	411.5	393.8	392.0	420.2	363.4	367.6
Abatsky	39.3	31.4	29.0	26.9	31.8	35.9	38.6	33.0	28.6
Armizonsky	46.4	36.1	40.3	38.3	35.2	32.2	33.7	24.4	34.7
Berdyuzhsky	71.4	60.0	60.6	61.2	65.2	69.9	66.2	72.2	60.2
Golyshmanovsky	53.8	28.7	32.0	54.0	32.1	28.7	28.7	34.2	31.3
Zavodoukovsky	9.2	3.7	2.4	1.0	0.0	5.9	7.7	0.1	2.7
Isetsky	17.1	8.7	10.6	14.9	13.9	10.8	13.8	11.8	9.3
Ishimsky ^b	52.5	28.5	34.7	34.6	45.8	62.3	69.0	48.4	49.2
Kazansky	13.1	7.0	16.8	18.1	15.0	24.5	19.7	14.8	14.8
Omutinsky	62.1	55.3	57.2	60.2	56.3	55.4	55.6	55.9	54.5
Sladkovsky	47.7	42.1	42.3	53.4	52.9	34.3	48.5	16.7	45.6
Tyumensky ^c	14.2	13.2	13.0	11.3	5.1	4.1	8.8	4.8	11.2
Uporovsky	24.1	13.9	11.1	11.7	11.1	12.1	10.0	9.9	10.4
Yalutorovsky ^d	14.9	28.8	18.9	25.9	29.4	15.9	19.9	37.2	15.1
Total in province	819.7	688.8	693.8	722.6	733.9	742.2	819.0	706.0	723.4

^a including the territory of Tobolsk city; ^b including the territory of Ishim city; ^c including the territory of Tyumen city; ^d including the territory of Yalutorovsk city.

Source: Report "On the State of Land and Land Use of Land in Tyumen Province" for 2009, 2010, 2011, 2012 and 2013

Table 4.8: Abandoned arable and fallow land in the period 2005-2013 by regions of Tyumen province (thousand hectares)

				Abandone	d arable and fa	llow land			
Region	2005	2006	2007	2008	2009	2010	2011	2012	2013
South Taiga zone	100.2	105.8	91.8	86.7	93.1	82.1	110.6	80.1	103.8
Vagaysky	44.9	48.9	48.9	46.5	52.5	29.4	51.7	25.2	46.6
Tobolsky ^a	43.5	45.8	31.2	29.5	30.0	41.8	43.8	44.2	42.1
Uvatsky	11.8	11.1	11.7	10.7	10.6	10.9	15.1	10.7	15.1
Sub Taiga zone	148.3	120.8	128.6	119.3	142.0	163.2	183.5	131.2	147.7
Aromashevsky	25.5	22.1	25.7	27.9	45.2	35.6	44.3	36.3	43.4
Vikulovsky	41.0	31.7	4.9	4.2	3.8	39.4	34.6	33.8	34.1
Nizhnetavdinsky	26.3	26.7	41.5	40.4	44.8	36.6	33.3	29.9	30.2
Sorokinsky	31.7	29.7	36.3	31.1	29.8	31.1	29.7	25.0	23.7
Yurginsky	15.3	2.9	13.0	8.7	12.6	7.9	15.2	2.5	8.9
Yarkovsky	8.5	7.7	7.2	7.0	5.8	12.6	26.4	3.7	7.4
Forest-steppe zone	335.2	224.0	219.9	260.0	242.3	241.0	269.0	171.5	216.4
Abatsky	32.5	24.6	22.2	20.1	25.0	29.1	31.8	25.3	21.8
Armizonsky	34.7	24.3	28.6	26.1	22.9	20.4	21.8	12.0	22.9
Berdyuzhsky	31.9	19.8	20.4	21.0	25.0	29.7	26.1	20.1	20.1
Golyshmanovsky	41.4	13.3	16.5	38.6	16.6	13.2	13.2	16.0	15.8
Zavodoukovsky	9.2	3.7	2.4	1.0	0.0	5.9	7.7	0.0	2.7
Isetsky	14.3	5.8	7.7	11.7	10.7	7.6	10.6	6.7	6.1
Ishimsky ^b	36.7	12.9	11.2	9.2	20.4	36.8	43.5	20.4	23.7
Kazansky	9.5	3.4	5.4	6.7	3.6	13.1	8.3	3.4	3.3
Omutinsky	31.9	25.1	27.0	30.1	25.7	24.8	25.0	23.3	23.8
Sladkovsky	44.3	38.6	38.9	50.0	49.5	30.9	45.0	13.3	42.2
Tyumensky ^c	11.1	11.1	10.9	9.2	12.7	2.7	7.4	2.9	9.8
Uporovsky	23.5	13.3	10.5	11.1	10.5	11.6	9.4	9.1	9.8
Yalutorovsky ^d	14.2	28.1	18.2	25.2	28.7	15.2	19.2	19.0	14.4
Total in province	583.7	450.6	440.3	466.0	477.4	486.3	563.1	382.8	467.9

^a including the territory of Tobolsk city; ^b including the territory of Ishim city; ^c including the territory of Tyumen city; ^d including the territory of Yalutorovsk city.

Source: Report "On the State of Land and Land Use in Tyumen Province" for 2009, 2010, 2011, 2012 and 2013

4.3 Use of land under protected areas and objects

In their reports "On the State of Land and Land Use in Tyumen Province", the Department of the Federal Service of State Registration, Cadaster and Cartography in Tyumen Province indicates that since 2005 slight increase in land under protected areas and objects (PAs) (see Table 4.9).

Table 4.9: Dynamics of land under protected areas and objects in Tyumen province (South) in the period 2003-2013

Protected areas	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Area, thou. ha	1.4	1.3	1.3	1.4	2.2	2.2	2.3	2.3	2.3	2.3	2.3

Source: Own graph, based on data from the report "On Ecological Situation in Tyumen province" for 2007, 2008, 2010, 2011, 2012 and 2013

This increase takes place mostly due to conversion of agricultural land into the category "Land under protected areas and objects". This category, however, includes not only territories aimed at nature protection, but also recreational and touristic sites. Therefore, the increase in the area of land within the category does not yet indicate the increasing importance of nature protection. For example, in 2009 the increase in the territory of protected areas by took place due to conversion of agricultural land into (1) experimental station for wild animals' reproduction, (2) the recreation zone (summer beach), (3) constructions served by cable-way (tourist site, camping, sport grounds, hotel). In 2010 several hectares of land were converted into tourism and recreation land. Within 2011-2013, no change has occurred in the territory of land under protected areas and objects.

As regards the distribution of land under protected areas and objects among different subcategories, almost 61% belongs to nature protection sites, 30% - to recreation land, and the rest 9% is historic-cultural land (see Table 4.10).

Table 4.10: Distribution of land under protected areas and objects in Tyumen province (South) by subcategories

Land use subcategory,	2010		2011		2012		
including:	thou. ha	%	thou. ha	%	thou. ha	%	
Protected areas	1.4	60.9	1.4	60.9	1.4	60.9	
Recreation land	0.7	30.4	0.7	30.4	0.7	30.4	
Historic-cultural land	0.2	8.7	0.2	8.7	0.2	8.7	
Total	2.3	100	2.3	100	2.3	100	

Source: Report "On the State of Environment in Tyumen Province" for 2007, 2008, 2009, 2010, 2011, 2012 and 2013

The distribution of land under protected areas and objects by land use purpose in 2012 is presented in Table 4.11. Most of land – over 39% –was covered with forests, another 22% were under constructions (we may assume that these are constructions serving tourism and recreation), on 17% of land some agricultural activities took place, 13% of land was covered with water.

Table 4.11: Distribution of land under protected areas and objects in Tyumen province (South) by land use purpose in 2012

Land use purpose	thousand ha	%
Farmland	0.4	17.4
Forests	0.9	39.1
Forest plantations not assigned to forest land	-	-
Water	0.3	13.1
Construction	0.5	21.7
Bogs and mires	-	-
Other land	0.2	8.7
Total	2.3	100

Source: Report "Land Fund of Russian Federation" by 1 January 2013

In its report "On the Ecological Situation in Tyumen Province in 2007" the Government of the province acknowledges that the network of the nature protection sites which had been established by 2000 were not able to fully protect and maintain biodiversity and landscape diversity, because (1) most of zakazniks¹⁷ aimed at protection of game animal species, and did not take into account rare and endangered animals and plants, (2) most of natural monuments were aimed at protection of landscape and recreational resources. To improve the protection of rare and endangered plant and animal species, the "Scheme of location and development of the system of protected areas of regional importance" was adopted in 2002 and amended in 2004 (Government of Tyumen province 2007). The list of protected areas of regional importance is provided in Table 4.11. The largest territory is occupied by protected areas in Tobolsky and Vagaysky region: 138826.38 and 170737.00 hectares respectively. Vikulovsky, Sladkovsky and Yurginsky regions have the largest shares of protected areas within the total region's territory – 12.79%, 11.78% and 14.06% respectively. In comparison to other federal subjects, Tyumen province is characterized by low share of protected areas: currently, taking into account the protected area of regional importance, land belonging to this category comprises 5.26% of the province territory.

[&]quot;Zakaznik [...] is a type of protected area in Russia and other former Soviet republics [...] that meets World Conservation Union's (IUCN) category III, or more frequently category VI criteria. Zakazniks are the areas where temporary or permanent limitations are placed upon certain on-site economic activities, such as logging, mining, grazing, hunting, etc. They correspond to sanctuary in UNESCO World Heritage terminology and literally mean preserves or reserve (from the Russian zakaz - order, reserve)" (Wikipedia http://en.wikipedia.org/wiki/Zakaznik).

 Table 4.12:
 Protected areas (PA) of regional importance in Tyumen province

Darian	Name of PA	Type of DA	Amon of DA ha	Total area of PA	in the region	
Region	Name of PA	Type of PA	Area of PA, ha	ha	%	
	Yeryominsky	Z	5930.00			
Abatsky	Gusiny Ostrov	NM	11.50	6301.54	1.54	
	Konevsky bor	NM	360.04			
Aromashevsky	Alabuga	Z	24750.00	24750.00	7.18	
	Okunevsky	Z	1930.00			
Dandruschalze	Pesochny	Z	930.00	14687.91	5.19	
Berdyuzhsky	Yuzhny	Z	11718.00	14087.91	5.19	
	Solyonoe lake	NM	109.91			
	Suprinsky	Z	28800.00			
	Tukuzsky	Z	40400.00		4.12	
	Monastyrskoe lake	NM	1277.63			
	Taban lake	NM	180.34	7561407		
Vagaysky	Surroundings of Vagay village	NM	62.89	75614.97	4.12	
	Poluyanovsky bor	NM	55.84			
	Rakhimovsky	NM	867.27			
	Chernokovsky lakes system	NM	3472.00			
Vikulovsky	Vikulovsky	Z	74183.00	74183.00	12.79	
Golyshmanovsky	Orlovsky	Z	10500.00	10500.00	2.57	
	Komissarovsky	Z	4000.00			
7	Kolmakovsky park	NM	5.92	4500.60	1 55	
Zavodoukovsky	Novozaimsky park	NM	58.02	4598.68	1.55	
	Padunsky	NM	534.73			
T 1	Rafaylovsky	NM	16750.00	1/77/ 00	ć 10	
Isetsky	Maryino ushchelye	NM	26.88	16776.88	6.10	
	Klepikovsky	Z	12925.00			
	Pesyanovsky	Z	11741.00			
	Beryozovaya roshcha	NM	14.91			
T1' 1 / 1 T1' '/ \	Ishimskie bugry – Gora Lyubvi	NM	99.90	26420.65		
Ishimsky (incl. Ishim city)	Ishimskie bugry – Kuchumova gora	NM	318.79	26428.65	4.76	
	Mineralnie lakes	NM	49.26			
	Narodny park	NM	72.00			
	Sinitsinsky bor	NM	1108.00			

	Afonsky	Z	17215.00		
Kazansky	Dubynsky	Z	10600.00	27894.86	9.01
Ž	Ishimskie Bugry - Afonkinsky	NM	79.86		
	Guzneevo	Z	10884.00		
	Troitsky	Z	32240.00		
	Veselaya griva	NM	501.10		
NY 1	Lipnyak Shaytansky	NM	30.00	50136.14	6.00
Nizhnetavdinsky	Zamorozovsky	NM	2327.16		6.82
	Novoarakchinsky	NM	318.46		
	"Ishimskiy" lake	NM	100.00		
	Urochishche Orly	NM	40.00		
0	Omutinsky	NM	5000.00	47200.00	2.57
Omutinsky	Boloto Ryamovoe	NM	2278.13	47389.00	2.57
	Barsuchye	Z	20507.00		
Cl. 411	Kabansky	Z	2410.00	25,000,00	11.70
Sladkovsky	Tavolzhansky	Z	2717.00	25689.00	11.78
	Brusnichnoe	NM	55.00		
Sorokinsky	Severny	Z	17418.00	17418.00	6.44
	Alabaksky natural-historic complex	Z	88130.00		
	Stershiny	Z	46100.00		
	Tobolsky materik	Z	3581.00		
Tobolsky (incl. Tobolsk city)	Kartashovsky bor	NM	138.65	138826.38	7.96
Tobolsky (flict. Tobolsk City)	Kiselevskaya gora & Chuvashsky mys	NM	92.5	130020.30	7.90
	Medyanskaya roshcha	NM	119.72		
	Surroundings oft he holiday house "Tobolsky"	NM	196.00		
	Panin bugor	NM	468.01		
	Lebyazhye	Z	2769.00		
	Uspensky	Z	5000.00		
	Yembayevo	NM	68.37		
	Kamenskoye	NM	5.00		
	Kulakovo	NM	28.19		
Tyumensky (incl. Tyumen city)	Gagarin forest park	NM	104.80	9400.93	1.93
	Zatyumensky forest park	NM	77.193	8490.82	1.93
	Pripyshimskie bory	NM	315.70		
	Topolya	NM	58.93		
	Uspenskoye	NM	5.92		
	Chervishevsky	NM	12.87		
	Uspensky-2	NM	44.15		

	Kunyaksky	Z	116248.00		
Uvatsky	Povarovsky	Z	12037.00	170737.00	3.53
	Stershiny	Z	42452.00		
	Uporovsky	Z	6920.00		
Uporovsky	Shashovsky 1	NM	636.30	7560.75	2.51
	Shashovsky 2-3	NM	4.46		
	Novo-Tapovsky	Z	10000.00		
Yurginsky	Tapovsky	Z	45000.00	62000.00	14.06
	Yurginsky	Z	7000.00		
	Moshkarinsky	Z	13000.00		
	Bochanka	NM	2250.00		
	Zinovsky kurgan	NM	0.3		5.61
Yalutorovsky (incl. Yalutorovsk city)	Krivoluksky bor	NM	196.98	16262.52	
Talutorovsky (ffict. Talutorovsk city)	Dekabristov roshcha	NM	78.87	10202.32	
	Singulsky forest	NM	729.49		
	Urochishche Buzan	NM	6.83		
	Hohlovsky kurgan	NM	0.06		
	Iyevlevsky	Z	10000.00		
	Borovsky	NM	8.36		
	Ozerny	NM	2822.03		
Yarkovsky	Pikhtovy mys	NM	212.00	17060.55	2.56
	Yuzhakovsky	NM	3726.06		
	Yurtoborovsky	NM	37.18		
	Yazevsky	NM	254.93		
Total of protected areas of regional im	portance	-	843306.65	843306.65	5.27*

^{*} Share of protected areas of regional importance within the total area of Tyumen province (South).

Source: Report "On the State of Environment in Tyumen Province in 2013"

The government of the province aims at increasing this share: by 2015 protected areas should comprise 12% of the province's territory. The land plots to be converted into protected areas are already reserved for the establishment of nature protected areas of regional importance. The distribution of this reserved land over the natural-agricultural zones and regions of Tyumen province is provided in Table 4.13. The data in this table indicates that the future nature protected areas will be located mainly in the three regions of the South Taiga zone. Together with the area of land reserved in Sub Taiga region, 85.64% of future nature protected areas will be located in the regions of Tyumen province which are characterized by unfavorable natural-climatic conditions for agricultural production. In the forest-steppe zone, the land for future nature protection areas was partly reserved in those regions which are characterized by low share in agricultural production of the province (Armizonsky and Berdyuzhsky region).

Table 4.13: Area of land reserved for the establishment of protected areas by natural-agricultural zones and regions of Tyumen province (South)

Natural-agricultural zone / region of Tyumen province	Area, ha	%
South Taiga	857682.0	80.39
Vagaysky	76197.2	7.14
Tobolsky + Vagaysky	113545.6	10.64
Tobolsky	1984.4	0.19
Uvatsky	665954.8	62.42
South Taiga + Sub Taiga	55559.6	5.21
Yarkovsky + Vagaysky	31763.5	2.98
Tobolsky + Yarkovsky	23796.1	2.23
Sub Taiga	430.4	0.04
Vikulovsky	406.0	0.04
Nizhnetavdinsky	0.6	0.00
Yarkovsky	23.8	0.00
Forest-steppe	153154.5	14.36
Armizonsky	83723.2	7.85
Berdyuzhsky	28162.3	2.64
Berdyuzhsky + Kazansky	17753.1	1.66
Zavodoukovsky	21042.2	1.97
Ishimsky	380.9	0.04
Tyumensky	2092.8	0.20
Total	1066826.5	100.00

Source: Own graph, based on data from the report "On Ecological Situation in Tyumen province in 2013"

In general, analysis of the nature protection and its planning in Tyumen province indicates that nature protection areas tend to be established in those areas, which are not very suitable for agricultural production. This means that agricultural production remains of higher importance in Tyumen province and is given the priority when carrying out land use planning.

4.4 Reserve land

Reserve land in Tyumen province comprises less than 3% of the total land fund. Within the last five years we observe slight decrease in the area of reserve land by 7.6 thousand hectares in the period from 2009 to 2013 (see Table 4.14).

Table 4.14: Use of land within the category "Reserve land" in Tyumen province (South) (thousand hectares)

Year	2009	2010	2011	2012	2013
Reserve land, including ^a :	457.5	457.4	457.1	456.7	449.9
Farmland ^b	273.9	273.8	273.8	273.4	266.6
Forests and shrubland	94.0	94.0	93.9	93.9	93.9
Bogs	74.6	74.6	74.6	74.6	74.6
Other land use purpose	15.0	15.0	14.8	14.8	14.8

^a here actual land use or land use purpose are indicated.

Source: Report "On the State of Land and Land Use in Tyumen Province" for 2009, 2010, 2011, 2012 and 2013

Over 50% of reserve land is categorized as farmland by land use purpose. In theory, land use purpose (including farmland) cannot be distinguished within the category "reserve land", as by definition reserve land is land which is owned by public authorities of different administrative levels, and which use purpose is not determined. The fact that farmland is listed within the reserve land category is explained by the imperfections in Russian land use legislation: the farmland within reserve land category covers those areas which cannot be included into the land redistribution fund (which is part of the land use category "agricultural land"). Thus, the latter covers farmland which (1) was confiscated by the state, (2) does not have heirs or these have refused their inheritance for the benefit of the state, or (3) ownership was voluntary renounced by land owners. There are, however, other cases when farmland does not have owners, for example, unclaimed land shares, land degraded to the degree that does not allow its further use as farmland etc. In such cases farmland cannot be included into the land redistribution fund and is therefore included into the category reserve land. Though being distinguished by land use purpose within the category, such farmland does not have any state protection and there's no requirement for this land being converted into agricultural land.

4.5 Conclusion

Land use in Tyumen province is based on the potential for agricultural production which remains the priority land use purpose on political agenda in the province. Being located within three natural-agricultural zones – South Taiga, Sub Taiga and forest-steppe, not all administrative units (regions) of Tyumen province are characterized by conditions favorable for agricultural production. Accordingly, organization and planning of land use by land use categories is adapted to the natural-climatic conditions of single regions. Thus, we observe the

prevalence of forest land in the regions located in South Taiga and Sub Taiga zones, and prevalence of agricultural land in the regions located in the Forest-steppe zone. As regards the nature protection areas, those which are recognized at the federal level constitute only 0.01% of the total territory of Tyumen province, and the location of protected areas of regional importance is organized and planned in such way, that they do not compete for land with agricultural sector.

5 Land conversion in Russian Federation and Tyumen province

5.1 Legal foundations for land conversion

Land conversion in RF is regulated by several legislative acts, main of which are the Land Code of Russian Federation (Law 136 from 25.10.2001) and the Federal Law "On Conversion of Land or Land Plots from One Category into Another¹⁸" (Law 172 from 21.12.2004).

Agricultural sector seems to be particularly protected in the process of land conversion. Thus, in case land is converted from the category "Agricultural land" to some other category, the losses of agricultural production are to be compensated by those who benefit from land conversion. The amount to be compensated is calculated based on the costs of developing new agricultural land and the quality of agricultural land converted (Article 58, Law on land conversion). The monetary funds generated from compensation enter the local budgets and can be further used on land protection (for example, increase of soil fertility), or development of new land (Ibid.). The conversion of agricultural land is much more conditioned than conversion of land belonging to other categories, and is allowed only in exceptional cases (Article 7, Law on Land Conversion). This in particular concerns valuable lands whose cadastral value is 50% or higher than the average cadastral value of land within municipal region.

The decisions on land conversions are taken by authorities at different administrative levels, depending on the proprietor of land in question. Thus, decisions on land in federal property are taken by federal authorities, on land in property of federal subjects – by the executive of those federal subjects, on land in municipal or private property – by local self-governments. Conversion of agricultural land is the only exemption: decisions on its conversion, be it in the state¹⁹, private or municipal property, are taken by the executive of a federal subject. This rule indicates the political importance of maintaining the area of agricultural land which takes its origin in the Soviet Union when decisions on the conversion of agricultural land were taken at the level of agricultural ministries of the Soviet republics.

The exact land conversion procedures, the documents needed and the executives responsible are described in a number of legislative acts, including the Land Code and the Law on Land Conversion. This information is also available at the web-sites of the regional Departments of the Federal Service of State Registration, Cadaster and Cartography²⁰.

As already mentioned in section 2 and section 3.2.3 of this report, the change of the actual land use requires not only conversion of land from one category to another, but also the change of land use purpose. The procedure, as well as the legislative base for the latter, are quite different to those of land conversion. First, land use purposes is based on land zoning, and the list of the allowed land use purposes for specific land plot is to be determined in accordance with some classifier approved at the federal level. The land zoning procedure was developed only for the land use category "Land of settlements". For this land category all bureaucratic and legal procedures take place in accordance with the Town-Planning Code of

¹⁸ Referred further to as the Law on Land Conversion.

Meaning here the property of federal subject.

In Tyumen province the web-site is http://www.to72.rosreestr.ru/.

the Russian Federation (Law 190 from 29.12.2004). For other land use categories neither land zoning procedure nor the classifier of land use purposes exists. This means legal vacuum for the larger part of land in RF – i.e. land assigned to the categories "Forest land", Agricultural land", "Land under protected areas and objects", "Industrial land". This legal vacuum on the one hand prevents building up agricultural land due to absence of clear procedure and the responsible authorities, but on the other hand does not prohibit such actions and provides a room for arbitrary decisions and corruption.

5.2 Land conversion in Russian Federation

Some data on land conversion, in particular on conversion of agricultural land, in Russian Federation are presented in Table 5.1. We observe that land conversion is an ongoing and quite intensive process. In particular the area of industrial land, forest land and land of settlements is increasing at the expense of land conversion. The largest areas are being converted from agricultural to forest land. This, however, does not imply the decrease in the farmland, but indicates that forests managed in Soviet times by the state and collective farms are being "returned" to the land use category to which they belong by their land use purpose. In cases of land conversion to industrial and settlement land we notice the withdrawal of farmland and arable land.

Table 5.1: Conversion of agricultural land in Russian Federation (thousand hectares)

Conversion of agricultural land	2007	2008	2009	2010	2011	2012
To industrial land	81.9	105.8	93,1	145.2	72.6	135.3
- from farmland	63.4	84.1	72.3	58.1	43.6	110.4
- from forest land	3.0	2.8	0.9	1.9	0.6	11.9
To forest land	262.8	1505.0	1903.0	7444.2	5205.4	1119.5
- from agricultural land	n/a	n/a	2400.0	6700.0	4900.0	1100.0
To land of settlements	44.4	46.1	42.3	42.1	33.8	37.0
- from farmland	40.0	41.3	38.5	39.3	26.5	35.6
- from arable land	35.1	31.5	27.6	23.8	18.8	28.3
- from forest land	3.4	2.2	1.6	13.6	29.5	0.3

Source: National report "On the State of Land and Land Use in Russian Federation" for 2005, 2006, 2007, 2008, 2009, 2010 and 2011

Table 5.2: Land conversion in Tyumen province (South) (thousand hectares)

Land converted from			To land use category			In total converted
land use category	Agricultural land	Industrial land	Land of settlements	Protected areas	Water land	from a category
			<u>2009</u>			
Agricultural land	-	383.44	19600.00	16.7	-	20,000.14
Reserve land	1.97	11.22	-		-	13.19
			<u>2010</u>			
Agricultural land	-	379.06	9500.00	6.57	5.16	9,890.79
Reserve land	13.25	9.13	100.00		-	22.38
			<u>2011</u>			
Agricultural land	-	89.47	-	2.64	6.01	98.12
Reserve land	100.04	2.89	-		-	102.93
			2012			
Agricultural land	-	91.29	-	-	-	91.29
Reserve land	400.00	-	-	-	-	400.00
			<u>2013</u>			
Agricultural land	-	216.77	-	0.5	-	217.27
Reserve land	6365.46	8.37	-		-	6,373.83
In total converted to a category	6880.72	1191.64	29200.00	26.41	11.17	-

Source: Own graph, based on data from (1) from the report "On the State of Land and Land Use in Tyumen Province" for 2009, 2010, 2011, 2012 and 2013, and (2) the reports "Conversion of Land from One Land Use Category to Another" for 2009, 2010, 2011, 2012 and 2013

5.3 Land conversion in Tyumen province

The dynamics of agricultural land conversion in Tyumen province in the period 2009-2013 is presented in Table 5.2. We observe two parallel processes: on the one hand, the withdrawal (30297.61 ha) of agricultural land for the needs of industry, settlements and in small amounts protected areas, and on the other hand, the increase (6880.72 ha) in the area of agricultural land at the expense of reserve land

The conversion of agricultural land into industrial land occurred mostly to build, expand or renovate the public roads between settlements. In several cases the converted land was further used for landfills.

In 2009 and 2010 significant conversion of agricultural land into land of settlements was observed. In particular, the borders of Tyumen, Ishim and Yalutorovsk cities were expanded, as well as the borders of (unspecified) settlements in Nizhnetavdinsky and Sorokinsky regions. Please observe that this conversion of agricultural land into the land of settlements does not imply the immediate or future change of the land use purpose. Most of converted land continues to be used as farmland, however within the category "land of settlements". Therefore, the conversion of agricultural land into the land of settlements is not undertaken for its immediate building up, but because of the demographic prognosis of expected increase in the urban population.

The conversion of reserve land into agricultural land, this mostly relates to investment projects: the newcomers who want to start agricultural business within Tyumen province, upon the evaluation of their business plan, may be assigned property rights in land to implement the investment project. Most of this land comes from the category "reserved land" and must be first converted into agricultural land.

PART II:	PROPERTY RIGHTS IN AGRICU	LTURAL LAND	

6 Agricultural transition and land reform in Russian Federation

Agricultural transition which aimed explicitly at change in property relations with regard to agricultural land, and change of legal rules regulating agricultural production, can be conceptualized as institutional change. In this section, let us briefly consider the main steps in this process.

The disadvantages of the Soviet agricultural system as well as the need for its transformation seem to have become obvious already in 1980s. In the process of restructuring agricultural production (perestroika) important role was given to the households²¹, which was the first step in transition towards the organization of agricultural production in small and medium enterprises. In 1987 the approval of the program of economic restructuring²² announced the movement towards decentralization: cooperation and private entrepreneurship were introduced, and the principles of self-financing and "khozraschyot"²³ should have provided partial independence to collective and state farms. The first steps decentralization and privatization of land were taken at the end of the USSR existence, when in 1990 the Law "On Property in the USSR" entered into force. This law, though not acknowledging individual ownership in land, introduced such forms of ownership as:

- "ownership of Soviet citizen", which means that every citizen may invest into shares of an enterprise and participate in the distribution of profit, and
- collective ownership, which included collective undivided ownership (the collective is the owner, individual shares of its members are not be defined) and collective shared ownership (collective is the owner of land, however, land shares are distributed among individual members).

For individuals the concept of "life-long inheritable possession" was introduced.

Individual ownership of land was legalized by the Law "On Land Reform" which entered in force on 23 November 23 1990. Officially, land reform in RF started on 1 January 1991 when two laws – the Law "On Land Reform" and the Law "On Peasant Farm". Later in April 1991 the Land Code and in October 1991 the Law "On Payment for Land" were passed. These legislative acts specified the three forms of land ownership: state, municipal and private, but at the same time introduced a 10-years moratorium on any land transactions. The moratorium was, however cancelled 5 years later by the.

Following the putsch in September 1993, all political reforms, including land and agricultural ones, were regulated not by laws, but by Presidential Decrees.

Following the principles of the Washington Consensus, all changes in legislation pursued the aim of restructuring of agricultural sector which ideally should have been based on family farms or, alternatively, the "modern" legal forms of agricultural enterprises. The very process of creating a new class of agricultural producers was divided into two steps: land sharing and

Decree of the Council of Ministers of USSR and the Central Committee of the Allrussian Communist Party from 8 January 1981 "On Some Steps towards Further Increase of Agricultural Production in Households"

Plenary of the Central Committee of the Communist Party of the Soviet Union on 25 June 1987

The right of the state enterprises to manage the profit which remained after fulfilling their liabilities to the state

land privatization. The initial idea was to divide all agricultural land among the members of state and collective farms. Having received their share, the individuals could leave the large farm and found their own family farm by receiving the land plot in nature and privatizing it. The process, however, was did not quite follow this scenario, and the family farms were not being created at the speed desired, also because of lacking legal regulation of ambiguous legislation.

Looking at the dynamics of farmland distribution among different types of users which is provided in Table 6.1, we observe the gradual overall decrease in land used for agricultural production by 30.3 million hectares in the period 1970-2005. As regards its distribution among different users, we observe decline in the area of land used by agricultural organizations, and at the same time gradual increase in land used by peasant farms and households. Still, agricultural organizations remain the main user of agricultural land: in 2005 they used 72% of the total farmland. This means that agricultural production in RF continues to be dominated by large-scale producers.

Table 6.1: Distribution of farmland by types of land users, by the end of the year (million hectares)

Years	Land used by			includir	<u>1g</u>	
	land users	Agricultural	Peasant farms	Individuals,	inc	luding
	engaged in agricultural production	organizations			Subsistence farms	Collective and individual gardens
			Total ag	ricultural land		
1970	222.0	218.4	-	3.6	3.3	0.3
1975	219.0	215.5	-	3.5	3.1	0.4
1980	219.0	215.5	-	3.5	3.0	0.5
1985	218.4	214.9	-	3.5	2.9	0.6
1990	213.8	209.8	0.1	3.9	2.9	0.9
1991	213.0	194.2	1.3	5.6	4.1	1.4
1992	210.6	180.1	6.5	8.5	6.4	1.7
1993	210.1	175.0	9.7	8.8	5.4	1.8
1994	209.2	173.2	10.1	9.3	5.7	1.8
1995	209.6	171.2	10.4	9.9	5.3	1.9
1997	206.2	165.8	11.7	10.2	5.5	1.7
1998	195.2	163.5	13.0	10.5	5.9	1.5
1999	197.6	161.8	13.5	11.9	5.6	1.5
2000	197.0	157.6	14.5	11.0	5.7	1.6
2001	195.9	154.1	15.9	10.9	6.0	1.6
2002	194.6	150.4	17.0	11.8	6.4	1.5
2003	193.8	147.5	17.8	12.7	6.5	1.5
2004	192.6	142.1	18.7	16.1	6.5	1.5
2005	191.7	137.9	19.5	18.4	6.5	1.4
			Ar	able land		
1970	133.3	130.5	-	2.7	2.6	0.1
1975	133.6	130.9	-	2.8	2.5	0.3
1980	133.9	131.3	-	2.7	2.4	0.3
1985	133.9	131.3	-	2.6	2.3	0.3
1990	131.8	129.0	0.06	2.7	2.3	0.4

1991 131.1 125.8 0.8 3.1 2.6 1992 130.0 119.2 4.7 3.9 3.3 1993 129.5 116.3 7.0 4.0 2.4 1994 128.4 114.8 7.3 4.1 3.5	0.6 0.6 0.6 0.6
1993 129.5 116.3 7.0 4.0 2.4	0.6
1004 1284 1148 73 41 35	0.6
1777 120.4 114.0 /.3 4.1 3.3	0.0
1995 127.6 113.2 7.5 4.5 3.4	0.6
1997 124.5 108.6 8.8 4.6 3.5	0.6
1998 121.6 105.7 9.8 4.4 3.7	0.0
1999 120.9 104.0 10.4 4.9 3.9	0.5
2000 119.7 101.6 11.2 5.8 4.1	0.5
2001 119.1 99.2 12.4 6.3 4.3	0.5
2002 118.4 97.0 13.2 6.8 4.4	0.4
2003 117.5 94.9 13.7 7.4 4.5	0.4
2004 116.8 91.7 14.3 9.2 4.6	0.4
2005 116.1 88.8 14.7 10.8 4.6	0.3
Forage land	
1970 86.4 86.0 - 0.4 0.4	-
1975 84.0 83.7 - 0.4 0.4	-
1980 83.7 83.4 - 0.3 0.3	-
1985 83.0 82.7 - 0.3 0.3	-
1990 80.1 79.8 0.04 0.3 0.3	-
1991 79.7 67.5 0.4 1.3 1.2	-
1992 78.3 60.0 1.8 3.3 2.8	-
1993 76.3 57.7 2.6 3.4	-
1994 77.8 57.0 2.8 3.8 2.0	-
1995 78.6 56.4 2.8 3.9 1.7	-
1997 77.6 54.8 2.8 4.2 1.8	-
1998 69.7 55.3 3.1 4.8 2.0	0.0
1999 72.6 55.3 3.1 5.7 1.5	0.0
2000 72.6 53.1 3.2 3.8 1.4	0.0
2001 72.2 52.0 3.4 3.2 1.4	0.0
2002 71.6 50.5 3.7 3.4 1.7	0.0
2003 71.5 49.7 4.0 3.7 1.7	0.0
2004 70.9 47.6 4.3 4.9 1.7	0.0
2005 70.5 46.3 4.6 5.5 1.7	0.0

Source: Statistical compilation "Russia in Numbers" for 2003 and 2008, prepared by the Federal Service of State Statistics

In order to accelerate agricultural restructuring, the Presidential decree On Immediate Measures for Implementation of Land Reform required from all collective and state enterprises to change their legal form and register this by the end of 1992. The law suggested the following possible forms for the enterprises:

- collective farm
- state farm
- limited liability partnership
- closed joint stock company
- open joint stock company

- agricultural producers' cooperative
- collective enterprise and
- individual farms

Brooks and Lerman (1994) suggest that "[t]he differences between and among ... [the] collective forms of organization (the first seven items in the list above) are not always clear to participants in the process" and "the registration mandated in 1992 has created a number of similar organizations with different names and unclear procedures for operation".

Both, the World Bank reports as well as the National report "On the State of Land and Land Use in Russian Federation" indicate that in many cases reorganization of the state and collective farms did not go beyond changing their legal form on paper. Specifically, the property rights in land used by agricultural organizations remain poorly defined. Often this land is being used without proper legal documents indicating land tenure.

The establishment of peasant farms was possible in two ways:

- 1. for the members of state and collective farms by exiting the farm with their land plot received in the process of land sharing, or
- 2. for all other citizen of RF who wish to engage in agricultural production, applied to local authorities for land, and were allocated land from land redistribution fund or agricultural land in state property which was not subject to sharing

The size of a land plot in both cases above varies among federal subjects of RF. The size of plots received in the course of land sharing was determined by the regional authorities. This was multiplied by the number of state and collective farm members, thus determining the amount of land subject to sharing within those farms. The rest of agricultural land which remained after the sharing process was included in the land redistribution fund. Brooks and Lerman indicate that in 1993 the size of peasant farms established in this way varied "from 30 hectares in Moscow Province, to 80 hectares in Rostov Province, and 350 hectares in Saratov Province" and the "Russian average in January 1993 was 42 hectares per peasant farm".

The size of plots to be allocated to citizens wishing to establish a peasant farm is determined by the public authorities of a federal subject²⁴. In Tyumen province the Law of Tyumen Province On the Size of Land Allotment²⁵ indicates the following:

- 1. Land plot for peasant farms: maximum size 140 ha, minimum size 5 ha;
- 2. Land plot for animal production: maximum size 5 ha, minimum size 1 ha;
- 3. Land plot for horticulture: maximum size 0.4 ha, minimum size 0.03 ha;
- 4. Land plot for dacha building: maximum size 0.2 ha, minimum size 0.04 ha.

In Tables 6.2 and 6.5 below, we may observe the dynamics of peasant farms in the period 1990-20012 and land privatization by households in the period 1990-2006.

Law 131 approved by the Parliament of Tyumen Province on 7 April 2003, version from 2 June 2014.

²⁴ See also Article 33 of the Land Code from 25.10.2001.

Table 6.2: Number of peasant farms by the end of the year

Year		Peasant farms	
	Number, thousand	Area, thousand ha	Average size, ha
1990	4.4	181	41.1
1991	49.0	2068	42.2
1992	183.4	7810	42.6
1993	269.9	11339	42.0
1994	278.1	11834	42.6
1995	279.1	11982	42.9
1996	278.6	12139	43.6
1997	274.3	13045	47.6
1998	270.2	13845	51.2
1999	264.6	14484	54.7
2000	263.7	15369	58.3
2001	263.9	14290	54.1
2002	267.6	13744	51.4
2003	272.0	14109	51.9
2004	275.2	14505	52.7
2005	267.5	14911	55.7
2006	269.6	15100	56.0
2007	267.0	15500	58.1
2008	267.0	15900	59.6
2009	265.1	16100	60.7
2010	261.7	16300	62.3
2011	260.5	16600	63.7
2012	259.2	16800	64.8

Source: National report "On the State of Land and Land Use in Russian Federation in 2012"

In case of peasant farms we observe quite sharp increase in their number till 1995, and slight gradual decrease in the following years (see Figure 6.1). At the same time the area of land and used by peasant farms as well as the average size of a farm tend to increase (see Figure 6.2). This allows us to assume the process of farm consolidation and enlargement.

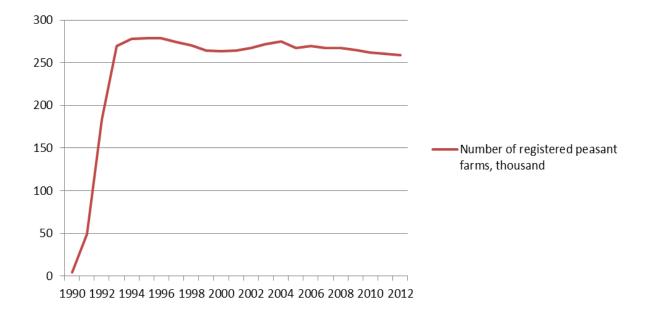


Figure 6.1: Dynamics of registered peasant farms in Russian Federation (thousand)

Source: National report "On the State of Land and Land Use in Russian Federation in 2012";
Statistical compilation "Russia in Numbers" for 2003 and 2008 prepared by the Federal Service of State Statistics

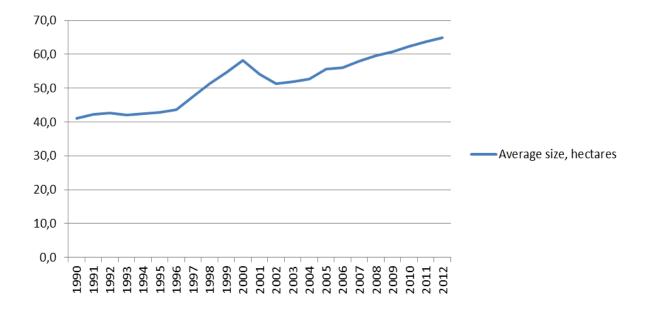


Figure 6.2: Dynamics of peasant farm size in Russian Federation (hectares)

Source: National report "On the State of Land and Land Use in Russian Federation in 2012";
Statistical compilation "Russia in Numbers" for 2003 and 2008 prepared by the Federal Service of State Statistics

Looking at the structure of ownership of land used by peasant farms for agricultural production (see Table 6.3), we observe gradual decrease in the share of land owned by the peasant farms and the area of land in life-long inheritable possession²⁶. At the same time, the share of rented land tends to increase and reached almost 50% in 2012.

Table 6.3: Structure of ownership of land used by peasant farms for agricultural production (%)

Year	Land owned by peasant farm	Rented	Land in life-long inheritable possession
2006	43.3	43.5	8.4
2007	42.5	45.1	7.9
2008	41.5	46.8	7.6
2009	41.4	47.6	7.3
2010	40.9	48.5	7.0
2011	40.7	49.3	6.7
2012	40.7	49.9	6.4

Source: National report "On the State of Land and Land Use in Russian Federation" for 2005, 2006, 2007, 2008, 2009, 2010, 2011 and 2012

Some sources doubt the reliability of information on the number of peasant farms in Russian Federation. Thus, the Russian Party of Rural Revival (Rossijskaya Partiya Vozrozhdeniya Sela)²⁷ suggests that the Russia-wide agricultural census of 2006 discovered that of 255 thousand peasant farms registered in 2006 only 126 thousand were operating, the rest half of peasant farms were recorded on paper but did not actually exist.

This piece of information is somewhat corroborated by the data on agricultural land abandoned due to liquidation of agricultural organizations and peasant farms which since 2006 appears in the National report "On the State of Land and Land Use in Russian Federation" (see Table 6.4). This land, though not de facto used for agricultural production, continues to be recorded as land used by operating agricultural producers because the issue regarding its ownership and belonging to specific land use category has not been solved. As we observe from data in Table 6.4, the area of such land for both agricultural organizations and peasant farms has been increasing in the period 2006-2012, what can significantly distort the picture of agricultural production in RF.

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The decrease in the share of this type of property rights in agricultural land can be explained either by the overall increase in the area of land used by peasant farms for agricultural production (see Table 2.1.2), or by privatization of such land by its possessors in accordance with the target of the new Land Code of RF (2001) to liquidate this form of property rights in land.

²⁷ The information dated with 27 August 2012 was found on the web-site of the Russian Party of Rural Revival (Rossijskaya Partiya Vozrozhdeniya Sela) http://партиявозрождениясела.рф/, accessed on 6 November 2014.

Table 6.4: Abandoned agricultural land of liquidated agricultural organizations and peasant farms still recorded as land used in agricultural production

Year	Agricultural enterprises, million hectares	Peasant farms ^a thousand ha
2006	11.0	100.0
2007	14.0	200.0
2008	15.6	230.0
2009	16.2	238.9
2010	17.0	258.2
2011	16.6	292.0
2012	16.6	319.2

^a including individual entrepreneurs

Source: National report "On the State of Land and Land Use in Russian Federation" for 2005, 2006, 2007, 2008, 2009, 2010, 2011 and 2012

The available data on the dynamics of subsistence farms suggests the gradual increase in the number of subsistence farms within the period 1990-2006, increase in the area used by households for agricultural production, and, therefore, the increase in the average size of subsistence farm (see Table 6.5).

Table 6.5: Subsistence farms in Russian Federation, by the end of the year

Year	No of households engaged in agricultural production, million	Land area used by households for agricultural production, thousand hectares	Average area of land per household, hectares
1990	16.3	3250	0.20
1992	19.3	6826	0.35
1995	16.3	5810	0.36
1996	16.3	5805	0.36
1997	16.4	5923	0.36
1998	16.0	6433	0.40
1999	15.5	6137	0.40
2000	16.0	6243	0.39
2001	16.0	6545	0.41
2002	15.9	6914	0.43
2003	16.0	7014	0.44
2004	16.0	7078	0.44
2005	16.0	7050	0.44
2006	17.5	8901	0.51

Source: Statistical compilation "Russia in Numbers" for 2003 and 2008

Most of land used by subsistence farms is owned by households and the share of own land has been increasing (see Table 6.6). The share of land in life-long inheritable possession is decreasing, the reasons being similar to those in case of peasant farms. The rented land in case of households often means the land plots of other households who are unwilling or unable to engage in agricultural production, or the pastures and hayland used collectively by all subsistence producers in a village.

Table 6.6: Ownership of land used by subsistence farms for agricultural production (%)

Year	Land owned by peasant farm	Rented in	Land in life-long inheritable possession
2005	69.0	12.1	6.5
2006	67.7	12.7	6.8
2007	69.0	12.1	6.6
2008	69.9	12.4	6.2
2009	71.3	12.0	5.9
2010	72.4	12.0	5.5
2011	73.2	11.9	5.2
2012	73.8	11.9	4.8

Source: National report "On the State of Land and Land Use in Russian Federation" for 2005, 2006, 2007, 2008, 2009, 2010, 2011 and 2012

Besides the processes of land distribution and privatization, the process of land demarcation is of particular importance. Land demarcation aims to distribute the land in state property among Russian Federation, federal subjects and municipalities in order to facilitate its management and administration. The dynamics of change in the ownership of agricultural land within the last 8 years is provided in Table 6.7. The column containing the data on land ownership by individuals demonstrates the decline of land in ownership of individuals which might have the following causes:

- Unwillingness to work on agricultural land and voluntary renunciation of land ownership;
- Demographic changes (aging of population holding land shares and land plots);
- Transference of agricultural land (or land shares) owned by individuals but used by juridical persons into the ownership of juridical persons.

The column 'Land owned by juridical persons' indicates the process of legalizing ownership of and property rights in agricultural land by different forms of agricultural organizations, but also individual entrepreneurs. This process is the next step for agricultural producers after having changed the legal form of their enterprise.

2,162.0

2,783.7

3,426.2

4,552.1

9,800.0

11,500.0

12,900.0

14,000.0

2009

2010

2011

2012

119,500.0

117,600.0

115,700.0

114,300.0

Year			Land in own	ership of:					
	individuals juridical persons		state and Russian municipalities ^a Federation		subjects of Russian Federation				
2005	120,700.0	5,000.0	275,801.7	320.8	548.1	45.1			
2006	120,300.0	5,700.0	276,526.4	1,760.2	2,360.2	91.4			
2007	121,600.0	6,800.0	274,814.9	3,191.5	5,197.6	1,248.5			
2008	120,700.0	8,200.0	273,361.2	3,144.7	5,750.1	1,582.2			

270,677.3

264,288.0

260,378.4

257,799.1

3,632.1

8,403.0

8,308.4

8,477.0

6,412.0

6,879.7

7,699.2

7,971.3

Table 6.7: Structure of ownership of agricultural land (thousand hectares)

Source: National report "On the State of Land and Land Use in Russian Federation" for 2005, 2006, 2007, 2008, 2009, 2010, 2011 and 2012

The last four columns in Table 6.7 indicate the dynamics of land demarcation among different levels of the state. We observe that the area of land administered jointly by the state and municipalities (the land which is to be demarcated) tends to decrease gradually, though remains the dominant form of ownership of agricultural land. At the same time the area of land administered by the federal authorities, authorities of federal subjects and municipalities has been increasing. The process of land demarcation is very slow, high costs being one of the reasons.

The dynamics of agricultural land demarcation is in more detail presented in Table 6.8 which shows not only the increase in the ownership of agricultural land by the state authorities at three administrative levels, but also informs about the further use of this land. We observe that the lease of land in state ownership to juridical persons and individuals has been increasing, especially by municipalities. Significant area of land owned by Russian Federation and its subjects is being allotted into the usufruct of juridical persons (see the Glossary for the definition). The area of such land has been increasing. At the level of municipalities the area of agricultural in the (life-long inheritable) possession of individuals has been increasing. This land was allotted to individuals before the new Land Code of 2001 entered into force²⁸. In the process of land demarcation such land is frequently assigned to the land of municipalities and does not imply the increase in the total area of agricultural land allotted into life-long inheritable possession.

^a The category indicates the land which ownership has not been demarcated and which is managed jointly by public authorities at different administrative levels.

This for of land use is the remnant of land redistribution process of early 1990s, when private property in land was not yet recognized, however, each citizen of the Soviet Russia was granted a right to receive a plot in life-long inheritable possession. Article 20 of the new Land Code (2001) prohibits the allotments of land into lifelong inheritable possession, and no such allotments have been made since 25 October 2001.

Table 6.8: Change in the area of agricultural land in different categories of ownership due to land demarcation (thousand hectares)

Year	Land owned by:															
	<u>Russian Federation</u> <u>Subjects of Russian Federation</u>								Municipalities	<u>palities</u>						
	Total	Allotted into usufruct of juridical persons	Leased to juridical persons	Total	Leased to juridical persons	Allotted into usufruct of juridical persons	Total	Allotted into possession of individuals	Leased to individuals	Allotted into usufruct of juridical persons	Leased to juridical persons					
2005	320.8	227.2	57.6	548.1	311.7	-	45.1	0.8	-	13.8	6.7					
2006	1760.2	1280.1	321.3	2360.2	736.3	423.4	91.4	1.6	0.6	16.3	17.5					
2007	3200.0	2300.0	500.0	5200.0	1900.0	900.0	1200.0	24.4	200.0	45.8	900.0					
2008	3100.0	2100.0	600.0	5800.0	2200.0	1100.0	1600.0	24.1	230.3	100.0	900.0					
2009	3600.0	2300.0	800.0	6400.0	2500.0	1100.0	2200.0	25.6	324.8	200.0	1200.0					
2010	8400.0	3200.0	1000.0	6900.0	2600.0	1200.0	2800.0	26.2	510.4	180.2	1518.3					
2011	8300.0	3200.0	1200.0	7700.0	3000.0	1400.0	3400.0	33.0	608.7	391.6	1668.8					
2012	8500.0	2900.0	1500.0	8000.0	3100.0	1400.0	4600.0	58.9	697.8	403.9	2195.5					

Source: National report "On the State of Land and Land Use in Russian Federation" for 2005, 2006, 2007, 2008, 2009, 2010, 2011 and 2012

7 Agricultural transition and land reform in Tyumen province

Agricultural and land reforms in Tyumen province followed the path of reforms in other regions of Russian Federation. Thus, agricultural reforms first of all included such steps as decollectivisation of agricultural enterprises and establishment of new organizational and legal forms in agriculture. Agricultural reforms in particular aimed to create a strong class of family farmers similar to those found in developed countries. Land reforms were an important constituent of agricultural reforms and proceeded by the steps of land sharing and privatization with the final aim to establish land market. The detailed information on the first years of agricultural transition in Tyumen province is difficult if at all possible to access. The Decree 88 of the Governor of Tyumen province from 18 April 2000 "On the Province Program 'Development of Land Reform in Tyumen Province for 2000-2002" summarizes the main achievements of land reform by 1999 as follows:

- (1) The land owned by households increased by 21.1 thousand hectares (33%);
- (2) Arable land under collectively owned vegetable gardens increased by 1229 hectares (14%);
- (3) 2603 peasant farms were established, who were granted private property rights in 313.7 thousand hectares of land. At the same time dissolution of peasant farms is observed accompanied by enlargement of the remaining peasant farms;
- (4) State and collective farms were reorganized. 1885.9 thousand hectares of arable land managed by them were shared among 158 thousand of workers of these state and collective farms:
- (5) Land redistribution fund with 331 thousand hectares of agricultural land was formed;
- (6) 1943.2 hectares were transferred into the property of citizens;
- (7) By 1 January 1999 60% of agricultural land and 15% of land of settlements was owned by citizen and collective enterprises;
- (8) Land titles were issued for 214.5 thousand (47%) land owners and land users;
- (9) Titles on land shares were issued for 148,3 thousand (95%) of land share owners.

At the same time the Decree 88 mentioned above observes that within the first stage of land reform (1990-1999) the reform processes were inconsistent, haphazard and slow. Most of this was explained by the absence (at that point of time) of the Land Code of Russian Federation²⁹, as well as weak legislative framework within the province itself. The decree admits that the first phase of land reforms did not solve all the tasks: many owners of land share did not exercise their rights in land, the process of land transfer to the effective agricultural producers was slow, new forms of agricultural producers which emerged as the result of land privatization and reorganization of agricultural organizations were not able to increase productivity of agricultural land. Thus, about 47% (888 thousand hectares) of privatized agricultural land was transferred into property of individuals not involved in land cultivation (e.g. retired persons), also many cases of renunciation of property rights in land took place Also the responsibility of agricultural producers when leasing land shares was not determined. As a result, by the end of 1999 104.9 thousand hectares of agricultural land was uncultivated, and in the period 1991-1999 decrease in the area of farmland was observed, in particular in the area of arable land. Arable land was often transformed into fallow land or less valuable fodder land.

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 $^{^{29}}$ The new Land Code of Russian Federation was adopted on 25.10.2001.

 Table 7.1
 Distribution of land in Tyumen province by property rights (thousand hectares)

Land use category	Total land	In private pro	operty of	In state and	In federal	In property of	In municipal
	_	citizens	juridical persons	municipal property*	property	Tyumen province	property
			2009				
Agricultural land	4549.9	1903.4	44.3	2489.2	74.8	38.2	-
Land of settlements	204.1	40.6	3.8	151.4	5.1	3.2	1.0
Land under protected areas	2.3	-	0.2	1.0	-	1.1	-
Total land	16012.2	1944.0	49.1	13854.7	107.4	56.0	1.0
			<u>2010</u>				
Agricultural land	4540.0	1894.8	48.4	2468.8	63.5	64.5	-
Land of settlements	215.1	41.6	4.1	159.4	4.5	3.9	1.6
Land under protected areas	2.3	-	0.2	1.0	-	1.1	-
Total land	16012.2	1936.4	53.5	13841.7	95.9	83.1	1.6
			<u>2011</u>				
Agricultural land	4540.2	1 764.6	54.2	2536.2	63.5	121.4	0.3
Land of settlements	215.1	41.6	4.7	157.7	4.7	4.6	1.8
Land under protected areas	2.3	-	0.2	1.0	-	1.1	-
Total land	16012.2	1 806.2	59.9	8647,7	5 354.0	142.3	2.1
			2012				
Agricultural land	4540.5	1732.4	70.1	2475.1	63.5	39.7	159.7
Land of settlements	215.1	42.2	5.1	156.2	5.1	4.1	2.4
Land under protected areas	2.3	-	0.2	1.0	-	1.1	-
Total land	16012.2	1774.6	76.2	8584.7	5354.4	60.2	162.1

^{*} The category includes the land in joint property of the state and municipalities, i.e. the property rights in land have not yet been demarcated.

Source: National report "On the State of Land and Land Use in Russian Federation" for 2005, 2006, 2007, 2008, 2009, 2010, 2011 and 2012

Table 7.2: Land in private property of citizens (hectares)

Land ownership Land owned by citizen, including:		Total area by all land use categories						Agricultural land				
		2010	2011	2012	2013	2009	2010	2011	2012	2013		
		1930.6	1806.2	1774.6	1765.3	1903.4	1889.0	1764.6	1732.4	1722.6		
1. Land shares, including	1742.6	1663.1	1536.5	1503.9	1473.8	1735.1	1655.6	1529.2	1496.7	1466.5		
- unclaimed land shares	468.6	441.6	300.8	292.6	288.3	462.0	435.3	294.5	286.4	282.2		
2. Agricultural land in collective property	0.8	0.8	0.8	0.8	7.4	0.8	0.8	0.8	0.8	7.4		
3. Peasant farms	48.1	47.9	46.8	46.9	47.1	47.2	47.1	46.0	46.1	46.3		
4. Subsistence farms	104.2	108.6	102.0	112.6	111.5	76.5	80.6	73.8	84.1	82.9		
5. Fruit gardening	5.8	6.0	6.0	6.1	6.2	3.5	3.5	3.5	3.6	3.6		
6. Vegetable gardening	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4		
7. Individual housing	1.9	2.4	2.4	2.6	2.8	-	-	-	-	-		
8. Individual entrepreneurs	4.8	4.8	3.0	8.5	8.5	4.8	4.8	3.0	8.5	8.5		
9. Land bought out for non-agricultural purpose	2.0	0.3	0.3	0.3	0.5	1.8	-	-	-	-		
10. Owners of land plots	33.3	96.2	107.9	92.4	90.0	33.3	96.2	107.9	92.2	90.0		
11. Land used for other purposes	-	-	-	-	17.0	-	-	-	-	17.0		
Land owned by juridical persons, including:	49.1	53.5	59.9	76.2	88.7	44.3	48.4	54.2	70.1	82.6		
1. Land registered as property of juridical persons in form of a share in the collective property in agricultural land plot	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9		
2. Land owned by agricultural organizations	39.0	43.2	49.5	65.1	77.5	38.2	42.3	48.1	64.0	76.4		
3. Plots bought out by privatized non-agricultural enterprises	2,5	2,7	3,6	4,2	4,3	-		-	-	-		
4. Land in collective use of non-commercial associations of citizens	1.8	1.8	1.8	1.8	1.8	1.2	1.2	1.2	1.2	1.2		
5. Peasant farms which were not reregistered ^a	4.0	4.0	4.0	4.0	4.1	4.0	4.0	4.0	4.0	4.1		
6. Land used for other purposes	0.9	0.9	0.1	0.2	0.1	-				-		
Total area of land in private property	1993.1	1984.1	1866.1	1850.8	1854.0	1947.7	1937.4	1818.8	1802.5	1805.2		

^a Within the first phase of land reform the newly founded peasant farms in accordance with the Civil Code of RF were registered as juridical persons with corresponding implications for taxation, financial and statistical reporting. The letter of the Ministry of Justice from 30 April 1999 announced reregistration of all peasant farms from juridical into physical persons. Some peasant farms did not reregister and continue operating as juridical persons.

Source: Report "On the State of Land and Land Use in Tyumen Province" for 2009, 2010, 2011, 2012 and 2013

As many of land reform s objectives were not achieved within the period 1991-1999, the same tasks of land demarcation, land sharing and land privatization continued within the next stage of land reform. The official data on land sharing and privatization process, as well as the dynamics of property rights in land is available only for the period 2009-2013 and is presented in details in the Tables 7.1, 7.2, 7.3, 7.4, 7.5, 7.6, 7.7 and 7.8 below.

The data in Table 7.1 indicates that most of land in Tyumen province – over 88% in 2013 – is in property of the state and municipalities. Land in private property of physical and juridical persons constituted only 11.6% in 2013 and its share tends to decrease. The land use category "Agricultural land" contains the largest share of land in private property – around 40%, this share has been decreasing within the period 2009-2012 which indicates the decreasing interest of citizen to engage in agricultural production or own agricultural land plots.

Table 7.2 indicates that the total area of land, also the total area of agricultural land, owned by physical and juridical persons of Tyumen province has a tendency to decrease. Looking at the dynamics by single land use or land user categories we observe the decrease in the area of land shares owned by citizens. Most plausible explanations to this phenomenon are (1) voluntary renunciation of property rights in land shares, (2) loss of property rights in land due to death of the owner or other similar reasons, (3) partition of land in kind, so that owners of land shares become owners of land plots instead and fall under another category. As we observe. Most of land, also agricultural land, is in private property of physical persons. Only 2.5% of total private land was in hands of juridical persons in 2009. However, this share has been increasing and reached 4.8% in 2013 mostly due to enlargement or increase in number of agricultural organizations. For agricultural land we observe the similar trend; here, share of land in private property of physical persons increased from 2.2% in 2009 to 4.6% in 2013. Specifically for agricultural land we observe slight decrease in the area in the private property of peasant farms, at the same time the area of land in collective property, private property of individual entrepreneurs and private property of subsistence farms increased. Thus, we continue observing ongoing structural change in agriculture with increase in agricultural enterprises and subsistence farms and gradual decrease in peasant farms. More details on structural change in agricultural change in Tyumen province is provided in Table 7.3³⁰ which indicates number of physical and juridical persons as well as the number of land plots and land area involved in different types of agricultural land use. The data suggests that the largest area of land in private property is used in mowing and pasturing; this type of land use also involves the largest number of physical persons. This means that meat animal husbandry in households (as there are no juridical persons involved) is of high importance, though its dynamics is slightly negative within the last five years. Alternatively, is might also indicate the disinterest of citizen to cultivate land in their property. Subsistence farms is the land use type which involves most of citizens in Tyumen province, the largest number of land plots, and the second largest area of land.

³⁰ The table provides a general overview and does not differentiate between different types of property rights such as ownership, lifelong inheritable possession, usufruct etc. These are in details considered in the tables below.

Table 7.3: Information on the property rights in land granted to individuals

Producer types		Number	of physical	persons		N	umber o	f juridic	al persor	ıs		Numb	er of land	plots		,	Fotal area	of land plo	ts, hectare	s
or land use purpose	2009	2010	2011	2012	2013	2009	2010	2011	2012	2013	2009	2010	2011	2012	2013	2009	2010	2011	2012	2013
Peasant farm	1443	1447	1659	1471	1471	213	214	214	211	211	3340	3345	3047	3386	3366	79051	80464	79500	79027	78126
Subsistence farm	176140	177137	177334	178588	179430	-	-	-	-	-	179296	179341	179998	180932	181364	134685	138958	131554	142569	143408
Service allotment	439	439	439	323	323	ı	-	-	-	-	380	380	380	264	264	354	354	354	347	347
Citizens involved in fruit gardening	123894	123894	123897	124612	124730	237	237	238	238	239	115305	115305	115309	124850	115428	13109	13159	13168	13168	13216
Citizens involved in vegetable gardening	35179	34992	35011	35031	35038	9	8	8	8	7	34429	34337	34356	34385	34415	6357	6337	6339	6342	6344
Cattlemen and their associaitons	158	158	159	164	168	2	2	2	2	2	110	110	111	116	119	465	465	466	471	480
Individual housing	61831	63066	62639	66641	67685	-	-	-	-	-	60408	61651	62639	66641	71247	7100	7644	7732	7473	7705
Citizens involved in mowing and pasturing	82072	81565	81678	80925	80523	-	-	-	-	-	71435	70922	70819	70087	69484	519875	515894	513043	513392	513019
Individual entrepreneurs ^a	859	856	126	764	948	-	-	-	-	-	767	887	684	831	1104	7820	9141	10491	12574	14741
Other purposes	4942	5146	5401	5937	6166	i	57	-	-		4665	4944	5300	5715	6116	2141	2263	2811	407	729
Land plots provided for agricultural production	324	1677	322	1508	1934	ı	4	-	-	-	503	1562	559	1508	627	16237	77359	88463	75357	90056
Land shares of citizens	130286	125350	115827	115712	117169	-	-	-	-	-	31094	30363	30120	29920	29903	1743.4 ^b	1664.0 ^b	1537.3 ^b	1504.6 ^b	1481.2 ^b
In total, thousand	617.57	615.73	604.49	611.68	615.59	0.46	0.52	0.46	0.46	0.46	501.73	503.15	503.32	518.64	513.44	2530.61	2516.01	2391.22	2355.76	2349.37

^a excluding peasant farms

^b thousand hectares

Within the last five years we observe the increase in subsistence farming in terms of individuals involved (by 1.9%) as well as the number of land plots (by 1.2%) and their total area (by 6.5%). This indicates the increasing importance of subsistence farming for social and food security, in particular in rural areas. As already mentioned in the comment to the previous table, the data in Table 7.3 also indicates the decrease in the number of land shares in property of citizen. Individual housing (private living houses within the borders of settlements and dachas) is also an important type of land in private property which has been increasing within the last five years. This type of land use is, however, not related to the category "agricultural land".

Tables 7.4, 7.5 and 7.6 provide detailed information on land plots used under different types of property rights. We observe that private property is the dominant type of property rights in land, in particular when it concerns land used in subsistence and peasant farming, land plots provided to physical and juridical persons for agricultural production, and agricultural land shares distributed to citizen in the course of land reform. The category "Land shares of citizen" covers those land plots which are neither used in subsistence nor in peasant farming. Such land plots can, therefore, be used by other organizational forms of land producers such as cooperatives, which is rather rare, or large agricultural organizations which rent in land shares, or agricultural organizations where land shares are an assessed contribution to capital. We observe that within last five years the number of plots within the category as well as their area has been decreasing, which also contributes to the gradual decrease in the total area of land in private property. This trend may be caused by (1) change of land owner when citizen sell agricultural land in their property to agricultural organizations of peasant farms, (2) citizen owning agricultural land plots engage themselves in agricultural production instead of renting out land (this is a rare option), and (3) citizen voluntary renounce their property rights in land which is then included into the redistribution fund for agricultural land managed by public authorities. The category "Land plots provided for agricultural production" covers agricultural land which in Soviet times was not managed by the state and collective farms, or which remained in state or municipal property after land sharing process. Upon a written request of a physical or juridical person willing to engage in agricultural production, this land can be transferred into their property. As we observe in Table 7.4 the number of such plots as well as their area has been increasing in Tyumen province over the last five years.

The lifelong inheritable possession is a rudiment type of property rights in land which was introduced in the beginning of land reform as a transition form from state to private ownership in land. As we observe in Table 7.4, this type of property rights exists for only a small land area – mostly peasant farms. As was mentioned earlier in this report, the lifelong inheritable possession should have been replaced by the private property rights in land. However, the legal deadline for this process was set only for juridical persons. The change of property rights by physical persons engaged in agricultural production, to which peasant and subsistence farms belong, was not restricted in time. That is why this type of property rights in land still exists in Tyumen province. The number of plots and area of land in lifelong inheritable possession remains unchanged for peasant and subsistence farms. In case of land plots used for individual housing and other purposes we observe the decrease in number of plots and area of land under this type of property rights.

Table 7.4: Information on land in private property and lifelong inheritable possession (hectares)

Producer				Lar	ıd plots in p	orivate prop	erty						Land	plots in	lifelong	inherital	ole posse	ssion		
types or land		<u>2009</u>	:	<u> 2010</u>		<u>2011</u>		<u>2012</u>		<u>2013</u>	20	<u>009</u>	20	<u>010</u>	2	<u>011</u>	20)12	20	<u>13</u>
use purpose	N	area	N	area	N	area	N	area	N	area	N	area	N	area	N	area	N	area	N	area
Peasant farm	1931	52146	1926	51932	1873	50808	1871	50938	1808	51188	86	5124	86	5124	86	5124	86	5124	86	5124
Subsistence farm	127804	104189	129181	108618	130010	101957	130575	112613	130831	111530	140	684	140	684	140	684	140	684	140	684
Fruit gardening	79354	7583	79468	7778	79799	7864	79003	7947	79257	8049	262	13	262	13	262	13	262	13	262	13
Vegetable gardening	4492	498	4492	498	4492	498	4492	498	4492	498										
Animal husbandry					1	1	4	4	5	12										
Individual housing	16246	1931	17366	2361	18884	2474	20026	2561	23434	2810	1971	119	1971	119	1294	80	1277	79	715	40
Mowing and pasturing	5123	17032	5123	17032	5123	17032	5123	17032	5123	17032										
Individual entrepreneurs ^a	121	4791	272	3074	335	3033	359	8557	474	8593										
Other purposes	1219	2089	1272	2153	1584	2692	2006	275	2275	574	1167	2	1240	17	1015	17	1015	17	917	16
Land plots provided for agricultural production	503	16237	1558	77333	559	88463	606	75357	625	89815										
Land shares of citizens	31094	1743416	30363	1663970	30120	1537303	29920	1504633	29892	1481194										
In total, thousand	267.89	1949.91	271.02	1934.75	272.78	1812.13	273.99	1780.42	278.22	1771.29	3.63	5.94	3.70	5.96	2.80	5.92	2.78	5.92	2.12	5.88

^a excluding peasant farms

Table 7.5: Information on land in perpetual (termless) possession by juridical persons and by citizens (hectares)

Producer		Perp	etual (ter	mless) pos	ssession (usufruct)	by juridi	ical pers	ons				Perp	etual (term	less) posses	ssion (usufi	ruct) by citi	zens		
types or land	20	009	20	010	20)11	20	12	20	13	20	09	20	10	20	11	20	12	20	13
use purpose	N	area	N	area	N	area	N	area	N	area	N	area	N	area	N	area	N	area	N	area
Peasant farms	32	1037	32	1037	32	1037	17	815	17	815	55	6453	55	6471	56	5578	80	5826	79	5748
Subsistence farm	624	1662	623	1654	623	1328					41665	25208	39370	24722	39075	24557	39360	25707	39350	25612
Service allotment											1	4	1	4	1	4	1	4	1	4
Fruit gardening	1938	1740	1936	1726	1674	1669	1659	1636	1042	1587	26468	2975	26468	2975	26468	2975	26490	2972	26490	2972
Vegetable gardening	405	64	405	64	405	64	405	64	405	64	19049	3439	18945	3426	18945	3426	18945	3426	18945	3426
Individual housing											25187	2741	25187	2642	24758	2620	24773	2507	20361	2140
Mowing and pasturing	6194	18064	6194	18064	6194	17913					38963	287384	38441	283230	40010	307517	45579	307517	44977	307515
Individual entrepreneurs ^a			8	2	8	2					1	3	2	22	2	22	10	24	10	24
Other purposes	16	2	21	9	16	2					1640	2	1640	2	1640	2	1656	4	45	3
In total	9209	22569	9219	22556	8952	22015	2081	2515	1464	2466	153029	328209	150109	323494	150955	346701	156894	347987	150258	347444

^a excluding peasant farms

Table 7.5 presents data on the usufruct rights of juridical and physical persons. As was mentioned earlier in this report, Article 20 of the new Land Code of RF allows only juridical persons having usufruct rights in land. Physical persons cannot be granted usufruct since 2001. The article also regulates the usufruct rights which were granted prior to the adoption of the new Land Code. Thus, all juridical persons (apart from public authorities and organizations) having usufruct rights should have reregistered these as land lease rights by 2012. This was carried out in Tyumen province, as the data in Table 7.5 indicates sharp decrease in the area in perpetual (termless) possession by juridical persons. We might have assumed that the current number of plots in usufruct of juridical persons (1464 in 2013) is, in accordance with the law, granted to the state and municipal establishments, federal state enterprises, public authorities and local governments. However, this does not correspond to the fact that most of land in the usufruct of juridical persons is used for fruit gardening. More interesting situation is with the usufruct rights of physical persons. Considering that physical persons could not be granted these rights since 2001, we have to assume that usufruct rights in land were granted to physical persons in 1990s. This however, does not quite correspond to dynamics of usufruct rights in land used for mowing and pasturing. The report "On the State of Land and Land Use in Tyumen Province" suggests that most of land for mowing and pasturing (about 370 thousand hectares in 2013) is given to citizen from land in municipal property. There is, however, no information on the exact condition of such land usage, i.e. if citizen are using municipal land based on the usufruct, free terminable possession or land lease agreements.

The peasant farms represent a special case regarding the usufruct rights in land. Here we observed peasant farms having usufruct rights in land as juridical persons but also as physical person. As already discussed earlier in this report, peasant farms were initially registered as juridical persons, but had reregister as physical persons by 1 January 2013. Some farms did not reregister, thus peasant farms currently operate as both, physical and juridical persons.

Land lease market for land seems to be well operating in Tyumen province. The data presented in Table 7.6 indicates the increasing dynamics of land leasing in subsistence farming, vegetable gardening animal husbandry, individual housing, mowing and pasturing, as well as individual entrepreneurship. The increase of land lease for subsistence farming indicates the increasing of this type of agricultural production. Information obtained in informal conversation with representatives of public authorities of Tyumen province suggests that many subsistence farms are de facto commodity producers, i.e. are producing for further marketing instead as own consumption of agricultural products. Labeling their activities as "subsistence farming" allows such producers avoiding taxation and reporting.

The area of land in free terminable use seems to be decreasing within the last five years. Most of land under this property regime is being used for mowing and pasturing. The number and area of plots granted into free terminable use as service allotments remains stable.

Table 7.6: Information on land plots rented out by citizens and land plots in free terminable use (hectares)

Producer					Land lea	ased								Land p	olots in fi	ree termin	able use			
types or land	200)9	20:	10	201	11	20:	12	20	13	20	009	20	10	20)11	20	12	20)13
use purpose	N	area	N	area	N	area	N	area	N	area	N	area	N	area	N	area	N	area	N	area
Peasant farms	886	10285	891	13131	991	16927	984	16324	970	15251			66	1151						
Subsistence farm	3862	2164	4585	2494	4716	3028	4939	3565	4955	5582			1	8						
Service allotment	1	3	1	3	1	3	1	3	1	3	262	340	222	334	262	340	262	340	262	340
Fruit gardening	654	71	654	86	654	86	653	67	653	67										
Vegetable gardening	1632	1628	1642	1619	1661	1621	1690	1624	1720	1626			2	2	2	2	2	2	2	2
Animal husbandry	110	465	110	465	110	465	112	467	114	468										
Individual housing	11728	1847	11978	2194	12062	2230	12394	2326	21239	2715										
Mowing and pasturing	3028	11934	3039	12442	3044	13468	2937	13500	2942	13852	9573	69950	9570	69940	7877	44246	7876	62869	7864	62466
Individual entrepreneurs ^a	644	2846	603	6043	338	7434	396	3993	549	6124										
Other purposes	623	46	726	82	953	98	1009	111	701	136										
Land plots provided for agricultural production			4	26					1	241										
In total	23168	31289	24233	38585	24530	45360	25115	41980	33845	46065	9835	70290	9861	71435	8141	44588	8140	63211	8128	62808

^a excluding peasant farms

Table 7.7: Information on legal registration of property rights in land (hectares)

D 1 4 1 1		Plots fo	r which the d	locuments e	stablishing tl	ne legal basi	s for their us	e are not av	ailable	
Producer types or land	200	9	201	.0	201	1	201	2	201	.3
use purpose	N	area	N	area	N	area	N	area	N	area
Peasant farms	43	4006	42	1618	9	26				
Subsistence farm	4991	778	4991	778						
Service allotment	116	7	156	13	116	7				
Fruit gardening	6350	727	6238	581	6171	561	2809	533	2707	528
Vegetable gardening	8851	728	8851	728	8851	728	8851	728	8851	728
Animal husbandry										
Individual housing	4910	462	4802	328	4802	328				
Mowing and pasturing	8551	115511	8552	115186	8568	112867	8568	112474	8566	112154
Individual entrepreneurs ^a	1	180								
Other purposes										
Land plots provided for agricultural production										
Citizens' land shares										
In total	33813	122399	33632	119232	28517	114517	20228	113735	20124	113410

^a excluding peasant farms

Table 7.8: Information on legal registration of property rights in land, continued (hectares)

		Of all l	land the prop	erty rights	are registere	d under the	procedure e	stablished b	y law	
Producer types or land	200	9	201	.0	201	1	201	2	201	.3
use purpose	N	area	${f N}$	area	${f N}$	area	N	area	${f N}$	area
Peasant farms	145	4479	152	4754	162	5288	431	15415	560	15990
Subsistence farm	36454	23852	43750	29522	47164	31364	55115	42156	55434	44801
Service allotment										
Fruit gardening	7743	808	30325	3231	33794	3954	34551	4033	35265	4125
Vegetable gardening	672	44	672	44	684	45	718	53	736	55
Animal husbandry							3	3	9	14
Individual housing	17019	2124	10920	1972	13004	2047	17059	2409	21495	2848
Mowing and pasturing	2	99	3	431	5	821	7	965	12	1317
Individual entrepreneurs ^a	465	2839	493	3211	285	3308	380	9683	608	14717
Other purposes	224	95	324	111	574	409	1052	407	1352	418
Land plots provided for agricultural production	492	15074	510	30603	542	28946	541	32711	548	52082
Citizens' land shares	17	89973	36	89951					8408	121359
In total	63233	139387	87185	163830	96214	76182	109857	107835	124427	257726

^a excluding peasant farms

Table 7.7 and Table 7.8 provide information on the legal basis of land use in Tyumen province. We observe that almost 31% of land use is not supported by the any legal documents (for example, land titles or lease contracts), though the area of such land has been gradually decreasing within the last five years. The largest share of land used without supporting documents is employed in mowing and pasturing. At the same time such land use types as peasant farming, subsistence farming, individual housing and individual agricultural entrepreneurship are all based on clear property rights in land.

The land in the state and municipal property of Tyumen province can be further distributed among the citizens. The information on the willingness of citizen to acquire a land plot is presented in Table 7.9.

Table 7.9: Dynamics of applications for being granted a land plot

Producer types or land use	Number	of applicati	ons for bein	g granted a l	and plot
purpose	2009	2010	2011	2012	2013
Peasant farms	-	-	-	-	-
Subsistence farm	197	156	112	67	68
Individual housing	594	469	673	546	594
Individual entrepreneurs ^a	-	-	-	-	-
Land plots provided for agricultural production			9	9	9
Citizens' land shares	172	94			
In total	963	719	794	622	671

^a excluding peasant farms

Source: Report "On the State of Land and Land Use in Tyumen Province" for 2009, 2010, 2011, 2012 and 2013

We observe that land plots for individual housing, which belong to the land use category "land of settlements", are characterized by highest demand. The demand for plots for subsistence farming seems to be decreasing within the last five years. At the same time, considering urbanization and demographic situation in the rural areas of Tyumen province this piece of information might be interpreted as new households still being founded, however in gradually decreasing amounts.

Land demarcation proceeds slowly in Tyumen process. Only 1% of land was transferred into the property of municipalities within the last five years (see Table 7.10). This process was particularly intensive in 2012 and 2013. Most of land (88.4% in 2013) continues to be in joint property of the state represented by the federal authorities and pubic authorities of Tyumen province, and municipalities. This complicates and retards decision-making on land use and management

Type of	2009)	2010)	2011		2012		2013	
property	thousand ha	%								
Municipal	1.0	0.00	1.6	0.01	2.1	0.01	162.1	1.01	169.0	1.06
State & municipal	14019.1	87.5	14028.2	87.6	14146.1	88.0	14161.4	88.4	14158.2	88.4

Table 7.10: Land demarcation process in Tyumen province

Land privatization process in Tyumen province is presented in Table 7.11. A positive trend is observed for the land of settlements. Here, the area of land in property of physical and juridical persons has been increasing, the largest share constituting the land in property of physical persons. The land in property of state and municipalities has been decreasing within the last four years, though this type of property remains dominant. We also observe some (slow) progress in demarcation of land of settlements. Thus, by 2013 2.4 % of land of settlements was transferred into property of Russian Federation, 2.0% – into the property of Tyumen province, and 1.2% – into the property of municipalities. The rest of the land of settlements in state and municipal property is owned and managed jointly by the public authorities of different administrative levels.

Table 7.11: Privatization and demarcation of agricultural land and land of settlements in Tyumen province

Type of property	2009	9	201	0	201	1	201	2	2013	3
	thou. ha	%	thou. ha	%	thou. ha	%	thou. ha	%	thou. ha	%
			Land o	f settler	nents					
Physical and juridical persons:	44.4	21.8	45.7	21.2	46.3	21.5	47.3	22.0	47.8	22.2
- physical persons	40.6	19.9	41.6	19.3	41.6	19.3	42.2	19.6	42.7	19.9
- juridical persons	3.8	1.9	4.1	1.9	4.7	2.2	5.1	2.4	5.1	2.4
State and municipal	159.7	78.2	169.4	78.8	168.8	78.5	167.8	78.0	167.3	77.8
- RF	5.1	2.5	4.5	2.1	4.5	2.1	4.9	2.3	5.2	2.4
- TP	3.2	1.6	3.9	1.8	4.6	2.1	4.1	1.9	4.2	2.0
- Municipal	1.0	0.5	1.6	0.7	1.8	0.8	2.4	1.1	2.5	1.2
			Agrici	ıltural	land					
Physical and juridical persons	1947.7	43.0	1937.4	43.0	1818.8	40.0	1802.5	39.6	1805.2	39.7
State and municipal	2602.2	57.0	2602.6	57.0	2721.6	60.0	2738.0	60.4	2741.9	60.3

For agricultural land we observe a negative trend: the area of land of this category in property of physical and juridical persons has been gradually decreasing, while the area of land in property of the state and municipalities has been increasing within the last five years. Unfortunately, there is no information on the demarcation of agricultural land or its shares in the property of Russian Federation, Tyumen province and municipalities. We may assume that demarcation of agricultural land is very slow if at all ongoing. If this were indeed the case, most of decisions on the use, management and distribution of agricultural land would be taken by the provincial or federal authorities; municipalities would not have much say.

Table 7.12 presents the dynamics of different types of agricultural producers in Tyumen province. The data indicates the general decrease in agricultural activity of agricultural enterprises and peasant farms: their number as well as area of land cultivated has been gradually decreasing within the last years.

Table 7.12: Dynamics of different types of agricultural producers in Tyumen province

Type of	20	09	20	10	20	11	20	12	20	13
producer	N	area, thou ha								
Agricultural enterprises and organizations	_ a	3039.3	_ a	3049.0	_ a	3137.3	_ a	3132.9	_ a	3131.8
Peasant farms	1656	196.1	1661	189.8	1873	189.7	1680	189.2	1670	186.4
Subsistence farms	176140	115.2	177137	118.6	177334	118.3	178588	124.9	179430	127.6

^a data is not available

Source: Report "On the State of Land and Land Use in Tyumen Province" for 2009, 2010, 2011, 2012 and 2013

At the same time we observe an increasing importance of subsistence farming. For this type of agricultural producers both the number of operating units as well as the area cultivated have been increasing.

When considering the data on the number of agricultural enterprises and organizations, the number of peasant farms and the area of land in property by these two types of agricultural producers (see Table 7.11 and 7.12), one should be careful to consider all the units operating ones and the land area cultivated. The reports "On the State of Land and Land Use in Tyumen Province" mention numerous cases of bankruptcy and liquidation of agricultural production units, as well as unused land shares of citizen (see Table 7.13). By 2013, 169 agricultural enterprises were liquidated due to bankruptcy. However, the issue of property rights in land of these enterprises has not been resolved, thus the enterprises continue being listed in the state register, and 926.7 thousand hectares of agricultural land continue being considered their

property. Similar situation is observed for peasant farms. Here, 134 units with 5.1 thousand hectares of agricultural land continue their de jure existence.

Table 7.13: Dynamics of liquidation of agricultural production units in Tyumen province

	2009	2010	2011	2012	2013							
	Collec	tive enterpris	es									
Number of enterprises	149	164	164	164	164							
Area, thousand hectares	910	926.9	926.9	926.9	926.7							
Peasant farms												
Number of farms	136	135	134	134	134							
Area, thousand hectares	5	4.9	4.9	5.1	5.1							
	L	and shares										
Number of land shares	40.3 %	37.1	37.1	33.5	32.9							
Area, thousand hectares	608.8	553.3	553.3	473,2	466.0							

Source: Report "On the State of Land and Land Use in Tyumen Province" for 2009, 2010, 2011, 2012 and 2013

The land shares which were not invested into the capital of agricultural enterprises and organizations, or for which privatization has not been completed (i.e., the plot in kind has not been allotted) constitute considerable area of agricultural land. Though this land is reported as being in use, it is usually not cultivated; in 2013 the area of such land comprised 466 thousand hectares.

Lessons for the SASCHA project

Most of land in Tyumen province is in joint property of the state and municipalities (see Table 7.1). Specifically, about 6% of agricultural land is considered to be in state property³¹, moreover, the area of agricultural land in state property tends to increase due to gradually increasing share of agricultural land within land redistribution fund. For the SASCHA project, specifically the implementation of project results, this implies that decision-making on the use of such land and its further lease or allocation into private property of physical and/or juridical persons occurs mostly at the level of province authorities. This being the case, we cannot expect province authorities to promote conversion of (part of) agricultural land into nature-protected areas, or even set it aside. This conclusion is derived from the following circumstances:

³¹ The joint property of the state and municipalities in agricultural land can be considered state property, as the decision-making on the use and management of such land is being done wither by the public authorities of Tyumen province, or the federal authorities.

- (1) Compared to other land use categories, agricultural land has a special status in Russian Federation due to traditional goals of food security and self-sufficiency in agricultural produce which originated in the Soviet Union and were further adopted by the independent Russia. The legal framework regulating land use and conversion in RF aims to prevent conversion of agricultural land into other land use categories.
- (2) Public authorities in Tyumen province are keenly interested in investment projects, including those within agricultural sector. Having quite extensive land resources in their property, there is a big chance that a decision on agricultural land being rented out or even transferred into private property will be taken promptly in case of an promising investment project.
- (3) Even less conversion of agricultural land into other land use categories, in particular nature protected areas, can be expected in the current economic and political conditions when the not only food security and self-sufficiency in agricultural production, but also import substitutions are aimed at.

Land demarcation, i.e. distribution of land in the joint property of the state and municipalities between Russian Federation, Tyumen province and municipalities, is a very slow and costly process. This allows us to think no significant changes in the property rights in agricultural land can be expected within the next years. This means, that most of decisions regarding land use will continue being taken at the province level, thus making province public authorities one of the main SASCHA partner for the implementation of project results.

The issue of nature protection is quite low on the political agenda of Tyumen province. Still, the province aims at increase of the share of nature-protected areas within its territory till 12%. The clear objective being set and the location of the nature-protected areas defined (see Table 4.13), the SASCHA project can hardly exercise significant influence over the process.

Regarding the structural change in agriculture, we observe that agricultural enterprises remain the largest users of agricultural land in terms of area cultivated. The area of land cultivated by peasant farms has been decreasing within the last five years. At the same time, promotion of peasant farms remains one of the goals of Russian and Tyumen agricultural policies. We further observe the increasing importance of subsistence farming in terms of the number of households engaged in it and the area of land owned or used by them. The problem with subsistence farms is that the land they are cultivating may be included within both, "Agricultural land" and "Land of settlements" categories, and there is no available data on the share of land cultivated by households within each category. As land of settlements is not within the research focus of the SACHA project, the share of land cultivated by subsistence farms is insignificant (2.8% in 2013), crop production by households production should be rather excluded from analysis within the SASCHA project. At the same time, animal production by households is important to take into account, as it induces the use of significant land areas as hayland and pastures. According to the findings of other subprojects within the SASCHA project, these habitats (meadows and pastures) are the most important ones for climate mitigation and biodiversity preservation. Unfortunately, most of land used as hayland and pastures either belongs to the land use category "Land of settlements" or, if belonging to the category "Agricultural land", it is in the state or municipal property. In the former case, one cannot prevent this land being built up in the future. In the latter case, the probability is

low of pastures and meadows being granted into the private or collective property of households producers; at the same time the chance is high for the hayland and pastures in state or municipal property to be granted to agricultural organizations willing to expand or to initiate crop or animal production in Tyumen province. Therefore, though meadows and pastures are of high importance from the environmental perspective, their legal status is quite vague, thus undermining not only nature protection functions of these areas, but also animal production in households.

Considering all said above, large agricultural producers and public authorities of Tyumen province should be the main target group for the implementation of project results and the project recommendations on sustainable agricultural production.

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