PRAXIS
KULTUR- UND
SOZIALGEOGRAPHIE 28

Wilfried Heller
Carsten Felgentreff
Waltraud Lindner
(eds.)

The socio-economic transformation of rural areas in Russia and Moldova

Herausgegeben vom Institut für Geographie der Universität Potsdam

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Contents

Preface

The focus of this volume is the socio-economic transformation of rural areas in Russia and Moldova. It is a presentation of selected results of a joint research project "The socio-economic transformation of rural areas with particular reference to migration of population and a comparison between different regions in Russia and Moldova". It was carried out over a period of 30 months from January 1999 to August 2001.

The main goal of the research project was the identification of demographic, economic, social and political changes and contemporary problems arising from the ongoing transformation processes of socialist states to democratic societies. In terms of spatial categories it is exclusively focussed on selected rural areas, differing in their natural setting, level of development, primary production, population and settlement density, distance to larger centres, etc. Case studies were conducted in Central Russia (Zaraysk Rayon, Demidov Rayon), Central Black Earth Region (Voronezh Oblast), south-western Asian part of Russia (Altay Kray and Republic of Gornyy Altay) and in the Republic of Moldova.

The methodical advantage of the chosen research approach is its qualitative dimension, exposing interrelations between structures and processes which can not be deduced from available statistics. In the first step for each examined region comprehensive summaries of published and unpublished sources (mainly literature and statistics) were provided. In a second step, perceptions and opinions of various experts on central, regional and local levels were collected by way of structured interviews and round table discussions. These interviews also touched on perceived obstacles and hindrances regarding the development of the rural areas, or, at least, their socio-economic and demographic stabilization. The third project milestone was a standardized household survey covering a wide range of perceived and actual changes in many fields of daily live. In brief, the empirical evidence drawn from hundreds of expert interviews and almost 4000 standardized household questionnaires suggests a more fundamental downturn for the last decade than anticipated, especially in terms of standard of living, state of the rural economy, and attitudes towards reform policies.

Professor Wilfried Heller (University of Potsdam, Institute of Geography, Department of Human Geography, Germany) was the co-ordinator of the project. Participating members of the project were: Professor Alexandr Ivanovich Alexeev (Moscow State University, Faculty of Geography, Department of Economic and Social Geography of Russia; Russia), Professor Yuriy Vasilevich Porosenkov (State University of Voronezh, Faculty of Geography, Department of Economic Geography; Russia), Professor Victor Valentinovich Rudzkiy (Altay State University of Barnaul, Faculty of Geography, Department of Economic Geography and Cartography; Russia), Professor Constantin Gheorghe Matei (Academy of Sciences of the Republic of Moldova, Institute of Geography; Moldova), Professor Mark Blacksell (University of Plymouth, Department of Geographical Sciences, United Kingdom), together with their teams.

In accordance with the programme four workshops in Potsdam (February 1999), in Plymouth (October 1999), in Moscow (October 2000), and in Potsdam (February 2001) were held in addition to further informal meetings.

In connection with the organisation and performance of this multilateral East-West-Project we were faced, too, with several telecommunication and communication problems. In spite of this the scientific collaboration between our teams was an important challenge and experience. Therefore our particular thanks go to INTAS for organizational and financial help, without which the research and publication of results would not have been possible. Joint publications are the issues No 3, 2000 and No 4, 2000 of the journal "Current issues of geography and land use", edited by Professor Rudzkiy of the Altay State University of Barnaul. Further publications can be found in scientific monographs and journals of participating institutes. Several university-courses, such as human geography, sociology, demography, deal with the transition from a totalitarian centralised economy to a free market economy and its consequences.

The results of socio-demographic and socio-economic research in ex-soviet rural areas are important from a political and an economic point of view. The spatial imbalance between urban and rural settlements is growing. In general the attraction of rural areas for its population must rise. The demographic trend - roughly the same in all rural study areas - is characterized by a decrease in birth and an increase in death rates. Since the middle of the 1990s rural settlements are losing population. The more peripheral a location, the more disastrous is the situation for the vast majority of the dwellers. There is a general lack in concrete opportunities and perspectives. The increase in unemployment is the most urgent problem. Economic reforms of the 1990s exclude a considerable share of the population from the formal economy. The living standard of many rural residents is disastrous. Many households´ purchasing power is not sufficient for the provision of basic goods, leaving aside luxury items, savings or investments. Nowadays, agriculture as still dominant branch of the rural economy has great significance for survival on a subsistence level. Infrastructure suffers from sharp reductions in investment and state expenditure. Investments in social infrastructure such as education and health provision are necessary. The steady and deep decline of all life quality parameters witnessed since the political turn must be stopped. The living standard of the rural population will not change without any sustainable economic development of the regional economies. The collaborating teams will continue their efforts to disseminate their findings and present responsible authorities with their recommendations.

Wilfried Heller
Carsten Felgentreff
Waltraud Lindner

List of authors

Authors of *Part I: Russian Federation* are the following ones:

Moscow State University, Faculty of Geography, Department of Economic and Social Geography of Russia; Russia:

Alexandr Ivanovich Alexeev,
Maria Sergeevna Savoskul,
Yuriy Alexeevich Simagin,
Natalia Vladimirovna Shabalina.

State University of Voronezh, Faculty of Geography, Department of Economic Geography; Russia:

Yuriy Vasilevich Porosenkov,
Ol´ga Valerievna Didenko,
Anatoliy Emanuilovich Krupko,
Vera Alekseevna Belova,
Lyudmila Michaylovna Tscherenkova.

Altay State University of Barnaul, Faculty of Geography, Department of Economic Geography and Cartography; Russia:

Viktor Valentinovich Rudzkiy,
Nadezda Nikolaevna Prazdnikova,
Soya Valerianovna Lyssenkova.

Authors of *Part II: Republic of Moldova* are the following ones:

Academy of Sciences of the Republic of Moldova, Institute of Geography; Moldova:

Constantin Gheorghe Matei,
Mihai Gheorghe Hachi,
Valerii Anton Sainsus.

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Figure 1

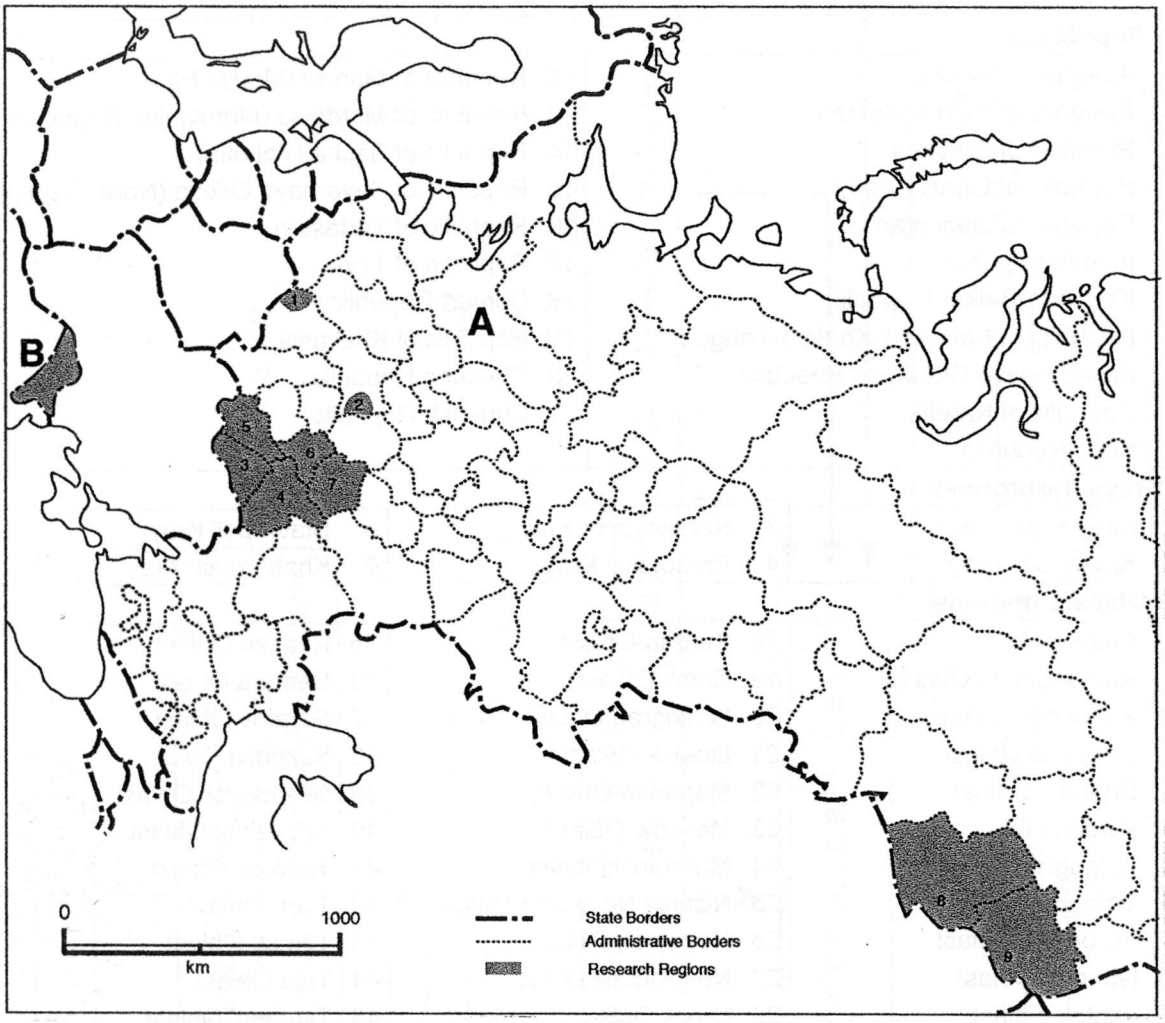
Source: www.lib.utexas.edu/map/ modified by F. Weigt

Table 1 **The area, population and administrative-territorial division in selected regions of Russia in 1999**

Region	Area	Population	Population density	Administrative-territorial division					
	'000 km^2	'000 people	People per km^2	Rayons	Cities and towns	Including of higher admin. level	City districts	Settlements of urban type	Rural administration
Russian Federation	17,075.400	146,693	8.6	1,867	1,091	646	329	1,922	24,444
Moscow	0.994	8,630	8,682.0	-	2	1	10	3	16
Moscow Oblast	46.000	6,547	142.3	39	74	56	-	111	472
Smolensk Oblast	49.800	1,148	22.9	25	15	2	3	15	414
Voronezh Oblast	52.400	2,475	47.2	32	15	7	6	21	492
Altay Kray	169.100	2,664	15.8	60	12	11	7	15	722
Republic of Gornyy Altay	92.600	203	2.2	10	1	1	-	-	88

Source: Saiko, T./Blacksell, M. (2000): The evolution of local self-government in Russia and its contemporary limitations. Plymouth. Unpublished.
Source of data: Goskomstat of Russia: Statistical Yearbook. Russia 1999. Moscow.

Figure 2 The location of the examined study regions



Draft: Lindner, W. Cartography: Behrend, I.

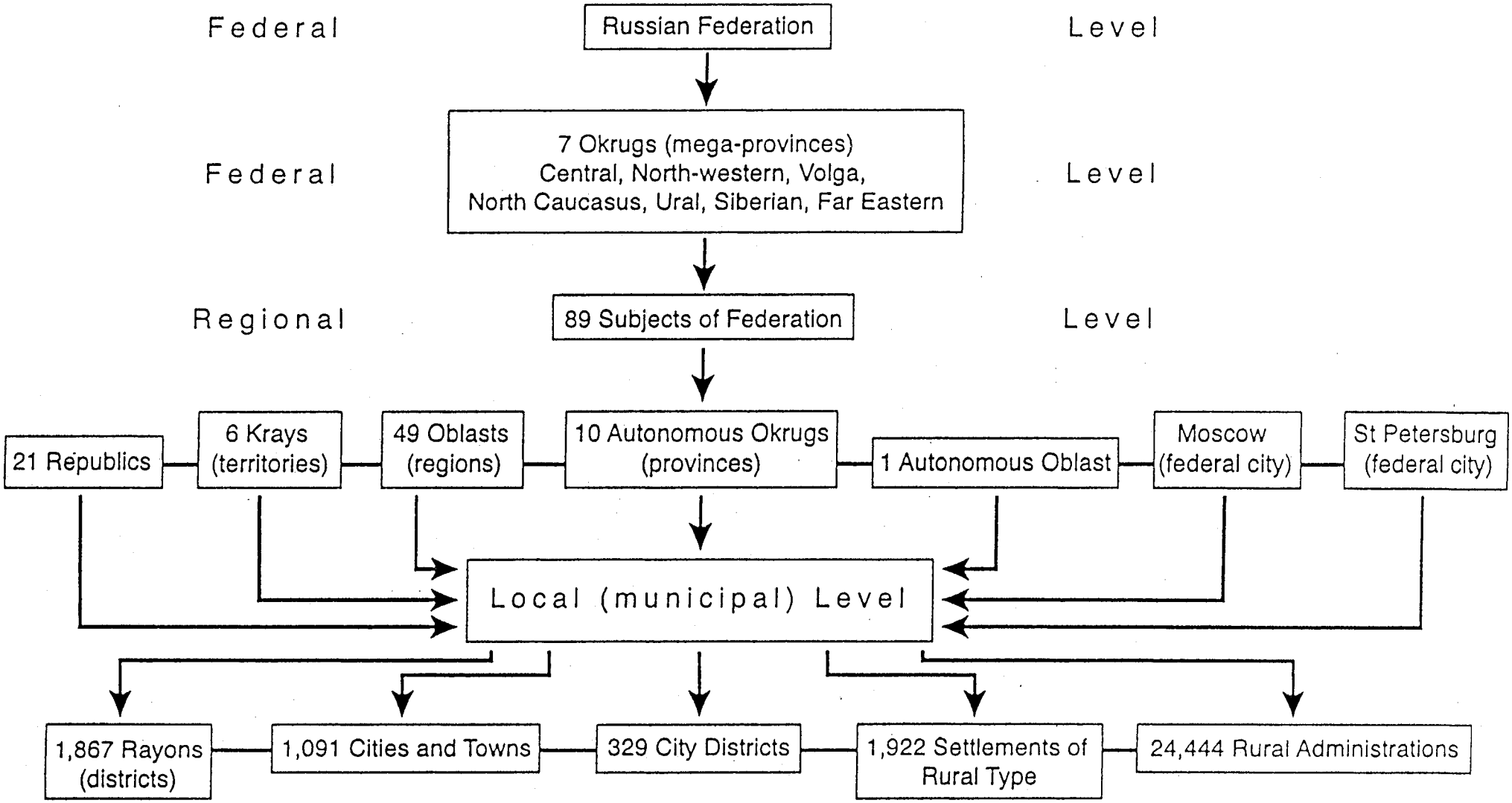
Administrative divisions:		
A Russian Federation		
I Central Region	**II Central Black Earth Region**	**III South-West Siberia**
1. Smolensk Oblast with Demidov Rayon 2. Moscow Oblast with Zaraysk Rayon	3. Belgorod Oblast 4. Voronezh Oblast 5. Kursk Oblast 6. Lipetsk Oblast 7. Tambov Oblast	8. Altay Kray 9. Republic of Gornyy Altay
B Republic of Moldova		

Table 2 Administrative divisions of the Russian Federation on regional level, 1999 (89 Subjects of Federation)

21 Republics:		
1. Adygeya Republic	12. Republic of Mari-El (Mariyy El)	
2. Republic of Bashkortostan	13. Republic of Mordovia (Mordvinian Republic)	
3. Republic of Buryatia	14. Republic of Sakha (Yakutia)	
4. Republic of Gornyy Altay	15. Republic of Severnaya Osetia (North Osetia)	
5. Republic of Dagestan	16. Republic of Tartastan	
6. Ingush Republic	17. Republic of Tyva	
7. Karbindo-Balkar Republic	18. Udmurt Republic	
8. Republic of Kalmykia-Khalmg-Tangch	19. Republic of Khakasia	
9. Karachayevo-Cherkess Republic	20. Chechen Republic	
10. Republic of Karelia	21. Chuvash Republic	
11. Komi Republic		
6 Krays (territories):		
1. Altay Kray	3. Krasnoyarsk Kray	5. Stavropol' Kray
2. Krasnodar Kray	4. Primorskiy Kray	6. Khabarovsk Kray
49 Oblasts (regions):		
1. Amur Oblast	18. Kurgan Oblast	35. Ryazan Oblast
2. Arkhangel'sk Oblast	19. Kursk Oblast	36. Samara Oblast
3. Astrakhan Oblast	20. Leningrad Oblast	37. Saratov Oblast
4. Belgorod Oblast	21. Lipetsk Oblast	38. Sakhalin Oblast
5. Bryansk Oblast	22. Magadan Oblast	39. Sverdlovsk Oblast
6. Vladimir Oblast	23. Moscow Oblast	40. Smolensk Oblast
7. Volgograd Oblast	24. MurmanskOblast	41. Tambov Oblast
8. Vologda Oblast	25. Nizhniy Novgorod Oblast	42. Tver' Oblast
9. Voronezh Oblast	26. Novgorod Oblast	43. Tomsk Oblast
10. Ivanovo Oblast	27. Novosibirsk Oblast	44. Tula Oblast
11. Irkutsk Oblast	28. Omsk Oblast	45. Tyumen' Oblast
12. Kaliningrad Oblast	29. Orenburg Oblast	46. Ul'yanovsk Oblast
13. Kaluga Oblast	30. Orel Oblast	47. Chelyabinsk Oblast
14. Kamchatka Oblast	31. Penza Oblast	48. Chita Oblast
15. Kemerovo Oblast	32. Perm' Oblast	49. Yaroslavl' Oblast
16. Kirov Oblast	33. Pskov Oblast	
17. Kostroma Oblast	34. Rostov Oblast	
10 Autonomous Okrugs (provinces):		
1. Aga-Buryat Autonomous Okrug	6. Ust'-Orda Buryat Autonomous Okrug	
2. Komi-Permyak Autonomous Okrug	7. Khanty-Mansi Autonomous Okrug	
3. Koryak Autonomous Okrug	8. Chukchi Autonomous Okrug (Chukotka)	
4. Nenets Autonomous Okrug	9. Evenki Autonomous Okrug	
5. Taymyr (Dolgano-Nenets) Autonomous Okrug	10. Yamalo-Nenets Autonomous Okrug	
1 Autonomous Oblast:		
1. Jewish (Yevreyskiy) Autonomous Oblast		
2 Federal cities:		
1. Moscow	2. St Petersburg	

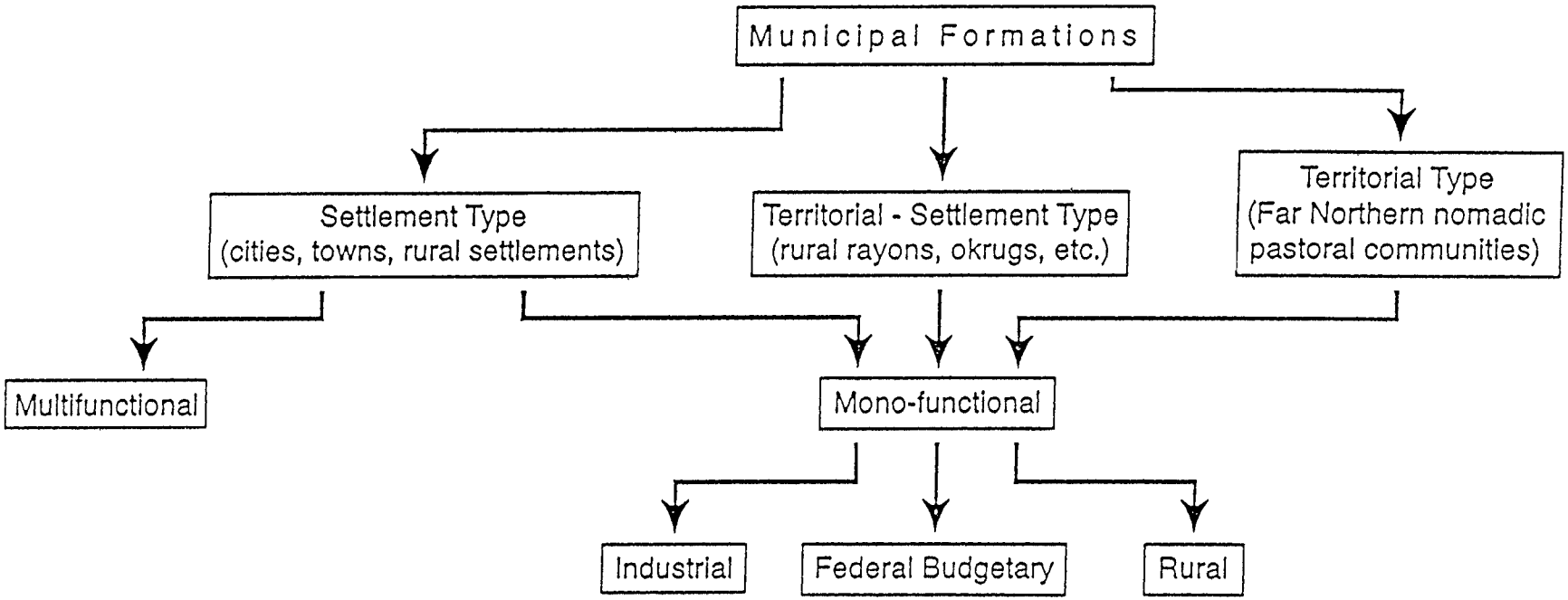
Compiled by Lindner, W.: Source of data: Goskomstat of Russia: Statistical Yearbook. Russia. 1999. Moscow.

Figure 3 **Administrative-territorial divisions of the Russian Federation in 1999**



Source: Saiko, T./Blacksell, M. (2000): The evolution of local self-government in Russia and its contemporary limitations. Plymouth. Unpublished.

Figure 4 **Types of municipal formations in the Russian Federation***



Source: Saiko, T./Blacksell, M. (2000): The evolution of local self-government in Russia and its contemporary limitations. Plymouth. Unpublished.
* (modified from Voronin et a. 1998)

PART I: RUSSIAN FEDERATION

1 Demography and migration

1.1 Russia – a general view of demography and migration

During the post-soviet period and since the last population census the demographic situation in the country has changed dramatically. For the first time since the Second World War the population began to decline despite the growth of an inflow from the former Soviet republics. With the overall reduction of mobility of migration within Russia, regional redistribution of population trends changed to the opposite. Instead of settling in North, Siberia and Far East, as has been the case for centuries, there is an outflow from these regions and a concentration of population in the west and south of the country (except for the Caucasian entities, which lost the Russian population).

The rural population declined during the post-war period, but began to grow in the early 1990s. During the Soviet period (1926-1989) the rural population of Russia fell by half; in the Northwest Region, Central Region (including Smolensk Oblast) and Central Black Earth Region (including Voronezh Oblast) it fell by 4-5 times. The rural population was in decline (mainly due to migration) up to the 1960-1980s.

The situation is different in Siberia. The rural population grew in most regions, including the Republic of Gornyy Altay. In Altay Kray the decrease was small.

In Moscow Oblast the decrease was also small. The outflow of the rural population was high, but migrants from other regions made up the numbers. Moreover, this decrease was caused by administrative changes (the merging of rural areas with cities). The rural population in the North Caucasus grew owing to the high rate of natural increase and very little outflow.

In Russia as a whole the rural population grew slowly till the middle 1990s. This was mainly due to the inflow from the other former Soviet republics and the reorganisation of a number of rural settlements into urban settlements. However, this flow gradually reduced, and since 1995 the total rural population has been declining.

Age distribution has been greatly affected by migration. The Central and Northwest Regions have the oldest rural population; the North Caucasus and Siberia have the youngest. In 2001 22.5 %[1] of the rural population of Russia was elderly (females over 55, males over 60), 30-31 % in Smolensk and Voronezh Oblasts, and 24 % in Moscow Oblast (due to migration from other regions). The rural population in Siberia is slightly younger than in average of Russia. In Altay Kray it is the same (21.6 %), while the Republic of Gornyy Altay is noted for its low percentage share of elderly people (14.6 %) and high percentage share of children under the age of 16 years (29 %; 22 % in whole Russia, 17-18 % in Central Region, 21 % in Altay Kray).

[1] All the data, except that specially mentioned, are taken from "The Demographic Yearbook of Russia" for the respective years.

Reproduction of population. The birth rate among the rural population was twice that of the urban population. The total birth rate of the urban population was 1.7-1.9, and 2.6-3.0 of the rural population[2]. The general birth rate of the rural and urban population was practically the same due to the ageing of the rural population.

In the 1990s the fertility rate fell. The total birth rate decreased from 2.53 in 1990 to 1.49 in 2000 and almost reached the total birth rate for the urban population 1.12. The general birth rate decreased from 15.5 to 9.8 ‰. The death rate increased from 13.3 to 17.0 ‰. The rate of natural increase in 2000 was 7.2 ‰ (table I/1.1-1).

Table I/1.1-1 Demographic indices for Russia in the whole and for examined regions, 2000

Selected regions	Birth rates ‰	Death rates ‰	Natural increase ‰	Total birth rate	Average life expectancy at birth, males (years)
Russia, total	9.8	17.0	-7.2	1.49	58.0
Smolensk Oblast	6.4	26.5	-20.1	1.09	53.9
Moscow Oblast	6.9	18.3	-11.4	1.04	58.1
Voronezh Oblast	-7.5	21.7	-14.2	1.25	59.1
Altay Kray	9.9	15.1	-5.2	1.47	60.4
Republic of Gornyy Altay	14.8	12.9	1.9	2.01	55.7

Source: Goskomstat of Russia: Statistical Yearbook. Russia 2000. Moscow, 2001. Table 5.21, pp. 77-96.

The highest natural decrease of population is observed in the Central and North-west Regions with their ageing population. The "champion" is the Pskov Oblast with a natural decrease of -24.3 ‰. Natural increase of population is seen in parts of North Caucasus (Dagestan +11 ‰) and of Siberia.

During the last decades average life expectancy at birth in rural areas was lower than in urban areas. In the 1960-1980s it ranged from 58-62 for males and 72-73 for females. In the 1990s life expectancy began to fall. It decreased from 62.0 in 1990 to 56.9 in 1994 for the rural male population, and grew to almost the same level in 1998 – 59.9, and to 58.0 in 2000. For females the figures were 73.9 and 70.9 respectively.

The highest figure (65.5 for males in 2000) was observed in Dagestan. For Russian regions the highest figures were in the Stavropol' Kray (61.7), in the Central Black Earth Region (Belgorod Oblast: 60.0), and in the south of West Siberia (Omsk Oblast, Altay Kray – 60.5).

[2] Goskomstat of Russia: Statistical Yearbook. Russia 1988. Population of the USSR. Moscow. 1989, pp. 333, 339.

Table I/1.1-2 Life expectancy in the Russian Federation and in selected regions, 1998 (years)

Region	Total population			Urban population			Rural population		
	Male and female	Male	Female	Male and female	Male	Female	Male and female	Male	Female
Russian Federation	67.02	61.30	72.93	67.46	61.82	73.13	65.77	59.00	72.32
Moscow city	68.46	62.83	73.80	68.46	62.83	73.80	-	-	-
Moscow Oblast	66.99	60.99	73.11	67.34	61.50	73.16	65.67	59.04	73.19
Smolensk Oblast	65.70	59.39	72.82	67.05	60.76	73.78	62.44	56.23	70.42
Voronezh Oblast	68.66	62.26	75.47	69.24	63.24	75.11	67.60	60.43	75.99
Altay Kray	67.73	62.17	73.48	67.68	61.85	73.51	67.72	62.50	73.33
Republic of Gornyy Altay	64.14	58.00	70.77	65.53	61.65	69.56	63.58	56.78	71.16

Source: Saiko, T./Blacksell, M.: The evolution of local self-government in Russia and its contemporary limitations. Plymouth. 2000. Unpublished.
Source of data: Goskomstat of Russia: Social status and standard of living of the population of Russia. 1999. Moscow.

Migration in the 1990s changed abruptly compared with the post-war period. Initially the changes were positive for the rural population. In 1991-1993 there was a positive balance of migration in the rural areas for the first time in the post-war period (tables I/1.1-3, I/1.1-4).

Table I/1.1-3 The role of migration in the numbers of the resident population, 1992-2000

Year	Rural population	Annual population increase		Balance of migration		Administrative territorial-reorganisations	Rate of migration increase		
	('000s)	('000s)		('000s)		('000s)			
		Total	Rural	Total	Rural		Total	Urban	Rural
1992	39,753	-31	721	176	289	462	12	-10	73
1993	39,904	-308	151	430	264	71	29	15	66
1994	39,969	-60	65	810	272	20	55	50	68
1995	39,855	-328	-114	502	96	2	34	38	24
1996	39,790	-474	-146	344	34	59	23	29	9
1997	39,657	-398	-133	353	56	44	24	28	14
1998	39,382	-411	-194	287	45	-32	19	22	11
1999	39,401	-768	21	155	88	201	11	9	14
2000	39,162	-740	-241	214	-2	38	15	20	1

Source: Goskomstat of Russia: Statistical Yearbook. Russia 2000. Moscow, 2001. Tables 5.30, 5.31, p.100.

Table I/1.1-4 Balance of migration in different directions in the rural areas of Russia 1991-2000 ('000s)

Migration	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Total	165	413	251	257	136	84	68	50	56	5
Within Russia	85	201	20	-66	-65	-62	-92	-72	-9	-68
Intra-regional	-20	79	-26	-102	-102	-86	-80	-68	-26	-58
Inter-regional	105	122	46	36	37	24	-12	-4	17	-10
International	80	204	231	324	200	142	159	146	65	74
CIS and Baltic Countries	94	222	255	346	231	168	179	148	95	98
Other foreign Countries	-14	-18	-24	-22	-31	-26	-20	-2	-30	-24

Source: Goskomstat of Russia: Statistical Yearbook. Russia 2000. Moscow, 2001. Tables 5.31, p.100.

This was probably the result of the critical situation in the cities at that time, e.g., food shortages. The other reason was the wish to persevere through bad times in the country, where it was easier "to survive".

There was also a sharp increase of migration to Russian villages from the other former Soviet republics. During 1991-2000 such migrants totalled 1.7 million people. Not all of them settled in the rural area. However, such a powerful inflow of active population stimulated the revival of economic activity in the rural areas, weakened by a long-term outflow of the most active population.

By the mid-1990s migration from rural to urban areas returned, though at lower rates than in the 1980s. The main reasons were economic crises in the villages, a surge in unemployment (higher than in cities), a rapid decline in the standard of living, destruction of the rural infrastructure, and isolation of rural settlements due to the curtailment of public transport and the growth of fares.

Administrative and territorial reorganisation: In the twentieth century the settlement process in Russia was rather stable. Extensive urbanisation continued till the 1990s. It was characterised by a growth of the number of urban settlements, and the number and proportion of the urban population. Since the late 1920s the rural population in Russia has steadily declined. As a result by 1991 the number of cities and the percentage share of urban population reached their peak (3,256 and 73.9 % respectively). However, in the 1990s these trends changed. While the rural population grew, the urban population began to decline and fell to 73 % by 2000.

As is well known, the ratio of urban and rural population changes due to migration, to the difference in natural increase, and to a lesser extent due to changes in administrative boundaries. The latter was of great importance in Russia in recent years.

In the 1990s the administrative and territorial reorganisation of urban settlements into rural settlements accounted for 4/5 of the increase in the percentage of the rural population in Russia. The number of such settlements decreased by 15 %. In Ust'-Orda Buryat Autonomous Okrug, a new administrative division of the Russian Federation, all urban settlements were reorganised into rural settlements.

The reverse process was slower. In 1991-1999 only 21 new urban settlements (total population – 108,000) were registered in the regions with considerable population growth – Republic of Dagestan, Republic of Bashkortostan, Stavropol' Kray, and other). In the 1980s about 20 new urban and urban-type settlements were established annually. Thus there is direct evidence of the actual halting of the process of establishing new urban settlements in Russia along with the growth of the number of rural settlements.

The most large-scale reorganisation of urban into rural settlements took place in the Altay Kray, Rostov Oblast, Orenburg Oblast, Tyumen' Oblast, Republic of Kalmykia-Khalmg-Tangch, Republic of Karelia, and Republic of Gornyy Altay. We could say that such reorganisation was more common in national autonomies and southern agricultural regions of Russia. These regions already had a lower proportion of urban dwellers, decreasing even further in recent years. This trend is contrary to the Soviet periods' gradual levelling of urbanisation in different regions, when the number of urban population in more rural regions increased more rapidly than the country's average.

There are three major reasons for these changes. In the Soviet period the level of urbanisation was artificially raised for ideological reasons:

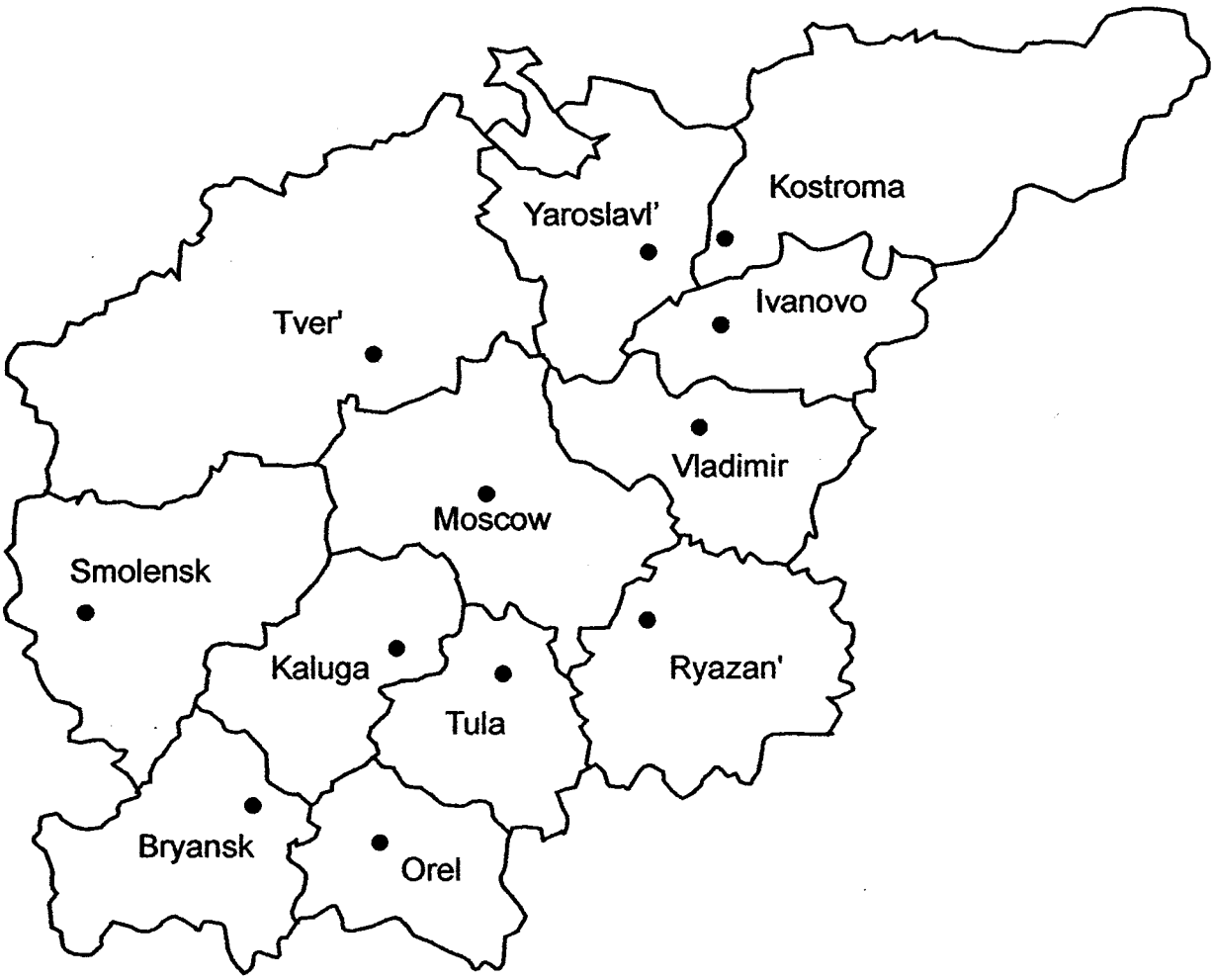
- Firstly, it was achieved by just labelling larger agricultural settlements as urban (in the southern regions of the country). In the 1990s many industrial production facilities in these urban-type settlements were closed or had to make considerable cutbacks in the workforce owing to the economic crisis. Level of agricultural employment exceeded the legal threshold of 15 %.
- Secondly, the settlements with a population below the required threshold kept their urban status. This often took place in the northern regions near the redundant mining and timber industries.
- Depopulation in most regions of Russia was another reason for the great number of urban settlements that were too small. As a result, as soon as political pressure from the Central Government weakened, such settlements (large – agricultural in the south, small – in the north) were reorganised into rural settlements in accordance with legislation.

In the critical socio-economic situation people did everything possible to survive. Being a country-dweller turned out to be better than being a town-dweller. There were more opportunities for obtaining a plot of land for subsistence farming, cheaper utilities, higher rise in wages, etc. People therefore had a material incentive to reorganise their settlements from urban to rural.

The urban way of life did not take root in the culture and minds of most of the population of Russia, so mentally people were in favour of reorganising their settlements from urban to rural.

All this led to a rare situation in Russia, where the material and moral aspirations of the people coincided with the legislative norms that establish strict criteria for urban settlements. There was a mass reorganisation of urban-type settlements into rural settlements, and the increase in the number and percentage of the rural population in Russia in the 1990s was the result of socio-economic and political changes.

Figure I/1.2-1 Oblasts of the Central Region



Draft: W. Lindner
Cartography: F. Weigt

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1.2 Rural areas of the Central Region (case studies)

The rural administrative divisions selected for the survey are diametrically opposed in natural, resource, and socio-economic parameters.

Demidov Rayon within Smolensk Oblast represents a typical settlement of the Non-Black Earth Zone, usually characterised as an old agricultural territory with poor podzol soils that require fertilisers, with low-profit agriculture, an underdeveloped road network, a disintegrating settlement network, and an ageing and shrinking population.

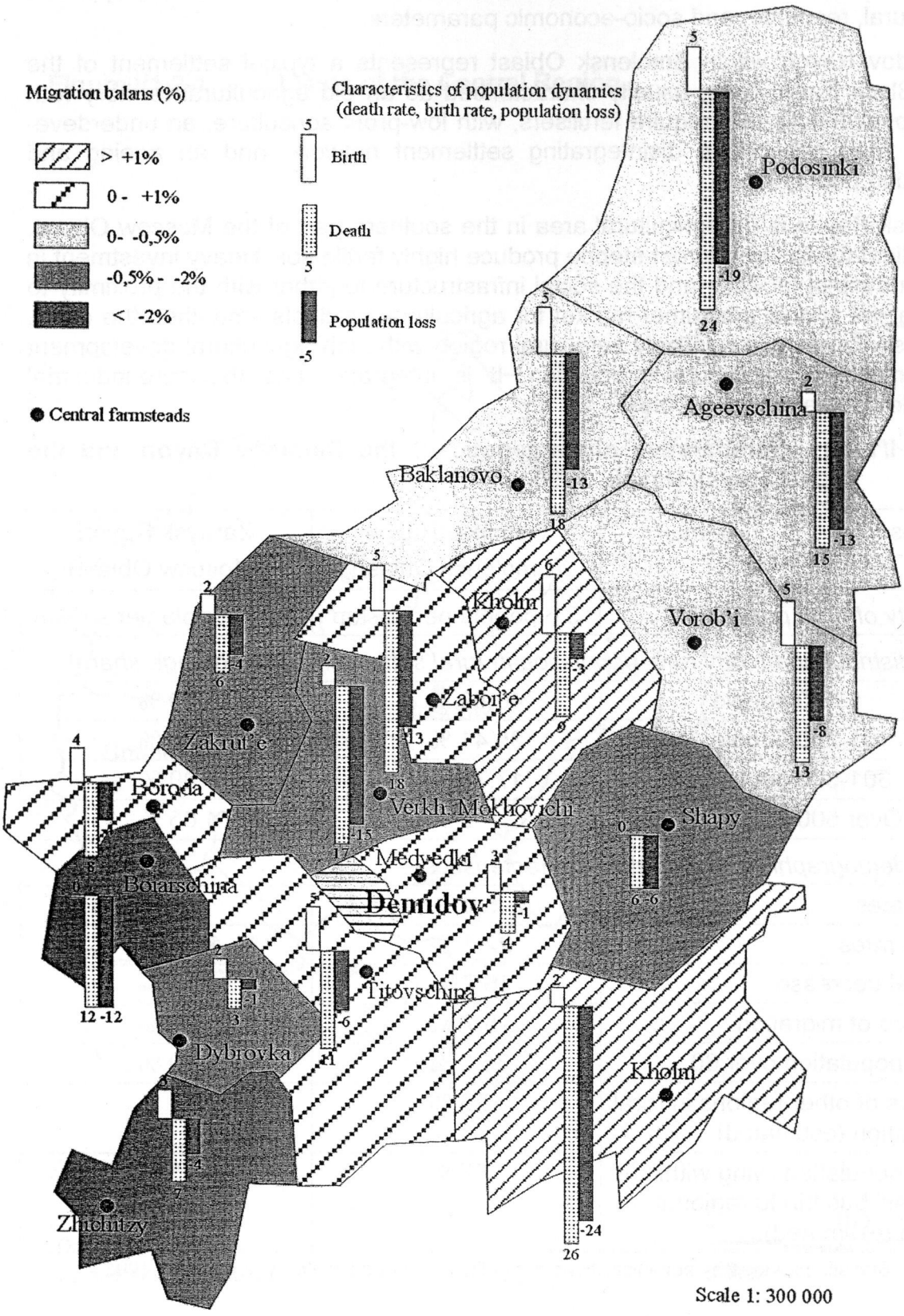
Zaraysk Rayon is an agricultural area in the southern part of the Moscow Oblast. Broadleaf forests and forest-steppe produce highly fertile soil. Heavy investment in agro-industrial facilities and the social infrastructure together with the proximity to the capital and its consumer market for agricultural products smoothed the crisis. Zaraysk Rayon is a relatively safe rural region with high agricultural development and intensive agricultural production. It is integrated into the agro-industrial complex of the Moscow Oblast.

Table I/1.2-1 Comparative characteristic of the Demidov Rayon and the Zaraysk Rayon, 1998

Indices	Demidov Rayon (Smolensk Oblast)	Zaraysk Rayon (Moscow Oblast)
Density of rural population	3.6 people per sq. km	18.0 people per sq. km
Size distribution of total rural population in rural settlements (percentage share)		
1-100 people	46.89 %	11.70 %
101-300 people	35.41 %	10.25 %
301-500 people	17.70 %	4.00 %
Over 500 people	0 %	74.05 %
Main demographic and migration characteristics		
Birth rates	5.4 ‰	6.4 ‰
Death rates	22.1 ‰	16.4 ‰
Natural decrease	-16.7 ‰	-10 ‰
Balance of migration	-5.7 ‰	5.9 ‰
Rural population over 60	35.8 %	19.30 %
Natives of other regions in rural population (estimated)	26 %	41 %
Rural population living within 30 minutes' bus trip to regional centre (estimated)	57 %	95 %

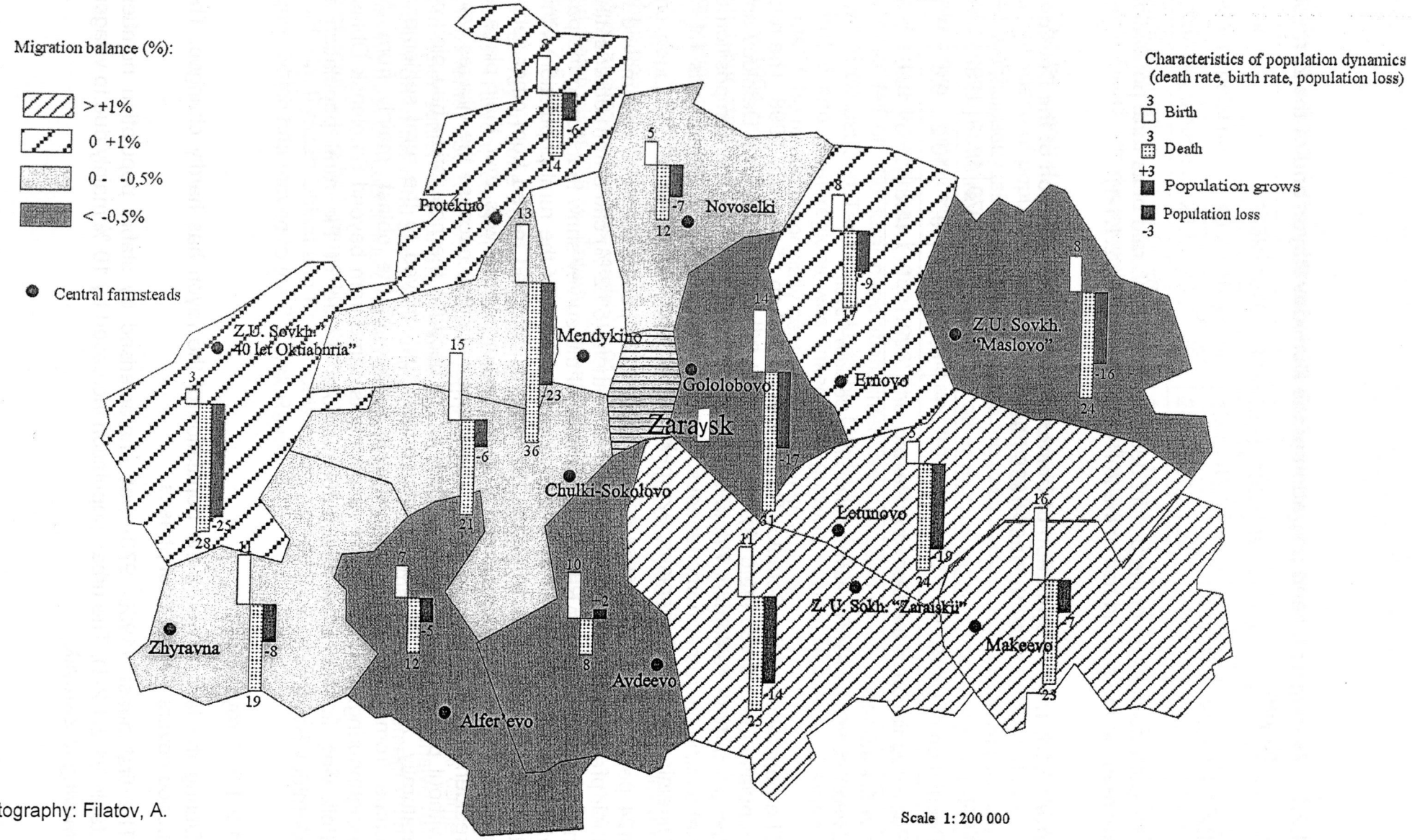
Source: Statistic provided by administrations of the Demidov and the Zaraysk Rayons, 1998.

Figure I/1.2-2 Populations dynamics and migrations of the Demidov Rayon, 1998



Cartography: Filatov, A.

Figure I/1.2-3 Populations dynamics and migrations in the Zaraysk Rayon, 1995



Cartography: Filatov, A.

1.2.1 Demography and migration of the Demidov Rayon and of the Zaraysk Rayon

1.2.1.1 Demidov Rayon

The outlying position of the district determined the high rate of its rural population decrease in the second half of the 20th century (table I/1.2.1.1-1).

Table I/1.2.1.1-1 Population of Demidov and rural population of the Demidov Rayon, 1959-1998 ('000s)

Year	1959	1970	1979	1989	1992	1998
Population of Demidov	6.9	8.5	9.7	10.2	9.8	9.7
Rural population of the Demidov Rayon	-*	-*	15.8	11.3	10.6	9.1

* no data available.

Source: Statistic provided by administration of the Demidov Rayon.

The population of the Demidov Rayon was 21,300 on 1st January 1998. The rural population was 9,100 (42.6 %), and the urban population (the town Demidov and the urban-type settlement Prshevalsk) was 11,200 (57.4 %). The composition of nationalities is rather homogeneous. Russians make up 97 %, Belarusians 1.1 %, Ukrainians 1.1 %, Armenians, Azerbaijanis, Gypsies and others 0.8 %.

404 people were questioned in June 1999. 229 people (56.7 %) had moved to their present homes (non-natives). Most of them (53.2 %) came from other settlements of the Demidov Rayon. The results of the survey show that during the past decades there had been an intensive redistribution of the rural population within the region. More than 1/5 of the respondents who had moved from other settlements in the district indicated that the major reason was that their place of residence had "ceased to exist". This happened either because the villages were without prospects and became defunct, or because the population had died off naturally. Another 24.4 % of respondents who moved to the rural settlements came from other rural administrative entities of the oblast, mainly from the neighbouring. Only 12.3 % of respondents came from beyond Smolensk Oblast. Following figures show the autochthonous nature of the rural population of Demidov Rayon.

1.2.1.2 Zaraysk Rayon

During the last 40 years the population of the rayon has hardly changed. This period covers a number of phases.

The first phase (1959-1970) was characterised by stable population numbers (table I/1.2.1.2-1). The urban population increased by 10 % mainly due to villagers moving to Zaraysk.

Table I/1.2.1.2-1 Population of the Zaraysk Rayon, 1959-1999 ('000s)

Year	1959	1970	1979	1981	1990	1991	1993	1995	1997	1999
Total population	40.2	40.4	43.0	43.1	45.3	45.3	45.3	44.9	44.3	43.7
Urban population	21.5	23.7	26.6	26.6	27.2	27.2	27.3	26.7	26.3	25.9
Rural population	18.7	16.7	16.4	16.5	18.1	18.1	18.2	18.2	18.0	17.8

Source: Statistic provided by administration of the Zaraysk Rayon.

During the second phase (1971-1979) the population grew by 6 %. However, the total increase of population of the rayon Zaraysk fell. The rural population decreased insignificantly, since people moved to the town Zaraysk not only from the rural settlements of the rayon, but also from other regions (mainly from the Mordovian Autonomous Soviet Socialist Republic and from the Ryazan Oblast).

During the third phase (1980-1993) the population grew steadily. Most of the increase fell on the rural population. Intensive migration to the rural area from Ryazan Oblast and Tambov Oblast, the Mordovian Autonomous Soviet Socialist Republic and other regions was linked with growing interest in the rural settlements of the region (especially central villages of sovkhozes).

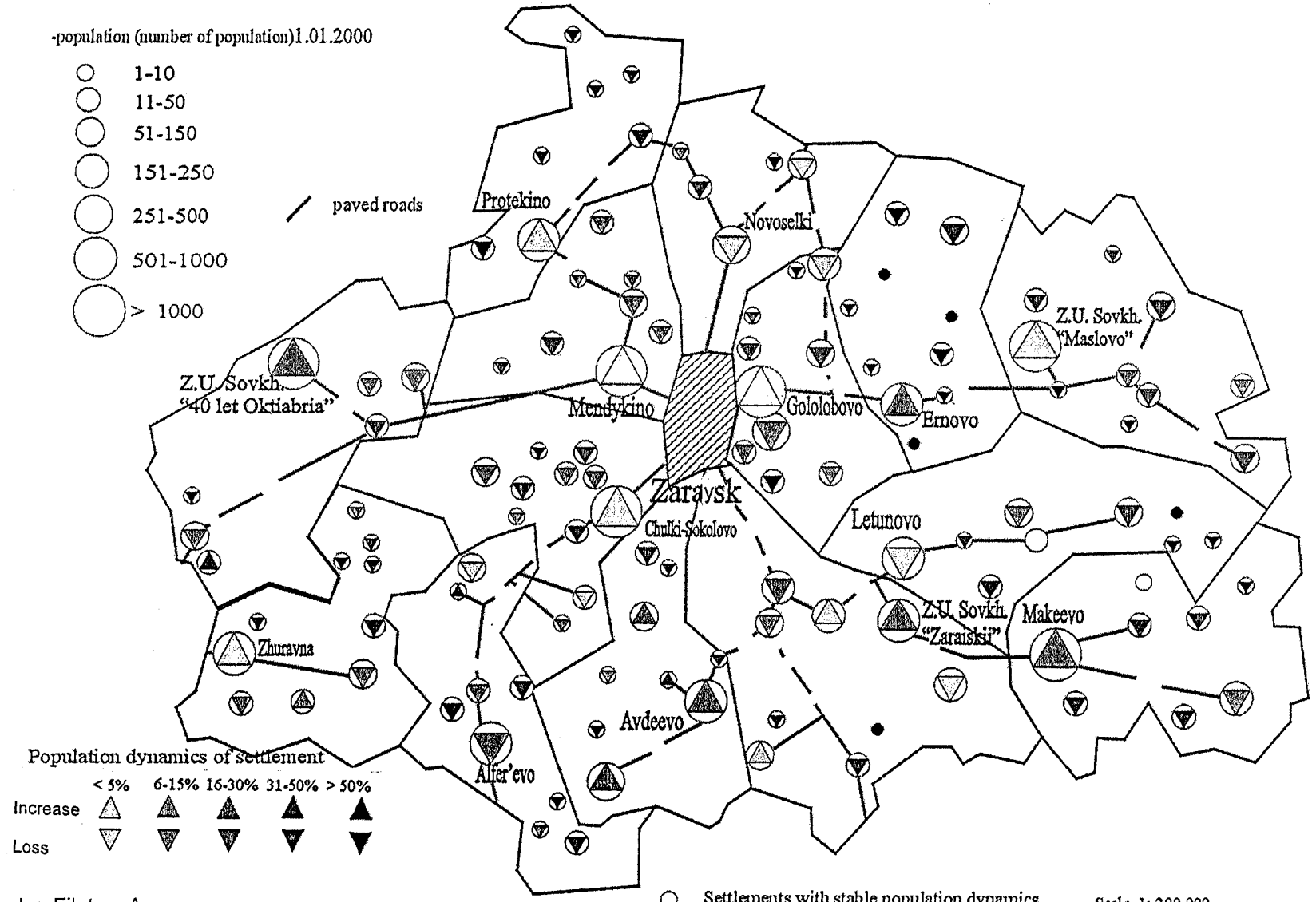
Since 1994 both the rural and the urban populations have begun to decline. A small but stable inflow has not compensated for the natural decrease in the population.

The population of the rayon Zaraysk on 1st January 1999 was 43,600, with an urban population of 25,800 (59.0 %) and a rural population of 17,800 (41.0 %). In the rural areas Russians made up 91.2 %, Mordvinians 4.7 %, Ukrainians 1.4 %, and Belorusians 0.3 %. Tatars, Chuvashs, Armenians, and Azerbaijanis made up about 2.5 %.

The survey in June 2000 showed the specific structure of the rural population of Zaraysk Rayon, caused by intensive inflow to the rural area. Out of 383 respondents, 238 (62.1 %) had moved to their present residence. 33.6 % came from other settlements of the Zaraysk Rayon. This fact illustrates the intensive redistribution of the rural population within the district. It is mainly re-settlement from outlying rural districts to the central villages of sovkhozes.

Most notable is a high proportion of migrants from regions such as the Republic of Mordovia, Ryazan Oblast and Penza Oblast. They made up 21.4 % of the respondents, which had moved to the Zaraysk Rayon.

Figure I/1.2.1.2-1 Population dynamics of settlements in the Zaraysk Rayon, 1st January 1990-1st January 2000



Cartography: Filatov, A.

1.2.2 Transformation of the rural settlement system since 1991

1.2.2.1 Demidov Rayon

Demidov Rayon - like most rural regions in Central Non-Black Earth Zone - is sparsely populated and is characterised by scantly populated settlements. By 1999 the average density of population of the rayon (including town Demidov and urban-type settlement Prshevalsk) was 8.4 persons per km^2. The average density of the rural population did not exceed 3.6 persons per km^2.

Vast woodlands and expanses of marsh caused uneven distribution of rural settlements. The major zones with relatively high density of settlements are situated along the roads. Large territories in the central and eastern parts of the district are practically devoid of permanent population.

In the period of 1979-1992 Demidov Rayon lost 46 out of 288 rural settlements. Their average population decreased from 55 to 44 inhabitants. Intensive natural decrease and outflow from the settlements led to the disappearance of many villages, and deteriorated gender and age distribution of the population.

The agricultural crisis in the district deepened in the mid-90s and excluded almost all the rural population of the outlying districts from economic activity. It caused the outflow of most able-bodied people from small and medium-sized settlements. The crisis activated "ascending" migration of the rural population. The central villages of sovkhozes, where some services and employment possibilities still remained, attracted migrants from small and medium-sized settlements. At the same time they lost the population that migrated to urban settlements.

The analysis of the development of the rural settlement network of Demidov Rayon in the 90s allows us to conclude:

There is a tendency towards the disappearance of population in the settlements with less than 50 inhabitants (for 1992).

Large-scale depopulation in the settlements with 51-100 inhabitants. With no prospects for economic revival and poor quality of life they will become sparsely populated villages of ageing people in 5-7 years.

Migratory inflow from small-sized settlements will not be able to compensate natural decrease and outflow from the medium-sized and large settlements in the district. Their population will inevitably decrease in the next few years. However, these settlements may yet remain the centres of economic and social activity amidst their deserted surroundings.

1.2.3.2 Zaraysk Rayon

The system of the rural settlements in the district is typical for the agrarian region of Moscow Oblast. There is a combination of small-sized settlements typical for Central Non-Black Earth Zone (about 85 % of the settlements have less than 200 inhabitants) and a high concentration of population in the largest rural settlements (almost 75 %). The rural settlements are distributed quite evenly about the region.

The major changes in the system of rural settlements in the 1990s were linked with intensive depopulation of the outlying rural districts, brought about by natural decrease and outflow.

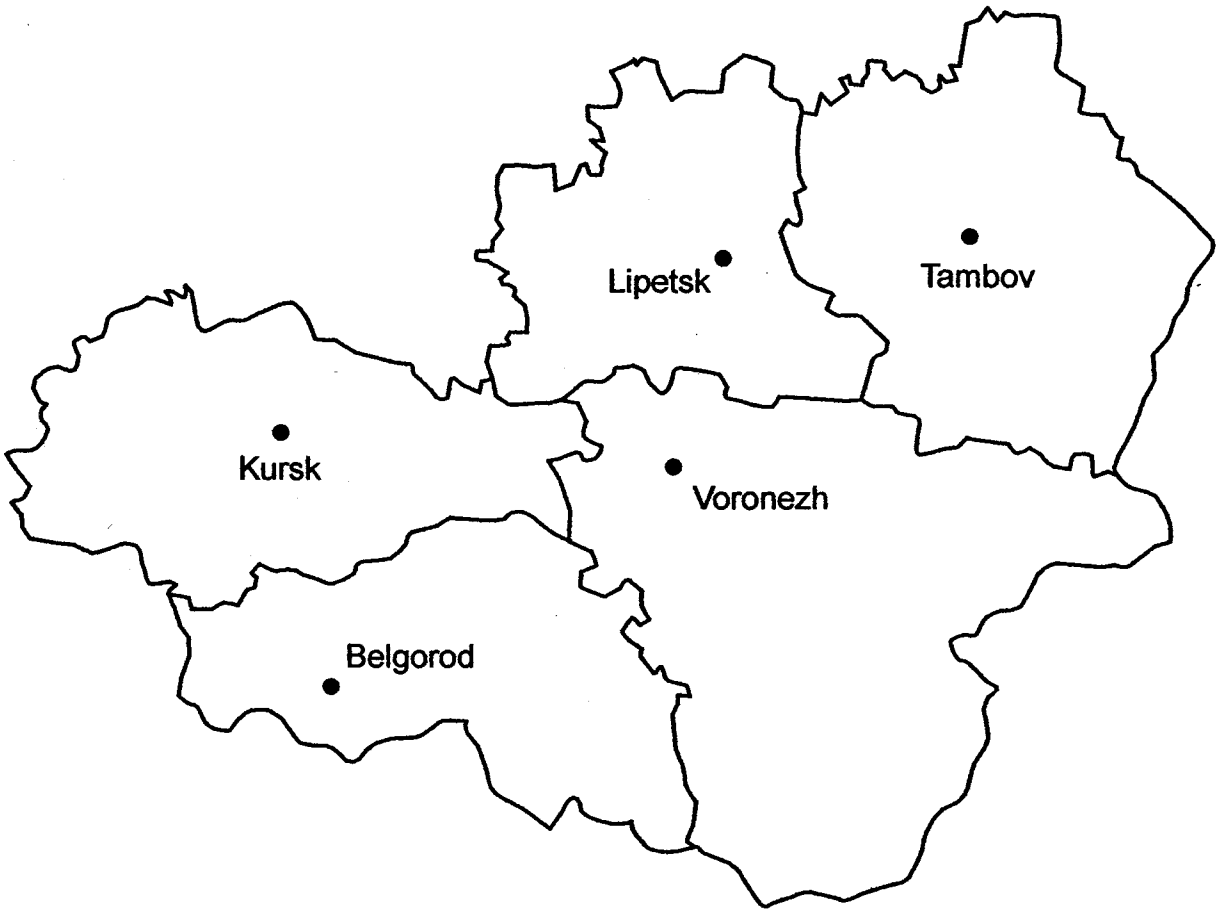
The central villages of sovkhozes - the most stable settlements - have usually more than 500 inhabitants. The population growth in most of them was due to intensive inflow from small villages and a relatively low rate of natural decrease.

Many small settlements lost their population of working age. At present new summer residents ("dachnik") are actively developing these settlements. They are the residents of the neighbouring central villages of sovkhozes with a high level of urbanisation, e.g. multi-storey buildings, which makes them long for a small country house ("dacha").

In the near future two trends will dominate in the system of rural settlements in Zaraysk Rayon:

- Firstly, there will be a decline in the population in the settlements with less than 500 inhabitants.
- Secondly, the population of larger settlements will grow slightly. These changes will bring about the further concentration of economic and social activity in the central villages of sovkhozes, while the outlying rural districts will be mainly subject to recreational development.

Figure I/1.3-1 Oblasts of the Central Black Earth Region



Draft: W. Lindner
Cartography: F. Weigt

0 50 100
Miles

1.3 Rural areas of the Central Black Earth Region

Central Black Earth Region is traditionally characterised by the most complex demographic situation in Russia. It is the result of the long-term mass outflow of the rural population, the ageing of the population, and disproportions in the structures of age and gender. Voronezh Oblast, Tambov Oblast, and Kursk Oblast have the most disproportionate age and gender distributions. All this is less typical for Belgorod Oblast and Lipetsk Oblast, which have undergone rapid industrial development over the last decades.

Reproduction of the population has been the major factor in the dynamics of the rural population in Voronezh Oblast over the last twenty-five years. In 1989 depopulation took place in all administrative entities of the oblast.

In the 1990s the inflow of population to the rural areas of the Voronezh Oblast and a slight increase in birth rate changed the mode of depopulation. The following trends could be spotted: rural and urban birth rates became very close despite the remaining difference in age distribution; there was transition to the one-child-family; a growing number of children born to mothers under 16; increase in the number of illegitimate children.

In 1995 the birth rate of the rural population of the Voronezh Oblast was 8.4 ‰ compared to 7.6 ‰ in 1997. The birth rates in the rayons closer to the administrative centre is higher than in the outlying districts.

The growing death rate of the rural population due to ageing of the population, fall in the standard of living, and poor medical care are notable for the oblast in the 1990s. In 1994 the death rate of the rural population reached its peak during the second half of the twentieth century and made up 21.9 ‰. In 1997 it was 21 ‰. One of the problems of the reproduction of the rural population is the anticipatory increase in the death rate of the population of working age, especially males. In the 1990s the number of deaths increased by 3.1 % annually, and the number of deaths of people of working age grew by 5.4 %. They made up 22.7 % of the total number of deaths. By the end of the nineties the death rate of males in the rural population of working age was 4.5 times higher than of females. At the same time, females in the rural areas lived 15.6 years longer than males. Smoking and drinking among males is one of the major reasons for this disproportion.

On the whole, despite some positive features of natural increase of the rural population in the nineties, Voronezh Oblast cannot reproduce its population since the death rate exceeds the birth rate 2.5 times. Experts confirm the extremely negative character of the natural increase of the rural population. 2/5 of them estimated that the demographic situation in the second half of the 1990s was much worse compared to the first half. 1/4 said it was a little worse, and 1/5 claimed it had not changed.

Migration of the rural population of Central Black Earth Region was for many years the major cause of the population decrease. In the 1970s and 1980s an ageing rural population brought about a decrease in migration mobility. In the early nineties the situation changed. There was a further decline in the outflow of the rural population due to a drastic reduction in employment opportunities in local towns for the rural residents. The balance of migration of the rural population became positive as a result of intensive inflow of the population from the other

former Soviet republics, and northern and eastern regions of Russia. The boundary territories of Central Black Earth Region had the highest inflow (particularly Belgorod Oblast and Voronezh Oblast).

In 1989 the positive balance of rural migration comprised 2,400 people (2.6 ‰). The inflow exceeded the outflow in 24 administrative divisions of the oblast. In 1995 the positive balance of rural migration was observed in 27 out of 32 divisions.

Migration of the rural population had some particular features:

- Firstly, the inflow to the southern rural areas bordering Ukraine and Rostov Oblast was more intensive than to the northern rural areas.
- Secondly, there was a distinct influence of the oblast administrative centre on the suburbs, where there was high inflow of population.
- Thirdly, a favourable situation in migration was created in the regions adjoining the main transportation axis "north-south".
- Fourthly, there was a considerable outflow of the rural population from remote and outlying districts of Voronezh Oblast.

The inflow of the rural population began to decrease in the mid-1990s. In 1995 the balance of migration exchange of the rural population made up 8.1 ‰, in 1996 5 ‰, and in 1997 only 3.2 ‰. Moreover, in the late 1990s the rural area of Voronezh Oblast once again became less attractive for migrants than cities. In 1992 the population of the rural areas grew by 16.8 thousand people due to migration exchange, and the rural areas accounted for 66.7 % of the total number of migrants in Voronezh Oblast. Yet in 1997 these figures were 3,000 and 34.9 % respectively. The inflow to the rural settlements of the oblast had already influenced the number of population. According to sociological surveys of the selected rural settlements, refugees, displaced people and seasonal workers make up 4 % of their population.

According to the Ph.D. thesis study of the territorial organisation of rural population and rural settlements of the Voronezh Oblast carried out by A. Krupko[3], the resumption of migration of rural population beyond the bounds of the oblast is most likely to happen with the stabilisation of the economic and social situation in Russia. This will inevitably lead to lesser reproduction of the population and further worsening of the demographic processes. 8 out of 32 administrative entities of the Voronezh Oblast had a negative balance of migration in 1999. Experts also note some worsening of the situation in migration in the second half of the 1990s (in comparison to the first half). 1/5 of them think that the situation is much worse, 1/3 say it is slightly worse, and 1/5 do not see any major differences.

Thus, the unfavourable current demographic situation and migration in the rural area of Central Black Earth Region is the major cause of its degradation. At the same time the economic situation of the country and the region does not allow it to implement large-scale regional demographic and migration policy. At present it is possible only to restrict to a certain extent the most unfavourable and dangerous demographic processes of rural population.

[3] Krupko, A. Ė.: Methodical basis of the research of rural settlements and population of the region. Issue of the Voronezh Department of the Russian Geographical Association. Vol. I. Voronezh. 1999, p. 25-27. (Russ.)

1.4. Rural areas of Altay Kray and the Republic of Gornyy Altay

The number of rural population of Altay Kray is significantly. At present 48 % of the population (1,250,000 people) live in the countryside. The average number of habitants in rural settlements is 777, i.e. three times the average figure for Russia. Recently there has been a decrease in the number of the rural population. The first reason is the current negative natural increase, which was registered in 1992 for the first time in the post-war period. The second is the ongoing outflow of the rural population to urban settlements.

The population of the Republic of Gornyy Altay is 203,900 people with an average population density of 2.1 persons per sq. km. The rural population makes up 73 %.

In the 1990s the birth rate declined, the death rate increased, and the average life expectancy fell dramatically. There was a steady decrease in population in most regions. The increase of infant mortality rates and the death rate of the population of working age is alarming.

In the 1990s migration of the population in Altay Kray was notable for its growing intensity. In 1989-1993 the rate of migration intensity was 12.8 %, and in 1994-1998 it grew to 25 %. The interregional redistribution of population was largely determined by socio-economic factors.

In the 1980s much capital was channelled to the development of the industrial and social infrastructure in the countryside, to the technical re-armament of industry, to providing agriculture with skilled personnel, and to the levelling of the income of the rural and urban populations. New economic documents on co-operation and development of farms gave people more economic freedom and opportunities to support their families by working in rural areas.

Socio-economic development in rural territories caused the decrease of the outflow of rural population to cities in 1986-1989. The economic crisis in the early 1990s and food shortages in cities initially fuelled this tendency, and then led to the outflow of the urban population from Altay Kray to the rural areas. The highest outflow of this kind was noted in 1991-1993. However, the situation changed in 1994-1995. The slump in agriculture continued, the gap in wages in industry and agriculture widened, and there were chronic delays in the payment of wages in all sectors of the economy. However, in agriculture it was more acute and unemployment in rural areas increased. Migration from rural areas to cities resumed.

The balance of migration was different in regions. While it was positive in 2/3 of regions, the outlying regions showed a negative balance of migration. Insufficient development of the road network, and social infrastructure as well as unemployment stimulated the mass outflow of population from these regions.

Young people dominated in the outflow from villages to cities, mainly school leavers with high migration activity seeking further education and employment opportunities. The proportion of 15-19 and 20-24 year old migrants is almost 2 times higher than other age groups. School and university graduates do not return to their village but stay in cities where there are better employment opportunities and more attractive living conditions.

In the situation of depopulation in Russia and CIS (Commonwealth of Independent States) there is an intensive inflow of population (mainly Russian) to Altay Kray

from the Middle Asian republics and Kazakhstan, rejuvenating the population of Altay Kray. Most forced migrants settle in cities and suburbs with a few of them choosing the countryside. The latter improve the demographic situation in rural areas, but often aggravate socio-economic problems (the worst of them being unemployment and housing).

Ageing of the population is typical for rural areas. It is particularly acute for the outlying districts since practically all young people migrate to the cities. This upsets the age distribution of the population, resulting in villages with an ageing population. Recently, migration of the population of working age, especially males from the countryside to the cities, intensified. This has created a gender disproportion, with an increase in the number of ageing women. The age distribution of the rural population improves during the summer, when city dwellers come to their country houses and young people come to spend holidays.

External migration, especially to Germany, took place in Altay Kray. It declined greatly in the second half of the 1990s.

The Republic of Gornyy Altay has similar migratory processes. However, they are less distinct due to a small population and the low mobility of the indigenous population.

2 Employment of the population and the problem of unemployment in rural areas of Russia

2.1 Rural areas of Russia – a general view

The economically active population under retirement age in Russian rural areas accounts at present for 15.5 mil persons. It should be noted that the rate of economic activity in the countryside is traditionally much lower than in urban settlements because of greater occupation in individual subsidiary households. According to State Committee on Statistics data, at the end of 2000 the rate of economic activity of the rural population of Russia (i.e. the percentage of the economically active population for the total population under retirement age) was 72.9 % as opposed to 79.3 % for the urban population of the country.

The economically active rural population comprises 13,7 million employed and 1,8 million unemployed (using the methodology of the International Labour Organisation, ILO). Accordingly, the employed rural people are 64.4 % of population of working-age or 36.0 % of the total rural population of the country. These figures are also considerably lower than the analogous indicators for the urban Russian population, which are 71.7 % and 45.8 % respectively.

It is worth noting that the individual subsidiary household often involves a market production. For instance, according to the 2000 research by the State Committee on Statistics about 2 million rural inhabitants aged 15-72 declare that they have produced goods for sale (wholly or partly) on their personal land-holdings and did not have any other form of income. This means that these people can be regarded as employed in agriculture and therefore as economically active. This group of manpower is important for the study of the overall change in employment in the rural population during the 1990s.

Generally speaking, since the emergence of the market reforms the number of employees in rural areas within Russia has fallen more than in urban settlements in the country. This, however, has taken place at the expense of the outflow of a considerable number of rural population from public production (and thus from the economically active population) to the individual subsidiary household (economically inactive population). If this group of rural inhabitants which produces goods for the market in their individual subsidiary households (thus effectively being economically active and employed) is taken into account, the rate of reduction of the employed population in rural and urban settlements of Russia during the 1990s is practically constant at 8-9 % every 10 years.

As in the past, Russia's rural population works mainly in agriculture, which in 2000 incorporated about half of the employed rural population of the country. Although employment in this branch fell steadily up to the 1990s (to 9.7 million in 1990-1991), there was a spurt in agricultural employment in the early 1990s (up to 10.3 million by 1994). The background for this growth was the falling number of employees in the majority of other Russian industries and the economy of the country generally.

However, in the late 1990s there was an obvious rapid fall in the rate of employment in the country's agriculture. In 2000 there were 8.5 million jobs in this sector, taking into account the above-mentioned workers in individual subsidiary households producing for the market. At the same time there was some growth in the number of employees in many other industries (and in Russia's economy altogether).

This means that in the 1990s Russian agricultural employment demonstrated trends of movement contrary to the country's other economic sectors. Whenever jobs in other sectors declined, agricultural employment grew, and vice versa. As a result, the agricultural share of total employment in the Russian economy has not changed in comparison to 1990 (about 13 %), although this rate reached 15 % in the middle of the 1990s.

In 1990 the branches in the tertiary sector of the economy ranked second in the employment structure of Russia's rural population (about a quarter of employees). During the 1990s the importance of this sector for employment grew considerably. It presently involves about a third of the country's rural inhabitants. Some industry sectors (trade, the housing industry, etc.) experienced a stable growth of jobs during the whole period studied, while the number of employees remains practically unchanged in many other sectors (education, health care). It was these developing industries which provided for the growth of the tertiary sector in the employment structure of Russia's rural inhabitants during the 1990s. It should be noted that some of the rural inhabitants occupied in the tertiary sector's industries do not actually work in the countryside, but there is pendulum migration to nearby urban settlements. The number of such pendulum migrants has grown during the last decade.

The importance of the secondary sector of the economy (industry and building) for the employment structure of Russia's rural population diminished significantly during the 1990s. The number of rural inhabitants occupied in the second sector's industries fell from 21 % to 15 %. This was linked to the fact of an deep economic crisis, industrial enterprises and building organisations in rural areas suffer worse

than those in urban settlements. Many were closed down while others were forced to make redundancies. At the same time some of the rural inhabitants working in industry and construction went over to the tertiary sector. This also refers to people living in rural settlements as commuters. They still worked in urban settlements but in other branches of the economy.

Therefore, taking Russia as a whole, rural areas have undergone the same process of transferral of employees from the secondary to the tertiary sector. In some cases this has probably taken place through jobs in agriculture, where, as indicated above, employment grew in the second half of the 1990s and then started to fall rapidly. Meanwhile, with the revival of the Russian economy in general, the number of rural (as well as urban) employees in industry and construction began to grow in 1999-2000.

Thus, the system of employment of Russian rural inhabitants went through substantial changes during the 1990s. The total numbers of the economically active and employees decreased considerably. A large proportion of former economically active inhabitants is nowadays exclusively engaged with individual subsidiary household activities. As for the employment structure, while the primary sector of the economy (agriculture) has preserved its leading role, the share of the tertiary sector has increased, and the importance of the secondary sector has diminished greatly. Similar trends were also observed among the urban population of the country. As the labour market was evolving, a new category of population emerged (officially absent in Soviet era); the unemployed. The issue of unemployment, which became one of the most acute in Russia in the 1990s, should be particularly explored.

During the Soviet period Russian rural areas (with exception of a few regions) were considered to be labour deficient. Therefore, it was assumed that under market conditions some of the unemployed should be able to find jobs in rural labour market. In practice, since 1994 the unemployment rate of the rural population has become higher than of the urban population. This ratio has emerged due to the fact that while the extent of job losses in both rural areas and urban settlements was practically equal, in urban settlements a large number of new workplaces were created, which was not the case in rural areas (except for the suburbs of large cities).

In 1999-2000, some reduction of the unemployment rate was observed in both the country as a whole and rural areas. Meanwhile, the indicator is still high and near critical. At the end of 2000, according to the methodology of the ILO the unemployment rate of the population under retirement age was 11.7 % for rural inhabitants and 9.6 % for the urban population of Russia. It is worth noting that the unemployment rate has seasonal fluctuations in rural areas, but does not in urban settlements. This indicator reaches its peak in February and its lowest point in August[4]. The unemployment rate in Russia's rural areas peaked in February 1999 at 14.1 %.

One distinct characteristic of the countryside is the sizeable gap between the unemployment rate of men (10.8 % at the end of 2000) and women (12.4 %).

4 The State Committee on Statistics conducts the studies of employment of population four times per year, in February, March, May and November.

There is no difference in this indicator between men and women in urban settlements. This ratio is linked to the fact that women in rural areas are much more involved in the individual subsidiary household, and therefore many of them fall into the category of the economically inactive.

Another significant feature lies in the fact that the numbers of unemployed young people in rural areas (42 % of those unemployed are under 30) are higher in comparison with urban settlements (36 %). This is another sign of the narrowness of the labour market in rural areas. There are few workplaces suitable for young people. And this has been one of the main reasons for the outflow of the young rural population to cities and, where such an option is absent, for the intensive degradation of the younger generation in the countryside (increasing alcoholism, criminality, etc.).

A more stagnant character of unemployment in rural areas is manifested by the structure of the unemployed in relation to the job seeking period. About half of the unemployed in rural areas search for a job for more than a year, while in urban settlements this figure is 40 % of the unemployed.

It is well known that only a small number of the unemployed are registered with the State Employment Service. For instance, a million people were registered as unemployed at the end of 2000, whereas unemployment among those under retirement age numbered 6.6 million in the same period according to the methodology of ILO. Meantime, the rate of unregistered unemployment in rural areas is also somewhat higher than in urban areas.

There is a significant regional difference in the intensity of unemployment within Russia. In the countryside this difference is higher than among the urban population, which can also be considered a distinguishing feature of the rural labour market in Russia.

The North Caucasian republics Ingushetia, Dagestan, North Osetia-Alania, Karachayevo-Cherkessia distinguish by the peak rates of unemployment (25 % and more). The rate of unemployment is noticeably higher in their rural areas than in urban localities. These regions were also considered to be labour-excessive in the Soviet period. They had a high natural growth of the population, whereas agricultural resources (agriculture being the major sector) were limited. As a matter of fact this is typical agrarian over-population, which has even intensified in the last decade because the migration outflow of the "excessive" population of these republics has declined as a result of the socio-economic crisis and the rise of ethnic tensions. A similar situation manifests itself in some national autonomies of Siberia: the Republic of Tyva, the Republic of Gornyy Altay, and the Agin-Buryat Autonomous Area.

The lowest rate of unemployment in rural areas is in the regions with both favourable natural conditions for agricultural development and low demographic potential, which was exhausted by intensive migration outflow during the previous decades. For example, the rate of unemployment is lower than 6 % in the Belgorod, Voronezh and Ulyanovsk Oblasts. In all regions with a low rate of rural unemployment, this rate is significantly lower in the countryside than in urban settlements.

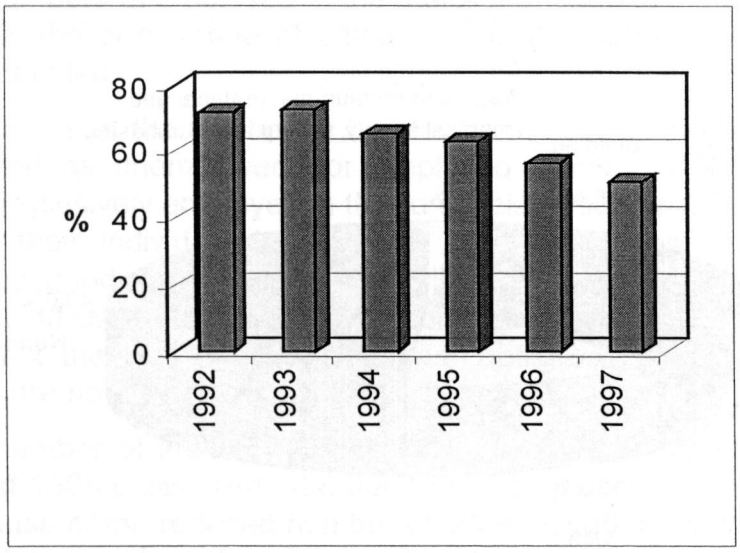
Generally it can be noted that the countryside has more acute unemployment problems than urban settlements. This is linked to the slow progress of creation of new workplaces and the weaker activity of the rural labour market compared with the urban. Meanwhile, there is a big spatial difference in the acuteness of unemployment. The situation is especially difficult in those regions which are traditionally labour-excessive. However, the situation in the rural labour market in many regions of the country is better than in urban settlements, which is explained by both natural and socio-economic factors.

2.2 Rural areas of the Central Region (case studies)

The studied Demidov Rayon within Smolensk Oblast and Zaraysk Rayon within Moscow Oblast are typical areas for Central Russia. The former is located outside the influence of a large city, while the later is influenced by Moscow. It has to be noted that the unemployment statistics at district level in Russia are incomplete, since the data on the number of unemployed using the methodology of the ILO have not been gathered; there are only State Service for Employment data with respect to the number of registered unemployed.

The economic decline in the last decade and the closing down of a number of enterprises have determined the rapid fall in the number of employed in Demidov Rayon. Due to the degradation of agriculture and industry the majority of employed people now work in the non-production sector. The rate of unemployment registered by the State Service for Employment is not officially high and constitutes less than 4 % of the total number of economically active persons in the district, although the rate is higher than that in the Smolensk Oblast and in Russia as a whole.

Figure I/2.2-1 The ratio of employees in the economy of the Demidov Rayon (excluding individual private companies and farms) among people under retirement age, 1992-1997



This situation has been attributed to phenomenon such as unregistered unemployment, at least the ratio of which is much higher than of registered unemployment in the Demidov Rayon (as well as in the majority of other Russia's rayons). Therefore

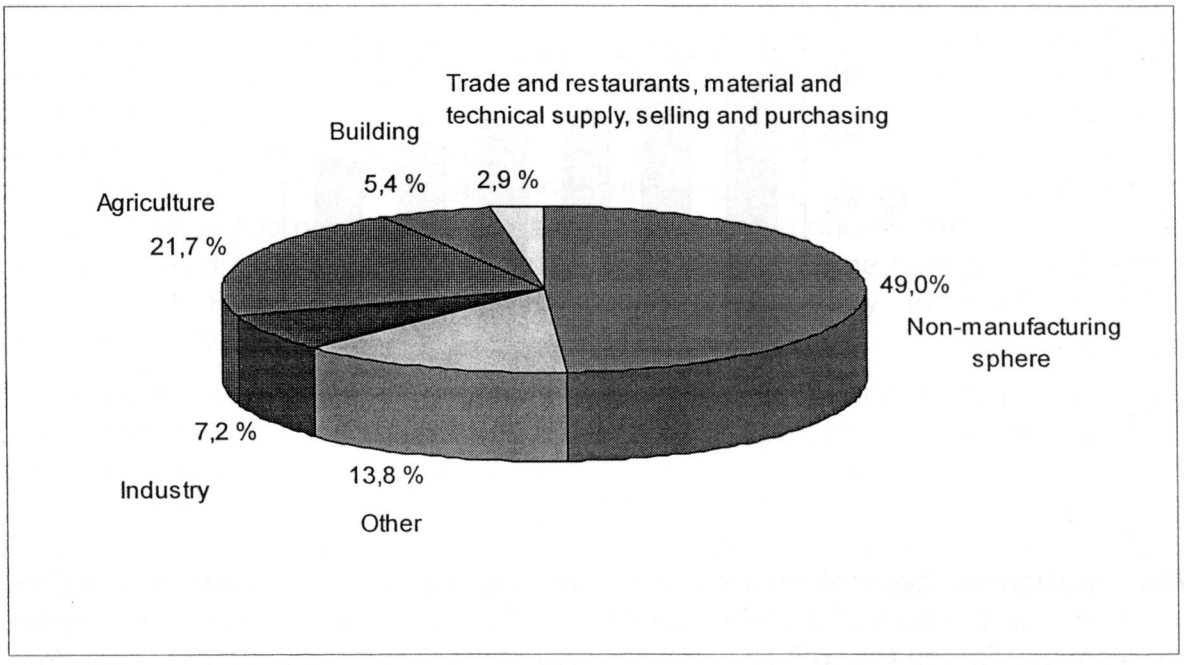
are a number of reasons: a considerable proportion of the actually unemployed is officially on indefinite unpaid leave; many unemployed people do not apply to the employment services because they do not believe they will find a worthwhile job, preferring to find employment by themselves.

For instance, some unemployed people in the Demidov Rayon manage to take a job provided by well-off summer-residents from Smolensk. Moreover, there is a specific type of seasonal employment, where the population of the district and the city (generally men) go to earn money in Moscow, St. Petersburg, and other large cities in Central Russia. These people actually employed are formally unemployed since they work without official registration, at least in the Demidov Rayon. A significant part of the district's population – especially rural – has adopted the natural economy, cultivating the bulk of food required in their own kitchen gardens. These people do not in fact count among the economically active.

High unemployment and the low level of economic activity of the population tells negatively on welfare and leads to more acute social problems. The economic situation in the Demidov Rayon deteriorates which exacerbates the problem of employment. Meanwhile, the majority of the local population either seem not to fathom the danger of the current situation or else have submitted to it. As a result, the inhabitants themselves do not actually take active steps to adapt to the new conditions of the labour market. They rely on the actions of the authorities to improve the situation.

Like many other peripheral depressed districts in Central Russia, the Demidov Rayon within Smolensk Oblast has entered a downwards spiral of a constantly worsening situation, which cannot be broken without external influence (ad-hoc development programmes for economy, large-scale investment, etc.).

Figure I/2.2-2 The ratio of employees in sectors of the economy of the Demidov Rayon, 1997 (percentage share of the total number of employees)



In the Zaraysk Rayon within Moscow Oblast in early 2000, 17,100 people or 79 % of the total population under retirement age were employed in different industries. Zaraysk Rayon was a typical district with developed primary and secondary sectors of the economy and a relatively underdeveloped tertiary sector. The majority of the employees worked in agriculture, industrial and building enterprises, more than 50 % of employees in economy back in 1997 (table I/2.2-1).

Table I/2.2-1 Distribution of employed persons of the Zaraysk Rayon (Moscow Oblast) among the branches of economy, 1997 and 2000

Branches	1997		2000	
	'000	%	'000	%
Industry	3.63	22.4	3.28	19.20
Agriculture	4.09	25.2	3.68	21.50
Transport and communication	0.61	3.76	0.46	2.69
Building	0.89	5.49	0.70	4.09
Provision	0.63	3.88	0.20	1.16
Housing	1.00	6.17	1.40	8.18
Health care and culture	2.27	14.01	3.02	17.60
Credits, insurance	0.17	1.04	0.11	0.64
Management	1.19	7.34	1.19	6.94
Other branches	1.72	10.6	3.87	18.00
Total	16.2	100	17.1	100,00

Source: Statistic provided by the administration of the Zaraysk Rayon.

As in the country as a whole, during the last decade there has been a constant decline in the numbers of employed in the major branches of industry and agriculture. Meanwhile, the percentage of employees in the non-manufacturing sector has practically doubled.

According to experts at the Centre for Employment, several thousand people are neither registered as unemployed nor employed. Thus, 15 % of the working population are exclusively employed in the "unofficial" economy. These people are either living in their individual households, or are "shuttles", i.e. unregistered traders who buy goods in Moscow and sell in local markets, or are hired as workers without official recognition. Some of them may be commuters working outside the district, the number of which amount has grown during the last decade. However, there are no precise quantitative estimations of the process.

The declining number of industry employees manifested since the 1990s halted after the August 1998 crisis. The total number of employees in the economy has increased because of the reduced number of unemployed. However, the substantial decrease of the number of employees in agriculture, building and some other branches is still going on.

As of the 1st January 2000, the number of employees registered by the Zaraysk Department of Employment was 888. Thus, the rate of registered unemployment

averaged 4.3 % for the rayon, which was considerably higher than not only the rate for the Moscow Oblast but also the average rate for whole Russia. Registered unemployment in the rayon peaked in 1994 - 2660 people or 13.4 %.

The difficult situation in the labour market of the Zaraysk Rayon in the first half of the 1990s can be explained by its geographical location. Like other rayons within Moscow Oblast, it had a rather developed industry which suffered as a result of the economic crises and therefore the number of employees fell sharply. At the same time, the Zaraysk Rayon is far away from Moscow, which has a capacious labour market. This fact hampered the development of commuters and did not facilitate creation of new workplaces aiming at the Moscow market. The situation in local industry began to improve in the second half of the 1990s (especially after August 1998). At the same time, the unemployed began to adapt to the new conditions by starting work in the unofficial economy and/or finding a seasonal job in Moscow. The number of unemployed in the district has fallen significantly as a result, although the unemployment rate is still relatively high.

The majority of the unemployed are women. The average period of unemployment for an unemployed person is about 8 months, and 7 months in rural areas. More than half of the unemployed are people of working age between 16-39.

The situation in the year 2000 featured a fall in rural unemployment of almost 50 %. This was not linked to the actual state of affairs but rather to re-registration of the unemployed. As experts estimate, unemployment among young people is high in the countryside. Many do not want to work in agriculture, but there is no chance to move to the city. Consequently, the rural youth, with no suitable occupation, drink alcohol, become addicted to drugs and get involved in criminal activity. The problem of youth unemployment is viewed with sympathy by the local population.

Overall, the situation in the labour market of the Zaraysk Rayon within Moscow Oblast is better than that in the Demidov Rayon within Smolensk Oblast. This is linked to both the prospective local economy and proximity to Moscow, which has a high demand for labour. However, Zaraysk Rayon is distinguished by the worst conditions in the region, which is perceived negatively by the population. At the same time, the situation in the Demidov Rayon is typical for the Smolensk Oblast and for this reason is perceived less negatively by the population.

2.3 Rural areas of the Central Black Earth Region (case study of the Voronezh Oblast)

The economic reforms of the 1990s have led to important changes in the structure of employment and have created principally new trends in the regional labour market. In 1995, the economically active population of the Central Black Earth Region numbered 3,996,400 people, or 45.4 % of the Region's population, which was lower than the same indicator for whole Russia (49.7 %). Therefore, the Central Black Earth Region is characterised by a higher demographic load on the economically active population (1.2 in the Central Black Earth Region, 1.0 in the Russian Federation).

Three groups of oblasts can be made out in consistency with a level of the demographic load:

- Belgorod, Lipetsk and Orel Oblasts have the least load – about 1.1.
- Only Voronezh Oblast has the Region's average level – 1.2.
- Kursk and Tambov Oblasts are notable for a highest demographic load – around 1.3.

The countryside of Voronezh Oblast experienced a relief of the demographic load in the 1990s. Whereas in 1990 there were 1070 children, teenagers and old people per thousand of the labour force, by 1999 this number had fallen to 1035. The migration inflow to Voronezh rural areas has led to some increase in the numbers of the working population (from 48.3 % to 49.1 %) and to some decrease in the numbers of retired people (from 32.2 % to 31.8 %). At the same time, the reduced natural reproduction of the population has led to a further decline in the numbers of children and teenagers (from 19.5 % to 19.1 %). There has been a continuous rise in the average age of the rural population, which was 41.7 in 1999 (37.7 for the males and 45.0 for the females).

A feature of the 1990s was the rapid growth in the numbers of unemployed. This number grew from 173,800 to 283,500 people, or by 63.1 % in the Central Black Earth Region during 1993-1995. Growth of the numbers of unemployed was higher than the average Russian (54.8 %) during the period. In the meantime, one can note a considerable differentiation among the provinces of the Region. Whereas the numbers of unemployed grew in Lipetsk and Belgorod Oblasts by 27 % and 53 % respectively, they grew by 75-78 % in Kursk, Voronezh and Tambov Oblasts.

The Central Black Earth Region has had a lower unemployment rate than other regions in the country. In 1995 the unemployment rate in the Region in relation to the economically active population was 7.1 %, while the Russian average was 8.7 %[5].The lowest unemployment rate in that period was in the Belgorod and Kursk Oblasts (5.5 % and 6 % respectively), while the highest was in the Tambov Oblast – 10.1 %. Hence, mass unemployment (though to a lesser degree than in whole Russia) has become a characteristic of the Central Black Earth Region.

The second half of the 1990s is characterised by rapid growth of the numbers of unemployed. Whereas in 1992 the number of the unemployed in relation to the total number of the economically active population of Voronezh Oblast was 4.4 %, in 1995, 1996 and 1997 respectively it was 5.7 %, 7.9 % and 8.1 % (Voronezh Oblast in 1997, 1998, p. 19). Historical specialisation of the Central Black Earth Region has resulted in the great importance of agriculture for employment. In 1992 agriculture (and forestry) employed 202,500 people in the Voronezh Oblast, and in 1996 and 1997 it employed 196,900 and 177,700 people respectively.

The inflow of migrants to the countryside of Voronezh Oblast, though increasing the workforce, did not have much impact on agricultural employment, especially in large public enterprises originated from kolkhozes and sovkhozes. For instance, the ratio of agricultural land per worker was 9.3 ha in enterprises in the Khokholsk Rayon within Voronezh Oblast in 1985, 13.9 ha in 1990, and 26.2 ha in 1999. Analogous changes came about in the rate of pastureland per worker: 8.2 ha, 10.7

[5]Goskomstat of Russia: Statistical Yearbook. Russia 1995. Moscow 1996, p. 737-738.

ha and 21.3 ha. Overlapping with the rapid depreciation of technical funds of public enterprises, the falling number of agricultural employees inevitably leads to falling production volumes and lower agro-technical standards.

Agriculture only yielded to industry in the employment structure of the Central Black Earth Region. According to the available data, in the second half of the 1990s there was a drop in both the absolute and relative number of agricultural employees. Whereas in 1995 19.3 % of working persons were employed in agriculture (and forestry) in the Voronezh Oblast, in 1996 and 1997 this number fell to 18.9 % and 17.6 % respectively[6]. If this data is compared with the percentage of the agricultural population out of the total population of Voronezh Oblast and the difference in distribution of the rural and urban population into sex and age groups is taken into account, it may be concluded that the agricultural sector is the main is the main source of employment for rural inhabitants.

Modern statistics offer somewhat controversial data on unemployment in the rural population. It is linked to the fact that, on the one hand, the Federal Service for Employment counts the unemployed registered at the Service at the end of a year, while, on the other hand, regional and local authorities carry out their own investigations of actual unemployment. According to Federal Service for Employment data, in 1995 there were 3,900 unemployed in the countryside of Voronezh Oblast, in 1996 the number rose to 4,900 people, and in 1997 it fell to 3,500 people. In relation to the total number of unemployed in the province, rural unemployment contributed 6.8 % in 1995, 17 % in 1996 and 15.6 % in 1997. Comparison with the numbers of the rural population allows us to conclude that officially registered rural unemployment in the Voronezh Oblast was half that of urban during these years.

According to sociological studies, by the last week of October 1995 the unemployed in rural areas of the Voronezh Oblast numbered 27,700, by the last week of March 1996 21,500, and by the last week of October 1997 16,800. According to the data, rural unemployment in relation to the total unemployment rate in the province was declining: 33 % in 1995, 22.5 % in 1996 and 20 % in 1997. Whereas in 1995 the ratio of rural unemployment was almost equal to the percentage of the rural population, in 1997 it was twice as less. This supports the conclusion that unemployment is considerably lower in the countryside. It is linked to the fact that the individual subsidiary household often provides a higher income than working for a company, where delays in the payment of wages and salaries can last several months.

Nevertheless, the population is very sensitive to mass unemployment. For example, 41.6 % of experts indicated that the situation in the labour market became "much worse" in comparison with the first half of the 1990s, and 24.7 % of experts considered it "somewhat worse". Only 11.9 % of experts believe that the situation has improved, and 18.8 % see no significant difference between the first and second halves of the 1990s. Negative assessments exceeded positive ones by 5.6; 3 % of experts could not define specify their views.

There has been a fairly large territorial difference in the employment rate within Voronezh Oblast. The variation of the unemployment rate between administrative

[6] Voronezh Oblast in 1997, 1998, p. 21.

divisions of the Oblast was about nine times in 1995[7]. The highest unemployment rate was noted in peripheral northern Rayons (Ertil', Ternov, Verkhnekhavsk). In addition, the unemployment rate was higher than average in several peripheral eastern, southern and western Rayons (Ostrogozhsk, Borisoglebsk, Kantemirovsk and Nizhnedevitsk). In 1995, the lowest unemployment rate was in Rayons with developed agro-industrial complexes (Aninsk, Liskinsk, Rossoshansk, Kalachevsk).

Some features of employment and unemployment among the rural population can be detected through questionnaires. The unemployment rate among the respondents was 8.8 %, but only one out of 13 persons was registered at the labour exchange. Employed people constituted 91.2 % of the total number of respondents. Out of these, 77.3 % had a permanent job, 3.6 % had a temporary job, 15.4 % were occupied in the individual subsidiary household, and 3.6 % had their own business. 23.8 % of the respondents were not satisfied with their jobs. Almost 2/3 (63.7 %) of the respondents mentioned a low salary and hard working conditions as the main causes of dissatisfaction.

Nevertheless, about 60 % of people who were dissatisfied with their work had not attempted to find other jobs. The respondents believe that the main reasons for not being able to find a new job are: non-existent vacancies – 38.5 %, vacancies require personal connections which are not available – 15.4 %, vacancies require change of place of residence – 14.3 %, vacancies offered are not satisfactory – 13.2 %.

Thus, one of the most acute social problems of the Central Black Earth Region's countryside today is mass unemployment. It mostly affects women and young people. While an alternative occupation for women is the individual subsidiary household, more post-school education options and a special programme of social adaptation are needed for young people. Experts believe that normalisation of the demographic and migration situation and improvement of the labour market in the Central Black Earth Region will depend first of all on the following issues being successfully addressed: increasing the standard of health care, developing the real sector of economy, controlling the labour markets, conducting a special social, demographic and migration policy, and receiving required investments and grants.

2.4 Rural areas of the Altay Region (case studies of the Altay Kray and the Republic of Gornyy Altay)

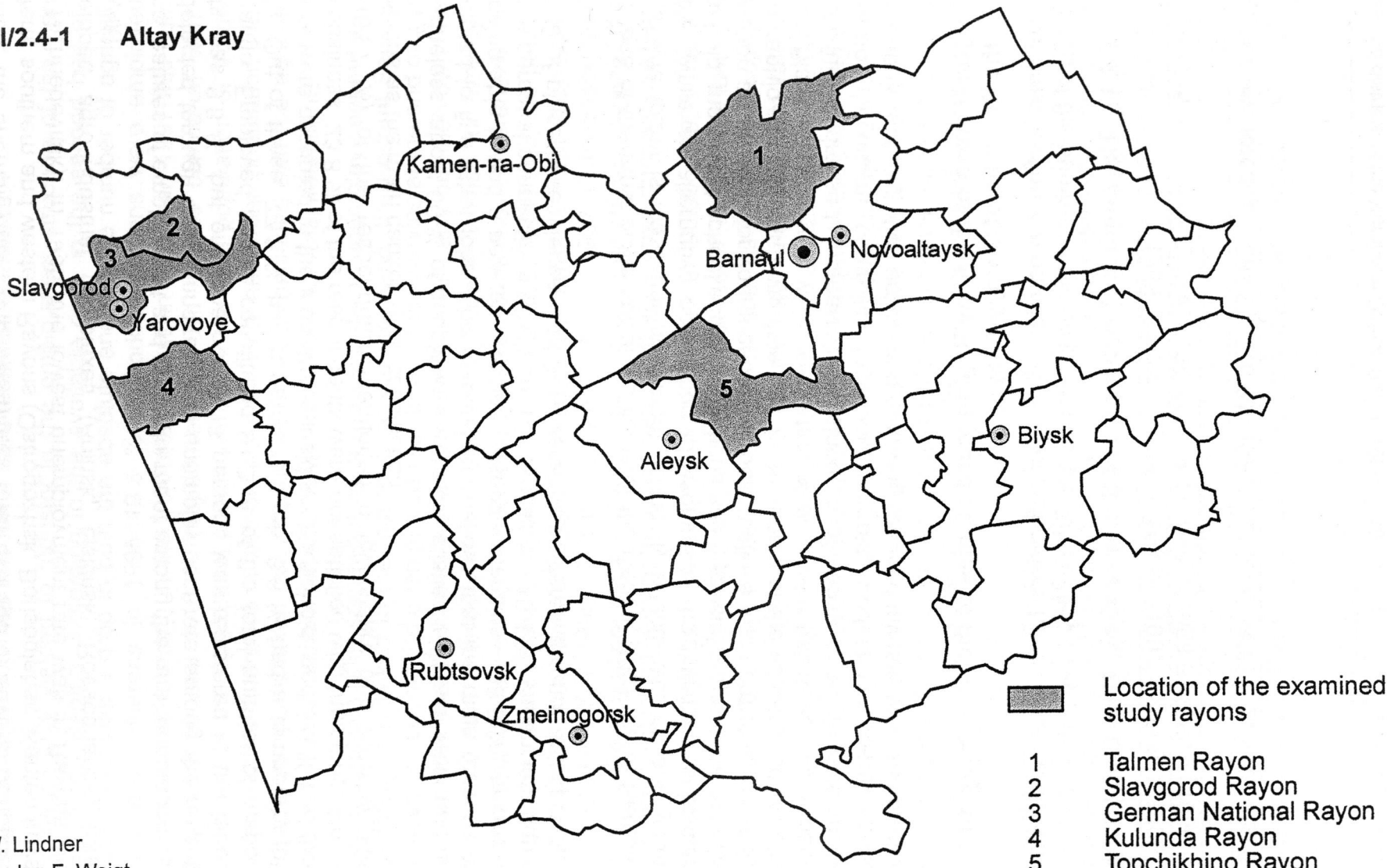
The economic decline in production, closing of enterprises have caused a considerable drop of the number of the employed people in the Altay Kray (table I/2.4-1).

Table I/2.4-1 The number of employees of the Altay Kray, 1993-1999 ('000s)

	1993	1994	1995	1996	1997	1998	1999
Employees, total	1215.4	1159.4	1109.1	1096.6	1064.6	1050.2	1096.5
Including							
agriculture and forestry	298.8	270.0	257.7	257.1	49.7	228.5	283.9

[7] Cities and districts of the Voronezh Oblast. Part 1, 1996, p. 19.

Figure I/2.4-1 Altay Kray



Draft: W. Lindner
Cartography: F. Weigt

In 1995 the numbers of the officially registered unemployed in the Region was 34,700, and the unemployment rate was 2.3 %. These indicators have now changed: by 1.01.2000 the unemployed numbered 25,700 (1.6 % of the labour force).

Table I/2.4-2 The number of un-employees of the Altay Kray, 1994-1999 ('000s)

	1994	1995	1996	1997	1998	1999
Total number of un-employees	94.6	134.3	123.8	168.3	187.9	159.2
Including:						
Students, pupils, retired people	4.0	6.6	4.4	8.0	11.2	6.0
Women	43.7	62.4	55.5	81.2	88.9	80.5
Rural inhabitants (%)	30.9	53.6	43.8	58.4	75.9	73.5
Un-employees (%)	100,0	100,0	100,0	100,0	100,0	100,0
Including:						
Students, pupils, retired people	4.2	4.0	3.6	4.8	6.0	3.8
Women	46.2	46.5	44.8	48.2	47.3	50.6
Rural inhabitants	32.7	39.9	35.4	34.7	40.4	46.2

A regional feature of unemployment is the significant differentiation within the area. The lowest unemployment rate was in the Rayons Suetsk (0,6 %), Uglovsk (0,6 %) and Ust-Kalmansk (0,6 %). The highest rate (5-8 %) was in the Rayons Burlinsk, Zarinsk, Loktevsk, Pavlovsk, Pospelikhinsk, Troitsk, and in the towns Zarinsk and Zmeinogorsk. In the majority of these rayons unemployment is long-term (more than a year).

The relatively low official rate of unemployment in the Altay Kray ties in with a high rate of real and hidden unemployment. It is higher than 15 %. A number of indirect factors give evidence of increasing tensions in the labour market:

- The number of applicants looking for a job at the Employment Service increased from 48,000 in 1994 to 80,000 in 1999.
- Growing trend for labour supply to exceed the number of vacancies. There are now 11 people competing for each job – 4-5 persons in towns and 90 persons in the countryside. Increase in the length of the unemployment period.
- There is a stable high ratio of young people (age of 16-29) in the total numbers of unemployed (35 %).
- The increasing number of graduates among unemployed young people.
- A rise in the educational standard of the unemployed, including a rise in the numbers of people with a higher education.

The highest rate of unemployment growth in all sectors of the Altay Kray's economy was in 1996-1997. However, from 1999 in industry, the health care service, agriculture and forestry of the territory there has been a small increase in the number of employees. Meanwhile, in education, culture and science the number of employees remains at the level of 1997-1998 (for instance, the Altay Kray's scientific institutions now employs 4.300 people, while in 1993 it employed

7,700). Sectors such as construction, housing, transport and communication are still suffering a continuous decline in the number of employees. A similar trend can also be observed in the financial sector. The only exception is management, where the numbers of employees have grown steadily since 1993, increasing by 2000 to 1.7 times compared with 1993. The most acute unemployment problems are in the peripheral, mostly agricultural rayons of the Altay Kray, where hidden unemployment prevails (Loktev, Burlinsk Rayons and other). Moreover, high unemployment rates (5-8 %) are also registered in administrative divisions with favourable economic locations, such as Pavlovsk, Zarinsk, Zmeinogorsk Rayons.

In the Republic of Gornyy Altay the unemployment rate continues to rise, whereas in Altay Kray (according to the territory's committee on statistics) the registered rate peaked at 12.1 % in 1995. In 1998 the Republic's unemployment rate was 12.9 %, but in 2000 it reached 24.4 %. Reasons for unemployment have changed since the middle of the 1990s. Cases of unemployment due to willing dismissal have steadily decreased, while on the other hand redundancies due to staff cut-backs have increased (more than 30 % of cases in 2000). According to the State Committee of the Republic of Gornyy Altay on Statistics, the number of people seeking employment is growing year by year. For example, in 1998 there were 203.6 % more applications than in the previous year. In 1998, the number of successful job applicants was 4.3 times higher than in 1997. However, surveys conducted in different rayons of the Republic demonstrate the opposite – a considerable number of the unemployed have not been registered and have not applied for help due to the lowering of allowances and training time.

The highest unemployment rates were registered in the Chemalsk, Choisk, Turochaksk, Ongudaisk Rayons within the Republic of Gornyy Altay. Each has its own grounds for this, all of which, however, are in some way linked with agricultural and industrial decline.

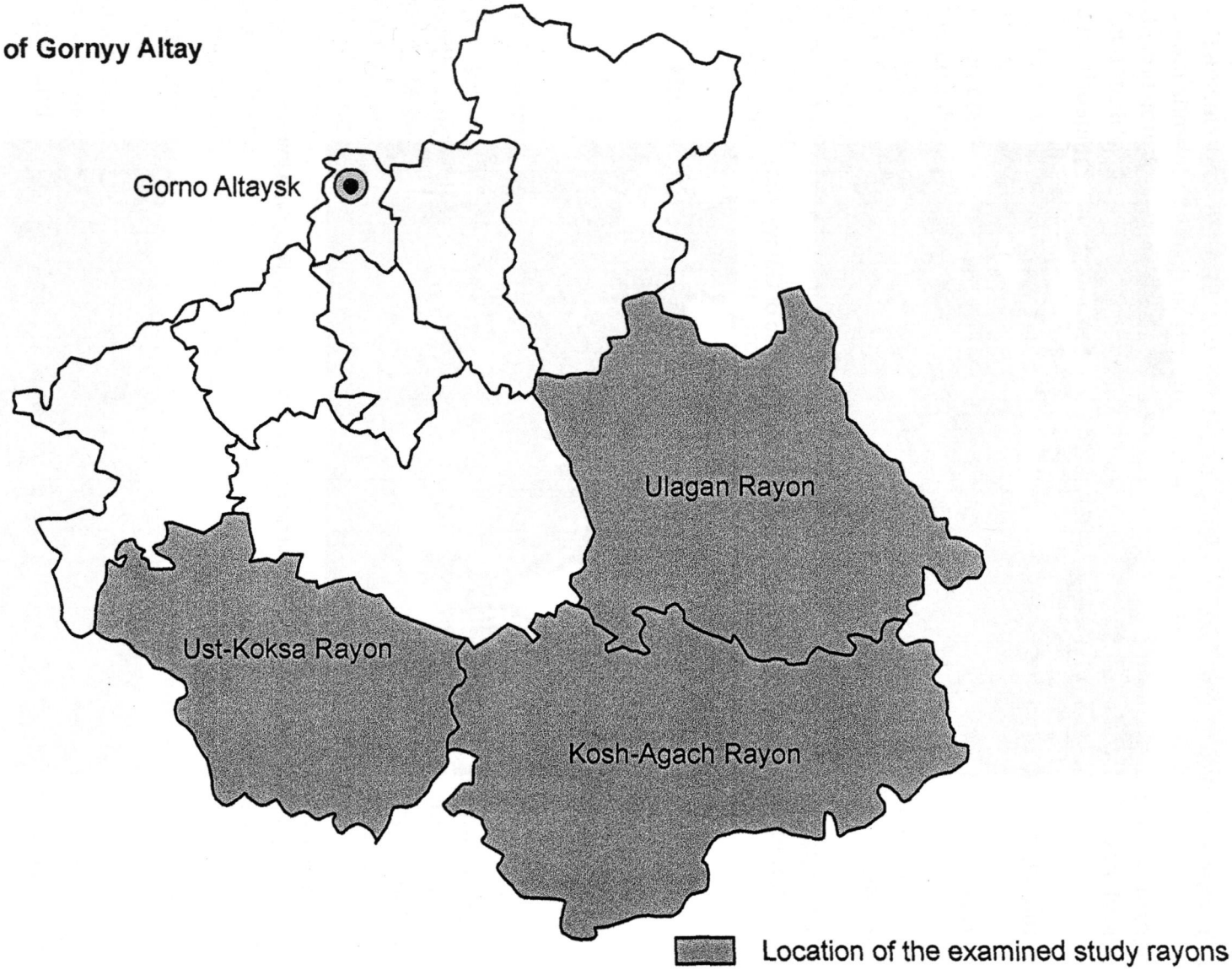
The major trends with respect to employment in Altay Kray and in the Republic of Gornyy Altay are growing hidden unemployment and the increasingly role played by the 'shadow' economy. The most common problems of employment in the rural population of the Territory and the Republics can be summarised as follows:

The problem of unemployment among young people in rural areas is widespread. Not only ordinary people recognise this, but also committee leaders in district administrations.

The unemployed, both registered and "hidden", have to solve their problems on their own:

- There is a high proportion of women among the unemployed (more than 80 %).
- Unemployment in the Republic of Gornyy Altay and peripheral districts of Altay Kray is more severe. Those who lost their jobs there have virtually no chance of getting a new one.
- A rise in the number of graduates of educational institutes and specialist colleges among the unemployed.
- The increasing role of protectionism in recruitment.

Figure I/2.4-2 Republic of Gornyy Altay



Draft: W. Lindner
Cartography: F. Weigt

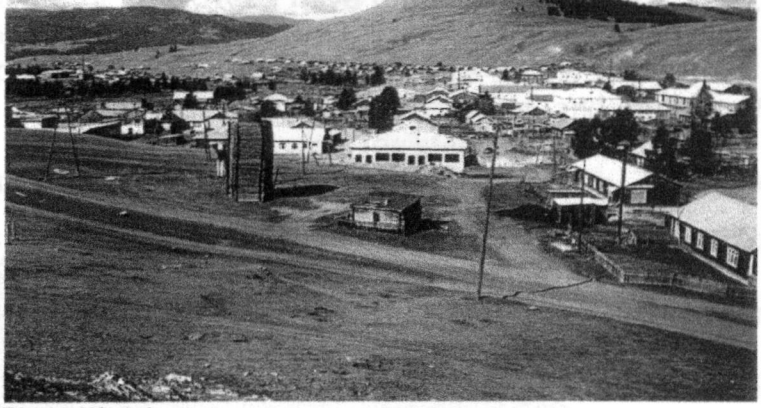


Photo I/2.4-1
Village Ulagan – rayon centre of the Republic of Gornyy Altay

Photo I/2.4-2
Survey of the local inhabitants in the village Kara-Kudyor in the Ulagan Rayon

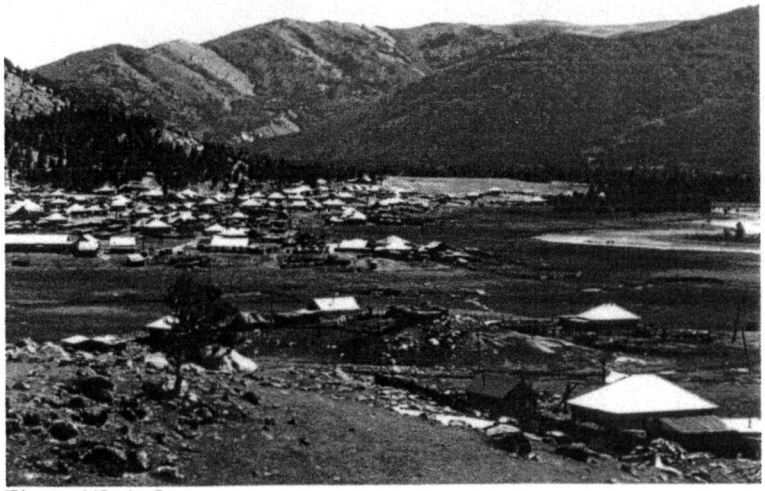


Photo I/2.4.-3
Village Beleshi in the Kosh-Agach Rayon

The problems can be eased by measures such as:

- Organisation of the effective operation of labour exchanges in rural areas (the establishment of which is still rare in the countryside).
- Saving forming workplaces in the countryside, especially those in education (kindergartens, music schools), culture (houses of culture, etc.), and health care (hospitals, medical-obstetrics centres).

Assistance to small countryside businesses geared to processing agricultural produce.

- A comprehensive (including a political) solution to the young people issue in the countryside.
- Diverse assistance measures for the individual subsidiary household (tax exemptions, privilege credits for agricultural machinery acquisition, organised purchase of agricultural produce).
- Creation of new educational establishments in rural areas; for example, in the Republic of Gornyy Altay people can be trained to work in the recreational sector, tourism, or nature protection.

3 The socio-economic transformation

3.1 The social situation and standard of living of the population

3.1.1 Russian Federation – a general view

As a result of the economic reforms of the 90s and the resulting recession in production most country people experienced a considerable drop in their standard of living. Moreover, the forming of the territorial differences in the living standards of country people is the basis of both economic (the general level of the development of production, especially of agriculture, its specialisation, the degree of integration in the world market), social (the development of the sphere of services) and economic and population (rates of growth, the sex and age structure of people, the specific gravity of pensioners, the structure of employment of people including unemployed people) factors.

The standard of living of the rural population of Russian regions is closely linked with the historically formed standard of living of the urban population. To assess territorial differences on the standard of living of the population of Russia we used data according to the average monthly income of population by regions of Russia in 1994 and 1999[8]. On the basis of these data we distinguished six types of regions:

1. First type is represented by entities with the least average-person incomes of the population. This type includes Chuvash Republic, Republic of Mariy-El, Republic of Tuva in North Caucasus, and also Ivanovo Oblast, Penza Oblast and Chita Oblast. This intities are characterised by an essential reduction of average monthly incomes from 1994-1999. Except for Ivanovo Oblast, all investigated regions are distinguished by a mostly high shares of rural population, except for Republic of Daghestan and Republic of Karachaevo

[8] Goskomstat of Russia: Statistical Yearbook. Russia 2000, pp. 143-144.

Cherkessia, where considerable increment of size of the rural population has taken place, compared with the average - Russian level.

2. Second type is represented by entities with low average-person incomes, which have reduced essentially at the second half 1990s. This type (31 regions) includes three varieties:
   a) Variety A - highly urbanized regions: Vladimir Oblast, Tula Oblast, Yaroslav Oblast, Nizhniy Novgorod Oblast in the central part of Russia, Sverdlovsk Oblast in the Urals, Primorskiy Kray in the Far East. This type is characterised by a sharp abatement in the development of the manufacturing industry, which has affected the rural population's life conditions. All of these regions are characterised by average Russian rates of dynamics of size of the rural inhabitants.
   b) Variety B - on average urbanised regions: In European Russia – Arkhangel'sk Oblast, Vologda Oblast, Kaliningrad Oblast, Bryansk Oblast, Kaluga Oblast, Ryazan Oblast, Tver' Oblast, Kirov Oblast, Volgograd Oblast, Ul'yanovsk Oblast, Udmurt Republic, in Siberia - Republic of Khakasia. Apart from a few exceptions, all of them are characterised by high or average rates of reduction of the size of the rural population.
   c) Variety C – rural regions of Russia: In the European part of the country - Pskov, Kostroma, Orel, Belgorod, Rostov Oblasts, and in the Asian part of the country - Kurgan Oblast, Omsk Oblast, Amur Oblast, Altay Kray, Republic of Gornyy Altay and Republic of Buryatia, Jewish Autonomous Oblast. All of them (except for Pskov Oblast and Jewish Autonomous Oblast) are distinguished by average rates of dynamics of rural population, and Rostov Oblast and Altay Kray exceed the average - Russian indicator. At the same time in numerous regions doubts are raised about the objectivity of methods of calculation of overage-person money incomes used by the State Committee of Statistics of Russia.
3. Third type - regions with low average-person incomes, dynamics of which in the second half 1990s was on the average-level of Russia. Among them only the Chelyabinsk Oblast is related to the number of highly urbanised regions. The Republic of Tatarstan is included in the category of average urbanised areas. Voronezh Oblast, Kursk Oblast, Orenburg Oblast, Krasnodar Kray and Stavropol' Kray, Kabardino-Balkar Republic and Republic of Mordovia are among the rural territories in Russia. The basic part of these regions is characterised by the average Russian level of dynamics of size of rural population. Only in the Orenburg Kabardino-Balkar Republic, Krasnodar Kray and Kabardino-Balkar Republic have rates of growth of the size of the rural population essentially exceeded the Russian average.
4. Fourth type - regions with low average-person incomes, but which in the second half of the 1990s increased in respect of average-Russian indicator. Only four regions of Russia: Lipetsk Oblast and Astrakhan Oblast, Republic of North Ossetia-Alania and Republic of Bashkortostan belong to this type. All of them are characterised by considerable share of rural population, size of which has measured on the whole on the level of average-Russian indicator.
5. Fifth type - regions with average-Russian level of incomes: However their dynamics during the years of economic reforms was extremely different. For example, in Republic of Karelia and Kemerovo Region real average incomes fell in the second half of the 1990s, but in Moscow Oblast, Tomsk Oblast and Irkutsk Oblast, in Krasnoyarsk Kray and Khabarovsk Kray have remained at

previous levels, and increased only in Perm´ Oblast. The level of urbanisation thus differentiates these regions. Moscow, Kemerovo, Irkutsk Oblasts and Khabarovsk Kray belong to highly urbanised territories. Perm Oblast, Krasnoyarsk Kray and Republic of Karelia are distinguished by the average Russian level of urbanisation. The basic part of marked regions is on average-Russian level of increment, of size of the rural population, and only Tomsk Oblast and Republic of Karelia exceed it.

6. Sixth type - regions with high level of average-person income: Apart from two capital cities (Moscow and St. Petersburg), nine administrative divisions in Russia belong to this type. They are somewhat dissimilar by dynamics of average. During 1994-1995 real average money incomes fell in Magadan, Kamchatka and Sakhalin Oblasts, in the Republic of Sakha (Yakutia) and in the Chukchi Autonomous Okrug. On average Russian level the dynamics of money incomes is shown in Murmansk Oblast, Tyumen Oblast, in the Komi Republic and in the city of St. Petersburg, but a comparative rise of average-person money incomes has taken place only in the city of Moscow and in the Samara Oblast. The basic part of marked entities belongs to highly urbanised territories of Russia, which are characterised by a further substantial fall in the size of the rural population.

Thus, in the second half of the 1990s considerable polarisation of Russian regions took place with a general substantial lowering of the standard of living of the population. With respect to the socio-economic transformation of rural areas, the investigated regions belong to types 2.c), 3, 4 and 5. All of them are characterised by low average level of money incomes (except Moscow Oblast), but indicator of their dynamics distinguishes them.

3.1.2 The Central Region

The summary material concerning the change of the living standard of country people in Central Russia has a general enough character. However, this problem can be analysed taking two country administrative districts as examples: Demidov Rayon within Smolensk Oblast and Zaraysk Rayon within Moscow Oblast. Evaluation of the particulars of the survey showed that the financial situation of the majority of the respondents in the investigated districts had worsened. At this time the fall in the standard of living in Demidov Rayon had the global scale in comparison with Zaraysk Rayon.

The outlying Demidov Rayon, where the living standard of country people at the end of the 1980s was not very high, went in the 1990s into severe socio-economic crisis. The degradation of agriculture and the sharp fall in peoples' real incomes, while there was a sharp increase in the price of goods and services, reduced the majority of people in the rayon to subsistence level.

Zaraysk Rayon managed to adapt to the new socio-economic conditions relatively painlessly. This was facilitated by factors such as a strong social and industrial infrastructure in the 1970s-1980s, the integration of agriculture into the agro-industrial complex of the capital region, and the proximity to Moscow. For the most people living in rural settlements in Zaraysk Rayon the drop in the standard of living was not so severe. Moreover, in contrast to Demidov Rayon where was registered an overall drop in the standard of living, the people in Zaraysk Rayon

polarised themselves considerably, according to the adaptation to the socio-economic changes? (about 20 % of respondents considered their well being to have improved in comparison with the soviet period).

Analysis of the questionnaires used to explore changes in the standard of living in the 1990s allowed the following key conclusions to be drawn:

- There is a considerable difference in the living standards of rural population between Moscow Oblast and Smolensk Oblast. Moreover, the break in the degree of the well-being has been increasing.
- One aspect of no small importance to well-being is the psychological factor, since the process of people adapting to the new conditions of life will continue for quite some time.
- The structure of people's incomes in rural areas has changed, and as a result a situation has arisen in which the produce of a personal subsidiary plot and the children's help living in a town play the great role.

It is marked that inside each chosen regions you make following observations:

- Firstly, the polarisation of rural population according to their well-being is happening. It is the result of the socio-economic degradation of the outlying rayons, the ageing of the people of small villages. Thus, the living standard of the people of big settlements - the central grounds is higher than of people living in other rural settlements.
- Secondly, the stratification of country society inside central grounds is happening, there becomes a lot of people living out of the boundary of the poverty and hardly surviving (single mothers with children, single pensioners), but people who have an opportunity to work in the nearby town, or in the city Moscow (for Zaraysk Rayon) keep the high standard of living for the village.

The admitting of the worsening of their well-being by respondents of both rayons is reflected in the answers for the questions about how their well-being has changed for the last decade and which are the most alarming problems for the rural population nowadays. Mostly the respondents (70 %) marked among the predominant problems the new economic situation (75 % in Demidov Rayon and 66 % in Zaraysk Rayon). The regional differences between situation of rural population is reflected in following fact: In Demidov Rayon only a little number of respondents (3 %) think, that their financial situation has become better in comparison with the beginning of 1990s, while in Zaraysk Rayon almost 20 % of respondents feel the improvement of their financial position.

The change of the socio-economic position in countryside directly influences the transformation of the structure of incomes of country people. So, if 10 years ago, for the greater part of the polled people in both districts (80 %) the main source of incomes was their salary, by the end of the 1990s the same importance of the salary was for 26 % of respondents of Demidov Rayon and for 43 % of respondents of Zaraysk Rayon. More than 60 % of the polled people think that 10 years ago their financial position was quite stable. They had an opportunity to buy practically everything (17 %), or had some capital (45 %) and could not let themselves only the big spending.

By the end of 1990s the situation had changed to the contrary: 26 % of total number of respondents of both districts have to confess that they even can not buy the necessary goods. More than 1/3 of the polled people in Demidov Rayon and

13 % in Zaraysk Rayon answered in such a way. It is interesting that in Zaraysk Rayon within Moscow Oblast about 4 % of respondents marked that they have an opportunity to buy everything, but in Demidov Rayon within Smolensk Oblast there were not such answers.

As a result of the degradation of agriculture enterprises (more typical for the Demidov Rayon), the role of the personal subsidiary plot as a source of the well-being of rural population has increased. The great part of rural population goes over to the natural economy, using mostly their own products. Often they buy only bread, salt and matches. The personal subsidiary plot is the certain income-source for 115 of the polled persons at present. Only 6 % of respondents confessed that the greater part of income-structure based on personal subsidiary plot during the 1980s and the beginning 1990s. Now the greater part of production of the personal subsidiary plot are not produced for sale, but for themselves or for relatives. At the end of the 1990s only 32 % of respondents of Demidov Rayon and 25 % of respondents of Zaraysk Rayon used the production of personal subsidiary plot not only for their own provision, but too for sale.

For 1/3 of the polled people the main, source of incomes' nowadays is pensioners payment and grants of unemployment. At the beginning of the 1990s, because of the low level of unemployment, these types of incomes were preferable for the small part of respondents. It is connected with the ageing of people and the modem difficulties in provision of employment. The contrasts between the situation of rural and city population (ever for Moscow Oblast, without saying about Smolensk Oblast) are characterised by the absence of incomes from the owner's activity, their property and season earnings.

Thus, the kinds of activity that have become the indicators of the change of the system of management and transformation of Russian economics (first of all in big cities) have not been developed in countryside. When the certain number of habitants of big cities approaches to the west model (both according to the mode of life and forms of employment), the great part of Russian rural population moves off from it. The respondents' opinions about the forecasts of their own well-being and financial situation do not differ between rural population in general. The forecasts of the change of their own well-being are quite pessimistic. Only 115 of all polled people were sure that their financial situation would be improved soon (in such a way only 1/3 of respondents answered in Zaraysk Rayon, and about 5 % in Demidov Rayon).

3.1.3 The Central Black Earth Region

The reduction of the living standard of the most people is the strongest dominant in the modern social processes of rural population in the Central Black Earth Region, including in the Voronezh Oblast. This tendency of the social development is clearly fixed by the public opinion that reflects in the answers of experts and respondents. More than 2/3 (69.5 %) of all respondents marked that nowadays they live worse than in 1990 and about 1/3 (32.2 %) respondents think that they live "much worse". And only 14.5 % of respondents answered that they live better than before the economic reforms, and 3.9 % respondents think that "much better". The fact is especially disturbed that there was not any improvement of people's life at the end 1990s, when the Russian economics began to revive. So,

64.7 % of respondents marked that during the period 1997-1999, their financial welfare became still worse, and 22.7 % of them came to conclusion that it became "much worse". At the same time the specific gravity of the positive appraisal has grown. About 115 (18.7 %) of respondents marked that it has become better for the last three years. Thus, to the end of the 1990s the part of people who did not have the reduction of their living standard has increased from 28 % to 33 %. The same conclusion can be drawn on the basis of the answers of the experts. By the opinion of 68.7 % of experts in the second half of 1990s in comparison with the first half, the subsequent fall of the living standard happened. Only 15 % of experts, on the contrary, think that the living standard of people even a bit had grown. At the same time more than 1/10 (12.7 %) of experts do not see any differences between the first and the second halves of this decade.

According to the sociological questioning, the modem money incomes of more than 1/3 (39.6 %) of respondents let satisfy their main necessities and for 5.4 % even save up money. On the contrary, 38.7 % of the polled people have money only for providing with food, and 15.2 % of respondents even do not have money for food. In general in comparison with the Soviet period the cardinal qualitative change of the living standard had happened. Nowadays almost the half (54.5 %) of all respondents have got money only for food and the necessaries of life, then as in the end of 1980s only more than 1/10 (12 %) of all people belonged to this category. At the end of 1980s a half (54.6 %) of rural population had some capital, but not very large, that did not let them buy expensive goods, for example, cars. Nowadays this category of people because of the bankruptcy of their deposits at the beginning of 1990s reduced in 5 times and was 9,8 % The change of structure of the necessities of rural population during the 1990s and the certain idealisation of past time influence the comparison of the living standard of the soviet era with the capitalistic period. That is why more than 1/4 (26.5 %) of the respondents marked that their level of incomes at the soviet period let them buy everything, and nowadays only 20 % of respondents belong to this category. In spite of the relativity of appraisals, indisputably, the formation of the considerable stratum of poor people who do not have money even for the necessaries of life is the reason of the material property stratification of modern rural population. In 1990s the considerable changed the structure of money incomes of the rural population of Central Black Earth Region, including Voronezh Oblast. The production of the personal subsidiary plot moved at the first place in the structure of rural population's money incomes. In the end of 1980s 34.7 % of respondents marked personal subsidiary plot as source of income; in the end of 1990s 35.7 %. Since the end of the soviet period the personal subsidiary plot has become the main source of incomes for families in rural settlements. However it gained the determinant importance in comparison with other kinds of incomes during the process of the economic reforms of 1990s. Nowadays as the most important source of incomes (more than 50 %) the personal subsidiary plot has become equal with the significance of wages at the regular place of job. The wages at the regular place of job take the second place among sources of income now. Only 26.6 % of respondents pointed to it, as an important source of incomes whereas during the soviet period its role was much greater (43.4 %).

The ageing of rural population, the reduction of their salaries and the increase of the significance of the personal subsidiary plot in the structure of incomes were reasons of the considerable increase of the specific gravity of pensions, scholar-

ships and grants in the structure of money incomes (from 3 % to 17.3 %). In comparison with these three types the other sources of incomes has the minor meaning: the incomes from the season salary - 12.3 %, from business - 3.6 %.

For lack of greater savings the rural population keeps in a high dependence of the regular payment of the salary, pensions, and other state grants. In 1999 only 1/4 of rural population got their salary regularly every month.

- About 1/3 of rural population got the salary with a delay for 1-2 months, 1/4 of respondents got a delay for 3-6 months, and 1/7 of respondents got their salary with a delay from 7 months and more even from 1 year. It explained itself by not only the bad financial condition of enterprises, but also by the striving of owners to economise on the salary, that was possible in conditions of the existing inflation.
- In 1999 the situation was more difficult too with the payment of pensions and other state grants. Only 6 % of rural population got them regularly every month, and almost a half of respondents got them with a delay for 1-2 months, more than 1/3 of respondents - with a delay from 3-6 months, and more than 1/10 of polled persons in rural settlements - with a delay from 7 months and more year.

The specific feature of Central Black Earth Region in comparison with whole rural areas is the low level of rural population's income. In 1999 the average month money income per person was 370 roubles (by the materials of sociological research) or 30,4 US-$ (exchange rate 1999). Only 6.9 % of country families got less than 100 roubles per person, almost 1/4 (24.1 %) of families got from 100-200 roubles, and more than a half (56.2 %) got 200-600 roubles. More than 1/10 (11.4 %) of rural families got a average month's incomes from 600-1000 roubles, and only 1.4 % of families got incomes over 1000 roubles.

One of the indicators of the living standard of rural families is the providing them with lodging, the level of its equipping with services and utilities, the existence of articles for a long use which families use regularly. The sharp predominate part (92.9 %) of people live in a flat or a house, the main part (86. 1 %) live in their own houses. Almost a half of country people live in their own houses of the area from 50-75 m^2 and more than 20 % of people live in their own houses with area from 15-150 m^2. In general it can be accepted quite satisfactory, if to take into consideration that an average rural family consists of 3 persons. Because of the fuel rising in price suddenly the problem with heating of big houses in wintertime has become aggravated for the last years. So, if a family is not big, it is more economical to live in a small house. Now 1/4 of owners have houses of area from 25-50 m^2, 6.3 % of rural families have houses of area to 25 m^2.

Less than 1/10 of country people live in departmental houses, the houses and flats that belong to enterprises and organisations. In contrast to towns and cities it is not typical for countryside of Central Black Earth Region to live in private flats on condition that they pay to their owners. Less than 5 % of families live in such lodging. Because of the existing break in payment, on the one hand, relative to the cheap municipal and departmental lodging, and on the other hand, relative to the expensive private lodging, country people have an opportunity to pay for only small houses and flats in the private sector. So more than 1/3 of such families rented the private houses and rooms of area till 25 m^2. The situation with lodging in rural areas in general is stable, but there is the tendency to its aggravation.

Photo I/3.1.3-1
Rural house (1) in the south of the Voronezh Oblast

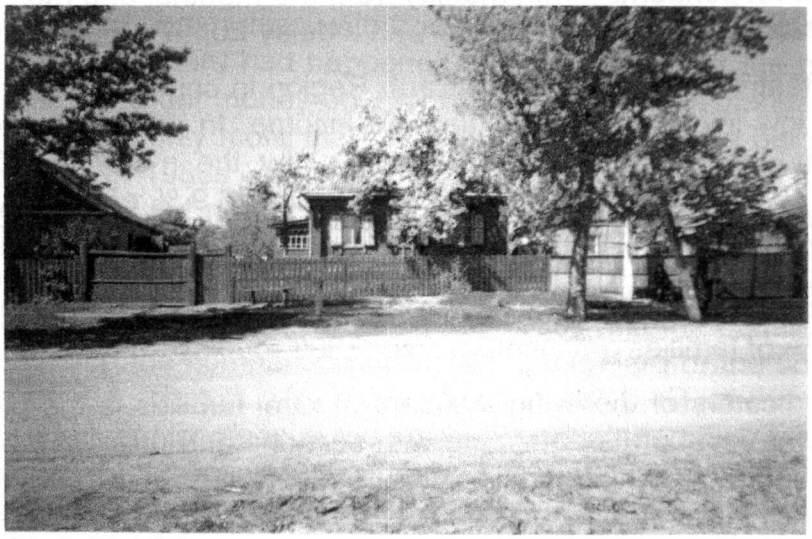


Photo I/3.1.3-2
Rural house (2) in the south of the Voronezh Oblast

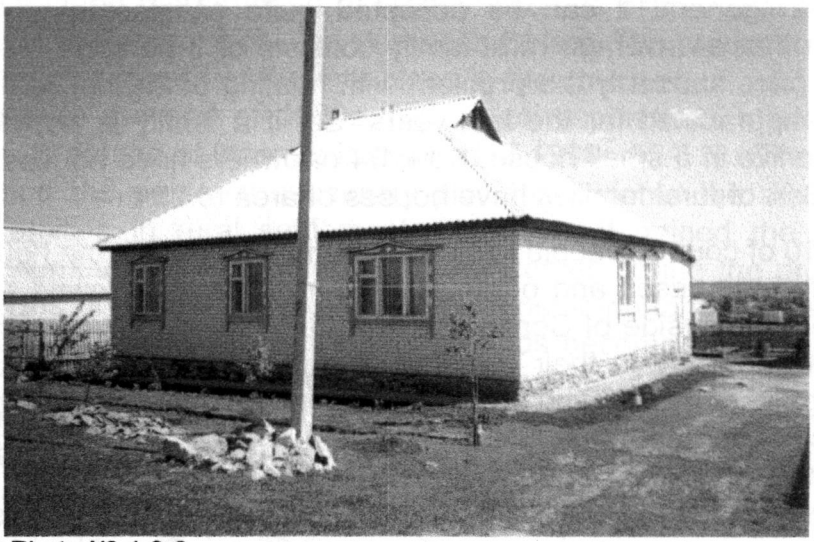


Photo I/3.1.3-3
Rural house (3) in the south of the Voronezh Oblast

About a half of respondents marked that their conditions of lodging has not changed for the last 10 years, 1/4 of them drew to conclusion about their aggravation, and 1/6 - about their improvement. At the same time the quality of the fund of lodging in the countryside (and comparison with towns/cities) has been diminishing because of the weak technical and material its provision. From the articles of a long use (besides their private transport means: cars and motorcycles which are possessed by more than a half of all country families), TV sets, washing machines and fridges are widely practised and 80 %, 68 %, 62 % families have them.

As a result of an introduction of the marked relationships in the 1990s in rural areas of Central Black Earth Region the polarisation in the social structure of people has been happening, singling out from the whole composition, on the one hand, of reach people (according to the Russian measures) and, on the other hand, of the social stratum of the poor. Although this process of the social stratification of country people in comparison with cities (especially big) manifests itself less, nevertheless it is one of the dominants of the existing social and economical transformation of the countryside of the region:

- The specific feature of the 1990s, which has not been explored yet till the end (especially the regional aspect), is the formation of the social stratum of the local elite. The beginning of this process belongs to the stagnant 1980s, when the local bureaucratic clans began to develop on the level of the country administrative districts. Nevertheless the development of this social stratum during that time in some degree was kept by the side of the government by the ideological ideas and the politics of the direct appointment of officials. The transition to the representative democracy in the 1990s ensured the reproduction of the local elite. It consisted of the higher rank officials of the local level (in Russia the power is still giving rise to the capital), owners and managers of enterprises and organisations, upper businessmen and owners on the local level. According to experts' appraisal this social stratum is not more than 5 % of country people.
- The second social stratum is the families of the prosperous peasants who could raise their living standard in the conditions of the market economics because of their personal subsidiary plot and small business undertakings, high qualified employees of the budgetary sphere with the guaranteed salary, small owners and businessmen who are engaged in bazaar trade, small industry and handicraft industry and small farmers. This social stratum with the incomes more than the average level in better chance includes from 1/4 to 1/3 of country people.
- The third social level includes the main part of country people (from 1/3 to 1/2) and is characterised by the incomes lower than the average level, but which let live and satisfy the main life necessities though in a limit.
- The fourth social stratum is paupers, the incomes of whom do not ensure the physical living-wage and who can not live without financial support of society. It is not only alone and ill pensioners, but also alcoholics, drug addicts, people who do not have a job and other are without lodging. This stratum includes 1/5 to 1/4 of country people of region. The concrete territorial peculiarities of the socio-economic transformation of the rural areas of Central Black Earth Region caused by the changes in incomes and in the living standard of people mostly are defined by the specificity of their transport and geographical location,

specialisation of economy, ageing structure of people. The deeper changes happened in the suburban areas of the region centres and other big cities, along the main transport and planned axes of development, in the districts with the strongest development of the marked branches of economy.

In general, by measures of restoration and development of agro-industrial complex of Central Black Earth Region it is possible to expect a certain rise in the standard of living of the rural population, as a tendency, but in our opinion final results of this process will be still comparatively not great.

3.1.4 The Altay Kray and the Republic of Gornyy Altay

Inflation in Altay reflects all - Russian peculiarities of this negative process. The result of it is the sudden change of the people's nominal incomes in the time of the reduction of the real incomes more than 5-7 times. The analysis of the balances of the people's incomes and expenses shows that in the structure of the money incomes, the great changes have happened. The role of pay has diminished considerably from 60.9 % to 46.2 %. In 1992 the nominal growth of pay was 135.9 %, and the real growth was 75.9 %. The overwhelming majority of experts and respondents mark this tendency.

Table I/3.1.4-1 Size of the population with money incomes lower than size of living wage (Altay Kray)

Year	Thousand of people	In per cent from total size of the population
1993	622.7	23.2
1994	989.7	36.8
1995	899.3	33.3
1996	1,259.0	46.8
1997	1,218.7	45.5
1998	1,410.8	53.0
1999	1,502.6	56.0

No social conflicts at the countryside of Altay Kray were marked except for the periodical strikes of teachers, which at the end of 2000 almost stopped because of the beginning of regular payment of wage.

In the Republic of Gornyy Altay at present income per person amount to 775.3 roubles. The real money income of the population has decreased by 33.9 % in comparison with 1998. Wages are still the main source of income for the most people (41.4 %) living in the Republic of Gornyy Altay, though percentage share continue to fall down. In 1999 average month's calculated wage amounted to 800.4 roubles. The lowest wages are still paid to agricultural workers. In 1999 it was 201.1 roubles, that means only 22 % of the average of the whole republic. At present 1,634 agricultural workers (16 %) are on leave without wages. The workers of trade, public catering, geology, culture and art, education, public associa-

tions, health care have wages lower than the average of the whole republic. And the workers of credit sphere, finance sphere, sphere of insurance, provision of pensions, sphere of management have by 2.5 times higher wages than average of the whole republic republican; the workers of building by 2 times, of communication, of municipal services by 35 %, of transport by 14 %.

The purchasing power of wages is decreasing in many cases because of irregular payment. In 1999, 34,600 people had overdue delay in payment of money by total sum of 128.6 million roubles, that is in 5 times increases month fund of wages. The greatest part in total sum of delayed money was in the educational establishments (37 %), state administration (20 %), and health care (15 %). The overdue delay in payment of wages per person in total was 3,700 roubles.

On the whole it is necessary to note that the reasons of such low average month's wages are reduction of amount of the work, occupation in the regime of short day, administrative leaves without wages and others. All these reasons led to decrease of standard of living of the population. In such circumstances, how many experts and respondents mark, the role of personal subsidiary plots has increased considerably.

Since the beginning of 1990s in Altay the great strengthening of the socio-economic differentiation had happened. The transition from the planned to the market economics is an objective process. However it led to the quick growth of poverty and social intensity. The analysis revealed the considerable stratification according to the people's incomes of Altay in comparison with the same indices all over Russia. The sudden growth of the differentiation according to the incomes falls on the end of 1992 - beginning of 1994. Since 1995 in Altay Kray, according to the official data, there is a tendency to reduce the polarisation of incomes of different social groups of the population has shown (the officially registered breaking off in the money incomes of rich and poor people has reduced). The positive changes of the standard of poverty have been observed, but the socio-economic position of needy families has become still more disastrous: their standard of consuming does not provide with the normal physical and moral health. For the most of such people the poverty has acquired the stagnant character. Just such situation most participants of the questioning mark.

Nowadays the correlation between the minimum social guaranteed payments of the State and the living-wage of people are on the socially dangerous level. The considerable reduction of standard of living happened after the falling of the rouble in August 1998 it has not fixed in the statistical data yet but it should be waited for. The most unprotected from the sudden fluctuations of the socio-economic situation group of the population are the workers of the budgetary sphere. In spite of the fact that they get rather high wages, for example, in comparison with the agricultural workers, it is, as a rule, their main and only source of living and in the case f its delay this group of the population suffers most of all. The youth problem is sharp too. The youth employment in the countryside has been decreasing, that leads to the negative consequences (the increase of taking drugs, alcohol, the increase of crimes, etc.).

Table I/3.1.1-1 The nominal and actual monetary incomes of the population in the Russian Federation and selected regions of Russia, 1995-1998

Region	Per capita monthly monetary incomes, roubles				Actual monetary incomes as percentage of previous year			
	1995	1996	1997	1998	1995	1996	1997	1998
Russian Federation	515.4	760.0	930.0	969.9 (100 %)	83.9	99.6	106.4	81.5
Moscow	1,803.9	2,845.9	3,516.3	4,017.1 (414 %)	77.0	106.2	106.7	82.2
Moscow Oblast	395.3	515.8	661.7	703.3 (72.5 %)	74.0	89.5	115.7	94.3
Smolensk Oblast	366.3	545.5	647.1	712,1 (73.4 %)	83.1	100.5	102.3	86.3
Voronezh Oblast	343.3	465.4	603.0	632.2 (65.2)	90.1	87.3	109.5	89.5
Altay Kray	348.5	436.2	505.6	503.8 (51.9 %)	91.3	82.6	101.1	81.4
Republic of Gornyy Altay	316.2	474.3	608.2	565.0 (58.3 %)	68.7	110.2	116.3	77.1

Source: Saiko, T./Blacksell, M. (2000): The evolution of local self-government in Russia and its contemporary limitations. Plymouth. Unpublished.
Source of data: Goskomstat of Russia: Social status and standard of living of the population of Russia. Moscow. 1999.

Table I/3.1.1-2 Structure of monetary incomes of population in the Russian Federation and selected regions of Russia, 1997-1998 (percentage from total monetary incomes)

Region	Salary		Incomes from entrepreneurial activities		Social transfers		Property income		Other incomes*	
	1997	1998	1997	1998	1997	1998	1997	1998	1997	1998
Russian Federation	38.2	38.7	13.0	14.8	15.0	14.1	5.8	5.9	28.0	26.5
Moscow	17.0	16.4	14.1	21.4	5.1	5.6	12.5	11.4	51.3	45.2
Moscow Oblast	42.6	43.2	9.0	9.2	20.9	20.4	4.9	4.4	22.6	22.8
Smolensk Oblast	34.4	33.8	15.3	17.6	20.9	17.5	1.8	1.8	27.6	29.3
Voronezh Oblast	35.9	39.6	10.1	17.9	23.6	19.0	6.6	5.7	23.8	17.8
Altay Kray	46.3	43.3	13.6	14.7	25.8	19.2	3.1	2.4	11.2	20.4
Republic of Gornyy Altay	34.1	41.4	5.9	6.0	21.1	19.1	2.8	1.7	36.1	31.8

Source: Saiko, T./Blacksell, M. (2000): The evolution of local self-government in Russia and its contemporary limitations. Plymouth. Unpublished.
Source of data: Goskomstat of Russia: Social status and standard of living of the population of Russia. Moscow. 1999.
* including hidden salary

Table I/3.1.1-3 Contents and structure of social transfers in the Russian Federation and selected regions of Russia in 1998

Region	Total social transfers	Including				Distribution in %			
	Million roubles	Pensions	Allowances and social aid	Grants	Other transfers	Pensions	Allowances and social aid	Grants	Other transfers
Russian Federation	239,859 (1,639)*	180,085 (4,688)**	41,283	2,796	15,694	75.1	17.2	1.2	6.5
Moscow	26,264 (3,076)*	13,927 (6,016)**	3,029	210	9,098	53.0	11.6	0.8	34.6
Moscow Oblast	11,187 (1,721)*	9,321 (5,185)**	1.499	31	335	83.3	13.4	0.3	3.0
Smolensk Oblast	1,765 (1,544)*	1,474 (4,480)**	257	23	10	83.5	14.6	1.3	0.6
Voronezh Oblast	3,321 (1,344)*	2,855 (3,732)**	403	37	25	86.0	12.1	1.1	0.8
Altay Kray	3,290 (1,235)*	2,662 (3,808)**	544	44	39	80.9	16.5	1.4	1.2
Republic of Gornyy Altay	303 (1,403)*	219 (4,563)**	56	6	21	72.4	18.6	2.0	7.0

Source: Saiko, T./Blacksell, M. (2000): The evolution of local self-government in Russia and its contemporary limitations. Plymouth. Unpublished.
Source of data: Goskomstat of Russia: Social status and standard of living of the population of Russia. Moscow. 1999.
* in brackets calculated per capita value, roubles
** in brackets calculated per pensioner value, roubles

3.2 The socio-economic transformation of rural areas

3.2.1 The social infrastructure

3.2.1.1 Russian Federation – a general view

The main role in the process of the socio-economic transformation of rural areas of Russia belongs to the sphere of service of people. It has a poly-branch character and includes institutions of trade and nourishing, school and pre-school institutions, institutions of service, different types of medical institutions, institutions of culture, housing services and others. All this ramified network of the social infrastructure defines not only the region peculiarities of the living standard of country people, but it is an important sphere of working employment.

The territorial differences in the level of the development of the sphere of service for rural population of such a big and different country as Russia are characterised not only by the differences of its natural environment, ethnic structure of population, previous experience of economic opening up of lands, specificity of economic specialisation and settling of people, obviously unequal modern financial and economic condition of its regions, but also by a different territorial organisation and by a different level of development of the sphere of service, formed in the process of the development of the specific subjects of Russian Federation.

So, we should compare the levels of the sphere of service for population of the researched regions (Moscow Oblast and Smolensk Oblast, Central Black Earth Region, Altay Kray and Republic of Gornyy Altay) between each other and with Russia in general[9].

We defined five main types of regions of people's service:

1. the regions with the lowest average person indices;
2. the regions with the low average person indices;
3. the regions with the average Russian level of the average person indices;
4. the regions with the high average person indices;
5. the regions with the highest average person indices.

Besides, the differences (with respect to the average level of whole Russia) in the rates of the dynamics of the researched indices for the period 1995-2000 were based on the typology.

[9] As an information basis of such comparison the authors used the last Statistical Yearbook, Russia 2000, where there are the facts about the turnover of retail trade, volume of services per person and provision of doctors for 10,000 people in the administrative divisions of Russia for 1995 and 1999. Because during these years there have been different systems of prices, the direct comparison of these indices for the definition of their dynamics is impossible. Therefore we calculated the relative levels of the given indices all other Russian regions for 1995 and 1999, with respect to the average Russian index for these years. On this basis the dynamics of the levels of service all over the regions of Russia was defined. Using this method for reaching the whole comparison there was revised an account of the provision of doctors.

There are three types of regions:

A the regions, where the reduction of index have taken place,
B the regions, where the dynamics of index was on the average Russian level,
C the regions, where the increase of index have taken place, concerning the average level of whole Russia.

Thus, the total typology includes both the first and the second approaches. The taken methods of the research let not only compare all the researched regions between each other, but also let define their position on the level of the country.

Almost all researched regions (except Moscow Oblast) are characterised by the low level of trade, service, especially this difficult situation is typical for Altay Kray and Republic of Gornyy Altay (type 1A), where there is not only one of the lowest average person turnovers in Russia, but also it has dropped with respect to the average Russian index for the period 1995-1999. The situation is a bit better in Voronezh and Kursk Oblasts (type 1B). Orlov Oblast belongs to the type 2A. Smolensk and Belgorod Oblasts belong to the type 2B, where the low level of trade service for the period 1995-1999 corresponds to the average Russian level of the dynamics. In Lipetsk and Tambov Oblasts (type 2C) with keeping the low level of the average person turnover for the period 1995-1999, it had been raising. Only Moscow Oblast (type 3C) is characterised by the average Russian turnover, which had raised (with respect to the average Russian level of the dynamics) for the researched period.

The sphere of service with its importance for the life of people is characterised by a bit higher differentiation of the indices, which is reflected in the typology of the regions. The principal part of the researched regions (except Moscow and Belgorod Oblasts) is characterised by the low level of service for Russia. Kursk Oblast and Republic of Gornyy Altay belong to the type 1A, Smolensk Oblast - to the type 2A. The average Russian level of the dynamics with the low level of service is typical for Voronezh, Orlov and Lipetsk Oblasts and Altay Kray (type 2B), for Tambov Oblast (type 2Q - even its increase. Belgorod Oblast (type 3A) is characterised by the average Russian level of service. With the tendency to its reduction, and Moscow Oblast (type 5B) is characterised by the highest (for Russia) level of service with keeping the average Russian index of the dynamics.

The index of the provision of doctors for people shows not in full measure the peculiarities of medical service, but it is one of the bas index of the medical statistics. Besides the general level of the socio-economic development and financial possibilities of the regions, urbanisation (the great part of doctors and medical services is concentrated in regional centres) and regional possibilities for the preparation of medical personnel influence on it. The regions, where there are their own institutions for the preparation of medical personnel of the highest qualification, as a rule, are characterised by the higher provision of doctors. The most difficult situation with the provision of doctors is in Belgorod, Orlov, Lipetsk and Tambov Oblasts (type 1A). Except them the lowest provision of doctors is in the Republic of Gornyy Altay and Moscow Oblast (the principal part of medical institutions and personnel is in the capital) which belong to the type 1C. Altay Kray is also characterised by the lowest provision of doctors (type 2B). More favourable situation is in Kursk (type 3B), Voronezh (type 4B) and Smolensk (type 5C) Oblasts.

Thus, in general it is possible to say that the principal part of the regions (researched in the aspect of the socio-economic transformation of the rural areas) is traditionally characterised by the low level of service for people. The economic reforms of 1990s caused the considerable transformation of the sphere of service for people and the reduction of the level of service in most its branches. At the same time in the principal part of the researched regions this reduction of the level of service is not more considerable, than at an average all over Russia.

3.2.1.2 The Central Region

The main change in the sphere of service in the countryside of Demidov Rayon is the deep degradation, manifested itself in the reduction of number of centres of service, in the reduction of variety and worsening of quality of services. During the period 1992-1999 from 20 % to 80 % of the institutions of the sphere of service stopped functioning in the country administrations.

The countryside of Zaraysk Rayon, as the greater part of the regions near Moscow is characterised by the high enough provision with institutions of the social infrastructure. The socio-economic changes of the 1990s caused in a greater degree the qualitative changes in the sphere of service, while the network of institutions had changed in a small degree (exception - a sharp reduction of the network of shops of the system district co-operative society). In general the considerable part of settlements are found within the compact zones of gravitation of the separate centres of service. Only the people of the outlying villages have limited of possibilities in getting production of the sphere of services.

In Demidov Rayon of the Smolensk Oblast the overwhelming majority of the polled people (more than 90 %) live in their own separate house, as a rule, without conveniences. And only 1 % of the polled people has sewerage and central heating, 3 % - plumbing and 6 % - gas main. About 4/5 of polled people do not have any conveniences at all.

The situation is different in Zaraysk Rayon. Here most people (2/3) live in flats and houses with modern conveniences. Correspondingly, 87 % of the polled people have plumbing, 80 % - sewerage, 76 % - gas main, 69 % - central heating. Only 8 % of the polled people (who live in a separate house) said that they did not have any conveniences at all. During the period from 1992-1999 the number of shops in the countryside of Demidov Rayon reduced from 68 to 46. The main part of closed shops was in the settlements where population up to 50 persons lived. In bigger settlements the number of shops kept on the same level or reduced from 3-4 to 1-2. Thus, in the considerable part of country administrations for small settlements with population up to 26 persons, the average remoteness of the nearest shop is 5-7 km that exceeds the limits of the pedestrian accessibility and makes almost impossible the daily use of shops of services.

In the very near future it is possible to forecast with a great degree of assurance the slight reduction of the network of shops. It is caused by such factors as:

a) Depopulation and thinning out the network of settlements.
b) Sharp reduction of purchasing power of people.
c) Transition of the considerable part of people from the commodity to natural, self-provided economy without the turnover of the cash.

d) Competition with Belarusian traders, who come to the settlement Prehevalsk or to the town Demidov on weekends by their own cars.

For the period 1989-1999 the network of shops in the countryside of Zaraysk Rayon was subjected to the sharp change, qualitative and quantitative change. All manufactured shops disappeared in villages. Only 12 food shops were left to 1999 from 45 in 1989 (they are in the central grounds of agricultural enterprises).

On conditions of the shortage of the network of stationary shops (their buildings more often fell into disrepair and are not used) the role of mobile shops has grown, the provision of the part of the country outlying districts depends on the work of mobile shops. During the spring-autumn period about 68 settlements with 2075 habitants (12 % of the rural population of the rayon) use the services of mobile shops. During the winter period only one mobile shop works. During this time the inhabitants of about 30 villages, where 940 people live, in general can use its services. Thus, from the end of November to March more than 1,000 persons are left without the centralised provision.

The guest market works in many central grounds 2-3 times a week the whole year, where it is possible to buy not only food-products, but also most necessary household goods. Such "peddlers" fill the "niche" in the greater degree, which arose in the countryside after the closing of groceries and clothing and general shops.

Medical service in Demidov Rayon consists of the following institutions: the central district hospital, one divisional hospital, one nursing hospital, 4 offices of health, and also 30 medical attendant and obstetrical offices.

The main problem today is the considerable reduction of the quality of medical service of the country people. The experts' appraisals show that the spectrum of services of offices of health comes only to the possibility of giving the first medical aid. The pharmaceutical aid and the early diagnostics are impossible because of the absence of medicines and special equipment. Very often the main condition for getting the medical help is the presence of people's own medicines and bandages. Demidov has only 2 stations of the first medical aid that is not enough for the satisfaction of people's needs of district. The radius of the territory of service by one station is 30 km (till 1 hour in the trip because of the bad quality of roads). Because of the money lack for the petrol and the distance, before sending off ambulance car, calls are checked carefully on authenticity. The network of medical institutions of Zaraysk Rayon did not change itself quantitatively during the period 1989-2000. Nowadays there are 20 medical attendant and obstetrical offices, their considerable part is placed in the settlements where less 100 persons live. Usually in the medical attendant and obstetrical offices one medical attendant works with a special education, also there is a first-aid kit with minimum set of medicines. Though, many experts marked the low level of the provision with medicines of the dispensaries attached to the medical attendant and obstetrical offices.

Besides, in the district there are 4 medical out-patient's clinics (settlements October, Zaraysk, Maslovo, Mendukino). The actual problem for people of outlying villages is the accessibility and promptitude of services of ambulance cars (because of the quality of roads and a bad telephone connection). From 23 libraries worked in the countryside of Demidov Rayon in 1992 only 17 had functioned by the beginning of 1999. On the territory of Peresudovsk and Poluyanovsk

rural administrations there are no libraries now. The main problem is the ageing and decrepitude of the book fund of libraries against a background of absence of new receipts. During this period the number of clubs and palaces of culture has reduced from 21 to 9. The territories of such rural administrations as Borkovsk, Borodinsk, Demidov, Dubrovsk, Zhichitsk, Zakrutsk, Karzevsk, Peresudovsk, Poluyanovsk, Slobodsk at present do not have such institutions. This influences the problem of local youth's leisure.

According to the data of the department of culture, the factors of the closing of clubs, libraries, palaces of culture, has not marked for the last decade in the countryside of Zaraysk Rayon. The provision of the village with such institutions is on the high level.

On 1st January 1999 in the countryside of Demidov Rayon 14 school had worked: 3 secondary schools (11 classes) and 11 basic schools (9 classes). 2 schools (in Slobodsk and Shapovsk administrations) have closed since 1992. The territories of administrations of one school have from 20 to 80 children of school age. There are a big remoteness and a bad transport accessibility to reach schools for children living in small settlements. Very often the pupils of the basic school live in a territory with 4-6 km radius far away.

The situation is still more serious with the provision of kindergartens and crèches. From 13 children pre-school institutions worked in 1992, only 8 works now. The specificity of such institutions says that only the limited part of people can use their services who live in big settlements of 200-400 persons.

By the beginning of the year 2000 18 schools had worked in the Zaraysk Rayon (10 secondary schools and 8 primary schools). Schools are distributed among the settlements of the rayon evenly enough. The formation of the network of secondary schools of countryside of the district has not been finished yet. There are not secondary schools in Protekin, Gololobov, Karin.

The problems with the break between the place of living and the place of studying are solved by regular buses taken children freely.

The population crisis has not caused the closing of schools for the last years, though the number of pupils has reduced. The reduction of teachers' stuffs has not happened because of the reduction of teaching load. In experts' opinion the prestige and the authority of a country teacher have not reduced for the last years. There are not any vacancies for a place of teachers, that is caused by such factors as: 25 % of the supplement to the salary; free fare to the place of working; the privileges for the public utilities; the possibility of the improvement of skill and as a consequence, the increased of wages); the long holiday; the lower, than in a town, emotional and psychological load of a country teacher, because of the not big number of pupils in classes.

The main mass of transportation in Demidov Rayon is realised by bus communication. The main transport centre is the town Demidov. In the system of bus communication the following phenomena and tendencies have happened for the last years:

1) the sharp increase of prices for tickets;
2) the reduction in 2-3 times of a number of trips on a considerable part of routes;
3) the excess of the term of exploitation and the wear of transport means.

The more meaningful tendency of all enumerated tendencies should be confessed by the sharp increase of prices for tickets and, as a consequence, the small accessibility of bus communication for a considerable part of people. For example, the trip from the village Zheruni (Borkovsk) and back costs 40 roubles, that is 25-35 % of a monthly salary of a countryman. This people of the outlying rayons make their trips to the rayon centre and settlements of urban type (towns) very seldom, only in the case of the absolute necessity. Besides it not seldom there is a partial payment of the nominal value of a ticket, so people spend their last money for a necessary trip. Obviously the next increase of prices for petrol will make bus communication in Dimidov Rayon impossible without the considerable grants from the budget.

Zaraysk Rayon in opposite has an intensive and regular enough bus communication with the town Zaraysk. In the main directions to Moscow, Luhovizi, Golutvin the frequency of trips is 1 trip an hour. In the minor directions - 2 times a day, the rarest. More than 90 % of country people live in the settlements with bus communication. There is practice of a free and privileged trip for the certain categories of citizens. The wear of the bus park is not very great. The cost of fare is lower than in many regions of Central Russia.

Analysing the formed situation in Demidov Rayon and its tendencies of development, in the next years we should wait the following changes in the sphere of service of country people:

a) The thinning out of the network of centres of service will happen and, as a result, increase of the radius of the zone of service.
b) It is expected the reduction of the variety of services.
c) The quality of services will continue to become worse.
d) The paying services will become less accessible because of the fall of the solvency of people.
e) The spectrum of the free services will reduce sharply, their quality will become worse very much because of the absence of the proper financing.
f) The further "autonomization" of small settlements will happen, accompanying by the almost total falling out of them from the zone of service of the separate service centres.

The countryside of Zaraysk Rayon will be characterised by the relatively high level of the development of the social infrastructure in the next years, however the perspectives of the further changes in this sphere are unclear.

3.2.1.3 The Central Black Earth Region

One of the most complicated problem of the rural areas of the Central Black Earth Region and the Voronezh Oblast is insufficient development of infrastructure and, first of all, of transport and communication. As the majority of the rural settlements do not have service enterprises and institutions that is why the passenger transport (especially motor transport) plays a leading role. Nevertheless, the quantity of transport means is not enough and this factor impedes the rural areas development. For example, Voronezh Oblast takes only 17^{th} place in Russia by the number of highways and 36^{th} place by the number of hard roads. An important problem is insufficient development of road network in the rural settlements of Voronezh Oblast. So, the total length of hard roads of general use amounted to 8,900 km in 1997. the portion of the Federal importance highways was equal only to 9 %.

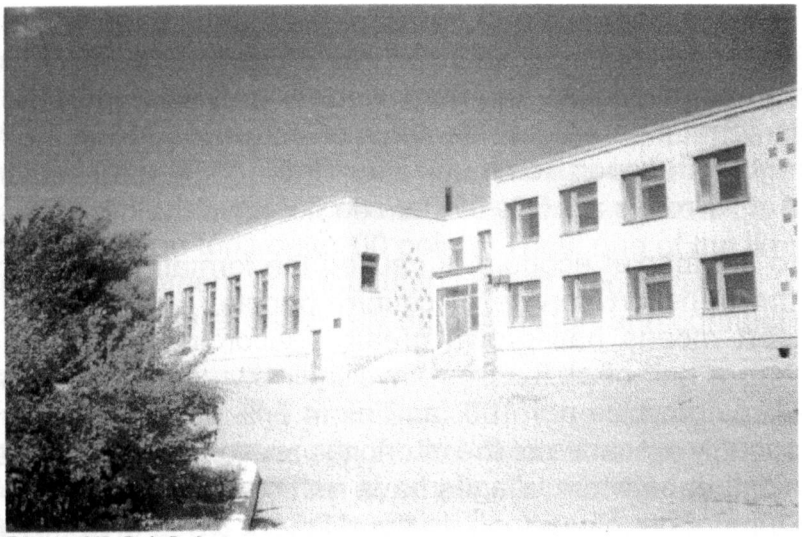


Photo I/3.2.1.3-1
Rural school in the Voronezh Oblast

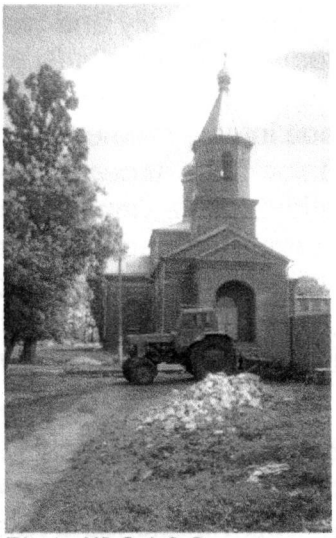


Photo I/3.2.1.3-2
Rural church in the Voronezh Oblast

Photo I/3.2.1.3-3
Rural street in the Voronezh Oblast

More than 500 rural settlements or 32 % from the total number of the rural settlements do not have any communication with hard roads. Extremely important task for the villages are situated near the hard roads is provisioning of thoroughfare in side these settlements. For many settlements of Voronezh Oblast the limited factor is absence of regular transport communication. From 1794 rural settlements which are situated out of railroads. 18.5 % of them do not have the direct bus routes.

The transition to the market economics caused the formation of the contradictory tendencies in the transport service of country people. Firstly. the provision with personal transport means has grown greatly. According to the questioning of people. more than a half of all families have their own personal transport means (36 cars and 27 motorcycles per 100 families; 4.7 % peasant families have their own lorries). Secondly. because of the economic reasons the system and intensity of bus communication between villages have reduced. In general the reduction of the intensity of trips of country people to the different types of settlements of their region is showed clear enough. But the specific gravity of more seldom trips to the rural settlements has grown (1-2 times in a month, once in several months, and once a year). Also the frequency of the daily and weekly trips of country people to their own rayon centres has reduced (accordingly from 3.7 % to 2.6 % and from 25 % to 14 %) and the frequency of more seldom trips in time has increased (once to twice a month - for 11 %, once in several months - for 18 %, once a year - in 3.1 times. Seldom than once a year - in 6.1 times). The tendency to the reduction of the intensity is showed in the time of the analysis of country people's trips to the other towns (besides district centres and region centres). At the same time for this category of trips the specific of transport and geographical location of the concrete country settlements begin to take on special significance. That is why both the intensity of trips and its dynamics are differed according to the separate country settlements for the 1990s.

The reduction of the intensity of country people's trips is also typical for their intercommunication with the region centre. However these trips have different functional purpose. Daily trips in their basis, as a rule, are connected with work or studies and concern of people of the suburban zone, on the whole, in the radius of the hour availability. According to the people's appraisals such trips make up 14.1 % of all trips of country families to the region centre. Their specific gravity has reduced (for 7.9 %) in comparison with the beginning of the 1990s. It in general conforms to the practice of enterprises of the region centre in solving problems of employment by the reduction of the commuters. Moreover the modem level of the salary can't provide the people's transport expenses. Other trips of country people to the region centre (daily, monthly and more seldom) are connected with the other functions visiting of the enterprises of the sphere of services, relatives, etc. So at the time of increasing of transport wastes people compensate them with a lower frequency of trips. For example. if the part of weekly trips of country people to the region centre has reduced for 16.2 %, the part of trips with the frequency one, two times a month has grown for 26.2 % and with the frequency one time several months - for 23.1 %. The character of country people's trips which is intensive enough is defined by that more than 1/3 of country people use their personal transport means for such trips.

The limit factor of the socio-economic transformation of the countryside of Central Black Earth Region represents the weak development of connection. At the end of

1997 the provision for country people with coin-operated telephones was 11 per 100 people, and with home telephones was 29.4 per 100 persons accordingly that was in 2 and 1.9 times less than in towns[10]. According to the sociological questioning 16.8 % of families of respondents have a telephone. It is much less, than their financial means let. The weak side remains to be the inter-settlements' connection. The number of coin-operated telephones of country telephone connection all over the region tops only 100 points. Thus, one of the limit factors of the socio-economic development of the countryside of Central Black Earth Region is the low level of infrastructure, especially auto transport and connection.

The sphere of services plays the main role in the functioning of the countryside of Central Black Earth Region. The main function of the sphere of services is satisfaction of people's needs in services. At the same time the sphere of services is one of the most important branches of employment of the country people. About 115 (18.6 %) of respondents works in education, medicine, trade, finances and in others of branches of sphere of services. The specificity of the sphere of services of country people is the great dependence on towns, which have the considerable level of services for country people. The sphere of services, which is not enough developed, influences the living standard of rural population of the Central Black Earth Region negatively. The countryside of Voronezh Oblast according to the level of the social development considerably yields not only its town settlements, but also the rural areas of Russia and Central Black Earth Region. Moreover in the countryside of Voronezh Oblast not only the complex of services has developed insufficiently, but almost all branches of services have their indices of the provision with services for 20-40 % less, than all over Russia.

In the 1990s because of the reduction of the possibility to pay for services, the necessity in them had diminished and the structure of the sphere of services had changed. In the modem country public opinion the negative appraisal of changes in the quality of country people's services has formed for the last decades of the twentieth century. 38.5 % of the people drew to conclusion about the deterioration of services, and about the improvement of the quality of services in 2.5 times less (15.7 %). More than 115 (21.7 %) of people think that the quality of services has not changed, and almost every forth (24.1 %) could not answer this question. A half (47.1 %) of all respondents marked that there has not been any new enterprises of the sphere of services for the last 10 years in their settlements.

Unequal periodicity of use is typical for different enterprises of the sphere of services. Both the necessities of people and the peculiarities of the territorial dislocation of enterprises define it. At the same time the low level of the development of sphere of service in the countryside of Central Black Earth Region and the low level of rural population's life has caused the extremely high specific gravity of people, who do not use the separate kinds of services at all or use them very seldom. For example, 89.4 % of respondents marked, that they do not use the services of sport institutions, 87.2 % - of laundries and dry-cleaners, 84 % - bath-houses, 74.2 % - institutions of rest, 68.1 % - of institutions of public catering, 46.4 % - of hairdressers, 40.3 % workshops for repairing.

The formation of trade. medical and school services takes the paramount place in the organisation of the normal life of country people. Though Voronezh Oblast

[10] Voronezh Oblast: The social development and living standard 1999, p.99.

excels the average Russian level in the provision with trade enterprises. Otherwise about 2/5 of all rural settlements do not have their own trade service in this oblast. Trade enterprises lead by the frequency of attendance. So. everyday 40.1 % of people go to the shop, one or two times a week - 30.4 % of people, every week - 12.9 % of people and only 1-2 times a month - 11.7 % of respondents. In the 1990s during the process of privatisation of the existing before state enterprises and formation of great number of private enterprises the radical change of the social structure of trade happened. The specificity of the countryside is the ramified system of the consumers' co-operatives, which adapted to the market relations and the turnover of market trade has grown sharply for the last years. The economic reforms of the 1990s removed the problem of the goods deficit, but the difficulties of modem trade are defined by the low purchasing capacity of people. As the trade enterprises are in the countryside can not satisfy the necessities of people completely, the meaning of local and regional trade centres has been increasing. According to the data of respondents in their settlements only 2.3 % of people buy expensive things, in the local country centre - 9.6 % of people. The centres of the own administrative districts in which a half (49.6 %) of all country people buy expensive things play the role of the local trade "capitals". In the town Voronezh as a regional centre more than 1/4 (26.5 %) of country people buy expensive things. In comparison with other centres within Central Black Earth Region the specific gravity of the town Voronezh in purchases of country people has diminished because of its outlying transport and geographical location with respect to the territory of the region.

The most serious problem of the countryside of Central Black Earth Region is the provision of people with the acceptable level of medical service. Among the five branches of the sphere of service of the rural population, the situation in which is the most difficult, according to the experts' opinion the medical service takes the first place. This situation is defined by both the peculiarities of ageing structure, state of health of rural population and the territorial organisation of the network of medical institutions. If in the towns the different types of institutions are put simultaneously, in the countryside (villages - with the exception of district centres) they become localised isolate over the certain settlements. The medical attendant and obstetrical offices are the main type of medical institution. The greater part daily medical service of the country people fits on them, which, as a rule, are arranged for the central grounds of agricultural enterprises. In the settlements, where there are these medical attendant and obstetrical offices, a half of the rural population of the region live. The average radius of the accessibility of the medical attendant and obstetrical offices is 7.9 km. The divisional hospitals are found in 7 % of the country settlements, but only 1/4 of all country people of the region live there. Zones of service of the divisional hospitals have quite vast territories – 364 km^2, in average all over the region, and the radius of the accessibility is 19.1 km. Therefore one divisional hospital correspond to 14 rural settlements. Institutions of medical service belong to the well attended places by the rural population

The transition to the market economy caused the formation of the negative tendencies of the sphere of medical service. The limit of money means on the regional and municipal levels leads to the selection of types of medical institutions. So the rural population has the most difficult conditions, as much according to the economical considerations, dispensaries, medical attendant and obstetrical offi-

ces, ambulatory clinics and even divisional hospitals are closed. The network of medical institutions in villages becomes more rare, that is why the radius of services has been increasing. Secondly, the shortage of budget led to take money from patients and to pay for different types of medical services. However the greater part of the rural population, among them a lot of pensioners, does not have an opportunity to pay for medical services and to buy expensive medicaments.

The held sociological investigations showed that according to the public opinion of rural population there are no worries for the condition of the public school. It does not mean that there are not any serious problems in the school service, but they are cared for firstly by professionals. The schools in countryside are smaller than town schools. If about 135 pupils go to the public day country school, and about 780 pupils go to the public day town school, that means in 5.8 time more. The specific feature of the school network in the 1990s was the tendency to the reduction of schools. The number of rural schools has reduced in 1.5 times for the period 1985-1995. This tendency was caused by the reduction of country settlements, by the reduction of the number of pupils in countryside, and also by the policy of the enlargement of schools. "The dispersion" placing is typical for the network of schools in countryside. The reduction of schools in countryside during the 1990s refer mainly to the primary schools. They make up now only 3 % of all schools in countryside and they play the auxiliary role. The 8 year schools and secondary 10-11 year schools make up the backbone of the school network. Different types of schools have an unequal size. So, the average number of pupils of primary schools makes up 15, of 8-year old 85, and of secondary schools 25. Because of historically formed class-lesson form of teaching, it is difficult to organise the process of studying in country-schools and to provide a high level of training of teachers for them. 8 year schools make up almost a half (45.6 %) of all country-schools, and more than a half of all country pupils study at secondary schools.

The domestic service plays the important role in the formation of the mode and standard of living of the rural population of Central Black Earth Region. However its level of the development in the Voronezh Oblast is much lower, than in whole Russia in general (on 23 %). Voronezh Oblast takes the last but one place within Central Black Earth Region, outdistancing by the average per person volume of domestic services is only Tambov Oblast. The transformation of country economics caused the difficult financial conditions in the sphere of cultural service. The commercialisation of the sphere of service has brought the club institutions into a difficult situation, because they were on the budget of the local authorities, or on the budget of the agricultural institutions. There main principle of financing conforms to them, or they are turned over on lease for using them in other purposes.

Thus, the transition to the market economics caused not only a transformation of the sphere of service, but also its partial degradation. That is why the rural population's opinion has changed about its sources of financing. A great number of experts (71.6 %) supported the mixed financing of the sphere of service at the expense of the means of state and local authorities and at the expense of the means of private people and clients. Only the small part of the experts (28.4 %) continues to hope for the means of the state bodies and the bodies of local authorities. At the same time a great number of experts (73.9 %) chose five branches of the sphere of service of the countryside, which up to 2005 should have

kept mainly the state financing: 1) medical service, 2) education, 3) pre-school service, 4 housing and communal service, 5) cultural service.

In authors' opinion only housing-communal services raises doubt in this list. The housing-communal services must be financed at consumer expense.

3.2.1.4 The Altay Kray and the Republic of Gornyy Altay

The economic instability of industry and agriculture within Altay Kray and Republic of Gornyy Altay could not adversely affect the condition of the sphere of services of these regions. The health-service turned out in more disastrous situation, most services of which have become pay because of the sudden shortage of financing.

Under the conditions of pauperisation of the considerable part of people including doctors, wages of which is on the level of living wage the quantity of appeals to the medical aid has reduced. As almost all participants of the questioning mark, there have not become few sick people. The reason of rare visits is the necessity to pay for what was free before: medicines, bandages, etc. Still increasing in accessibility of medical services has been redoubled by the mass closing of medical attendant - obstetrical centres, which are the only centres of healthy services in the country-side.

The next sore topic for country people of Altay Kray and Republic of Gornyy Altay is the worsening of school educating and the considerable shortage (sometimes the full absence) of kindergartens. The main problems of schools are rather typical: old institutions and the absence of the qualitative repair (the redecoration is done at the expense of parents), the shortage of educational and methodical literature, almost full absence of visual aids. In this situations such problem as a teacher stuff, which has been getting old and young teachers graduated from Pedagogical Universities do not hurry to go to schools begins to spread.

The problem of pre-school institutions turned out a bit unexpected for country people. In turned out that the closing of kindergartens because of the diminution of children (the result of the diminution of the birth rate for the last years) and the shortage of financing is the serious problem not only for young families. The participants of the questioning raising this problem told about the difficulties to train children for school and about the difficulties to let young mothers work (if there is nobody to leave a child with).

The considerable distance between settlements of Altay Kray and Republic of Gornyy Altay is the reason to provide regions with transport. The official facts tell us about the improvement of providing regions with transport services, according to the quantity of routes. But the same statistics establishes the steady diminution of providing people of Altay Kray and Republic of Gornyy Altay with busses: to the end of 1999, the quantity of such busses (at 100 thousand of people) in comparison with 1980 has cut by 1.5. This circumstance, side by side with an auto park getting old has provoked the shortage of the quantity of trips, the sudden increased of fare. As a result the reduction of the quantity of trips of country people has come about. Especially this situation is typical for inner-district and inter-district communication in the Altay Kray and the Republic of Gornyy Altay.

In spite of the increase (in money units) of the volume of service, the occurring everywhere shortage of centres of services has come about in the countryside of

Altay Kray and Republic of Gornyy Altay, which to greater degree concentrates in the district centres and towns. The more claming service discharged in the centres of services is the repairing of domestic technique. To the rest kinds of services country people appeal seldom because of their high payment.

But at the same time, according to the answers of the participants of the question, there is a constant necessity in the services of hairdressers, dressmakers, 19 workshops of repairing shoes, etc. Most of rural people suffer from the impossibility to solve such problems in their settlements.

The more serious situation with the accessibility of services has come about in the Republic of Gornyy Altay. Here, since the middle of 1990s, the stead reduction of services has come about, the rates of which suddenly increased in 1998 and till then they have not decreased. So, if in 1996 volume of services per person in the republic was 188 roubles, it was 137 roubles in 1998, and only 66 roubles in 1999. The reasons of such condition, first of all, are very low incomes of people and the change of the whole sphere of services for worse in the Republic of Gornyy Altay.

Against a background of the condition of the infrastructure in the countryside of Altay Kray and Republic of Gornyy Altay. which has been getting worse, there are positive examples. They concern, first of all to trade. Private shops have spread everywhere and the variety of goods and prices of which compete with the state institutions. Most participants of the questioning take the development of the net of such shops positively.

Another and may be the last positive example of the changes in the sphere of services for the last 10 years is the installation of telephones in the countryside. This phenomenon has reached the large scales in Altay Kray, where in most settlements there are telephones at home.

But in many cases, in the respondents' opinion, the quality of the telephone connection leaves much to be desired. In the Republic of Gornyy Altay the development of the telephone connection in general concerns district centres.

On the whole the situation in the sphere of infrastructure, and services for the research regions is very difficult. The condition of housing and communal and transport services (old bus parks, bad quality of roads especially in the countryside) has suddenly changed for worse. Though there are positive examples: at the end of 2000 the good new motorway Altay-Kuzbass was built connecting Altay Kray and Kemerovo Oblast. The question about building of a roadway in Chine through the Republic of Gornyy Altay is being discussed actively (there are supporters and opponents of building this road). The reduction of the level of education and medical service has come about.

The measures of the improvement of this situation in the sphere of services are:

1) Improvement of the quality of road covering, of the service of roads in winter (the timely disposal from snow and etc.).
2) Introduction of the privilege of fare for the country people (socially unprotected people: teachers, doctors, large families and youth).
3) Provision of the country schools with free books, educational aids and etc.
4) Regular free medical check-up of all categories of country people.
5) Increase of favourable taxation of businessmen, who render the sponsor help country infrastructure.

3.2.2. Agriculture

3.2.2.1 Characteristics of the 1990's economy

The 1990s' economic characteristics of agricultural enterprise operation in Russia determined the dramatic drop in the entire agricultural production. At this point, the discourse on agricultural "development" at the end of the 20th century mainly comes to ascertaining of the downturn large-and-small scale production.

Furthermore, alterations in the forms of ownership led to the redistribution of land resources, entailing restructuring process in agricultural production output production.

Increase in the private household share parallel to decrease in the state-owned enterprises resulted in the present division of the agricultural enterprises into 2 groups:

1) collective enterprises established on a collective and share holding form of ownership, state (state farms and others) – large-scale farms;
2) private households represented by subsidiary small-holdings (SSH) and farm (peasant) households.

The agricultural reorganisation gave rise to a large commodity production fall and launched the transition to small commodity output.

The 1990s' agrarian reform in Russia brought in a rapid growth of family-owned households, which have diminished agricultural enterprises significance. The share of family-owned households' output of meat, milk, wool has increased approximately twice as much.

3.2.2.2 Agricultural development recession

The major aspects of agricultural development recession are stated below.

Since early 1990s farming lands have reduced by 27 %, including 30 % of arable lands. This process evolved not only from land redistribution but also due to the incapacity of many farms in the times of crisis to cultivate their lands. The land curtailment affected all agricultural crops: grain crops – by 27 % and industrial crops – by 37 %.

Within the 1990s the total agricultural output productivity decreased by two times.

It is necessary to note that a part of the decrease results from statistical shortage since agro-enterprises are reluctant to submit the real data on their production volume. In most cases, such reluctance originates in the tax evasion and in the concealing the crop from local administration verification.

Table I/3.2.2.2-1 Gross plant production yield in agro-enterprises of all categories, 1991-1998 (million t)

	1991	1992	1993	1994	1995	1996	1997	1998
Grain (in post-processing weight)	**89.1**	**106.9**	**99.1**	**81.3**	**63.4**	**69.3**	**88.6**	**47.9**
Including:								
Winter wheat	25.8	28.3	27.2	17.1	13.8	16.7	20.6	13.3
Spring wheat	13.1	17.9	16.3	15.0	16.3	18.2	23.7	13.7
Winter rye	10.6	13.9	9.1	6.0	4.1	5.9	7.5	3.3
Corn	2.0	2.1	2.4	0.9	1.7	1.1	2.7	0.8
Winter barley	2.7	2.7	2.5	1.0	1.3	1.3	1.3	0.9
Spring barley	19.4	24.3	24.4	26.0	14.5	14.6	19.5	8.9
Oat	10.4	11.2	11.6	10.8	8.6	8.3	9.4	4.7
Millet	1.0	1.5	1.1	0.5	0.5	0.4	1.2	0.5
Buckwheat ('000 t)	688	1038	806	781	597	485	630	466
Rice ('000 t)	773	754	688	523	462	389	328	413
Peas	2.1	2.6	2.5	2.3	1.2	1.3	1.2	0.7
Flax fibre ('000 t)	**102**	**78**	**58**	**54**	**69**	**59**	**23**	**34**
Sugar beet (industrial)	**24.3**	**25.5**	**25.5**	**13.9**	**19.1**	**16.2**	**13.9**	**10.8**
Sunflower seeds	**2.9**	**3.1**	**2.8**	**2.6**	**4.2**	**2.8**	**2.8**	**3.0**
Potato	**34.3**	**38.3**	**37.7**	**33.8**	**39.9**	**38.7**	**37.0**	**31.4**
Vegetables	**10.4**	**10.0**	**9.8**	**9.6**	**11.3**	**10.7**	**11.1**	**10.5**

Source: Goskomstat of Russia: Statistical Yearbook. Russia 1999. Moscow, 2000, p. 362.

Table I/3.2.2.2-2 Arable lands of agricultural crops in agro-enterprises of all categories, 1990-1998 ('000s ha)

	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total arable land area	**117,705**	**115,508**	**114,591**	**111,827**	**105,340**	**102,540**	**99,626**	**96,554**	**91,660**
Grain crops	63,068	61,783	61,939	60,939	56,280	54,705	53,388	53,634	50,724
Winter grain crops	**18,411**	**16,430**	**19,191**	**17,220**	**12,033**	**11,895**	**13,916**	**13,423**	**12,353**
Out of them:									
wheat	9,731	9,191	10,799	10,500	7,754	8,194	9,329	8,944	8,246
Rye	7,989	6,461	7,574	5,976	3,888	3,233	4,133	3,989	3,761
Barley	691	778	818	744	391	468	454	490	345
Spring grain crops	**44,657**	**45,353**	**42,748**	**43,719**	**44,247**	**42,810**	**39472**	**40,211**	**38,371**
Out of them:									
Wheat	14,513	13,961	13,485	14,166	14,436	15,715	16,378	17,112	17,855
Corn	869	733	810	800	524	643	622	918	787
Barley	13,032	14,503	13,746	14,735	16,013	14,242	11,338	12,027	10,938
Oat	9,100	9,032	8,540	8,402	8,333	7,928	6,904	6,438	5,229
Millet	1,936	1,997	1,875	1,464	1,002	698	1,228	1,086	975
Buckwheat	1,278	1,646	1,709	1,808	1,756	1,604	1,369	1,112	1,226
Rice	287	267	265	261	193	171	172	151	146
Leguminous plants	3,556	3,163	2,266	2,042	1,962	1,784	1,430	1,340	1,185
Industrial crops	**6,111**	**5,626**	**5,891**	**5,536**	**5,311**	**6,476**	**6,026**	**5,398**	**5,949**
Including:									
long-fibre flax	418	328	327	263	135	177	153	114	107
Sugar beet (industrial)	1,460	1,399	1,439	1,333	1,104	1,085	1,060	933	810
Oil-yielding crops	4,007	3,717	3,921	3,804	3,996	5,149	4,747	4,278	4,958
Out of them:									
Sunflower	2,739	2,576	2,889	2,923	3,133	4,127	3,874	3,588	4,168
Soy-bean	675	664	645	625	580	487	485	404	453
Potato and vegetables, melons	**3,966**	**4061**	**4,287**	**4,365**	**4,153**	**4,303**	**4,281**	**4,271**	**4,127**
Including:									
potato	3,124	3,187	3,404	3,548	3,337	3,409	3,404	3,352	3,265
Vegetables (without transplanting)	618	662	682	684	704	758	737	749	743
Fodder crops	**44,560**	**44,039**	**42,474**	**40,987**	**39,596**	**37,056**	**35,931**	**33,251**	**30,860**
Fallow land	**13,808**	**14,688**	**13,026**	**13,498**	**16,948**	**17,383**	**17,766**	**17,779**	**18,565**

Source: Goskomstat of Russia: Statistical Yearbook. Russia 1999. Moscow, 2000, p. 361.

The drop in crop capacity caused a decline in the volume of gross production. As a result, crop output suffered losses of 42 % including 40 % of wheat, 75 % of rye and more than 40 % of barley.

There has also been a considerable fall in the industrial crop capacity. For instance, gross sugar beet yield dropped from 24 mil tons to 10 mil tons, gross long-fibre flax yield has made up 33,000 tons as compared to a 102,000 tons yield.

Livestock heads has decreased two times, horses by 57 %, sheep and goats by 70 %. Simultaneously, livestock growth trends can be seen in SSHs (Subsidiary Small-Holdings). The numbers of pigs in SSH is estimated to have grown by 50 %, sheep and goats by 40 %. During the reforms meat output lowered twice and milk production by 40 %.

Table I/3.2.2.2-3 Major animal output production in agricultural enterprises of all categories, 1991-1998

	1991	1992	1993	1994	1995	1996	1997	1998
Meat (slaughter weight) ('000 t)								
Including:								
Beef and veal	9,375	8,260	7,513	6,803	5,796	5,336	4,854	4,703
Pork	3,989	3,632	3,359	3,240	2,734	2,630	2,395	2,247
Lamb and goat's meat	347	329	359	316	261	230	199	178
Poultry	1,751	1,428	1,277	1,068	859	690	630	690
Milk (million t)	51.9	47.2	46.5	42.2	39.2	35.8	34.1	33.3
Eggs (billion, pieces)	46.9	42.9	40.3	37.5	33.8	31.9	32.2	32.7
Wool ('000 t)	204	179	158	122	93	77	61	48
Honey ('000 t)	48.4	49.6	52.7	43.9	57.7	46.2	48.8	49.6

Source: Goskomstat of Russia: Statistical Yearbook. Russia 1999. Moscow, 2000, p. 371.

Farm equipment deteriorating drastically. At present no specific cultural and professional maintenance work is being carried out in the agricultural sector. Up to 30 % of natural pastures have become boggy and overgrown. Fertilisers are presently only rarely applied.

Table I/3.2.2.2-4 Heads of livestock in agro-enterprises of all categories, 1991-1999 (1st January) ('000s heads)

Year	Cattle	Including cows	Pigs	Sheep and goats
1991	57.0	20.5	38.3	58.2
1992	54.7	20.6	35.4	55.3
1993	52.2	20.2	31.5	51.4
1994	48.9	19.8	28.6	43.7
1995	43.3	18.4	24.9	34.5
1996	39.7	17.4	22.6	28.0
1997	35.1	15.9	19.1	22.8
1998	31.5	14.5	17.3	18.8
1999	28.5	13.5	17.2	15.6

Source: Goskomstat of Russia: Statistical Yearbook. Russia 1999. Moscow, 2000, p. 370.

The 1992 price liberalisation distinctly raised the disparity in prices for industrial and agricultural output. The cost of input turned out to be much higher than the price of agricultural products. In 1991 the fuel price per ton was equivalent to 0.4 tons of grain. In 1997 fuel prices rose to equal 2 tons of grain.

Due to the inputs expenditure expansion products' cost price has been largely boosted. Within this decade government investment in the Agrarian and Industrial Complex (AIC) development gradually decreased: in 1991 they made up 19 % of budget expenditure, in 1994 9 %, in 1997 3 %, and in 1998 2.4 %. In contrast, in Russia the amount of modern agricultural financing per 1 ha. of agro-farms constitutes 14 US-$, whereas in Germany it is 500 US-$, and in the USA 220 US-$.

3.2.2.3 Agricultural development stages

The last decade can be split into 3 stages:

- *1990-1995:* this period witnessed an enormous downturn in all agricultural production, most of which hit the bottom in 1995;
- *1995 (August)-1998:* a relative stabilisation in agricultural production;
- *1998 (August)-1999:* to some extent favourable period for agro-producers, it was marked by financial improvement for many agro-enterprises.

Table I/3.2.2.3-1 Specific share of profitable and unprofitable farms 1996-1999 (percentage share of total volume)

	1996	1997	1998	1999
Agro-enterprises:				
Unprofitable	79	82	88	55
Profitable	21	18	12	45

Source: Goskomstat of Russia: Statistical Yearbook. Russia 1999. Moscow, 2000.

It was not until 1999 that agriculture became lucrative – 13 billion rouble revenue vs. 37 billion rouble losses in 1998. The number of unprofitable farms fell by a third. In 2000 the Ministry of Agriculture set up a 14-15 billion-rouble level of agri-profits. In accordance with the data provided by the State Committee of Standards, the 1999 investments in the primary capital of the Agrarian and Industrial Complex (AIC) rose from 25 billion roubles to 54 billion roubles, where federal and regional investments comprised around 3.5 billion roubles and the rest was financed by private investors.

Since the early 1990s land reform has undergone the following 3 stages:

1. *Stage I (1990-1994)* – land privatisation, socially oriented allocation to citizens. The decisive land laws of the Russian Federation were adopted: "On the land reform" (1990), "on Peasant (farm) households" (1990), "The R.F. Civil Code" (1991) and such like. On September 4 1992 the government passed a resolution "On the privatisation and reorganisation of agro-enterprises and organisations of the AIC". As a result, within a 4-year period of land reform the land owned by the state decreased ensuing a considerable increase of non-

government agro-enterprises. The prompt emergence of peasant households was characteristic in practically all Russian regions. The population's household land grew by 4.1 %, mostly due to extensive dacha and housing construction.

2. *Stage II (1995-1997)* – transition to the purposeful legal and economic regulation of the emerging land relations. The initial objective of this period was legalisation of the right to land ownership. At the beginning of 1995 land ownership certificates were granted to more than 70 % of the claimants. This process was meant to have been completed by the end of 1995, however, local authorities in many regions proceeding from some political and other assumptions either refused or delayed issue of the certificates. By mid 1995, 17 R.F. subjects, among them the Republics of Tatarstan, Daghestan, Bashkortastan, had not yet issued certificates. In Tver' and Voronezh Oblasts as well as in the Republic of Chuvash only 10 % of landowners received the certificates. The distinctive feature of the second stage in land reform was the curtailment of agricultural households' land and their insufficient productivity. From 1992 to 1995 there was a 10 % shortage of hay mowing lands and pastures. Fallow lands increased by 3.8 points.
3. *Stage III (since 1998)* – development of legal and economic regulation of land relations, along with regulation of the land market. By 1998 the lack of an integral legal regulation system of land relations came to the foreground. To this, in June, 1999 the R.F. government approved Federal purpose centered program "R. F. land reform development for 1999-2000". This period was marked by the issue of land ownership certificates (11 million out of 12 million certificates), followed by extension of land leases and other transactions concluded on municipal lands and sale contracts on land lots (SSH of garden and dacha owners), a fall in the number of farm holdings and an increase in the average size of farm land. After land reform the country was faced by a paradoxical situation in which the bulk of agricultural land that had been taken out of state administration had not been handed over to the peasants. Most frequently, land had not actually been allocated, which made a legal, large-scale handover impossible to carry out. This stalemate situation was not cleared up for 2 reasons. Firstly: Despite existing positive trends agriculture was acutely depressed. Secondly: Creation of an adequate land market required proper preparation on the part of the government, which meant setting up cadastral systems of land registration and monitoring.

What is the actual outcome of the decade which introduced land reform and, consequently, altered forms of ownership?

3.2.2.4 Organisational and legal forms of agro-enterprises

At present Russia maintains various organisational and legal forms of agro enterprise. Concurrently there are: Agro-enterprises which remained intact throughout the years of reform. Early 1998 numbered 5220 collective farms, 2078 state farms and 42 inter-household enterprises; enterprises set up under the R.F. law "On enterprises and entrepreneurism" adopted in 1991, – corporations of both open and closed types of organisation, co-partnerships with limited liability, mixed co-partnerships, producers' co-operatives created under the USSR law "ON co-

operation" of 1988, peasant households' associations; agro-enterprises launched in accordance with the R.F. Civil Code, in effect since 1995, and the laws issued on its basis – "On corporations", "On agricultural co-operation", "On organisations with limited liability". This section includes open and closed corporations, organisations with limited liability, co-partnerships in trust, agriculture producers' co-operatives, agricultural and municipal unitary enterprises. Apart from the above-stated groups of agro-businesses there is large category of enterprises which do not fall under any of the enumerated organisational and legal forms and were established through violation of all the laws. The early 1997 numbered 2252 so-called co-operative and co-operative share-holding agro-enterprises, not stipulated by any law in force.

The R. F. State Committee of Standards makes no provision for a clear-cut differentiation between agro-enterprises which emerged either before or after the adoption of the R.F. Civil Code. Therefore, the number of agro-enterprises representing whichever organisational and legal forms can be determined only approximately. With the reform flow only 5 % of peasants left state farms and settled in a household of their own. The remaining peasants preferred to hand their land and property shares over to the old enterprises or farms that were being reorganised. The majority of peasants did not welcome the rapid transition to large-scale family production farming. Collective farms also proved to be inefficient. Almost 15 % of agro-farms managed to adapt to market conditions. The rest of them had to cut down production and marketing capacity, virtually going bankrupt.

In total, with respect to agricultural output the reform period encouraged the introduction of the family household share (peasant farms and private households, including subsidiary small-holdings, garden and kitchen-garden co-partnerships) of gross agricultural production. During this period large households reduced their output by 2.8, while private households raised by 12.3 %. Collective farms prioritise grain and industrial crop production. Family farms produce potatoes, vegetables and fruits. Peasant household is a form of private agro-enterprise of an entrepreneurial type run by an individual producer and/or a family on their own or leased land. It was not until the 1995s that farming households as family production associations began to emerge in Russia.

By 1996 peasant households reached their peak number (279,000), but have been declining since that time.

It should be noted that the drop in the number of peasant households is most likely caused by their reorganisation into subsidiary smallholdings with the intention of reducing the taxation rate.

In 1999 the specific share of arable land in peasant (farm) households for grain and leguminous crops accounted for 8.7 %, sugar beet 6 %, potato 1.1 %, vegetables 3.9 %, fodder crops 2.3 %. Peasant households provide a substantial share in a range of crops: seed sunflower 17.8 %, lentil 12 %, fodder beans 18 %, buckwheat 13.6 %, corn 20.2 %, melons 28.7 %.

Table I/3.2.2.4-1 The dynamics in the number of peasant (farm) households and their land tenure, 1991-2000 (1st January)

Year	Number of peasant households	In- / decrease compared to the previous	Area	Average land tenure in peasant households
	('000)	('000)	('000 ha)	(ha)
1991	4.4	.	181.0	41.4
1992	49.0	+44.6	2 067.9	42.2
1993	183.4	+134.4	7 809.9	42.6
1994	269.9	+86.5	11 339.9	42.0
1995	278.6	+8.7	11 833.7	42.5
1996	279.1	+0.5	11 982.1	42.9
1997	278.6	-0.5	12 139.2	43.6
1998	274.3	-4.3	13 045.1	47.6
1999	270.2	-4.1	13 844.7	51.2
2000	264.0	-5.6	14 484.1	54.7

The bulk of arable land in peasant (farm) households is given over to grain. In 1999 grain covered 67.5 % of the total arable land, sunflower 16.5 %, sugar beet 0.9 %, potatoes 0.6 %, vegetables 0.5 %, fodder crops 11.5 %. In this respect there are geographical factors which influence the structure of arable lands. Thus, in Northern and Northwest Economic Regions the bulk of arable land is given over to fodder crops 80 % and 74 % respectively. A large percentage of the land of peasant households in the Astrakhan Oblast is given over to vegetables – 35.5 %. In general, plant output in peasant households dominates. In a number of regions animal output makes up less than 10 % (Kursk Oblast, Lipetsk Oblast, Tambov Oblast, Krasnodar Kray).

In 1999 peasant (farm) households produced: grain 6.2 %, corn 10.8 %, sugar beet 3.5 %, potato 0.9 %, vegetables 1.4 %, meat 1.8 %, milk 1.6 %, eggs 0.4 %, wool 4.6 %. Sunflower and melon production make up the main share of peasant households.

Nowadays, the most acute problem of farming development is rooted in the lack of state funding, which cannot be allocated due to the inadequate legal foundations. Farming administration is still carried out under the R.F. resolution "On peasant (farm) households", approved in 1990. The concepts of both peasant (farm) households and subsidiary smallholdings are still missing in the Civil Code of Russia.

In 1996 the R. F. government approved the "Federal peasant (farm) households and co-operation development purposed program for 1996-2000." This program provided a solid basis for many regions to prepare farming development projects. Nevertheless, state support is still badly needed.

According to the 1999 prognosis of the US Agriculture Development Institute made in the report "The overview of farm land reforms in Russia"[11], by 2010 Russia's potential land sources for peasant (farm) households (PFH) will total around 150 million ha out of 222 million ha of all the agricultural lands. By 2010 the overall number of PFHs is estimated to reach roughly 1,02 million. The researchers state that in 2010 PFHs will possess 82 million ha or 35 % of the total agricultural land.

3.2.2.5 Subsidiary Small-Holdings (SSH)

Between 1990-1998 the gross agricultural output production in private households grew from 26 % up to 59 %. This significant change was brought about not only through increased production in this sector, but also through its collapse in some large-scale agro-enterprises.

The labour and production division, which can be traced between agro-enterprise and private households, is manifested in the diversity of production specialisation.

Since 1995 output produced in PFHs along with crop capacity and animal production have been declining. The PFHs' development is hindered by a number of factors. Poor demographic potential – continuing ageing of the population, low birth rate, small families, primitive means of production. Under the Soviet regime no measures to advance mechanisation were taken. With modern advanced technological equipment the reserves of labour capacity improvement in SSHs (subsidiary small-holdings) have been exhausted, and the labour potential of rural families is running out.

Most private households' owners encounter the problem of product marketing. There is a demand for setting up sales channels for agricultural output. Local markets failed to meet this volume of sales. To make things worse, regional and inter-regional markets are hard to access because of the backward state of the market infrastructure as well as a shrinkage in purchases from the farming population by collective manufacturers and procurement organisations.

The predicaments of SSHs are aggravated further by government's non-participation in the agrarian sector backed up by an inconsistent legislative basis. There is no official formulation for subsidiary smallholdings. Consequently, the SSH owners' rights do not receive proper protection and are often infringed, and relations between SSHs and government bodies, local authorities and agro-enterprises are not regulated.

3.2.2.6 Agricultural problems of the examined rural areas

Research on the agricultural sector of the Russian Federation was performed in the Central Region, in the Central Black Earth Economic Regions and in the West Siberian Region (Altay Kray, Republic of Gornyy Altay).

[11]Prosterman, R. L. / Rolphes, L. / Duncan, J.: The overview of farm land reforms in Russia. Ed. by the US Agriculture Development Institut. 1999.

Central Region

The central part of European Russia was investigated for two types of agricultural region. The first represents the depressed borderland regions of the West European part of Russia (Demidov Rayon within Smolensk Oblast); the second is the region influenced by Moscow, pursuing the suburban specialisations and recreational facilities development inherent in this area (Zaraysk Rayon within Moscow Oblast).

Smolensk Oblast (Demidov Rayon) is of pivotal interest to research, as it is the depressed region of Central Non-Black Earth Zone specialising in flax cultivation, low capacity livestock-raising, timber felling and initial woodworking. The social and economic status of the oblast as well as that of the majority of rural regions of Tver', Bryansk, Kostroma and other oblasts in Central Non-Black Earth Zone is characterised by an extreme system crisis.

Rural area of Moscow Oblast (Zaraysk Rayon) is a relatively prosperous region of Central Non-Black Earth Zone, possessing the suburban features of agriculture (dairy cattle, potato cultivation, grain growing). Bulk investments in the Agrarian and Industrial Complex and in social infrastructure made back in the 1960s-1980s weakened the intensity of the 1990s' crisis. Demidov and Zaraysk Rayons can be referred to as two "poles" on "the prosperity scale" of rural regions within Central Non-Black Earth Zone. In June 1999 in Demidov Rayon (Smolensk Oblast) in the course of research 404 people participated in the opinion poll, and 383 in June 2000 in Zaraysk Rayon (Moscow Oblast).

The income pattern of the rural population changed drastically by the end of the 1990s the role of wages in the rural population's income pattern had decreased by 35 %. At the end of land reform the country found itself facing a situation in which the bulk of agricultural land that had been taken out of state administration had not been handed over to the peasants. Most frequently, land had not actually been allocated, which made a legal, large-scale handover impossible to carry out.

The reform period promoted the introduction of family households' share (peasant farms and private households, including subsidiary small-holdings, garden and kitchen-garden co-partnerships) of gross agricultural production. During those years large households reduced their output by 2.8, while private households raised the showing by 123 %. A more explicit demarcation in the typed of farming specialisation. Collective farms prioritise grain and industrial crop production. Family farms mostly produce potatoes, vegetables and fruits. The labour and production division, which can be promptly traced between agro-enterprise and private households, manifests in the diversity of production specialisation.

Such a trend was also voiced by the respondents. At present SSH is the primary income source for a fifth of those questioned, whereas a decade ago only 6 % of respondents recognised SSH as the benchmark for the income pattern. The overwhelming bulk of SSH output is produced not for sale but for domestic consumption or for relatives. Only a third of the respondents take their produce to market. But as has previously been pointed out, the SSH's situation is strained by the lack of state policy regarding the agrarian sector and, more, by inconsistencies in the legislative basis.

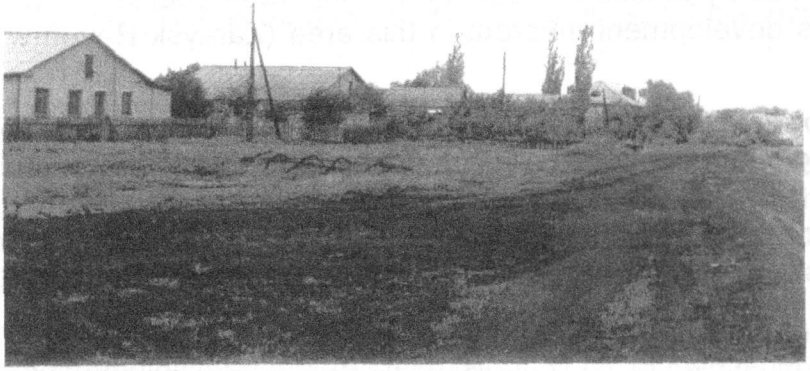


Photo I/3.2.2.6-1
Rural street in the Voronezh Oblast

Photo I/3.2.2.6-2
Rural machine yard in the Voronezh Oblast

Photo I/3.2.2.6-3
Pasture in the Voronezh Oblast

Central Black Earth Region

One of the after-effects of the 1990s economic reforms in Russia appeared to be the reorganisation in social and branch agro-structure of Central Black Earth Zone. At the same time the privatisation of state and co-operative agro-enterprises assumed a superficial and formal character: practically all large-scale non-government households preserved their structure, changing only their names. PFHs have not yet gained an extensive spread, since they are still out of the appropriate economic and financial means. They make up a mere 1.2 % of the value of the region's total agricultural output. The economic reforms sparked off a brisk increase in the specific share of SSH products of which provided 36 % of the cost from the entire volume of agricultural output[12]. The specific share of SSHs was especially high in Orlov and Lipetsk Oblasts, while in Belgorod Oblast it turned to be the lowest. The main agro-output producer and employer in rural regions of the Central Black Earth Region are big collective farms, which provide up to 63 % of the value of the region's total agro-produce. The highest specific share of collective farms is observed in Belgorod and Tombov Oblasts, the lowest – in Orlov and Lipetsk Oblasts.

The three main social forms of agricultural production in the Central Black Earth Zone created a branch division of labour. SSHs focus on the production of labour-intensive but cheap vegetables, potato and fruits (within suburban zones), as well as on the substantial production of animals. Farm enterprises operate to produce labour-saving but economically profitable crops (especially grain and sunflower). Under these conditions the fundamental sector in agro-production will be preserved for the near future with collective farms, as they ensure the production of the bulk of grain, industrial crops and fodder together with large animal output. Under present circumstances it is only they that can provide the adequate agro-equipment maintenance. But the problem for them to settle here is the rapid depreciation of the material and technical basis – caused by a shortage of finance.

An extreme crisis in the structure of Central Black Earth rural areas, spotted by the authors in the course of documentary analysis, is backed up by the opinion poll results. The experts estimate the social and economic changes in the rural areas of Voronezh Oblast in the 1990s will have a negative outcome. The consideration of expert opinions leads to the discussion of the system crisis in the rural areas of Central Black Earth Lands, which has heavily hit all branches of the economy as well as all spheres of society. Thus, the most pessimistic estimate is made about agriculture. For instance, 84.3 % of experts believe that in the second half of the past decade the economic situation in Voronezh Oblast grew "much worse" or "a little worse" compared to the situation in the first half. At this point, negative assessments exceed positive ones by a factor of 7.1.

The ongoing social and economic transformation within the rural areas of Central Black Earth region is of a contradictory nature. Most (71.4 %) experts point to the following five positive changes which occurred in the agriculture of Voronezh Oblast in the 1990s: freedom for the producer to determine his farming specialisation, opportunity to independently promote agro-output marketing, possibility to choose partners to carry out processing and sales with, removal of restrictions imposed on the expansion of SSHs, and the freedom to establish

[12]Goskomstat of Russia: Statistical Yearbook. Russia 1995. Moscow, 1996, pp. 1007-1008.

social forms of farming. On the other hand 73.4 % of experts speak of five negative changes in the agriculture of Voronezh Oblast within the same period: shrinking number of heads of livestock on non-government farms, drastic decline in the major agro-products production, deterioration of agro-equipment, destruction of the material and technical basis of production, and a downturn in the living standards of the greater part of the rural population. Thus, provided that the suggested positive social and economic changes in the agrarian sector of Central Black Earth Region arise from the mere existence of the market economy itself, the negative changes observed by experts result from the realisation of definite means of transition to market economy approved at state level. The assumption indicates the incompetence of the administrative bodies.

The key issue in agricultural reforming Central Black Earth Zone is land market formation. Only in this context is it possible to institute agro-producer-oriented land mortgages, which envisage the borrowing banks give loans on the security of land. Considering the experts' findings, the commonly shared public opinion of the rural population is not yet up to resolving the problem. Only 1.9 % of experts assume land should be privately owned. Over 26.2 % of experts hold the assumption that the land should be the property of the state. Around 25.2 % of specialists sustain that the entire land is to be owned by those legal and physical persons who directly work it. Yet 46.6 % of experts advocate the conventional structure of land ownership; they believe land and forests for agricultural purposes should remain state property, while the land used for SSHs, farm premises, vegetable gardens and orchards should be allocated to private owners.

Widely recognised in the Russian rural sector the idea of land ownership pattern determined its standpoint on the land market formation. The idea itself has not yet been put to wider practice. Just 2.9 % of experts support the idea of freely marketable land. However, nearly 31.4 % of experts are of the opinion that land is not to be sold. The majority of experts side with a more flexible, compromising attitude. Up to 47 % of specialists think that land and forests for agricultural purposes cannot be sold whereas the land used for SSHs, gardens and vegetable gardens worked by the population can be marketed. Market relation development in the rural areas of Voronezh Oblast encourages public opinion to examine the benefits of land marketing. It should be pointed out that 17.6 % of experts already voice their support for option of selling agro-land and forests, provided a guarantee of their supposed utilisation is given. The agriculture of Central Black Earth Zone and Voronezh Oblast demands the immediate resolving of a number of problems. A large group (73.9 %) of all the specialists is unanimous about the fact that creation of proper working conditions at agro-enterprises involves the consideration of problems such as: market infrastructure formation regarding the sphere of wholesale and retail trade of machinery, fuel materials, fertilisers, plant protection means; the sphere of wholesale and retail trade of agro-output; the sphere of financial and crediting relations; implementation of special agrarian policy with the view to administrate agro-output prices and taxation regulation; improvement of the legislature in the line of economic co-operation and price and tax policy, and in the line of land relations; increase of legal relations to introduce financial and economic discipline, labour discipline. The list of these problems enables us to conclude that the period of "economic romanticism" and staunch belief in the omnipotence of the market among the rural population of Central

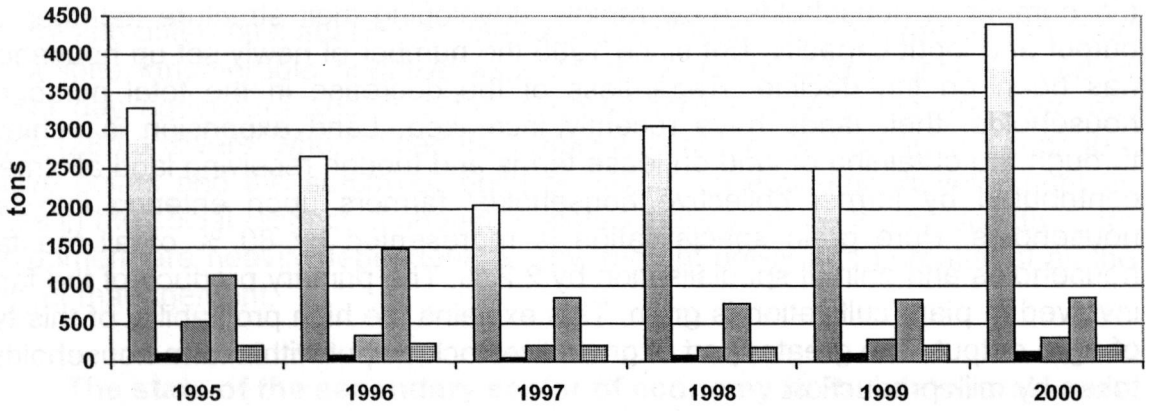
Black Earth Region has come to an end, giving way to the task of launching a sufficient mechanism for market economy.

The Altay Kray

The Altay Kray is one of the main food-producing regions. Approximately 48 % of the population resides in rural areas; however, only 26 % are involved in agro-production. Agriculture here shares the same problems as the other regions: extreme structural crisis, a decline in grain crop capacity and animal output production, accompanied by a drop in absolute quantity (yield, animal produce). Recent years have seen the introduction of profound changes in the structure of agro-output production: the share of plant cultivation increases, the share of livestock raising decreases. In 1993 plant products rated 49 % in total revenues, and animal output 51 %; in 2000 54 % and 46 % respectively. The primary plant commodity of the region is grain. In 2000 the gross grain harvest reached 4,000,000 tons, 1.8 times more than 1999. Under the shortage of arable land (by 1.1 %) the increase in grain production is conditioned by the rise of crop capacity (by 1.8 %). The major grain crop in the area is wheat. In 2000 its share in grain production accounted for 69.6 %, followed by oats – 12.9 %, and others – rye, barley, buckwheat. The year 2000 was more favourable than the preceding one; it yielded high gross harvests and productivity. Yet the region's crop yield capacity lags far behind the world standard; winter wheat - 8.5 centner/ha, spring wheat– 7.7 centner/ha, winter rye – 12.8 centner /ha, corn – 2.5 centner/ha, spring barley – 9.3 centner/ha, buckwheat – 4.8 centner/ha.

Figure I/2.2.6-1 Major agro-crops output in agro-enterprises of all categories in the Altay Kray, 1995-2000

1 Grain, 2 Sunflower, 3 Sugar beet, 4 Potato, 5 Vegetables



The Altay Kray is the only region to the East of the Urals to produce sugar beet. In the 1990s its arable areas were greatly reduced, but presently, due to area expansion for this crop, productivity has swollen to 132 centner/ha, and

14 administrative units in the region have improved sugar beet production. Root processing is carried out at 4 sugar refineries, producing 60,000 tons of sugar annually, thereby satisfying 75 % of the sugar demand in the region.

Cattle-raising comprises the main sector of livestock farming (meat and milk). Practically every settlement of the Altay Kray is experiencing a decline in the number of heads of cattle due to meat output rise and loss of cattle, basically through a shortage of animal feed. In 33 regions there is less than 10 centner of animal feed per head, which is below the regional average. Side by side there are regions that sustain over 30 centner of feed per head. Productive livestock slaughter enhanced meat output. Meat produce comprises beef – 78.6 %, pork – 11.5 %, mutton – 1.7 %, poultry – 6 %, other meats – 2,2 %. Milk capacity of the cattle is low. In 42 rayons milk yield per cow totals 1342-1400 k. However, there are households with a milk capacity totalling 3657 k. and subsidiary smallholdings with 7000 k. of milk output.

The most sustainable livestock sector is poultry farming. Poultry meat production and egg-laying quality are increasing. In some households each laying hen produces 295 eggs a year.

Altay agriculture has 3 sectors: agro-enterprises, farm households, and subsidiary small-holdings, to be distinguished by their specialisation, marketability, organisational and legal status and the scope of production units. The agro-enterprise share in output production has actually decreased while that of SSHs has increased. Agro-enterprises and some farm households are engaged in the procurement of raw materials for the processing industry and that of feed for livestock-raising (and also for SSH). The share of agro-enterprises in grain production is 87.9 %, sugar beet – 98.5 %, sunflower – 89.5 %. Agro-farms make unprocessed products to reach the end consumer (97.6 % of the total potato crop, 89.2 % of various vegetables yield). Nowadays, SSHs and farm households number 40.4 % head of cattle, 79.2 % - pigs, 62.9 – sheep and goats. However, many agro-enterprises reduce livestock heads'. The farming sector emerged in its present shape in 1990. In 1991-1993, with sound backing from the government, the number of households grew rapidly, developing their structure together with output and input capacity. But since 1995 the number of newly set up households has been on the decline. Regardless of the decrease in the total number of households, their lands have recently increased. Land expansion is achieved through the obtaining of land on lease terms and though receiving land allotments contributed by former collective households' farmers upon entering into farm households. Pure grain specialisation is represented by 80 % of all the farm households and animal specialisation by 2.2 %. The primary produce of the farms involved in plant cultivation is grain. This explains the high profitability of this type of agro-output. The greater part of gross livestock output within farm households is taken by milk production.

Labour capacity in farm and SSHs is 1.5-2 times higher than that in agro-enterprises. In the 1990s SSHs development is remarkably activated. Due to the rise in the rate of unemployment along with wage delays, SSHs proved to be the only reliable source of family income. The SSH agro-output production grew from 23 % in 1991 to 43 % in 1998. More and more SSHs revolve around the production of potato, vegetables, fruits and berries.

Due to the specific climatic features the chief branch of agriculture is livestock raising, which specialises in the production of sheep and goats with a small reservation for cattle production. In the 1990s the number of all agricultural animals was steadily declining. In 1991 the overall number of households kept 1156.4 heads of sheep and goats, whereas in 1996 there were 652,000, and in 1999 only 400,300. Agro-enterprises are mostly subject to the rising impetus of this process. The annual decrease in the number of cattle is 7 %, of pigs 12 %, sheep and goats 7 %, and milk output 4 %. In 1999 agro-enterprise cut down the sale of livestock and poultry by 41 % comparing with the preceding year. At the end of autumn / beginning of winter huge quantities of beef, horse meat, lamb and pork were bought up from private households and exported outside of the Republic of Gornyy Altay.

Plant cultivation: In 1999 the total arable lands under agricultural crops made up 100,610 ha. or 92 % of the 1998 standard, the land under grain crops 17,433 ha. and industrial crops 192 ha. 80.5 % of the arable land structure was assigned to fodder crops (in 1998 this was 83 %).

The arable land within peasant households in the year 1999 constituted only 15,600 ha, which is 18 % less than in the previous year.

Given the analysis of expert viewpoints and the returns of the farmer questionnaire, it is feasible to confirm the official statistics data: agriculture in the Altay Kray and the Republic of Gornyy Altay is in a deep crisis; to help it out of this crisis means to resolving a series of issues. The primary concern is with market infrastructure development within the sphere of wholesale and retail trade of machinery, the settlement of agro-output sale, reformation within agro-output pricing, and improvement of the legislative foundation for economic co-operation.

The most urgent issue for agriculture is land privatisation. 18.6 % of respondents in the Republic of Gornyy Altay are still in two minds about the question of land ownership; 30 % are for private ownership, 42.4 % flatly against.

General and differential analysis by the experts of the opinion poll results indicated that despite innumerable negative aspects of the social and economic state of present day agriculture and its reformation within the recent decade, there are people (285 answers) who noticed the ambiguous nature of the ongoing changes, positive points and the so-called "point of growth" in economic development as well as in the social respect. It should be noted that as before the perspectives for development are heavily dependent on government policy and potential at all the levels of management.

4 The state of the secondary sector of economy in Russia's rural areas

4.1 Russia – a general view

In Russia's rural areas as a whole the proportion of employees in the secondary sector of the economy (industry and construction) comprised about 15 % of employed rural inhabitants in the late 90s. During the 1990s this proportion decreased considerably - by or a third. At the same time the proportion of the

employees in the primary (agriculture and forestry) and tertiary (services in the broader sense) sectors increased insignificantly in the primary but very notably in the tertiary sector. Thus, the secondary sector is presently the third most important sector in rural areas after the primary (55 % of employees) and tertiary (30 %) sectors, but it still provides workplaces for a significant number of the rural inhabitants.

Simultaneous changes were happening in the country as a whole in the 1990s. The share of the secondary sector in the employment structure fell significantly (from 44 % to 31 %), the share of the primary sector stayed basically unchanged (fluctuating at around 14 %), and the share of the tertiary sector notably increased (from 42 % to 56 %). This means that the changes in rural areas were going in the same direction as the country as a whole, i.e. towards the increasing share of the tertiary sector owing to the decreased share of the secondary sector of the economy. However, it was not followed by an accelerated development of the service sector but was due to a sharp decrease of production volumes and, consequently, of employment in industry and especially in building in a deep socio-economic crisis.

Meanwhile, industrial and building enterprises located in rural areas turned to be in an even worse predicament than equivalent industries in urban settlements. This was linked to the fact that the countryside normally accommodated small enterprises or subsidiaries of larger industrial and building organisations located in cities, which were dependent on co-operation links of raw materials and finished production of the latter. In the crisis, as production volumes fell considerably (in many fields by more than 3 times), larger enterprises tried to concentrate total production output in basic industrial areas and to decrease to a minimum the number of small suppliers of raw materials and constituents. As a result, the majority of rural subsidiaries of the large city's enterprises were closed, whereas small independent enterprises were forced to develop co-operation links all over again, having already decreased a volume of outputs and the number of employees. Similarly, due to a sharp drop in the volume of work (in rural areas the decrease constituted about 10 times), building companies as a rule simply closed their countryside branches, which were unprofitable. An exception here is countryside food processing companies specialising in local agricultural resources. They also notably dropped the volume of output and the number of employees following a decreased amount of raw materials (due to the fall in agricultural production) and reduced markets (due to increased competition with urban and foreign companies providing better quality of production albeit with higher prices). However, the reduction in food processing industry was lower. Former large mills and factories did not cease to exist, and many new micro-enterprises emerged (from 2-3 to 50-100 employees). There has been a tendency towards regeneration of food processsing company equipment. It became notable after the 1998 financial crisis, when it became unprofitable to import food to the same extent as earlier, and Russian entrepreneurs started to invest in the national food processing industry, including countryside enterprises.

It is worth noting that there is spatial differentiation in the structure of industries located in rural areas. For instance, the food-processing industry is basically situated in the Southern steppe and forest-steppe regions of the country. Most of these companies are in villages, acting as district centres, and concentrate on

processing agricultural produce from the whole district. However, in some cases (especially in the North Caucasus) food-processing companies of some kind can be found in the majority of larger rural settlements. These food enterprises of Russia's Southern part have sufficient available raw materials, their products are relatively cheap and demanded throughout the whole country (vegetable oil, sugar, canned vegetables, wine, etc.) and they most evidently have good prospects for further development, provided that their technical equipment has been overhauled and consequently the quality of the output is increased.

In the regions of southern forest zone (Central and Northwest Russia including Vologda Oblast and the South of Arkhangel'sk Oblast, most of the Urals, the south of Siberia and the Far East), the industrial enterprises in the countryside have been basically engaged in felling trees and woodworking, but also light industry (flax-processing mills, textile and clothes factories), engineering (mainly production of different constituents) and the building materials industry (brickworks, mines). These four branches – forestry, engineering, light industry, and the building materials industry – were characterised by the maximum drop in production in the 1990s. In rural areas this drop was even more significant than in urban settlements, as indicated above. The majority of the enterprises in the engineering and light industry were closed, as far as they were subsidiaries of large urban establishments, factories and mills and turned out to be unprofitable due to a sharp decline in production. There were many vacant employees at the chief company, and therefore it was senseless to deliver raw materials to the distant subsidiaries and then to take out the finished production. The enterprises of the woodworking and building materials industry, even provided with local raw materials, drag out a miserable existence, because in the absence of investment a demand for their production, this being needed mainly for construction, decreased several times.

A special case is presented by flax processing mills, which play the same role in central and northwest Russia as the food-processing industry does in the south of the country, engaged in the primary processing of local agricultural raw materials. A difference, however, lies in the fact that flax cultivation (in contrast to food production in the steppe and forest-steppe zone) had for several reasons declined during the preceding decades. Accordingly, a source of raw materials for the majority of flax-processing mills was practically depleted, and many of these remain idle. Nevertheless, flax-processing mills have prospects for preservation and development in the case of the fulfilment of ad-hoc programmes on the development of flax-fibre production for the Russian textile enterprises (instead of processing of cotton fibre from Central Asia which became an import after 1991).

In the regions of northern forest zone, tundra and forest-tundra (the Northern region in Russia's European part, a large part of Siberia and the Far East), agricultural enterprises are basically connected to the mining industry and partly to fisheries (along seacoasts and large rivers). It is worth noting that despite the fact that the rural population of these areas is not high (about 1 out of 40 million of country's rural inhabitants), its basic employment is in the secondary sector of economy and not the primary sector as in other parts of Russia.

Small fish factories specialise in producing valuable goods which are demanded both within the country and on the world market (salmon, crab, etc.). The factories are well provided with local raw materials and evidently will keep up their activities

(especially in the Kamchatka and Sakhalin Oblasts, in the Primorskiy Kray), although they have outdated equipment and feature hard working conditions. In those places where less valuable products are exploited (the seacoast of the Arctic Ocean, large rivers), small fish factories may be closed due to losses and a shortage of workers.

Oil and gas extraction is developing successfully (Yamalo-Nenets Autonomous Okrug, Khanty-Mansi Autonomous Okrug, Nenets Autonomous Okrug and Evenki Autonomous Okrug, the Komi Republic, the south-west of the Republic of Sakha (Yakutia), the north part of Tomsk Oblast and Irkutsk Oblast) and supplies a significant part of its production to the world market. Owing to this, not only mining enterprises perform rather successfully in rural areas of these regions but also geological surveying and building organisations, which service new deposits. Tin and gold mining in small places (Chukchi Autonomous Okrug, Magadan Oblast, the eastern part of the Republic of Sakha (Yakutia), the northern part of Krasnoyarsk Kray) has fallen considerably because this became mostly unprofitable (the costs of necessary supplies, e.g. equipment and fuel, rose sharply).

A special case is the suburban countryside under the direct influence of big cities. Industrial enterprises of different branches are located here, but normally they are not large (affiliates of large city enterprises, which are still active due to their proximity to the chief factories or because of specific activities (experimental works, experimental stations, etc.), new micro-enterprises of the food processing industry) and the highest employment of rural suburban inhabitants in the secondary sector is provided on account of pendulum migrations to neighbouring towns. During the 1990s such migration even increased since the economic situation in rural areas was worse than in big cities. However, this concerns only the closest suburbs.

Thus, according to the state of the secondary sector of economy, Russia's rural areas can be roughly divided into four parts. The most favourable conditions can be found in the south of the country, where the food industry companies are dominant. Presently, they have quite stable conditions and most evidently will develop in the future. Companies the middle part of Russia have the most unfavourable conditions. Here, the majority of companies were closed or their production volumes fell considerably, as their raw material and distribution links appeared to be ineffective. In the northern part of the country the state of industrial enterprises strongly depends on the type of production and the situation in the external market. Those that do relatively well are connected to oil and gas extraction or producing valuable fish. Building organisations have been among the most stable here. In suburban rural areas the majority of the rural population engaged in industry and building is employed in the nearest urban settlements, and therefore it seems to be not appropriate to speak of an independent secondary sector for these areas.

4.2 Rural areas of the Central Region (case studies)

The studied Demidov district (Smolensk Oblast) and Zaraysk district (Moscow Oblast) are typical areas in Central Russia. The former is situated outside the influence of any large city, while the later is influenced by Moscow.

Historically, Demidov district, which has mainly specialised in agricultural production, has not had any large industries. Industry has been based on local materials and geared to meeting the needs of the population of both the district itself and whole Smolensk Oblast. The major industries are food processing, the building materials industry, timber cutting and woodworking. The industrial companies are basically located in the district centre - the city of Demidov, but they employ a large number of rural inhabitants from nearby localities as well.

In the 1990s there was a notably steady decline in industrial output. During 1992-1997 it fell by more than 6 times, and in 1997 industrial output was only 15 % of the 1992 level. The most rapid decline occurred in 1995 when the volume of output was 34 % of the previous year's level.

At present, all industrial companies of the district can be divided into two groups. The assessment of their state by experts can be found in the table 4.2-1.

1. First group: The main part. This includes the companies specialised in food processing as well as companies whose existence is restricted by the potential of the area' natural resources. This group includes the Demidov flax processing company, a milk plant, a bread-baking plant, a company for bottling mineral water, a clothing factory, building materials companies, as well as a State timber industry enterprise and the Petrakovsky woodworking plant 'Lesostroydetal'. They are notable for a high level of output of goods, an insignificant part of which is consumed locally; the majority of their products is sent beyond the district.

Table 4.2-1 The state of the main industrial and building companies of the Demidov Rayon (Smolensk Oblast) by June 1999

Company name	Specialisation	Ownership form	The number of employees	State (assessment by experts)
Enterprises of the first group				
Demidov timber industry enterprise	Timber cutting	Joint-stock company of open type (AOOT)	84 (01.01.1999)	Operating, but about to be closed down
Petrakovo plant of 'Lesostroydetal'	Woodworking	Affiliate of 'Smolensk-agropromstroy' AOOT	54 (01.09.1999)	Operating, but about to be closed down
'Diana' (an affiliate of Smolensk clothing factory)	Knitted garments manufacturing	Association of open type	200 (1997)	Not operating, employees on leave since 1997
Bread-baking plant transferred into 'Phoenix' consumers' company	Bakery, bread, dried crusts	An enterprise of consumers' co-operation		Operating, relatively healthy
Ceramic gravel works	Building materials			Closed
Brickworks	Building materials			Closed
Milk-plant	Milk processing	State enterprise		Closed
'Aroniya'	Bottling mineral water	AOOT		Operating, relatively healthy

2. The second group consists of companies of local importance: building, road building, meliorating companies, district typography. These partly satisfies district demands for building, manufacture of various building materials, everyday goods. This group of companies are aimed exclusively at internal consumption.

Company name	Specialisation	Ownership form	The number of employees	State (assessment by experts)
Enterprises of the second group				
Demidov road repair building administration	Road repair and development	State enterprise	105 (01.01.99)	Operating, relatively healthy
'Demidovkhimiya'	Agricultural chemistry, research	AOOT		Went into liquidation in 1996
'Selkhoztekhnika'	Agricultural machinery supply, repair	AOOT		Closed
Demidov typography	Print of district papers, forms	State enterprise	7 (01.01.99)	Operating, relatively healthy
Building-meliora-ting organisation of 'Demidovskaya'	Melioration	State enterprise		Operating, about to be closed down

As evident from the table I/4.2-1, the only relatively successful enterprises are the bread baking plant and the mineral water bottling plant, which deliver their relatively cheap products to the city Smolensk and other districts of the oblast where demanded, as well as the typography, which is financed from the budget. Among building companies the Demidov road repair-building administration is running successfully, and is also financed from the budget.

A notable change in the 1990s was the transformation of ownership forms of the majority of enterprises in the secondary sector of economy. For instance, before 1992 there was the 'Ryabinovaya Polyana' company processing blackcurrants which grew near the city Demidov. As a result of privatisation the company was closed down but the open join-stock company of "Aroniya" for bottling mineral water was founded in its stead. Demidov State timber industry enterprise was a founder of the company of "Lesotekhnik", which is still functioning and even pays taxes to the district. Established for birch sap production, the "Zagotovitel" company was closed soon after the start. Many joint-stock companies which were created during the reforms exist only 'on paper'; while the majority of small private companies were closed soon after they had emerged.

Overall, industry in the district industrial is suffering crisis apart from a few exceptions. Beginning in the early 1990s, overall economic decline has had a great impact on industry. The sharp decrease of subsidies for state enterprises, the lower demand for production, the failure of established economic links, and the crisis of non-payment and then of non-payment of salaries led to the declining industrial outputs. A consequence was a fall in the number of companies operating constantly, many of these having gone bankrupt and closed down, and the

numbers of industrial personnel declined. Impoverished enterprises cannot contribute to the budget. The result has been general hardship in the district, which has fallen practically to complete dependency on provincial and federal subsidies. The conducted privatisation increased the autonomy of enterprises but did not become a panacea. Inadequate market analyses, the low competitive strength of goods produced due to their poor quality, and the decreased purchasing power of a significant part of the population caused difficulties with a market that requires restructuring of production. Measures taken by district administrations and companies' managers such as exchange of mutual debts, barter trade, a deferment of budget payments, wage payment in products, and fundraising allowed some companies to survive but have not eliminated the sources of the problems.

The general fall in the economy has exterior (visual) and interior (mental) direct and indirect appearances, which give an impression of the studied area. The sight of destroyed machinery, dilapidated and abandoned villages, unclean streets, the unemployed, half-beggarly, apathetic, heavy-drinking population gives the impression of degrading the exterior and the interior content of the district, its desolation, the ruined state of the economy and the entire area.

All industrial and building enterprises of the Zaraysk district (Moscow Oblast) are situated in the city Zaraysk, the district centre, but like the preceding case, they employ a considerable part of the population of nearby rural settlements. Industry in the district is not going through the best of times and does not have good prospects due to the unfavourable economic-geographical position of the city, obsolescence and deterioration of basic assets, and considerable and constantly increasing financial debt. In spite of the clear worsening of the situation in industry and nostalgic recollections of the Soviet time, some experts have also noted some positive features of the current situation: "Earlier, much was produced but to be dumped. Today, less is produced but the output is of higher quality". In addition, among the positive features of the present time one indicates a liberty of companies, a positive influence of the competition, etc.

A specialisation and the ownership form of the district enterprises changed. Earlier, the main city-forming enterprises delineating the specialisation of the city were light industry companies (textile, feather and down, shoe factories) and engineering enterprises (a plant for agricultural machinery building, a plant of offset plates). When established in 1975, the offset plates plant built to satisfy the needs of publishing houses of the Central Committee of the Communist Party played an important role in Zaraysk. Considerable funds were allocated for its building and social development.

Presently, the main branch of the district's industry which provides considerable income to the local budget and is relatively stable is food processing (milk plant and bread baking plant), as far as the population constantly demands the output of these companies. The other companies try to survive under the hard economic conditions. All the companies changed their form of ownership and became joint-stock companies of different types, except for the city typography, which has remained a State enterprise. Running relatively stable are the 'Milk plant' joint-stock company of open type (AOOT), 'Krasny Vostok' (a textile plant) open joint-stock company (OAO), 'Zaraysk-obuv' (a shoe factory) closed joint-stock company (ZAO), 'Zaraysk plant of building materials' OAO, 'Zaraysk bread-baking plant'

OAO. A list of the major industrial enterprises of the city Zaraysk indicating the number of employees is given in the table I/4.2-2.

Table I/4.2-2 The number of employees in the major industrial enterprises of Zaraysk, 1998–2000

Enterprise	1998	1999	2000
'Krasny Vostok' OAO	733	662	773
'Peropukh' (feather and down)	202	240	280
'Metallist'	249	280	257
'Zaraysk-obuv'	613	502	405
'Building materials'	313	325	328
'Zaraysk-offset'	359	345	362
'Zaraysk-euro'*	-	92	226
'Zaraysk milk-plant'	70	71	80
'Zaraysk bread-baking plant' AOOT	...	...	150

* Zaraysk-euro' is a structure attached to a shoe factory with Italian capital. Soon it may become the full owner of the shoe factory.

Conditions for development of industry in the city became more favourable after the August 1998 financial crisis. The devaluation of the rouble stimulated the growth of industrial production, which substituted imports. As a result, the number of companies closing down fell by the end of 1998 and there were no unprofitable companies in 1999. In 1999 a number of companies in the district increased volumes of output. Examples are 'Peropukh' OAO (36.3 % growth), 'Zaraysk typography state company' (growth of 43.7 %, but this was mainly due to the fact that the company had practically not worked before).

It is most likely that in the nearest future the city's industrial enterprises will be divided into 'survived' and 'down'. Successful operation of the enterprises will depend on both objective (availability of raw materials and markets for output) and subjective factors (an accurate management policy). Among industrial enterprises which will not lose their consumers and will continue operating will be the milk plant, the bread baking plant and the feather and down factory. The shoe factory has good prospects as well. With a sound investment and development policy the enterprise may become one of the city- and budget-forming enterprises in the district, as the relatively cheap and high quality shoe ought to find buyers in Moscow province.

Creation of food industry micro-enterprises in the Zaraysk district (sausages, cottage cheese, etc.) also has prospects. The enterprises will buy materials from the local population and sell the finished product in the city of Moscow. There are such examples (a sausage factory in the village Maslovo and others), but currently they are not registered officially and their activity is not recorded statistically).

During 1970-1980, building in the Zaraysk district was one of the most dynamic developing industries with high wages. In the 1970s a large building cartel emerged to serve several districts of Moscow province. During the 1990s large building organisations practically disappeared in the district, the rate of capital building decreased, construction of new housing dropped up to a minimum, and investments were almost absent. In 1998-99, a telephone exchange, a block of 40 apartments and an administrative building were built in the city. Motorways have been built, but by organisations from other districts in Moscow Oblast. The developments were constructed at federal budget expense and with local subsidies. The district financed only current repair of the buildings. In rural areas there were no new buildings. Mostly only the minimum of boiler-house repairs, administrative and housing buildings is conducted.

Meanwhile, individual housing development has been somewhat active in the district, especially in the suburbs of Zaraysk, which can only be afforded by the wealthy. Moreover, such developments are built not by organisations but by small building teams who are not officially registered and therefore unknown to the state authorities.

Thus, the basic problems of the secondary sector of economy in the rural area of Central Russia are as follows:

- a catastrophic fall in output volumes;
- the obsolescence of basic assets;
- the breaking of previously modified technological links to supplies and markets;
- the lack of circulating assets and debts accumulated in 1995-1998;
- the decreasing number of employees in industry and building;
- the lowering of the standard of living of employees in industry and building and also of all inhabitants in the studied districts, as long as the enterprises of the secondary sector present the foundation for the local budgets.

Normally, these problems are even more acute in rural areas than in urban settlements. Meanwhile, suburban rural areas are in a markedly better state than peripheral areas. However, the positive characteristics of their development (creation of new enterprises on agricultural raw materials processing, individual housing development) are "hidden", and therefore beneficial not to the population as a whole but only to those directly involved in these activities.

4.3 Rural Areas of the Central Black Earth Region (case study of Voronezh Oblast)

Rural area industry is an important element of the economy of the rural population in the Central Black Earth Region, although it is far less important that agriculture. For instance, the number of employees in countryside industries in Voronezh Oblast is 21 times lower than the number of agricultural workers. Small subsidiary industrial enterprises (such as repair units, quarries for building materials, mills, oil mills, brick works) are integrated into agricultural enterprises. In addition, there are separate industrial enterprises in rural areas which employ more than 80 % of countryside industry workers. Such enterprises operate in 33 localities in the province, 7 of which are district centres. The level of development of countryside industry and the total volume of industrial production in rural areas in Voronezh Oblast is not high enough. For instance, in 1995 the value of the gross product of

countryside industry was 4.7 % of the value of overall industrial production in the province. However, the industrial function of rural areas in Voronezh Oblast plays a leading role. In 1995 the volume of industrial production in rural areas of Voronezh Oblast totalled 1/7th of the value of its agricultural production. 2.5 % of rural respondents were employed in industry. Food enterprises processing agricultural produce are important in the countryside manufacturing industry of Voronezh Oblast. Branches of the food processing industry employ more than ¾ of people occupied in countryside industry. Milk processing enterprises are most widespread in the province. They are small in size (like the majority of companies located in rural areas). The number of employees in such an enterprise averages 117 people. The enterprises located in the wide suburban zone near Voronezh produce milk products. The other rural milk processing enterprises produce butter and cheese, since they are located at a greater distance from the consumers. Meat industry is ranked second by the number of employees. There are five rural meat processing factories. In 1991 a meat processing factory had 380 employees on average. The bread-baking industry is represented by small companies with about 70 employees. Other branches of Voronezh Oblast countryside industry include one or two companies which are quite large (sugar-refineries, alcohol plants, cereal and flour-mills).

Light industry companies are much less important in rural areas of Voronezh Oblast. There are also repair-machinery and building materials enterprises. Thus, industrial production in rural areas of Voronezh Oblast is considerably restricted by food-processing enterprises. Meanwhile, the majority of food-processing enterprises are located not in rural settlements but in settlements of an urban type and towns which are district centres. For this reason the statistical data only allows us to estimate the trends of the food-processing industry of Voronezh Oblast as a whole.

In the 1990s the food-processing industry in the province experienced a substantial decline in the volume of production. In comparison with 1990, by 1997 the physical volume of production of the food-processing industry had fallen by 65.4 %, including 78.4 % in cheese and butter making and milk-processing, 53.5 % in bread-baking, 51 % in sugar-refinery, 80.7 % in flour cereals and mixed-fodder making (Voronezh Oblast in 1997, 1998, pp. 157, 168). The different rates of decline are caused by the varying importance of the products in the population catering and following-up processing. A sharper decline in the manufacturing of animal products is linked to the change in the structure of the population catering. At the first stage of privatisation, food-processing enterprises attempted to squeeze extra profits out of the low purchase price of raw materials, very often monopolists. Later, the decline in food production was caused by lack of raw materials.

However, in the second half of the 1990s, food-processing enterprises managed to adapt to the market. Important factors here were the tradition of the population to consume mostly natural products, and devaluation of the rouble, which made imported food far too expensive for the majority of the population. Therefore, in 1997 the rate of decline in the production volumes of food-processing industry fell, and some branches experienced growth. In 1997, the physical volume of production of the food-processing industry in Voronezh Oblast fell compared to the

previous year by 8.4 %: the production volume of butter and cheese making and milk-processing fell by 6.5 %, and that of the meat industry fell by 29.3 %. The volume of production in bakeries remained at the level of the previous year, while sugar production grew by 15.1 % (Voronezh Oblast in 1997, 1998, p. 168). The increase in energy prices raised transportation costs and narrows zones of raw material intake by food-processing enterprises, thus strengthening the positions of countryside domestic processing.

Experts also believe that the situation in countryside industry is difficult. Almost 3/4 of experts believe that today's economic and social situation in countryside industry is worse that it was in the first half of the 1990s: 50.5 % of experts observe that the situation has become "much worse" and 23.8 % of experts estimate it as "somewhat worse". At the same time, almost a sixth (17.8 %) of the experts thought that the situation has got better, and 7.9 % of experts did not see any difference between the second and first halves of the 1990s. Such a variety of estimations are caused by the fact that different rural settlements have different ranges of industrial enterprises, while individual particulars are important. However, in spite of the varying estimations, the ratio between pessimistic and optimistic assessments is 4.2. 61.7 % of experts believe the following five major problems must be resolved immediately in order to create favourable conditions for the operation of countryside industrial enterprises: regulation of prices of raw materials and output, improvement of legislation, development of technologies and renovation of technical equipment, crediting the industry, access to necessary investments.

An key role in the social-economic transformation of rural areas in the Central Black Earth Region and Voronezh Oblast is played by construction. Construction activities employed 4.7 % of all respondents. The difficult financial situation in the agro-industrial complex results in a lack of investment to the fixed capital. Investments to the fixed capital are expenditure of all kinds on building activities, assembly of equipment and purchase of equipment requiring assembly which is included in building estimates, expenditure on instruments and stocks included in building estimates, on machinery and equipment not included in building estimates, other capital works and costs. In 1997, the fixed capital investments to development of agro-industrial complex? of Voronezh Oblast totalled 431.8 billion roubles. It is worth noting a considerable decline in the share of investment in agro-industrial complex out of the total volume of investments in the province during the last years – 15.3 % in 1995, 14.8 % in 1996 and 12.9 % in 1997. The lack of funding in provincial agro-industrial complex is confirmed by the fact that in 1997 the basic assets of agriculture alone constituted 19.5 % of the value of basic assets of Voronezh Oblast[13].

An issue of great importance for the population of rural areas of Voronezh Oblast is the construction of housing and buildings designated for socio-cultural purposes. In 1997 the volume of new-build houses in rural areas of Voronezh Oblast totalled 89,6 thousand sq. m, while in 1995 it was 119,1 thousand sq. m and in 1996 it was 76.7 thousand sq. m. The share of rural housing building in total provincial value has gone down: 17.1 % in 1995, 12.3 % in 1996 and 14.4 % in 1997. It means that today's volume of rural housing construction is 2.6 times less than the proportion

[13] Voronezh Oblast in 1997, 1998, pp. 88, 142.

of the rural inhabitants of the total number of the province's population. An explanation lies in the fact that urban and rural inhabitants have different organisational and financial options with respect to housing construction. In 1997 urban inhabitants financed 16.7 % of new-build homes in towns and cities themselve; at the same time the rural population financed 72.3 % of new homes in the countryside. In spite of the extremely difficult financial situation of local governments in rural areas of Voronezh Oblast, the construction of socio-cultural establishments (secondary schools, kindergartens and day nurseries, hospitals, polyclinics, village clubs) is still going on (though to a very limited degree). However, the overall trend in the second half of the 1990s was a decline in the volume of rural building.

The difficult economic and social situation of rural construction in Voronezh Oblast is reflected in the experts' responses. The majority (77.6 %) believe that the current situation in rural construction has worsened in comparison to the first half of the 1990s, more than half the experts (62.1 %) saw the situation as "much worse". Only 8.6 % of experts believe that the situation got better, and 13.8 % of experts see no difference between the first and second halves of the 1990s. The consistency of the assessment of the situation in rural construction is emphasised by the fact that the ratio of pessimistic and optimistic assessments is 9:1. Most of the experts (68.9 %) believe that the normalisation of conditions for rural housing, social and industrial construction will mainly depend on resolving five basic issues: regulation of prices of building materials and construction activity, crediting the construction activity, access to investment, improvement of legislation, and reducing the costs of the construction industry.

5 Political situation and power system

It seems to be worth splitting this chapter into two separate parts. The first part highlights the recent political situation in Russia in general, while the second part discusses the opinions of the rural population given in mass surveys, expert interviews and intensive interviews. In the second part, examples of the political situation in a range of studied regions are discussed.

During Soviet times there was strong control of all aspects of life in the countryside, down to details such as the dates of field works, the number of heads in individual herds, sizes of homes, etc. Early in the 1990s this was replaced by the complete indifference of the authorities to the countryside. However, the traditional mechanisms of self-organisation and self-governance had been destroyed, and the result was the disorganisation of rural life, unbalancing its separate systems. Spatial planning as an activity and a regulation instrument of rural development has virtually seized to exist. The only "spatial activity" at the moment may be the levering budget policy – financial support of weak regions and administrative districts at the expense of strong ones.

5.1 Political changes since 1991

The presidential elections highlighted the trends which had been forming in the political preferences of the Russians during the last ten years. Zone divides – mainly of 'north-south' and to a much lesser extent 'west-east'– emerged in the 1989 elections of the Union's deputies. The difference in the political behaviour of the north and the south was manifested in the fact that northern Russians voted

for 'simple' candidates, who were not from the authorities, and a higher proportion of northern people did not participate in the elections or voted 'against all'[14].

Researchers consider that the variation in the proportion of the rural population in the south and the north plays a key role in the emerging difference. For instance, R. Turovsky believes that 'the whole secret of the dominance of the reformatory vote in Russia's north and east lies in the fact that urbanisation is higher in some districts and the population is younger'[15].

However, the last decade of the twentieth century saw the difference in preferences of town and country dwellers considerably smoothed over and replaced by the difference between regions. 'Intra-regional variations have been smoothed over considerably, but interregional have grown. In the north the village has risen to the town, while in the south the town has fallen to the village. There has been another tendency – the 'centre-periphery' model of electoral differentiation that earlier worked only within the borders of a region has extended to a large area around Moscow'[16]. The countryside rises to the town in 'reformatory' regions as the town does to the countryside in 'conservative' regions. Main reasons are the neighbourhood effect, the orientation of floating voters to a prevailing political mood, and 'political memory' in the society that causes people reproducing (to a more or less extent) results of previous elections in later.

5.1.1 Elections to the State Duma

The major event of 1999-2000 was the parliamentary elections to the State Duma, gubernatorial elections in a number of regions, and the presidential elections.

One of the most important features of the 1999 parliamentary elections was that there were three election unions at once claiming to be the party presenting the executive power:

- First was the bloc of *'Otechestvo - vsya Rossija'*, *the OVR* ('Motherland - all Russia') which represented an attempt to create a party of power supported by the most respected regional leaders, but without participation of the federal authority and even in opposition to the federal power.
- Second was the movement of *'Yedinstvo' ('Medved')* ('Unity' ('Bear')) created in a hurry under the guidance of the President's administration - only two months or so before the elections. According to the founders' plans, this movement had to play the role of a new party of power and to take votes from the opposition the OVR.

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[14]Town and Country of European Russia: Hundred Years of Changes. Moscow. 2001, pp.431-432. (Город и деревня в Европейской России: сто лет перемен. М., 2001. С. 431-432.)

[15]Turovsky, R. F.: Political Stratification of Russian Regions (History Factors). Party and Political Elites and Electoral Processes in Russia. Analytical reviews of the Centre for complex investigations and marketing. Issue 3. (17). Moscow, 1996, p. 52. (Туровский, Р.Ф.: Политическое расслоение российских регионов (история и факторы формирования). Партийно-политические элиты и электоральные процессы в России. Аналитические обозрения Центра комплексных социальных исследований и маркетинга. Вып. 3. (17). М., 1996. С.52.)

[16]Petrov, N. V.: Votes of 1989-1997. General trends. Political almanac of Russia. 1997. Moscow. 1998, p. 341. (Петров, Н. В.: Голосования 1989-1997 гг. Общие закономерности. Политический альманах России 1997. М., 1998. С. 341).

- Third was the movement of *'Nash dom Rossija', the NDR* ('Our Home is Russia') which participated as the party of power in the 1995 elections[17].

The election results turned out to be exactly the opposite. 'Yedinstvo' was one of the winners, thus proving its claims to be the main support of the executive power in the new State Duma. The OVR did not justify the hopes set on it at the beginning of the election campaign. NDR was among the outsiders, losing its Duma group.

'Yedinstvo' received 23.32 % of the vote in the elections. The majority of the votes for the bloc came from the east, where it overtook the communists in the majority of regions. 'Yedinstvo' was also successful in the Urals and West Siberia, particularly in highly populated regions such as Sverdlovsk and Kemerovo Oblasts. Moreover, 'Yedinstvo' succeeded in those northern and eastern regions of Russia where communists had once predominated. The governors were loyal to the Kremlin.

'Yedinstvo' was relatively unsuccessful in some regions of the 'red belt', although even there the movement won second place after the communists. 'Yedinstvo' was behind the OVR in Moscow, Tatarstan and Bashkortostan. Usually, this result is only explained by employment of the administrative resource against 'Yedinstvo' in favour of the OVR in these regions. However, this assertion is not entirely true for Moscow. From the very beginning of the election campaign, 'Yedinstvo' did not try to get a high result in the capital, but concentrated on fighting for outvoting in the provinces.

The result of the parliamentary elections for the OVR was 13.3 % of the vote. For any beginner in the election campaign it would be virtually a success. But it was a failure for the OVR. The bloc gained high results only in the regions where the local executive power worked in its favour (table I/5.1.1-1).

The NDR carried 1.19 % of the vote and joined the four election unions which did not overcome the 5 % barrier but still collected more than 1 %. The result for the left was that the CPRF (the Communist Party of the Russian Federation) entered Parliament, but the majority of more radical unions failed. The CPRF (received 24.29 %) improved its total electoral result by 2 %. Among movements that are more radical, the bloc of 'Communists, workers of Russia – for the Soviet Union' (the KTR-SS) is noticeable. The bloc took seventh place among all unions and left the NDR behind. 'Stalin bloc' of V. Ampilov and the Movement of 'In support of the Army' (the DPA) of V. Ilyukhin and A. Makashev lost, each collecting 0.6 % of the vote[18].

[17]Makarin, A.: Parties of Power. Russia in Election Cycle of 1999-2000. Moscow. 2000. Pp. 144-154. (Макаркин, А.: Партии власти. Россия в избирательном цикле 1999-2000 годов. М., 2000. С. 144-154.)

[18]Chernyakhovsky, S.: The Communist Movement. Russia in Election Cycle of 1999-2000. Moscow, 2000, pp. 112-127. (Черняховский, С.: Коммунистическое движение. Россия в избирательном цикле 1999-2000 годов. М., 2000. С. 112-127.)

Table I/5.1.1-1 'Motherland – all Russia party' (OVR) as a party of power 1999 (percentage share)

Region	OVR	'Medved'	Difference OVR to 'Medved'
City Moscow	41.0	6.8	+34.2
Moscow Oblast	27.8	9.6	+18.2
City St. Petersburg	15.7	17.8	-2.1
Republic of Tatarstan	46.6	13.8	+32.8
Republic of Bashkortostan	39.4	13.5	+25.9
Republic of Mordovia	33.7	15.1	+18.6
Republic of Karelia	8.8	31.0	-22.2
Kirov Oblast	5.1	33.1	-28.0
Ingush Republic	88.0	1.0	+87.0

Source: Makarenko, B.: Otechestvo - vsya Rossija. Russia in election cycle of 1999-2000. Moscow, 2000, p. 161.

Table I/5.1.1-2 'Medved' as a party of power 1999 (percentage share)

Region	'Medved'	OVR	Difference 'Medved' to OVR
Primorskiy Kray	28.2	5.6	+22.6
Republic of Kalmykia-Khalmg-Tangch	34.3	10.5	+23.8
Kaliningrad Oblast	32.9	8.6	+24.3
Kemerovo Oblast	33.8	4.4	+29.4
Kursk Oblast	30.9	6.3	+24.3
Omsk Oblast	19.0	7.3	+12.3
Tver´ Oblast	29.5	8.1	+21.4
Chukchi Autonomous Okrug	42.9	3.4	+32.5
Republic of of Tyva	70.9	2.9	+68,0

Source: Makarenko, B.: Otechestvo - vsya Rossija. Russia in election cycle of 1999-2000. Moscow, 2000, p. 161.

5.1.2 Presidential elections and shifts in the electoral geography

The Russia presidential elections took place on the 26th of March 2000. V. Putin won after the first round of voting. In the presidential elections both the party of power and the left opposition enlarged their electorates in comparison with the December elections. The electorate of the parties of power of the Duma elections ('Yedinstvo, the OVR and the NDR) voted mainly for V. Putin (except for some of the voters in the OVR in Moscow and Moscow region) and increased by 15.1 %. However, the left electorate also slightly increased in comparison with the 1999 elections. G. Zyuganov added 1,1 % in comparison with the total number of votes cast for the left wing unions in December[19].

There were significant changes at the regional level. The most active vote for V. Putin was in the national republics (see the table in the appendix). Among the other Russian regions those traditionally voting for a party of power can be mentioned. An important role belonged to the regional origin of Mr Putin. St. Petersburg and the regions under its influence voted for Putin (Leningrad, Novgorod, Pskov, Vologda, Murmansk, Kaliningrad provinces and Karelia).

The main surprise was the poor performance of V. Putin over the Urals. It is here that the major difference between the March and December elections lies. In December 1999 Siberia and the Far East appeared to be a real stronghold of 'Yedinstvo', while in spring 2000 Putin gained very modest results in these regions.

Voting for G. Zyuganov was a mirror vote for V. Putin. The list of the most favourable regions for G. Zyuganov changed dramatically. On the one hand, the traditional 'red belt' stayed on Russia's map; the CPRF leader polled not less than 35 % of the vote there. The three 'reddest' Oblasts were Lipetsk Oblast, Bryansk Oblast and Orel Oblast. Other oblasts in the south of Russia also enthusiastically voted for Zyuganov: Kursk Oblast, Belgorod Oblast, Ryazan Oblast, Tambov Oblast, Penza Oblast, Ul'yanovsk Oblast, Krasnodar Kray and Stavropol' Kray, as well as the 'red' oblasts of the Volga Region and North Caucasus – Chuvash Republic, Republic of Mariyy El and Adygea Republic. Tula Oblast joined these regions as well.

At the same time the 'red belt' suffered considerable losses. The result of G. Zyuganov in Voronezh Oblast turned out to be only slightly higher than the Russian average. In Smolensk and Vologda Oblasts he did not manage to receive 35 %. A similar trend was demonstrated in the traditionally 'red' regions of the Urals, Siberia and the Far East. G. Zyuganov was voted for in Altay Kray, Orenburg Oblast, Kurgan Oblast, Chita Oblast, Jewish Autonomous Oblasts, Republic of Gornyy Altay and Republic of Buryatia. These are usually drawn towards the opposition[20].

19Turovsky, R.: Shifts in Electoral Geography. Russia in Election Cycle of 1999-2000. Moscow, 2000, pp. 528-534. (Туровский, Р.: Сдвиги в электоральной географии. Россия в избирательном цикле 1999-2000 годов. М., 2000. С. 528-534.)

20Turovsky, R.: Shifts in Electoral Geography. Russia in Election Cycle of 1999-2000. Moscow, 2000, pp. 528-534. (Туровский, Р.: Сдвиги в электоральной географии. Россия в избирательном цикле 1999-2000 годов. М., 2000. С. 528-534.)

5.2. Political situation in the examined regions

5.2.1 The Central Region

In our study we tried to clarify the political preferences of the rural inhabitants by asking the question: 'Which way would be best for Russia?'

The majority of people who answered this question believe that the best way for Russia would be the soviet system and the planned economy. Thus, nostalgia for the relatively prosperous 1980s is alive and well among rural inhabitants.

It is worth noting that about one fifth of the respondents in relatively well-off Zaraysk district who answered this question believe that the best way for Russia is a democratic way and market relations, while in Demidov district, which is suffering troubled economic times, only 5 % of the interviewees share this opinion.

Table 5.2.1-1 What do you think would be best way for Russia? (Percent share of respondents 2000)

	Demidov Rayon	Zaraysk Rayon	Both regions
Democracy and market relations	5.2	20.4	12.6
Soviet system and planned economy	53.8	43.7	48.9
Dictatorship	4.0	6.5	5.2
Original way	4.5	3.4	3.9
Other	3.5	11.3	7.3
Have difficulty in replying	29	14.7	22
Total	100	100	100

The population of the studied Zaraysk district takes an active part in the political life of the province and the country. In the 1990s there were active protests against low living standards, high debts in salary payment, risk to be dismissed. However, main political life is concentrated in the city Zaraysk. There have been no active protests in rural areas.

Like everywhere in Moscow province the local branch of CPRF is most active among the political organisations of the district. The LDPR (the Liberal Democratic Party of Russia) is quite popular among the district's population (though more by word than deed). 60-70 % of the electorate participate in the all-federal elections. Local elections are usually conducted together with state elections. Experts believe retired people to be the most active political power in the district. Middle-aged and young people are less active. When selecting a candidates the voters often look at their political programmes rather than at personal qualities.

Zaraysk district is one of the less developed in its region. This fact affects the political behaviour of the electorates. The district stands in a transitional position to the 'red belt', this beginning in Ryazan Oblast. For instance, in 1996 G. Zyuganov received 37 % of the vote in the first round of the presidential elections and B.

Yeltsin gained 33 %, while the average provincial votes were 24 % and 44 % respectively. In the second round B. Yeltsin polled the majority of votes – 56 %, whereas his average result in the province was 70 %. Similar electors' preferences emerged three years later in the 1999 parliamentary elections. The maximum number of votes was cast for the Communist Party of the Russian Federation (24 %). The pro-governmental movement of 'Yedinstvo' took second place (19 %), and Luzhkov's bloc of the OVR took third place (15 %), although Luzhkov's bloc took first place in the province as a whole (28 %). The oppositional mood in the district also appeared in the elections for the governor of Moscow province, when the majority of votes were cast for G. Seleznev, the representative of the Communist Party of the RF, not for B. Gromov, the winner.

The result of the vote of the 2000 presidential elections was similar to average-provincial and average-Russian (V. Putin – 50 %, G. Zyuganov – 35 %). Many respondents find Zhirinovsky to be quite popular among young people, but this did not come out in the elections. The majority of experts believe that the country needs a strong hand and order, and many set their hopes on President V. Putin. There are also the head of the district administration and deputies of the district Council elected at the local level. In December 1999 there was a new head of the district administration, I. Vladimirov, who outvoted the former head V. Yaroslav-tsev, although there was no plausible difference between the programmes and expertise of the candidates. Since the district is subsidised, the socio-economic activity of the district administration is strongly influenced by the provincial authority.

Many specialists in the district report a significant transformation of people's attitude towards authority. It is noted that educational standards and competence of the leaders at both district and local levels fell. It has been often the case that people with no particular skills enter the administration. Before, the selection of personnel had been stricter.

There is a belief that the former leaders of companies and of the district as a whole used the privatisation for their personal enrichment. The population feels no longer has confidence in the authorities. With weakened state power the role of separate leaders increased, but not that of the state system.

There are many objective reasons for such a situation. One of them is that due attention was not paid to human resource management during the 1990s. Many specialists have left, and there have been no new worthy people. One of the experts (the editor-in-chief of a district newspaper) commented: "There have remained either clever but old people or young but foolish".

5.2.2 The Altay Kray and the Republic of Gornyy Altay

Altay Kray is in the so-called 'red belt', where representatives of the Russian communist party have taken the key positions in the authority. It also effects the internal political situation. The positions of the communists are especially strong in rural areas, where they poll the majority of the vote. Preliminary investigation of questionnaires and data from expert studies demonstrate that the majority of rural inhabitants believe that they were better-off 10 years ago and would like to see the return of the old political and economic institutions.

The main features of the modern political situation in the Altay Kray influencing the socio-economic situation can be outlined as follows:

- the conservative thinking of the Council of People's Deputies and the Altay Kray;
- administration while reforming the economic and social policy of the Altay Kray;
- disproportions in development inherited from the command-administrative economy of the former USSR, which are still artificially maintained due to false social considerations;
- disproportions in development inherited from the command-administrative economy of the former USSR, which are still artificially maintained due to false social considerations;
- mass conceal-meant of incomes and true crop capacities in all kinds of enterprises in the Territory, a situation which is the cause of principal mistakes in the economic policy of the Administration;
- the absence of a lawful land market as the main regulator of land use and capital circulation in agriculture;
- low marketability of agriculture and artificial maintenance of loss-making basic enterprises that is used as a reason for asking for Federal assistance.

The last elections demonstrated the situation with elections for the local authorities to aggravate. Positions in local authorities offer a stable and considerable income to the elected leaders. However, the local administration has no real power; it has neither money, machines, nor a bank account. It may be the large agricultural enterprises that have the real power, since they have resources.

The Republic of Gornyy Altay, as all other subjects of the Russian Federation, was strongly involved in the political, social and economic changes. Under past centralised planning the economic activity was directed from the top-down (from Moscow and Barnaul) without considerations of the natural potential of the region and the population's wishes. The result was that the economy was based towards agricultural and forestry production (wood, wool, meat), whose goods were exported to other parts of the USSR for further processing. The level of production of these goods often exceeded the level of sustainability and regeneration of ecosystems. Industry was concentrated in Gornyy Altay. It produced TV screens, cotton cloth, curtain netting, electric samovars, and shoes. Other industries included mining and processing of gold and mercury. The modern situation is as follows: industry has been almost completely destroyed, and agriculture is in a state of decline. Increased fuel prices made the produce of distant districts non-competitive.

Federal financing has not been sufficient enough to provide an adequate quality of life for the population. This particularly concerns pensioners, teachers and medical workers. Unemployment has risen dramatically. As a study of key experts' answers has demonstrated, both the districts' leaders and population are unhappy with the situation. Experts think that the prospects for economic development of the Republic of Gornyy Altay lie in the exploitation of domestic natural resources and mainly with the utilisation of the entire recreational complex.

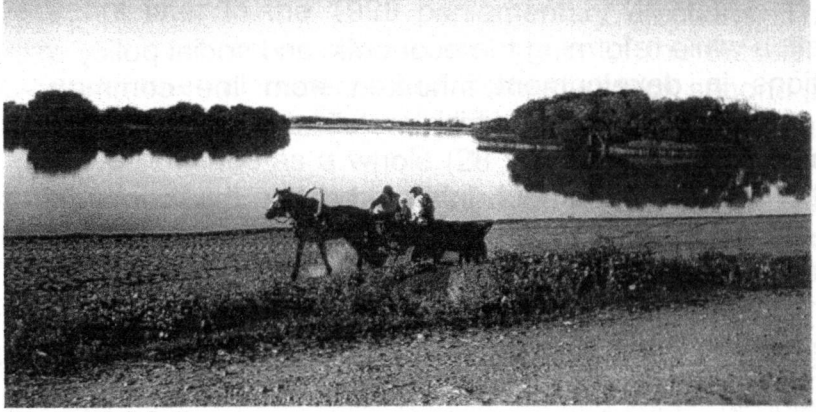


Photo I/5.2.2-1
Lake landscape in the central part of the Altay Kray

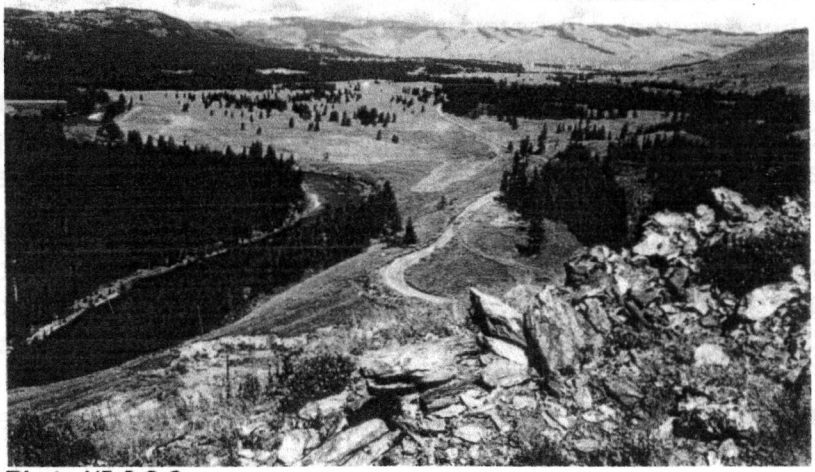


Photo I/5.2.2-2
Neighbourhood of Ulagan

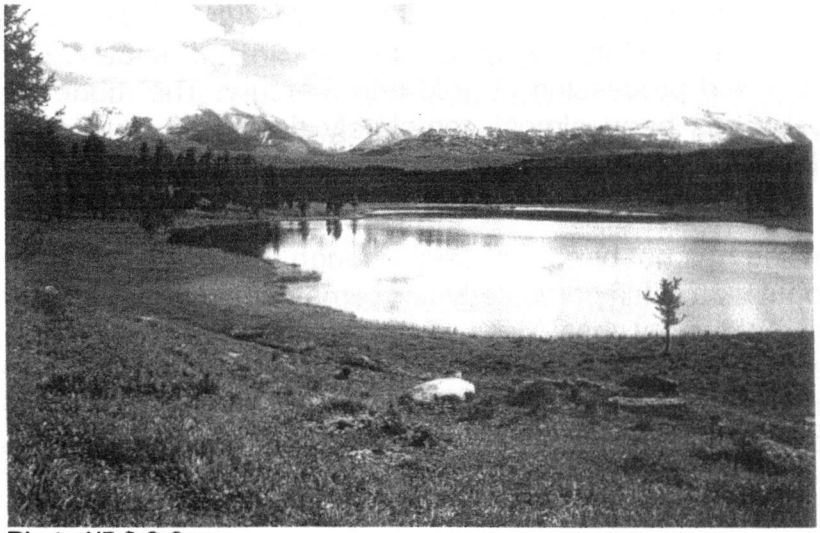


Photo I/5.2.2-3
Typical landscape of the Ulagan region

5.2.3 The Voronezh Oblast

In a political context the Central Black Earth Region and Voronezh Oblast are part of so-called 'red belt' because here a stable electorate of the CPRF has emerged. There are the following reasons for such behaviour - especially that of the rural voters:

- Firstly, the salaries of agricultural workers are low.
- Secondly, the population has the lowest standard of living in Russia; a high percentage of the population has an average per-capita income below subsistence level.
- Thirdly, the region has a large proportion of pensioners, few of whom have a higher professional or secondary education, and thus have very low pensions.
- Fourthly, the number of rural unemployed has increased and the problem of their employment has become aggravated.
- Fifthly, trade as a source of super-profits is less developed in the countryside than in towns.

The features of the political situation in rural areas of Voronezh Oblast can be exemplified by the 1996 presidential elections, where it was not a matter of selection of a particular person, but rather that of a direction of further social development. In the second round of the presidential elections, 69.3 % of the rural electors cast their votes for the CPRF candidate and only 30.7 % for the active President B.N. Yeltsin. The communists outvoted in all rural administrative districts. The higher percentage of votes cast for the CPRF President tended to be in peripheral and distant rural districts. A reason of such electoral behaviour lies in the fact that the CPRF as the successor of the CPSU saved the local organisational structure. There have been virtually no other mass parties in the province as yet.

Furthermore, under conditions of a sharp decrease in stability and the living standard of the majority of the rural population, it formed rather the mass protest electorate.

In December 1996 there were the first direct election of the head of Voronezh administration – the governor. A representative of the CPRF won. In the second half of the 1990s there were also first direct elections of the heads of administrative districts and rural administrations. Here, the managerial abilities of the candidates and their financial capacity with respect to the election campaign turned to be of greatest importance. Eventually, the heads of local administrations expressed the interests of local elites, and polices they implemented did not always coincide with the position of the provincial administration. Therefore, in the late 1990s, the elections of the heads of local self-governances were replaced by their direct appointment by the governor – from the members of the district Dumas, based on their recommendations. The local rural population was mostly indifferent to the replacement of the direct election of the heads of district administrations with appointment.

The respondents displayed deep disappointment with the results of the economic and political reforms. According to the 1999-2000 questionnaire, 15.4 % of the respondents had confidence in the local authority, 5.8 % in the federal authority, 5.6 % in the district authority and only 2.6 % trusted the provincial authority. More than half (51.9 %) of the respondents did not trust any authority and the other 18.6 % could not answer. 70 % of the electorate do not trust the present powers.

23.2 % of the total number of the respondents expressed their preference for the CPRF, 6.6 % to 'Yabloko', 5 % to LDPR, and 5 % to the Agrarian party. Meanwhile, more than 1/3 (36.1 %) of all respondents did not trust any of the political parties then acting, and almost a quarter (24 %) had difficulty answering this question. Consequently, about 60 % of the rural electorate did not clarify their political preferences in 1999-2000.

The political preferences of the rural electorate of Voronezh Oblast crystallised in the presidential election in March 2000, the election of the head of the administration of Voronezh Oblast in December 2000 and the 2001 elections to the Voronezh Oblast Duma. The rural electors continued to support mainly communists. The CPRF received 34.1 % of the vote of the inhabitants of the rural districts of Voronezh Oblast, while the bloc of 'Yedinstvo' collected 33.9 %. 'Yedinstvo' outvoted in administrative districts with larger cities as well as in suburban districts of the province centre. On the contrary, the CPRF retained its positions mainly in agrarian peripheral districts.

Considerable political differentiation of the rural electorate emerged in the elections of the head of the administration of Voronezh Oblast in December 2000. There were two main candidates: the active head of the province administration since 1996, the representative of the CPRF I.M. Shabanov and the director of the Administration of the Federal Security Service for Voronezh Oblast V.G. Kulakov. The later collected 60.9 % of the votes out of the number of valid ballot papers. In spite of the use of the 'administrative resource' and organisational structure of the CPRF, I.M Shabonov gained 15.4 % of the votes out of the number of valid ballot-papers, i.e. three times less than his opponent.

5.3 Summary and recommendations

Overall, the main problems of the political situation in rural areas of the studied regions can be summarised as the following:

The absence of the instruments regulating spatial development in the countryside (even if there are any, there is no mechanism to ensure their fulfilment) leads to chaotic development and irregular building – especially in suburban zones. Building development on shores, even on those of drinking-water reservoirs (without the necessary purification measures) has become widespread. Frequent change of leaders at all levels of power as well as numerous crises has led to a situation where the authority works like a 'fire brigade', responding only to aggravations of the major problems but not considering how to prevent these, especially as in the long term. Development of prognoses and recommendations for rural development is hampered because of the absence of a property cadastral, unsettled land legislation, unclear perspectives with regulation of food import and price-formation, etc.

Recommendations:
Above all, a legal base for the spatial development of the countryside should be introduced. There should be an approved list of documents that are necessary for decision-marking on agricultural development – district planning schemes, general building development plans, measures for nature conservation, etc. Unfortunately, these are not arranged even for towns (discussions are going on), and a discussion has not even started with respect to the countryside.

6 The ecological situation in Russia

6.1 A general overview

The ecological situation in Russia is influenced by global, regional and local factors. The vast territories (stretching to the north and south 4,400 km, to the west and east 10,000 km) bordering the countries with a somewhat low standard of living and ecological problems of transcontinental concern and, undoubtedly, numerous other problems that need resolving, all in all paint a negative picture of ecology in Russia. Traditionally, much attention has been given to ecological problems in urban territories with the main production capacities. It is believed that for the rural areas covering extensive territories and home to 30 % of the country's population, environment protection is less relevant. However, it is quite evident that ecologically disadvantaged areas, air, water, soils and other natural components contaminated by industrial enterprises and transport, and the expansion of the raw materials industry have an impact on the ecological balance of rural areas. It is only natural that rural areas "pay back", unwillingly, by providing the cities with ecologically unsafe foodstuffs. Let us trace these links in the recent decade of reforms.

It is known that air is the most mobile component of nature, and is not restricted by administrative boundaries. In 1991 in Russia air pollution controls were carried out by 1185 observation posts, located in 334 cities with populations of 100,000 people. In 1997 monitoring networks were reduced to 710 posts in only 260 cities. 2 years later air quality was regularly monitored in 226 cities at 649 posts. The comparison of monitoring data obtained in the late 1980s with the findings received in the succeeding decade indicates a high level of air pollution. An increase is seen in the average annual concentration of carbon oxide (by 11 %), nitrogen dioxide (by 18 %), and nitrogen oxide (by 3 %). True, there was decrease in the average annual concentration of suspended substances, dioxide of sulphur, ammonia, and phenol – 5-13 %, and carbon bisulphate – 48 %. Since 1992 the number of cities with an excessive quality factor (PDK) of noxious substances has stayed at the same level, 185. It is to be noted that in the mid 1990s there were more than 200 such cities.

Within the stated period of time air pollution monitoring provided some positive results: there has been a decline in industrial air emissions (table 6.1-1). With the 1991 air emissions volume of 31.8 million t., in 1998 it decreased by 18.7 million t. Less progress has been achieved in the Urals, West Siberia and East Siberia, where the total air emission volume continue to detect, accounting for 50 % of the overall air emission in Russia.

Trans-boundary air pollution on the territory of this country observed under the European Program on monitoring and estimation of the pollutants' shift over huge distances as seen from the name of the program is performed only in the European part of the country. According to the monitoring returns the average concentrations and emissions of pollutants into the air, within a lengthy period of time, are relatively low and are thought to render no downward ecological after-effects in the north-western regions of Russia (areas under observation). On the

other hand, the same data proves that the European part of Russia receives greater amount of pollutants (mostly oxidised sulphur – by 3.2–9.4 times) from the western countries than vice versa. The Ukraine and Poland are the most significant pollution sources. The situation in the Asiatic part of the country, where the foreign neighbours do not seem to be industrially developed, can only be guessed.

Table I/6.1-1 Dynamics of air pollutant emissions from stationary sources in Russia, 1991-1998

	1991	1992	1993	1994	1995	1996	1997	1998
Russian Federation	31,801.0	28,127.0	24,788.3	21,929,0	21,269.6	20,274,1	19,332.9	18,661.8
Industries	28,554.0	25,237.0	22,167.7	19,528.3	18,140.4	16,661.0	15,852.1	14,949.8
Electric Power Engineering	7,570.7	6,644.8	5,898.2	5,267.4	5,017.7	4,748.5	4,427.7	4,345.7
Non-ferrous Metallurgy	5,088.5	4,647.5	3,795.0	3,502.0	3,693.2	3,598.1	3,621.7	3,291.8
Ferrous Metallurgy	4,036.5	3,571.5	3,227.1	2,730.2	2,735.3	2,535.5	2,379.5	2,188.9
Oil-extracting Industry	2,345.8	2,137.5	1,862.	1,687.3	1,409.1	1,309.6	1,325.0	1,385.0
Oil-refining Industry	1,436.0	1,359.7	1,190.8	1,004.2	908.6	849.1	819.3	769.7
Engineering and Metal-working Industries	1,917.6	1,594.0	1,289.8	945.4	725.6	602.4	543.3	460.0
Coal-mining Industry	236.0	268.8	384.2	686.7	626.5	595.8	535.3	545.3
Construction Materials Ind.	1,763.4	1,386.1	1,064.1	771.9	674.2	528.0	467.8	396.6
Gas Works	1,194.6	1,036.8	879.8	862.8	707.7	541.8	451.1	428.5
Chemical and Petrochemical Industry	1,182.5	1,000.0	729.9	548.6	525.0	454.1	415.4	388.0
Woodworking, Pulp and Paper Industry	855.3	751.0	638.1	523.3	522.2	434.3	383.5	351.9
Food Industry	462.7	448.0	419.2	338.4	300.3	250.2	224.4	197.9
Light Industry	170.1	151.4	129.9	95.4	74.2	64.4	56.0	50.1

Source: State Report 2000.

It is a fact that in Russia surface waters are distributed in such a way that the fullest rivers flow through the least populated areas. This is why the rivers in the European Russia are mistakenly considered to be more polluted than those in Siberia. Unfortunately, this far from reality. Let us give a detailed look at the ecological state of water reservoirs (table I/6.1-2).

In the late 1980s-early 1990s the country tended to lower its total water consumption from natural reservoirs: in 1998 it was 1.5 times compared to the 1991 consumption. The same reduction trend is found regarding the discharged sewage water. But the extensive observations of surface water quality point to an increase in the number of places where the factors of pollution range from high (PDK over 10) to extremely high (PDK over 100). The decline in industrial and agricultural production has not reduced the level of choked up water reservoirs. One of the

major reasons for this paradox seems to be a mass building up within the protected water zones.

Table I/6.1-2 Dynamics of unsafe sewage in the surface water reservoirs in Russia, 1991-1998, (million m³)

	1991	1992	1993	1994	1995	1996	1997	1998
Russian Federation	28,018.0	27,139.0	27,241.0	24,642.0	24,477.6	22,414.0	23,043.2	21,986.2
Housing and Communal Services	12,305.0	12,045.0	12,298.0	12,590.0	12,503.7	12,071.8	12,053.0	12,126.8
Agriculture	3,257.0	3,499.0	4,536.0	3,165.0	3,172.7	2,574.1	3,264.2	256.6
Industries	12,149.0	11,308.0	10,168.0	8,619.0	8,574.6	7,443.9	7,335.1	6,867.9
Power Engineering	1,839.0	1,518.0	1,318.0	1,246.2	1,090.5	1,072.7	1,325.5	1,448.1
Woodworking, Pulp and Paper Industry	2,584.0	2,358.0	2,019.0	1,691.3	1,799.3	1,443.1	1,323.4	1,220.7
Chemical and Petrochemical Ind.	2,429.0	2,363.8	2,183.6	1,622.2	1,525.4	1,363.0	1,322.0	1,240.3
Ferrous Metallurgy	775.0	750.6	855.1	719.6	757.7	705.0	691.8	676.9
Engineering Industry	1,439.0	1,278.6	952.1	842.6	782.1	640.4	623.9	552.3
Coal-mining Industry	552.0	595.7	664.1	648.9	740.2	657.5	620.0	442.0
Non-ferrous Metallurgy	617.0	582.4	537.6	514.3	529.0	482.7	425.3	377.5
Oil-refining Industry	325.0	324.7	279.0	225.2	317.4	227.8	193.0	184.7
Light Industry	313.0	274.0	251.3	200.5	170.8	149.7	138.6	120.1
Food Industry	243.0	219.0	208.4	174.1	171.7	123.6	116.0	98.0
Construction Materials Industry	171.0	175.0	157.3	136.9	129.5	123.1	113.7	112.1
Oil-extracting Ind.	24.0	21.3	25.3	29.7	31.1	24.7	21.0	10.9
Gas Industry	5.0	3.6	4.3	5.0	4.5	5.9	2.8	3.3

Source: State Report 2000.

The main source of surface water pollution with such pollutants as oil products, phenols, metal compounds, ammonium and nitrite nitrogen is the sewage waters released by numerous agricultural manufacturers, housing and communal services. The country's main rivers – Volga, Don, Cuban, Pechora, Ob, Yenisei, Lena - are estimated to be "contaminated"; their large tributaries – Okha, Kama, Tomy, Irtyish, Tobol, Iset, Tura – as "highly contaminated". The quality of water in many minor rivers far away from industrial centres is also below standard. In rural areas considerable damage is done to such rivers through mismanagement within water protected zones and through wash off due to water erosion along with the presence of organic and mineral matter in streams.

Better conditions are provided for ground waters, as since the 1990s natural resources development fell from 33 % to 19 % by the end of the decade. Deficits in surface water supplies within the European Territory of Russia necessitated higher ground water utilisation than in the Asiatic areas. Since 1994 onwards there has been an upturn in the number of water towers where the ground water quality tends to deteriorating. 75 % of such water towers are located in Russia's European Part. The main pollution sources of ground waters are also the industrial, agricultural, municipal and domestic economies. Ground water contamination is characteristic of Central Region (Moscow Oblast, Smolensk Oblast, Tula Oblast, Nizhniy Novgorod Oblast), Central Black-Earth Region (Voronezh Oblast, Orlov

Oblast), Volga Region (Penza Oblast, Saratov Oblast, Samara Oblast), and the North-Caucasian Economic Region. The same situation is inherent in the southern part of the Urals, West Siberia Region and East Siberia Region.

For the rural population the state of soils and land reserves is of the same importance as that of quality and quantity of waters. During the decade, under the economic crisis constraints, mismanagement of agro-lands has played a major role in the degradation of top soils in Russia, with the consequences endangering national security.

Implementation of the reforms, including those on land relations, was introduced into the land reserves structure. Thus, in the 1990s land expanses designated for agriculture underwent visible changes: in 1990 – 639.1 million ha, in 1992 – 620.3 million ha, in 1996 – 670.1 million ha, in 1998 – 454.9 million ha, in 1999 – 440.1 million ha. There was an increase in populated areas in 1995, when land of this category covered 38.7 million ha (as opposed to 7.4 million ha in 1990). In 1999 the lands owned by the settlements made up 18.6 million ha, which is 2.3 million ha less than in 1998. Compared to the beginning of the 1990s there was an increase in nature reserves and land for recreational purposes: 17.4 million ha in 1990 and 31.7 million ha in 1999. There was also an expansion of land for forest and water reserves. Correspondingly, expansion of one category of land is done at the expense of the curtailment of other land and land reserves. In 1999 they took up 114.4 million ha, 4.1 million ha less compared with 1998.

As stated above, the maximum expanse of agro-land was registered in the mid-1990s. At the same time agricultural lands proper covered a smaller area than they used to in the mid-1980s – the early 1990s. In 1985 those lands accounted for 217.4 million ha, in 1990 – 212.2 million ha, in 1995 – 185.3 million ha. Arable lands of prime value in agro-lands totalled the following – 133.5 million ha, 131.1 million ha, and 121.6 million ha respectively. In the quantitative relation the lands under deer and horse pasture stayed intact: in 1990 they took up 238.3 million ha and in 1995 254.5 million ha. The 1999 share of pasture constituted 2821 million ha, which is 18.9 million ha less compared with 1998. A similar scenario with pasture lands should bring nothing but joy; nevertheless, in quite a number of steppe regions of the country the impoverished arable lands are being transformed into pastures. At the bottom of this transition is land degradation owing to land mismanagement and the wide spread of negative processes accelerated by abrupt reduction of measures on valuable lands protection from water and wind erosion, flooding and solinization.

Moreover, the curtailment of agro-land gives rise to the growth of other land including degraded land. The scope of changes within this land category is as follows: in 1985 – 45.1 million ha, in 1990 – 49.1 million ha, in 1995 – 53.5 million ha.

An environmental account of the land reserves would be incomplete without a quality description of individual land categories.

Over 50 million ha of Russian agro-land are subject to desert advancement or are potentially endangered in this respect. For the uninitiated reader, desert expansion is " extension of desert area by replacing the adjoining territories"[21]. Desert expan-

[21]Geographical Encyclopaedia, 1988, p. 212.

sion is the outcome of negative anthropogenic influences, first and foremost, the destruction of grass vegetation (as a result of excessive unauthorised pastures), which causes the extension of sand areas. The regions of Povolzhye, Northern Caucasus suffer most acutely from this problem. The Republik of Kalmykia-Khalmg-Tangch is the most unfavourable region in the country: desert advancement has enclosed more then 82 % of its territory, where over 47 % of lands have fallen to extreme and complete desert advancement. To be unbiased, it should be stressed that a similar situation with agro-land in the whole country and in the Republik of Kalmykia-Khalmg-Tangch, in particular, took place back in the pre-reform period. Thus, in Kalmykia and in the Black Earth Region – "wonderful winter pastures", as they were pronounced in the mid-1990s – in the course of the period between 1954-1994 there were stages of medium, extreme, and complete desert expansion. The highest destabilisation was in the mid-1970s, and utter degradation was registered 10 years later.

For the majority of the Kalmyk population, mostly engaged in agrarian and industrial production, these facts are not just mere words: rural peoples' livelihoods is heavily dependant upon the state of the land.

This problem is also acute for Central Black-Earth Regions, southern regions of the Urals, West Siberia and ZaBaykalye, where 30 % of arable land is affected by erosion – the major factor in land degradation. Throughout the whole country, the processes favouring desert advancement are observed in more than 20 subjects of Russia. In most cases, the reasons for desert advance are eliminated for the lack of economical incentive for the land users to preserve the fertility and ecological balance of the restored lands.

Not just the effects of land conditions on the life of the Russian population (either rural or urban) but the lands within the populated areas are also worth studying. It is possible to observe some curious facts illustrating the "overlap" of economy and ecology.

In the early 1990s there was visible growth in populated areas: in the 1990s – 7.45 million ha, in the 1980s 5.87 million ha. In 1995 these lands took up 38.7 million ha. There was an upturn in the share of agro-lands within the framework of this land category. Thus, in 1985 this share made up 23.2 %, in 1990 – 30.2 %, in 1995 it amounted to 62.3 %, but, by 1999 it fell to 47.8 %. Evidently, these changes reflect the emergence among the rural population of new notions of the significance of land for self-maintenance in foodstuffs. In other words, there has been an increase in the number of subsidiary smallholdings (dachas, vegetable gardens, and others) in order to avoid a repeat of the 1980s scenario where there was a chronic shortage of goods in stores. The present time decrease in settlements' lands is caused by the redistribution of lands in accordance with the laws and, particularly, with the exclusion of the lands subject to municipal and rural administration and located outside the settlements. Still, according to the data available for the year of 2000, 21 % of land in towns and settlements is used to produce agro-output. For this purpose rural populated areas take up over 50 % of the land.

Given the upsetting state of the agro-lands and land in populated areas, the situation with land designated for nature protection appears to be more optimistic. The territories of these lands grew from 17.4 million ha in 1990 to 31.7 million ha in

2000, 99.6 % of which fell under the category of nature reserves and various national parks. In 1991 Russia numbered 75 nature reserves, including 16 biospheres. It was then recognised that the growth rate of nature reserves – on average 3 a year – was not up to the very strict and effective form of preservation of virgin nature and biodiversity. No sooner said than done. By the end of the 1990s, the dawn of the new century, Russia maintained 100 state nature reserves with a total area over 33 million ha. And 21 Russian nature reserves achieved international biosphere status, officially acknowledged by the respective UNESCO certificates. Most reserves are located within the Asiatic domains of the country, though some biospheres are to be found in such densely populated areas as Voronezh Oblast (Voronezh biosphere, established 1927), Moscow Oblast (Priokcko-Terrasny, 1945) and the rest.

As for national parks, "Sochinsky" was the first to be established in 1983, they tend to be situated within the European territory of Russia. Since 1990 25 national parks have been created. Presently, Russia sustains 34 units of this category of specifically protected territories.

Drawing a conclusion on the ecological state of our lands, it is necessary to note that with the dismissing of the R.F. State Committee on environmental protection (2000) the lands are still at risk.

Estimation of the regional ecological situation results from the conditions of the main natural components: total and, mainly, radioactive contamination of the territory, the level of air pollution with chemical compounds and suspended substances, the quality of surface and ground waters, overall state of land resources and expansion of land degradation, deforestation, condition of wildlife and so on. Despite the progressing fall in production and the drop in discharge of pollutants into the atmosphere, and the decline in discharges of industrial and consumer waste water into natural reservoirs and water streams, the ecological situation in Russia has not improved, and in some regions has even taken a turn for the worse (for instance, East and West Siberia, the Urals and Povolzhye).

During the last decade the most acute ecological aggravation was produced by pollution with the liquid rocket fuel heptile and with fragments of rocket module stages. To some extent this problem affects 15 subjects of the Russian Federation, including the Altay Kray and the Republic of Gornyy Altay as well as the Republic of Sakha (Yakutia), Arkhangel'sk Oblast, Orenburg Oblast and others. These territories are affected by radioactive contamination to a great extent as the result of numerous nuclear tests.

The zone of ecological disaster on the territory of the Russian Federation is officially pronounced to be the part of Chelyabinsk Oblast around the city of Karabash, having suffered from the accident at the mill "Mayak". Back in 1957 in the same oblast in Ozersk a release of radio-nuclides occurred, the substantial share of which was dumped into the Techa River and the surrounding areas. For years radioactive waste from the mill was discharged into the Krachai Lake. 10 years later the effects of these discharges set off the erosive processes that led to the baring of ground deposits in the lake. To combat further nature pollution, it was decided to fill up the lake, where the quantity of radio-nuclides was estimated to be 300 million curie. The work has now almost been completed.

The after-effects of the Chernobyl accident still afflict 16 subjects of the Russian Federation located in the European part of the country. Tomsk Oblast and Primorskiy Kray are also referred to as the regions of radiation accidents.

Tomsk Oblast is home to the country's largest nuclear complex – Siberian Chemical Mill. It became a focus of attention due to the accident of April, 1993 which resulted in radioactive emissions. Its activity was determined to be 569 Qui, the emission outside the enterprise was 40 Qui, the territory of initial pollution – 135 km^2. In the affected areas decontamination measures were taken.

The Russian Ecological Policy Centre reports that around 12 million Russians are at risk of extensive radiation contamination. 1.7 million people are directly engaged in the nuclear industry.

One of the most burning issues regarding the ecological situation in Russia is the problem of the Baykal Lake – the world's largest reservoir of fresh potable water. In May 1999 the President of the Russian Federation signed the federal law "On the Protection of the Baykal Lake", banning the discharge of sewage water and industrial wastes into the lake. In summer 2001 V.V. Rudzkiy together with Manfred Fruehauf, a professor at Martin Luther University Halle-Wittenberg (Germany) carried out an express study into the ecological conditions of the lake. The survey of specialists – ranging from supervisors of scientific organisations to employees of nature protection laboratories, situated in the vicinity of the Baykal Lake, - indicated recent stabilisation and partial improvement of the local environment.

The main sources of lake contamination and factors of the economic impact on its ecosystem are:

- industrial and consumer sewage waters of ports, cities of Ulan-Ude, Selenginsk and other cities within the basin of the Selenga River;
- open join-stock company "Baykal Pulp and Paper Mill", located on the banks of the lake;
- Selenginsk Pulp and Cardboard Mill;
- changes in the level of Irkutsk Hydro-Power Station;
- section of Trans-Siberia Railroad Main, passing along the southern bank of the lake and housing large settlements;
- section of the Baykal and Amur Mainline, passing along the northern bank of the lake and its infrastructures;
- agro-enterprises of Pribaykalye;
- shipment of cargo as well as passengers on the lake;
- air transportation services from Irkutsk-Cheremkhovsk areas;
- tourism, recreational activity, industrial and unauthorised usage of bio-resources;
- water and land poaching;
- inter-regional and global atmospheric shift of pollutants.

Most damage to the Baykal Lake and central area of the Baykal Region is done by Southern-Baykal industrial areas covering the south-eastern shore. Air emissions and industrial discharges in this territory are likely to get into the lake. The Southern-Baykal industrial area includes such cities as Baykalsk, Slyudyanka, settlements – Listvyanka, Kyltuk and port Baykal, with a total population of 74 thousand people.

The Baykal also bears the effluence from the Baykal-Amur Mainline, however, it stands in no comparison to the influence on the water quality exerted by "Baykal Pulp and Paper Mill".

Thus, despite improvement in some aspects of pollution levels, the state of the Baykal is still grave and it requires drastic measures to be taken.

A serious hindrance for preservation of the environment is the shipment of oil and oil products. Vast swathes of land polluted by oil and oil products can be found in the following regions: Tumen Oblast, Saratov Oblast, Samara Oblast, Volgograd Oblast, and Komi Republic, Republic of Bashkortostan, Republic of Tatarstan, Krasnoyarsk Kray and Stavropol´ Kray. According to the Department for Emergency Situations, in 1999 on the main pipeline in the autonomous areas of Tyumen´ Oblast, Komi Republic and Republic of Bashkortostan there were 5 serious accidents.

In recent years forests have become prone to forest fires, the occurrence of which is high: in 1999 in Russia there were 31,000 forest fires – 1.3 times more than in 1998. The most intensive fires were recorded in Eastern Siberia (Krasnoyarsk Kray, Republic of Buryatia), in the Far East (Khabarovsk Kray, Primorskiy Kray), and in the north European part (Arkhangel´sk Oblast, the Komi Republic).

All-round felling widely practised in the northern regions of Russia's European part and in the Far East have resulted in a sharp reduction of old forests, which are of particular value for biodiversity. A speedy pace of deforestation is going on in the Arkhangel´sk Oblast, Republic Karelia, Khabarovsk and Primorskiy Krays.

Such ecological circumstances in the country demand proper financial support from the federal budget. The actual government expenses assigned for nature protection are insufficient: for instance, in 1999 only 0.5 % of the budget was allocated for nature protection - 4 times less than the revenue from the development of natural resources. In 2001 0.4 % of the federal budget was earmarked for ecological maintenance. For 2002 this amount - 4.7 billion roubles – is obviously inadequate, and it has been decided to allocate 7 billion roubles for environmental protection, still only 0.5 % of the country's budget. Poor financing of nature conservation and maintaining the necessary living conditions for the population (clear air and water, good agro-lands, health resorts and other) has forced executive bodies of the state authorities and legislators to delay consideration of ecological problems. Regional budgets cannot support nature conservation either.

With respect to federal support of nature maintenance programs, the regions of the European Centre enjoy a more privileged status : they account for nearly half of federal expenditure for ecological needs. The regions of the European North, Volga Region, Siberia and the Far East receive 5-7 % of state means assigned to protection of the environment. To resolve these problems the Urals regions receive twice as much from the federal budget. Less state-supported regions are Volga-Vyatka Region and Central Black Earth Region. They receive less than 1 % of federal funds for environmental maintenance.

Moscow secures a specific position in federal financing of ecological campaigns. Russia's capital spends as much on environmental protection as the rest of the regions combined. Approximately half of this expenditure is to cover state employees' salary. The ecological sector in Moscow gets financing 4 times more

than the following after Moscow Bashkortostan. In St. Petersburg the rate of expenditure for nature conservation is below the Russian average and makes up only 0.06 % of the revenue to the municipal budget. The low funding rate of ecological campaigns is marked in other north-eastern regions.

Among all the regional budgets that provide environmental maintenance with less than 1 % of all the expenses, there are certain leaders (besides Moscow) in total expenses on ecology. They are Khanty-Mansi Autonomous Okrug, Republic of Tatarstan, Republic of Sakha (Yakutia), Republic of Karelia, Sverdlovsk Oblast, Samara Oblast, Irkutsk Oblast, Stavropol'Kray.

Calculations of independent experts indicate that one third of Russian population resides in regions with a dire ecological situation. At the same time, the majority of environmental projects in Russian regions are implemented not through governmental support but with the assistance of regional, non-government as well as corporate organisations. Analysis and estimation of the ecological situation in regions can serve as a benchmark for setting priorities in the implementation of nature preservation work and featuring the prospects for social and economic development of the regions, purposed programs and investment projects.

6.2 Ecology in Moscow and its influence on the ecological state of rural areas of the Central regions

The summarised data is indicative of a complicated ecological situation in both Moscow and its surroundings. The city is growing rapidly, reaching beyond the ring road and merging with the satellite cities. The average population density is 8,900 people per 1 km². Hundreds of thousands of sources emit huge quantities of noxious substances into the air, as partial purifying systems have been installed only in 60 % of companies. Dramatic damage is caused by automobiles, whose technical parameters are inadequate for the required standards and for the quality of air. Car exhausts produce lead, wear and tear of tyres – zinc, the diesel engine – cadmium. These heavy metals are known as hazardous toxins. Industrial enterprises emit a great deal of dust, nitrogen oxides, iron, calcium, magnesium, and silicon. These compounds are not that toxic, however, they deplete the atmosphere transparency bringing more fogs (by 50 %), and more precipitation (by 10 %), and they also reduce solar radiation (by 30 %). On the whole, each Muscovite accounts for 46 kg of noxious substances every year.

Thermal influence increases the temperature in the city by 3–5 C°; the warm period for 10-12 days and the snow-less period for 5-10 days. Air heat and rise in the centre causes its inflow from the suburbs – both from forest-park zones and rural areas.

Water consumption in Moscow per citizen is around 700 litres a day. Despite enormous expenditure on purifying systems, even tap water still contains some hazardous compounds, chiefly fertilisers and chemicals. Water resources are tremendously misused – over 20 % of water is wasted.

Though the sewage water of the city undergoes biological purification (up to 98.6 %), the reservoirs are still clogged up with sand, salt, and acidified and warm water. Water shortage is one of many factors hindering housing construction. Only

160 out of 1650 major industrial enterprises have installed systems of circular water supply.

The soils within the city are quite different from their counterparts in the given nature zone – acid turf-podzol soils. First to be noted is the increase in pH of up to 8-9 resulting from the presence of carbonated calcium and magnesium in the atmosphere. Soils are also spoiled with organic matter, mainly by soot – 5 % instead of 2-3 %. The concentration of heavy metals exceeds the norm by a factor of 4-6.

Green spaces cover 30 % of the urban area, i.e. 25 - 30 m^2 per capita (Paris – 6, London – 7.5, New York – 8.6). Green spaces inside the city are rarely connected with the forest-park zones, the latter being too narrow – 15-20 km. Only in its northern exposure is Moscow relatively protected by a green belt. Up to 30-40 % of green spaces are afflicted by disease, degraded and unable to restore themselves. During holiday times the forest-park zone hosts up to 4 million people daily. This exceeds the permissible load.

In Moscow 3.5 million people live under conditions of ecological distress, and about 1 million in regions of extreme distress. Pollution in different parts of the city varies greatly. Two thirds of all toxic emissions fall onto 6 districts. The Sadovoye Ring blocks suffer dire ecological conditions.

The sickness rate among Muscovites is higher than in other regions of the country: respiratory diseases, asthma, various kinds of allergy, cardiovascular diseases, liver ailments, gall-bladder, organs of sense. Out of the world's 94 largest cities Moscow rates 62^{nd} in birth-rate, 70^{th} in mortality, and 71^{st} in natural growth. Infant mortality in Moscow is 2-3 times higher than in other capital cities of the world.

The ecology in Moscow is closely connected with the background, natural conditions of Podmoscoviye and with the climate in the European part of Russia. The so-called "western transfer" – winds prevailing from the west – is of great influence. In this situation western and north-western districts of the city receive more fresh air, which is additionally purified over the forests in the western part of Moscow Oblast. The eastern districts receive the air polluted within the town area. With the eastern and south-eastern winds Moscow gets less pure air, for the South-East of the Oblast is only 25-30 % populated and the land there is chiefly ploughed and industrially more active. The north-western reservoirs of Moscow are much clearer than the main water streams of Podmoscoviye drain north-west and south-east. The general peculiarities of soils and relief underline the ecological differentiation. The north-west of Moscow is more elevated, hilly and possesses heavier clayed and loamy soils. It contributes to the active surface washing off, horizontal migration of pollution, its accumulation in reservoirs and poor absorption into the ground. In the south-east vast expanses are taken up by sandy and levelled surfaces with minor slopes. These conditions are perfect for vertical pollution migration and contamination of ground water.

Moscow is bound to exert influence on the adjacent areas: atmospheric pollution advances to the east by 70-100 km, depressed caters from artesian water pumping stretch to 100-120 km, thermal pollution and the upset in the precipitation regime are observed within 90-100 km, deforestation up to 30-40 km.

Photo I/6.3.1-1
Village near the river Don

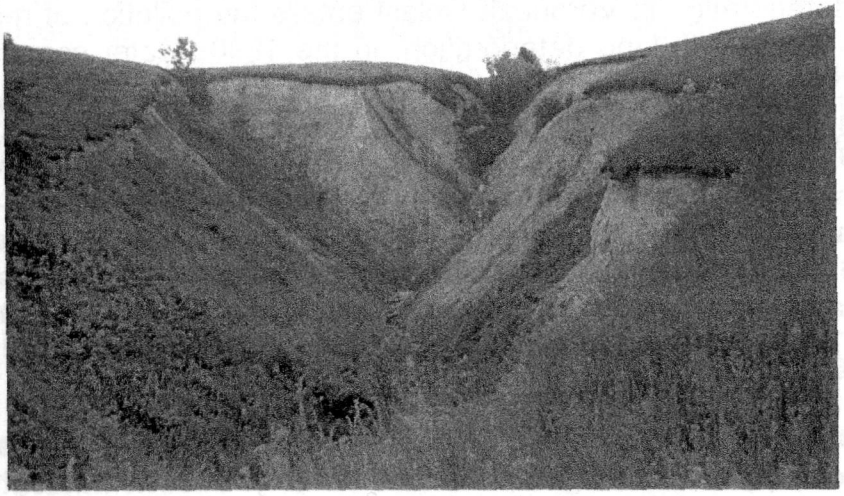


Photo I/6.3.1-1
Typical ravines near the river Don

Photo I/6.3.1-3
The river Don with a rural quay

6.3 Ecological problems in the Central Black Earth Region

Central Black Earth region and other Russian regions are characterised by a downward ecological trend. The major reasons for this impending ecological crisis are: low ecological efficiency of the population, a stereotypically technocratic consumer attitude towards nature, irrational structure of the prevalent basic sectors of the economy, and usage of outdated technology (power engineering, mining industry, ferrous metallurgy, transportation, agriculture) being the main environmental pollution factors. The development established in the previous decade did not grant the conditions required for creation of an effective economic mechanism for the rational distribution of resources and for nature conservation. The 1990s economic reforms ensured a drop in environmental pollution levels by cutting down production capacity, but the strained financial situation has failed to provide adequate technologies for ecology maintenance. Still complicated is the situation with radioactive pollution in the north-western part of Central Black Earth Region, which bore the brunt of the impact of the accident at the Chernobyl Nuclear Power Station.

Ecological deterioration in Voronezh Oblast entails the pollution of reservoirs and atmosphere along with land deterioration. In the 1990s water consumption from water reserves was cut down: in 1991 it made up 999 million m^3, in 1997 – 8076 million m^3 – i.e. dropped by 19.2 %. However, sewage water discharges rose. In 1991 they were 142.5 million m^3, in 1997 – 231,2 million m^3, which makes a 62.2 % rise. The downturn in the quality of water deserves special attention. In 1991 untreated sewage discharges made up 14.3 % of the total water supply, in 1997 – 28.6 %[22]. In view of the halt at numerous industrial enterprises the volume of the pollutants discharged from stationary sources decreased (in 1991 – 106,900 tons, in 1997 – 61.7 thousand tons). All the same, the chief sources of air pollution come from motorised transport.

The most important natural resources in Central Black Earth region are its fertile soils. They occupy around 80 % of the total territory. With its nutrient component reserves the black earths excel the podzol soils of Podmoscoviye by a factor of 5-6. Nonetheless, the present fertile soil capacity arouses a great deal of concern. According to the latest data, in Voronezh Oblast agro-lands exposed to water erosion make up 23.5 %, and to wind erosion 3.7 % of the total area[23]. In some regions the eroding soils cover 30-40 % and more. One of the most difficult problems is the shortage of humus in soils. In the last 9 years the application of organic fertilisers was reduced by 3 times and that of mineral ones by 8 times. Consequently, the major factor of the present topsoil degradation in Central Black Earth Region is "land-impoverishing agricultural usage". The process of land depletion as a result of agricultural work has not been suppressed as yet. In 1991 the agricultural sector in Voronezh Oblast lost 2,600 ha, in 1995 2,300 ha, in 1996 2,200 ha and in 1997 2,000 ha. The recession in the ecology of Voronezh rural area reflects on the social consciousness of the rural population. Nearly two-thirds (66.6 %) of experts compare the deterioration of the contemporary situation to the late 1980s, where 39.2 % experts consider the situation to be "much worse" and 27.4 % "rather worse". Only 12.8 % of experts have noted an improvement in

[22] Voronezh Oblast: Social Development and Living Standards, 1997, p.106.
[23] Account on the Environment in Voronezh Oblast in 1997, 1998, p.18-19.

environmental conditions and 18.6 % have not observed any changes compared to the end of the 1980s. As a result, negative estimates top positive ones by a factor of 5.2. The on-going work on environment maintenance is estimated to be on the same level. Over 61.8 % of experts point to the inadequate work regarding nature preservation, while 34.3 % of experts regard this situation as "much worse" compared to the end of the 1980s, and 27.5 % of experts consider it to be "a little worse". 14.7 % of experts have noted improved environment protection work and almost 23.5 % have not observed any changes since the end of the 1980s. Negative estimates top positive ones by a factor of 4.2.

The majority (75.3 %) of experts residing in rural areas single out the following five key issues (in reverse order of relevance) which require prompt consideration to ensure ecological stabilisation: implementation of special ecological policy, regulation of the costs of nature conservation work, improvement of technology and the technical re-equipment of production, improvement of the legislative basis, and obtaining the required investments and loans. Regional experts – highly qualified *specialists at the oblast centre – have pinpointed another critical issue – the* problem with the improvement of taxation policy in relation to nature conservation works. Moreover, the disagreement at oblast and regional level manifests itself in the fact that the regional experts gave priority to financial support of the ecological works, whereas the local experts, starting with the expertise about the actual situation, advocated the implementation of special programs on environment protection.

6.4 Ecological Problems in the Altay Kray and in the Republic of Gornyy Altay

The current state of the environment as well as public health in the Altay Kray came about not just due to natural evolution but also due to man's negative intervention. This includes repeated (from 1949 to 1963) nuclear tests on the Semipalatinsk testing grounds, rocket space research, large-scale development of virgin and fallow lands between 1954-1957 and others. (Statistical data on the state of the environment in the region is given in tables I/6.4-1).

The Altay Kray has been exposed to long-term anthropogenic emissions on the environment. The ecology defying sources are situated in the territory and the contiguous areas. These are Kuzbass and Eastern Kazakhstan, with high industrial production, and the Semipalatinsk testing grounds.

The environmental situation in the territory is somewhat distressed. This is firstly due to the high level of urbanisation and the presence of large industrial centres which have a negative impact on the environment (heat and power engineering, engineering and metal working industries, chemical and petrochemical industries). The level of agricultural development of land is also high, which together with agro-production technology, entails quality changes of soils and land reserves, land degradation and its uselessness for agricultural turnover.

It is widely known that arable lands are of particular value in the agro-lands structure. In the Altay Kray arable land takes up 6.7 million ha., 4.7 million ha. of which were affected by wind and water erosion in 1997. Taking the financial deficit into account, it is feasible to assume that in future the situation is likely to improve. Forest amelioration, the purpose of which is to create forest shelter belts, is of vital

importance for the Altai Territory. In the late 1990s these belts made up only 1.6 % of the arable lands, while under the norms established by V.V. Dokuchaev they are to cover up 20-25 %. To make a comparison: in 1999 the area allocated for forest shelter belts was 0.6 thousand ha. Desert advancement on this territory, particularly noticeable in the western and south-western arid regions, is determined not so much by natural as by anthropogenic phenomena and processes. According to a number of research projects one of the reasons for land mismanagement is the loss of labour skills in the majority of the rural population.

The kray's reserves may serve to preserve valuable lands. Still, even this most difficult and ineffective due to the lack of support the reserves' maintenance. Moreover, as A. V. Skalon states, reserves arouse a hostile reaction from residents who see them as an encroachment on their primordial rights of usage. It is absurd when the nests of protected species of bird are deliberately destroyed so as to leave nothing to protect. For example, the case of the Territory's only nature reserve Tigirekskskс, set up in 1999 to preserve the ancient coniferous forests. The head of administration in the Zmeinogorsk Rayon, where the nature reserve is located, called for its closure, reasoning that:

1. they lose the area abundant in ore, non-ferrous metal deposits (the head of the region believes that the ores will be extracted without the participation of the region);
2. people in the region will be unable to perform logging works.

The Analysis of ecological problems with a territorial aspect allows us to pinpoint regional and local centres at varying degrees of ecological risk. The most urgent problems in the Territory are as follows:

- environmental pollution within large industrial centres (Barnaul agglomeration, cities Biysk and Rubtsovsk) and their agricultural surroundings;
- long-term radioactive influence of nuclear tests on the Semipalatinsk grounds;
- intensive agro-development, particularly around the Aley basin, and grave erosive land degradation in the Kulunda Rayon.

The effects of anthropogenic emissions resulting from industrial and agricultural production takes its toll on health.

At present the Republic of Gornyy Altay does not have any kind of industrial or other ecological sources of pollution. The main industry is raising livestock, which impacts nature mostly through the destruction of natural grass cover.

The major reasons for the ecological downturn in the Republic, being similar to those in the Altay Kray, also implicate unsatisfactory social and economic standards of living and the consequences of the lengthy technogenic influences on nature and human health (radiation, rocket fuel, and contamination by heavy metals and other).

The unauthorised use of chemicals agriculture left its mark on the health of the population. The state of people's health depends much on natural and climatic factors. These are:

1. sharp fluctuations of temperature in high-mountain regions, exacerbating respiratory diseases;
2. low concentrations of iodine in potable water, causing endemic ailments and problems with physical and mental development in children;

3. low concentrations of fluorine in potable water, causing dental problems among the population;
4. high-mountainous conditions together with malnutrition result in anaemia among pregnant women and children;
5. poor sanitary conditions contribute to a higher rate of infectious diseases.

Direct ecological factors, such as the high accumulation of dust in the air in the Republic of Gornyy Altay at the times of boiler-houses' works, significantly increase the incidence of respiratory diseases in population.

Table I/6.4-1 Influence on the environment 1999

	Republic of Gornyy Altay	Altay Kray
Atmospheric air		
Pollutants emitted into the atmospheric air ('000 t)	3.7	258.0
Pollutants detected and rendered harmless (%)	26.9	74.3
Cities with the highest level pollution	-	Biysk
Rating of the R.F. region by the amount of air emissions	83	20
Water resources		
Fresh water obtained (million m^3)	9.7	647.4
Water consumed (million m^3)	8.4	569.8
Water economy (%)	86	84
Sewage water discharged (million m^3)	2.4	258.4
including:		
Untreated sewage waters	0.3	31.9
Normatively purified waters	2.1	139.5
Capacity of purifying equipment (million m^3)	5.7	282.1
Rating of the R.F. region by untreated sewage water discharges	85	69

Source: State Report 2000.

Pastures and hay fields occupy the bulk (91.6 %) of the Republic's agro-lands. Enormous areas of natural meadowlands are below cultural and technical standards that come out as an excessive spread of shrubs, hummocks and stones. Over-grazing by cattle in previous years greatly impaired the pasturelands, 40 % of which are referred to as "trampled down" lands. The restoration of such pastures with low soil capacity and stony structure is bound to be a labour-consuming and long-lasting process, hampered by a shortage of funding. The specialists in Republic departments dealing with the problems of agriculture and nature preservation suggest the only way to restore the "trampled down" pastures - the exemption of these lands from agro-sector with the ensuing hay-mowing and minor cattle pasture.

The republic is experiencing another serious problem - erosion, various kinds of which afflict all the regions. The northern lowland regions suffer from water erosion, the mountainous part of the Republic, mainly central regions, suffer from wind and water erosion, and the southern regions suffer from wind erosion. Exacerbated by overgrazing and other human activities, it is this latter type of erosion that starts the spreading of desert advancement in the south of the Republic. On the whole, more than 30 % of agricultural territory of the Altai Republic is subjected to eroding processes. One third of arable land is prone to shrinking. Erosion elimination measures as well as amelioration implementation demand adequate financing. It is a fact that the Republics do not possess the means to facilitate nature conservation.

To preserve and increase the capacity of the land and its rational usage the State agro-chemical department carries out a special type of work. In 1994 the department started monitoring natural meadowlands. The results of the 7-year monitoring period indicate a decrease in the application of chemicals: mineral fertilisers – by 70 times, organic – 10 times. The result is the overall decline in soil capacity. The deterioration of the agro-chemical factors of arable lands could not but affect the quality of fodder. Thus, in 2000 only 6 % of heavy fodder met the requirements of first class, 55 % second class, and the rest of the fodder was inedible.

The ecological problems of agriculture evolve from low farming efficiency and unsettled social, economic and legal issues at regional as well as federal level.

The Republic of Gornyy Altay, unlike its neighbour – the Altay Kray, is characterised by the large area (21 %) designated as areas special protection, including designated recreational areas. They include the Altay and Katun state nature reserves and the health resort "Chemal", numerous recreational resorts and children's recreational camps.

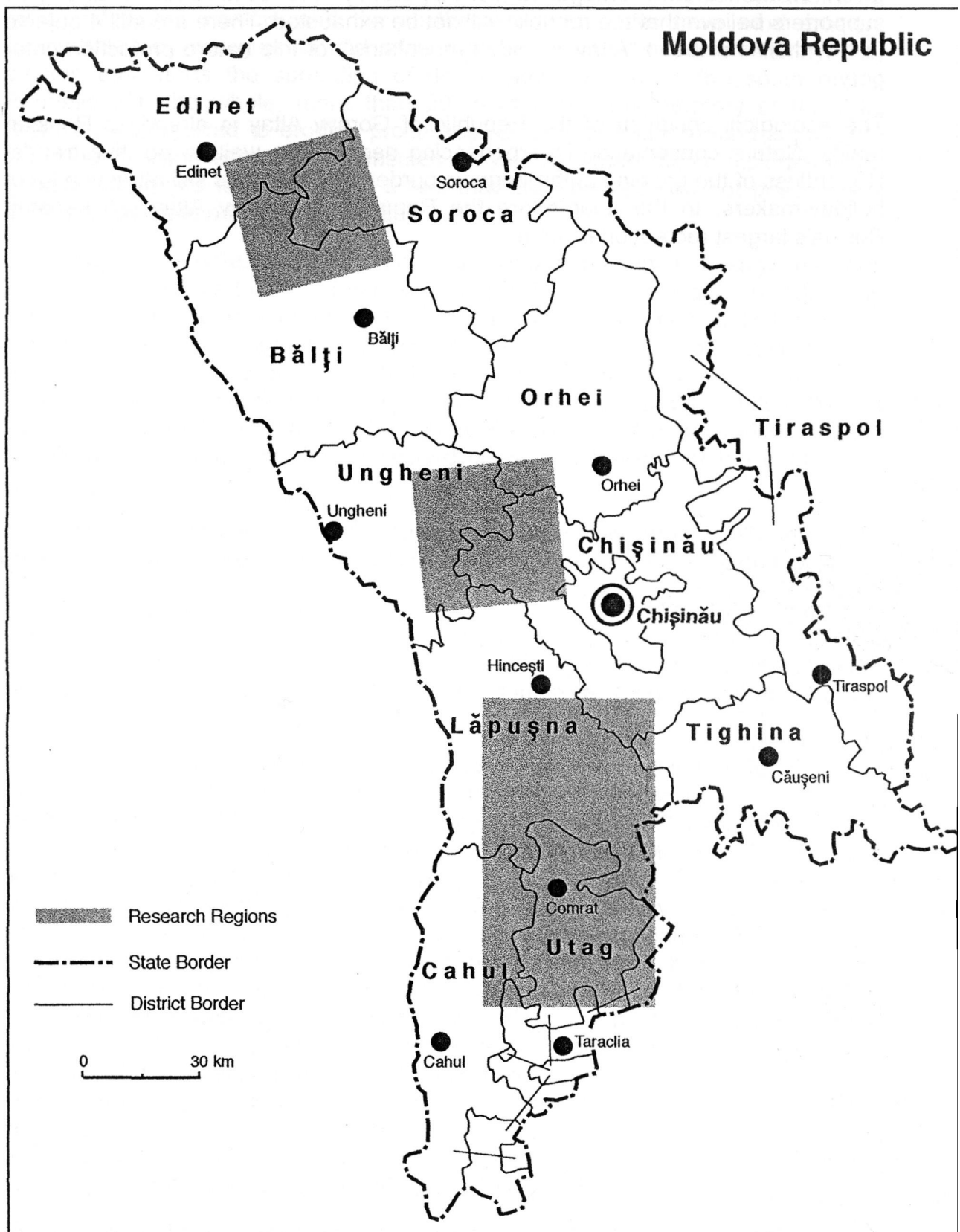
The way to resolve social, economic and ecological problems in the Republic is to extend its international co-operation. In 1998 the representatives of Kazakhstan, Mongolia, China and Russia, represented by the Republic of Gornyy Altay, concluded an agreement on the steady development of the Altay Mountain Region. The objective of the agreement, titled "Altaysky", is the development and co-ordination of work on the region's development. The main activity stipulated by the agreement is the creation of biospheres under the international UNESCO "Man and Biosphere" programme. The centre of this reserve was to be the Tabyn-Bogo-Ola range including the southern part of Russian Altay and some contiguous territories in Mongolia, China and Kazakhstan Altay. The purpose of this biosphere was specified as the preservation of biodiversity along with the carrying out of scientific and educational activities by creating trans-boundary ecological trails. This nature reserve was to involve the indigenous people, who had been neglected, with the main emphasis on the preservation of plants and animals endemic to the area. Completion of this project involved preserving the habitat of the indigenous people of the southern part of the republic.

Unfortunately, 2001 witnessed the domination of quite a different conception of the future of this territory. According to the heads of the Altay Kray and the Republic of Gornyy Altay, the most effective way to establish international co-operation is to

build the road linking Russia and China via the Ukok plateau. Everything would have been settled if in 1998 Ukok (enclosing Tabyn-Bogdo-Ola) had not been given World Nature Heritage status. Apparently, the administrators and their supporters believe that the republic will not be exhausted: There are still 4 objects (within the nomination "Altay – golden mountains") of this nature protection category.

The ecological condition of the Republic of Gornyy Altay is already a Russian reality. Nature conservation is experiencing negative as well as positive trends. Regardless of the growing anthropogenic burden, the Republic still attracts a lot of holiday-makers. In the near future the Republic of Gornyy Altay will become Russia's largest recreational centre.

Figure II/1 Republic of Moldova



Draft: W. Lindner

Cartography: I. Behre

PART II: REPUBLIC OF MOLDOVA

1 Demographic problems and migration of the population[24]

The Republic of Moldova (RM) appeared in the global political arena in August 1940 as a member of the USSR under the name of the Moldova Soviet Social Republic. It was created from several parts of the former districts of the Moldova Autonomous Republic, which was a constituent part of the Ukraine. At its formation the entire territory covered 33,700 km^2, with a population of 2.5 million people.

The physical-geographical features of the territory are:

- flat country, crossed by many river valleys with a high and low inclination from the Sub-Carpathian mountains (N-W) to the Black Sea (S-E); the medium elevation of 200-300 m is predominate; the maximum elevation above sea level is 429.5 m (the elevation Codru is in the central part of the country);
- the climate is moderate-continental, favourable for the development of the national economy; Moldova is an area with insufficient humidity; the lack of moisture, the unequally distributed rainfall, late springs (the end of April - beginning of May) and early autumns (the end of October-beginning of November), frozen periods and other natural unfavourable conditions have a negative impact on the cultivation of plants and result in considerable damage and loss;
- availability of non-metallic minerals, such as natural buildings materials; in the southern part of the country there are insignificant deposits of oil and natural gas;
- the fertile soils are the main natural wealth of the country; chernozem soils prevail;
- the intensive exploitation of the territory; various cultivated plants cover about 80 %; natural landscapes are virtually non-existent.

Since its formation, the Republic of Moldova has passed through numerous periods of both political and socio-economical development, such as:

- the period of state formation and organisation of the administrative division of the Republic (1945-1949);
- the period of starvation (most of it organised) in 1946-1947; the number of people who died of starvation is hard to define, but specialists estimate about 150,000 to 200,000 people;
- the period of political deportation of people (1945-1949) to the Eastern parts of Siberia. In 1949 alone about 10,000 people were deported from the country;
- the period of forced collectivisation and nationalisation of the means of production (1949-1950);
- the period of development and specialisation of the national economic sectors in accordance with the centralised 5-year plans of social development of the Soviet Union; a period in which there were several stages of increase and decline of the national economy of the Republic;

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[24] MARIANSKIY, A. (1968): Actual migration of population. Moscow. (МАРИАНСКИЙ, А. (1968): Современные миграции населения.)
MORARU, A.(1995): Istoria Românilor, Basarabia şi Transnistria (1812-1993), Chişinău.
URLANIS, B. (1974): Problems of population's development. Moscow (Проблемы динамики населения.)

- the period after 1991 – the year of the republic's declaration of independence (27th August) and the beginning of transition to a market economy.

Since 1991 the Republic of Moldova has faced a number of problems of political, economic and social and demographic character. The transition period had a huge impact on the dynamics of the demographic processes and on the population numbers of the Republic. The most important characteristic features of the population dynamics, before the beginning of transition to the market economy, were:

- a high and steady population increase;
- a high intensity of immigration of people from other countries in the ex-USSR, especially from the Russian Federation and the Ukraine;
- a substantial growth in population numbers as a result of people returning from other states within the former USSR;
- only little population exchange with other states beyond the USSR;
- a significant increase in the urban population as a result of local and inter-republic migration.

The prolonged transition period to a market economy had a negative impact on the development of many economic, social and demographic processes, including the following:

- a decrease in industrial production by a factor of 2.4;
- a drop in the production volume of more than 50 %;
- a drop in the GDP. The maximum yearly decrease was registered in the period 1990-1994 (by 21 %);
- a decrease in the number of people occupied in the national economy of the Republic. In 1990-1997 alone the number of people fell by more than 420,000, or 21 %, compared to 1990;
- a rise in unemployment as a result of the closure of industrial enterprises, collective farms, state farms and other employment opportunities.

The demographic processes reflect fundamental processes taking place in the social spheres of society. The decline in the growth of the national economy had a negative impact on the dynamics of all demographic processes.

Table II/1-1 Death rates in the Republic of Moldova

Year	Mortality ('000s)	Mortality ‰	Coefficient of mortality in 1990 %
1990	42.5	9.7	100
1994	51.5	11.8	122
1995	53.0	12.2	139
1997*	51.2	11.8	121
1997*	48.9	11.4	117

* After 1997 research into the dynamics of demographic processes became more difficult due to lack of statistical data from the left side of the river Dnister.

The most alarming trend is the increase in mortality rates – a phenomenon characteristic in all former socialist states. The rise in mortality is highest for Russia (34 %), the Ukraine (27 %), Moldova (26 %), and Belarus (21 %). The highest levels of mortality increase in Moldova were registered during the period 1990-1995. As table II/1-1 indicates, absolute and relative mortality indicators stabilised in later years.

It is hard to explain the causes of such high rates of mortality, but we suppose that the less healthy population could not cope with the sudden political and social changes and the associated difficulties. Indirectly, this shows the dramatic growth of mortality amongst the middle-aged groups of the population.

Table II/1-2 Deaths of selected age groups in the Republic of Moldova

Age	1990	1994	1996	1996 in % of 1990
25-29	578	482	534	92
30-34	792	918	804	102
35-39	1058	1367	1388	131
40-44	1153	2039	1956	170
45-49	1531	1718	2391	156
50-54	2664	2757	2168	82
55-59	3336	4245	4036	102

The highest death indicator in this period was in the working class 35-49 age group. This phenomenon is hard to explain and poses a danger to society in that the most significant age group in the working population is dying off.
Over the last 10 years, research has shown that mortality mainly occurs as a result of diseases of the blood circulation system (table II/1-3).

Table II/1-3 Main causes of deaths in the Republic of Moldova

	1990		1999		Mortality in 1996 in % compared with 1990
Mortality total:	42,427	100	41315	100	97
Including those with the cause of death					
1. Infections	470	1.1	661	1.6	140
2. Diseases of the blood circulation system	18,297	43.1	22,732	55.0	124
3. Malformations	5,733	13.5	4,583	11.1	80
4. Diseases of the respiratory system	2,817	6.7	2,595	6.2	92
5. Diseases of the digestive system	4,014	9.5	3,618	8.8	90
6. Diseases of the nervous system	362	0.8	319	0.8	88
7. Other illness	6,272	14.8	3,326	8.1	53
8. Accidents, poisoning and injuries	4,462	10.5	3,481	8.4	78

If the coefficient of the death rate fell by 3 % during 1990-1996, then mortality caused by infectious diseases increased by 140 %, but diseases of the blood circulation system fell by 124 %, and diseases of the nervous system decreased a little.

While in 1990 some 18,300 people (43.1 % of the total number of deaths) died of diseases of the blood circulation system, in 1999 the figure was 22,700 people (55 %).

The differences between the levels of mortality in the urban and rural populations of the republic are shown in table II/1-4:

Table II/1-4 Deaths of the urban and rural populations in the Republic of Moldova

Year	Urban		Rural		Ratio between rural and urban population in %
	Number of dead people	Death rates ‰	Number of dead people	Death rates ‰	
1990	15,234	7.4	27,193	11.9	178
1992	15,506	7.6	29,016	12.6	187
1994	18,598	9.1	32,916	14.2	177
1996	18,458	9.2	31,290	13.4	170

In every period mortality among the rural population was 70-80 % higher than among the urban population. This can be attributed to a number of reasons:

The age structure is different in urban and rural regions. For example, in 1997 the rural population aged 60 and over was 15.7 % compared to 10.4 % in urban Moldova.

Medical services have deteriorated even more in rural areas. Poverty and the high price of medicines and medical services are further obstacles, especially in rural areas.

The difficult economic situation in the period of transition to the market economy also influenced infant mortality rates. The world-wide infant mortality rate is 62 ‰, or 62 out of every 1000 new-born children. This index shows us that the lower coefficient of the infant mortality rate is 9 ‰ in North America, 13 ‰ in Asia, 3.5 ‰ in Finland, 4.2 ‰ in Sweden, 5 ‰ in Austria, 5 ‰ in France, 4 ‰ in Japan, or 5.1 ‰ in Germany. The highest rates are to be found in Africa 94 ‰ and Asia 62 ‰, in countries such as Sierra Leone (169 ‰), Afghanistan (154 ‰), Liberia (153 ‰), Malaysia (142 ‰), etc. Infant mortality in the Republic of Moldova in the period of transition remains stable around 19-20 ‰, which is one of the highest rates in Europe (after Romania with 24 % and Macedonia with 23 %). Infant mortality in rural Moldova is 15-20 % higher than in urban areas.

This might be explained by the same unfavourable social and medical conditions.

For the last 10 years, the average life expectancy fell from 68.7 years in 1990 to 67.4 in 1999; in 1995 it reached its lowest at only 65.8 years. For women, average life expectancy is some 70 or 71 years while for men it ranges somewhere

between 62 and 64 years. Again, less favourable values are characteristic for the rural population (65-67 years of age on average) than for the urban (67-70 years). The lowest average life expectancy is to be found among rural men and does not exceed 61-63 years.

It should be mentioned that important changes in the dynamics of the birth rate of the population of the Republic of Moldova have occurred in recent years. The birth rate is influenced by many different factors (economic, social, political and other).

In dynamics, the coefficient of the birth rate of the population varies substantially. First of all, it can be explained by the subjective factor which defines the dynamics of the process, namely by the desire of the parents to have children. The rapidly spreading concept of family planning determines the number of children born in a family, i.e. the free thinking of millions of families defines the number of children born in society, as well as in every family. At the same time, the dynamics of the entire process is influenced by other factors. Demographic investigations into the birth rate of the population during the last periods show that the maximum level of this rate can reach 60 ‰.

The average coefficient of the birth rate of the world's population is 24-25 ‰. However, there are big regional and national differences. For example, the birth rate in developing countries is higher (27 ‰) than in developed countries (13.4 ‰).

The highest coefficient of the birth rate is registered in Africa (41 ‰), the lowest in Europe (11,5 ‰). Rather extreme values are to be found in Niger (53 ‰), Angola (51 ‰), Mali and Afghanistan (50 ‰), Latvia (7.9 ‰), Bulgaria (8.1 ‰), Russia and Turkey (8.8 ‰). The Republic of Moldova is among the countries with a low coefficient of the birth rate (see table II/1-5).

Table II/1-5 Birth rates of selected European countries, 1990 and 1996

Countries	1990	1996	1996 in % of 1990
European Union	12.6 ‰	11.5 ‰	91
Moldova	19.8 ‰	12.0 ‰	61
Romania	13.3 ‰	10.4 ‰	76
Ukraine	13.3 ‰	9.1 ‰	68
Germany	10.1 ‰	9.6 ‰	95
Belarus	15.0 ‰	9.0 ‰	60
Russia	13.4 ‰	8.2 ‰	66
Great Britain	13.9 ‰	12.5 ‰	.

As shown in table II/1-5, the Republic of Moldova is the European country with a higher coefficient of the birth rate of the population (12 ‰) and the highest rate of decrease in the birth rate coefficient. The lowest birth rate is in Germany (95 ‰), the highest in Belarus (60 ‰).

Over seven years (1990-1997) the number of children born and the birth rate coefficient of the population fell by 34 %.

Table II/1-6 Dynamics of the number of births and the birth rates of population in the Republic of Moldova

Year	Number of births ('000)	Birth rates (‰)	Birth rates in % of 1990	Number of births in % in 1990
1990	77.1	17.7	100	100
1992	69.6	16.0	90	90
1994	62.1	14.3	81	80
1995	56.4	13.0	73	73
1998*	51.3	11.9	67	66

*Data for 1998 are incomplete (no data available for the territory on the left bank of the Dnister river).

The birth rate level is roughly the same in rural and urban populations of the Republic, but the rate of decrease of the birth rate of the urban population is higher than that in rural areas (table II/1-7).

Table II/1-7 Urban and rural birth rates dynamics in the Republic of Moldova

Year	Urban population			Rural population			Birth rates of rural population in % compared with the urban population
	Number of births	Birth rates (‰)	Birth rates (%) in 1990	Number of births	Birth rates (‰)	Birth rates (%) in 1990	
1990	34.6	16.7	100	42.5	18.5	100	111
1992	29.0	14.2	85	40.7	17.6	95	123
1994	24.3	12.0	72	37.7	16.3	88	136
1995	21.7	10.8	65	34.7	14.9	80	138
1997	19.7	9.8	59	32.0	13.4	72	137

In this period (1990-1997) the birth rate of the urban population fell from 16.7 to 9.8 % or by 41 %, and the rural population from 18.5 to 13.4 ‰ or by 28 %. At the same time the highest coefficient of the birth rate of the rural population is almost stable, whereas in the urban population there is a sharper drop. While in 1990 the coefficient of the birth rate of the rural population exceeded the respective index of the urban population by 111 %, in 1997 the respective figure was 137 %.

The general coefficient of births is different in the cities and in rural administrative districts in the Republic of Moldova. We can thus distinguish the following features:

1. The rate of the coefficient depends on the economic potential of the city. In large cities such as Chişinău, Bălți, Tiraspol, Tighina, etc. the coefficient is lower than in small towns (such as Orhei, Comrat, Călaraşi, etc.) and it represents 35-50 %.
2. The birth coefficient in small urban units (more than 10,000 people) slightly differs from those in districts.

3. The birth rate is falling from North to South. Therefore, the coefficient constitutes 9-11% in the majority of the northern and eastern regions, while in the central and southern regions it is 15-16 %.

A peculiarity of the transition period is the fall in the number of children born to families. While in earlier decades families in Moldova had three or four children, in the 90's the typical family had just one or two children.

An important social and demographic problem in Moldova is the increase in the number of children born out of wedlock (table II/1-8).

Table II/1-8 The number of children born to unmarried women in the Republic of Moldova

Year	Number of children born out of wedlock			As percentage share of births overall		
	Total	Urban	Village	Total	Urban	Village
1980	5,919	2,460	3,459	7.4	7.9	7.1
1990	8,496	4,195	4,301	11.0	12.1	10.1
1995	7,475	3,455	4,020	13.3	15.9	11.6
1997	7,550	3,385	4,165	14.6	17.2	12.9

In 1980 the children born out of wedlock was 7.4 %, in 1996 14.6 %.

The final result of the birth and death rate dynamics represents the natural growth of population in the Republic of Moldova. For many decades Moldova differed from neighbouring and ex-soviet countries with a higher natural rate of population growth. Since the end of World War II Moldova has ranked among the leaders (after Albania) of the coefficient rate of natural population growth. While the general growth of population in this period was 187 %, the increase in neighbouring countries was substantially lower (Romania 134 %, Ukraine 142 %). The high coefficient of birth rate population growth in the Republic may be explained by both natural and migratory population growth.

The statistical data indicate that from the beginning of the 1990s Moldova experienced first positive then negative growth. Although the natural growth of population fell during this period, it remained positive.

The greatest changes in the dynamics of natural growth were registered in the last ten years (1990-2000). During this period natural growth essentially fell, while the negative migration flow of population increased. This is why in several years there was negative growth of the population (table 1-9).

The highest negative general growth was registered in 2000, being equivalent to minus 17,200 people. From 1990 to 1998 the positive coefficient of natural growth was maintained in the country. The fall in general population growth and its negative character can be explained to a great extent by emigration.

Changes in the dynamics and character of the demographic processes had a significant impact on the dynamics of population numbers in the Republic of Mol-

dova. The dynamics of population and its distribution and structure were influenced by a number of factors: historical, political, social, economic, etc. Until the beginning of the 19th century the largest part of the present territory of the Republic of Moldavia was a principality of Romania, and therefore the development of all social and demographic processes was influenced by factors specific to Romania and European countries. From the beginning of the 19th century this territory belonged to Russia, and the character of the factors influencing the population of this territory obviously changed. The political and economic instability of the territory and the frequent changes of political power had a noticeably negative impact on the dynamics of the demographic processes, the population numbers and its structure.

Table II/1-9 Dynamics of the total population growth, 1990-2000

Year	General growth ('000s)	Including	
		Natural ('000s)	In % related to 1990
1990	+4.7	8.0	100
1991	-7.2	6.0	75
1992	-11.8	5.8	72
1993	+4.9	4.5	56
1994	-4.8	2.5	31
1995	-13.5	0.8	1
1996	-14.4	0.5	0.6
1997	-15.3	5.1	63
1998	-11.7	3.8	47
1999	-11.5	-5.3	-66
2000	-17.2	-6.5	-81
Total	-97.8	+25.2	-

Today 4.3 million people live in the Republic of Moldova, thus ranking 28th out of 43 European countries, after Norway (4.4 million) and Croatia (4.5 million). However, the special features of the social dynamics have recently registered a high level of growth and significant redistribution of the population among the rural and urban districts of the Republic. Since 1950 Moldova has been among those European countries with the fastest growing populations (table II/1-10).

Table II/1-10 Population growth in selected European countries (million people)

Countries	1950	1970	1990	1997	Ratio in % to 1950
USSR	178.5	241.7	288.6	-	162
Russia	101.4	130.1	148.0	147.3	146
Ukraine	36.6	47.1	51.8	50.7	141
Moldova	2.3	3.6	4.4	4.3	188
Romania	16.3	20.3	23.3	22.5	139
Hungary	9.3	10.3	10.6	10.2	109
Albania	1.2	2.1	3.3	3.4	288
Germany	68.3	77.6	77.2	82.0	119
Great Britain	50.6	55.6	56.9	59.0	115

Selective analysis of the dynamics of population number in 1950-1997 shows that Moldova takes second place (after Albania) in all European countries, including the ex-soviet republics. While the population of the Republic of Moldova grew by 188 % during this period (Albania by 288 %), the neighbouring countries witnessed lower growth rates (Romania 139 %, Ukraine 141 %, Russia 146 %, and Hungary 109 %).

The population of the Republic of Moldova has been increasing since World War II. During the last 10 years the population fell (table II/1-11). This was due to a substantial decrease in the natural birth growth as well as growth in the negative migration balance.

Table II/1-11 Population number dynamics in the Republic of Moldova

Year	Number of population ('000s)	In % for 1990 year
1990	4,362	100.0
1991	4,366	100.1
1992	4,359	99.7
1995	4,348	99.7
1996	4,334	99.4
1998	4,305	98.7
2000	4,282	98.2
2001	4,264	97.7

In 1990 was the highest population ever registered for the Republic of Moldova (4,366,000 people). After 1991 a negative growth was observed. In comparison with 1990, the population fell by 100,000 (or 2.3 %).

As a result of the redistribution of the population among the rural and urban areas of the Republic of Moldova, the population of cities has increased, representing 45 % of the absolute population numbers (Albania 35 %, Portugal 33 %).

During the assessment period population growth increased, as did the proportion of city dwellers in the overall population of the Republic of Moldova (table II/1-12)

Table II/1-12 Urban population dynamics in the Republic of Moldova

Year	Population number		Percentage share of total population
	People ('000s)	In % related to 1950	
1950	388	100	17
1960	670	173	23
1970	1130	291	32
1980	1586	408	40
1990	2069	530	47
1991	2074	534	47
1992	2052	528	47
1995	2033	523	47
1996	2004	516	46
1998	1987	512	46
2000	1968	507	46
2001	1934	498	45

Within 50 years urban population numbers have grown significantly from 388,000 to 1,934,000 (an increase of 498 %). At the same time the urban population ratio has increased from 17 % to 45 % of the population as a whole.

We have to mention that the urban population number and weight increased at the beginning of the 1990s. The highest level was registered in 1991 (2,074,000 people). Later, the opposite trend began, and even its weight began to decrease after 1995.

The number of citizens in Moldova´s cities fell by 140,000 people between 1991-2001. This means that the negative growth in the population of the Republic of Moldova was principally caused by a fall in the urban population.

The number of the population and its percentage increased in Moldova´s cities from 1950-1991 due to the following reasons:
1. migration from rural to urban places (internal movements);
2. migration from other ex-USSR countries;
3. natural increase of population;
4. structural reconstruction of the rural places into urban.

The character of population evolution (its number and weight) in rural areas is quite different from urban ones (table II/1-13).

Table II/1-13 Dynamics of the rural population in the Republic of Moldova

Year	Rural population numbers		Percentage share of total population
	('000)	In % of 1950	
1950	1,902	100	83
1960	2,298	121	77
1970	2,439	128	68
1980	2,382	125	60
1990	2,292	121	53
1991	2,293	121	53
1992	2,307	121	53
1995	2,315	121	53
1996	2,330	122	54
1998	2,317	121	54
2000	2,317	121	54
2001	2,330	122	54

A positive period (1950 to 1970) and a negative period (1970 to 1990) can be observed in the population dynamics. After 1990 a small growth in the rural population can be identified. In general, population growth related to 1950 ranges between 121-125 %. The highest relative share of the rural population was registered in 1970, with 28 % more than in 1950. The proportion of village people decreased until 1996. Since then it has began to increase and has stabilised at 54 %.

The population increase between 1950 and 1970 is explained, first of all, by the natural increase of the village population numbers which totally outnumbered the migration flow. Recent stabilisation and increase in population numbers in villages occurred due to the following factors:

- a decrease in intensity of migration of the rural population;
- return migration of village-born unemployed after the closure of big factories;
- the natural increase of urban population number has fallen.

It is difficult to count all the migrants in a country because not all states can do this and the counting methods are different. The scale, character and direction of population migration are a direct reflection of evolution, of territory position, of production and direction of economic development. The migration of the population as a domain of demography and geography is widely reflected in many sources. However, these materials are not used to help solve countries' main problems. This explains why nowadays there are no permanent and thorough analyses of evolution and changes of demographic indexes. Moreover, there is neither a scientific concept nor a state policy with respect to migration in the Republic of Moldova.

Economic changes affecting the workforce lead to intensification of migration of the population and to the creation of specific directions. This explains why the

changes which occurred in the production power of the Republic of Moldova (intensive development of industry and agriculture specialisation) had an enormous impact on the intensification of the migration process as well as the generation of new directions of Moldova's population migration.

Since the declaration of independence (August 27th 1991) and after the period of transformation to a market economy, the character of migration intensity and the directions changed fundamentally. This can be explained by social, economic, demographic and political factors. Profound changes in migration processes occurred both in qualitative and quantitative terms. In the absence of state control, the volume and structure of migration has changed, including illegal migration.

We can identify a specific pattern in the population migration dynamics in the Republic of Moldova during 1990-2001:

1. A fall in the total number of migrants in comparison to earlier times (see table II/1-14).

Table II/1-14 Population migration in the Republic of Moldova

Year	Immigrants ('000s)	Emigrants ('000s)	Sum total of immigrants and emigrants ('000s)	In % of 1985
1985	189.9	171.4	371.3	100.0
1990	156.0	162.7	318.7	85.8
1995	61.0	78.1	139.1	37.4
1996	57.4	73.9	131.3	35.3

As shown in table II/1-14 the sum total of emigration and immigration has fallen considerably in recent years.

The decrease in migration numbers is specific to all directions, but we can distinguish the following:
More then 2/3 of all migrations relate to people in urban areas.
The flow of migrants from villages decreased. From 1985-1989 there were 768,300 migrants, but in 1991-1995 there were 376,900 people. The total volume fell by half.

2. A drop in the intensity of migration of the population in large numbers (see table II/1-15)

Table II/1-15 Intensity of emigration

Period	Intensity of emigration (% of total population)	Rural	Urban
1985-1989	8.7	10.8	6.9
1990-1994	5.5	6.9	4.3
1995-1999	3.3	-	-

As shown in table II/1-15, the drop in migration intensity applies to both rural and urban inhabitants. However, in rural areas the intensity of migration is some 1.5 times lower. The explanation is that the number of people increases faster than the number of urban migrants. The intensity of migration fell from 8.7 % in 1985-1990 to 3.3 % in 1995-1999. During this period there were more urban than rural migrants.

3. Migration flows of population in the Republic of Moldova refer to both internal and external migration. The indexes and the relationship between the flows of migration have also changed (table II/1-16).

Table II/1-16 Internal and external migration of population of the Republic of Moldova

Year	Urban area			Rural area		
	Total	Internal	External	Total	Internal	External
1990	100	56.4	43.6	100	53.5	46.5
1995	100	58.6	41.4	100	74.3	25.7

We can thus conclude that the main flow of migrants is within the Republic. The same is true for external migration from urban areas.

4. During the entire post-war period the external migration of the population of the Republic of Moldova was predominantly directed towards the ex-soviet republics. Such movements represented about 98-99 % of the total volume of external migration, and 50-55 % of the total number of migrants (with the level of internal migration - table II/1-17).

Table II/17: Main directions of population migration ('000)

Year	Internal migration ('000s)	Migration to ex-soviet countries ('000s)	Migration to other countries ('000s)	Unknown Direction ('000s)
1990	177.8	97.8	14.9	28.3
1991	154.6	83.4	23.5	21.2
1992	138.3	86.5	9.0	1.8
1994	88.8	46.4	5.7	0.7
1995	89.8	43.0	5.5	0.8
1996	86.6	39.8	3.9	1.0

As the data show, the relative high level of migration to the former USSR has remained, though in general it has fallen considerably in recent years.

It should be mentioned that the importance of Russia and the Ukraine as the main countries of destination and origin has remained and even increased in recent years (see table II/1-18).

Table II/1-18 The dominance of Russia and the Ukraine in the international migration of the Republic of Moldova

Countries	1990	1995	1996
Total	100.0	100.0	100.0
Russia	53.6	58.7	57.0
Ukraine	38.5	35.6	38.3
Other countries	7.9	5.7	4.7

While in 1990 the migration flows with Russia and the Ukraine constituted 92.1 % of the total migration in the Eastern direction, in 1996 the respective figure had risen to 95.3 %. Simultaneously, migration to other former allied republics fell.

After the disintegration of the USSR the directions of external population migration of the Republic of Moldova changed. As a result new western directions of migration appeared which have occupied an important place in the external migration. The basic migration flows were directed to the countries of Western Europe, Northern America and Asia (mainly to Israel). Among the countries with high coefficients of population migration are Germany, Israel and the USA (table II/1-19).

Table II/1-19 Destinations of permanent emigrants*

Countries	1990	1995	1996	1997	1998	1999
Total migration from the RM	16,776	5,432	4,720	5,503	4,783	6,318
including:						
Australia	48	43	33	8	6	-
Bulgaria	-	3	8	42	45	19
Canada	178	47	48	61	32	100
Germany	634	1,625	1,286	1,419	1,406	1,258
Greece	3	5	1	3	2	-
Israel	15,230	2,266	1,762	493	784	1,338
Romania	2	7	7	28	15	-
USA	672	1,379	1,482	1,314	1,350	1,241
Others	8	46	84	422	1,137	-

*according to Ministry of Internal Affairs data.

The official statistical data on population emigration from Moldova do not reflect reality. In the early 1990s unregistered migrants might have constituted an insignificant number of officially registered emigrations, but their share has certainly increased considerably since then.

We must point out that tourist trips from Moldova to foreign countries have increased significantly. Nowadays, more than 30 private tourist firms organise trips abroad. Many of these 'tourists' stay abroad and do not return.

It is difficult to estimate the number of persons who (illegally) left the country. In different sources this figure is given as between 400,000 and 800,000 people.

There is no state migration policy presently available, although the Department of Migration exists and a law on population migration has been drafted. The absence of a coherent migration policy is felt to be one of the main social, economic and demographic problems.

Rural migration represents an essential part of all migration processes in the republic, and had a separate impact during the economic and social reforms, ostensibly because the rural population makes up 53 % of the population of the country as a whole.

During previous decades, under conditions of rapid urbanisation, rural migration was underestimated, though it was a valuable source of working resources for all branches of the national economy of the Republic.

Nowadays, migration reduction is characteristic for the rural population migration dynamics. Before 1990 around 100-120,000 people were registered annually. Between 1996-1998 years there were only 50-60,000 acts of migration. That means that the volume of migration has fallen by more than half (table II/1-20).

Table II/1-20 Rural migration dynamics of the Republic of Moldova

Year	People arriving	People leaving	Total arriving and leaving
1990	69,675	73,965	138,640
1991	57,400	60,979	107,346
1992	41,323	44,664	85,987
1993	37,812	37,691	75,503
1994	26,486	31,910	53,396
1995	24,028	29,144	53,172
1996	22,040	28,078	40,118

With respect to rural migration dynamics we can outline the following features:
- reduction of volume and intensity of migration;
- migration flow from village to city exceeds coefficients of the migration flow from city to village;
- as the result of this migration flow modification, urban population numbers increased while rural numbers fell.

Migration processes have had an impact not only on population numbers but also on the social, economic and particularly the demographic structures of the rural population. As a result of this impact the structure of the rural population has frequently worsened and had negative consequences, namely:

1. Analysis of the age structure of migration flows show that 70-75 % of the migrants from villages stem from the 16-29 age group. As a result, in many villages and districts of the Republic the proportion of the over-60 age group is rather high. According to the population census of 1989, the elderly represented 33 % of the population in Briceni district, in Ocnița 37 %, and in Donduşeni 38 %.
2. Disproportion in sex structures of the village population. In migration flows of rural places men make up the majority. As a result, due to the higher death rate among men, women in villages constitute 52.3 % (1988), and in several districts this coefficient is even higher, the general trend increasing.
3. Depopulation of many cities. While in Russia, Great Britain and the Ukraine it is an old phenomenon, for the Republic of Moldova it is a new concept. Taking into account agricultural specialisation of the Republic, it can have a negative influence on economic potential. Therefore, in the period 1979-1989, in many villages and cities the population decreased by 15-25 % of the total number. This is the result of the high death rate and of migration outflow of the population.
4. Outflow means the rural population loses its most highly skilled staff. Rural employment is unattractive, badly paid and rare: qualified staff can no longer find employment in the countryside, for instance, in the public service sector (schools, hospitals, libraries etc.).

2 Labour Market

The main feature of the previous development period was the tendency of the numbers of the economically active population to grow. In the 1980s the proportion of people engaged in the national economy grew. According to the population census in Moldova in 1989, 49 % of the population were engaged in the national economy. At the same time, employment was 88.6 % of the working age population. The majority of the working population (75-76 %) was engaged in material production.

Economic development as well as scientific and technical progress are the main conditions for the significant redistribution of the working population between material and non-material production.

Transition to the market economy has created new conditions for the use of society's labour resources. New concepts for the use of labour in society have thus evolved.

The following characterise this period:
- the notion of "full employment" lost its meaning ;
- significant redistribution of the working population between material and non-material production took place;
- a new concept "unemployment" appeared which was unacceptable in socialist times;
- qualitative transformations of the type of work towards higher productivity.
- expansion of different services that lead to an increase in the options for finding a job depending on the level of skill as well as desire;
- the labour market has become a real market, accompanied by all the economic and social mechanisms required by the market economy.

The transition period to the market economy in the Republic of Moldova has appeared hard and inconsistent. Many economic, political and geographical features of the Republic of Moldova have to be seen in the light of the Republic's heritage, namely:
- narrow economic specialisation of economic branches;
- complete absence of mineral resources (except building materials);
- the economy was focused on the single market of production (industrial and agricultural) in the East and in Russia;
- low requirements regarding quality of end products (except for military).

The economic development of the Republic in post-war years lead to the formation of the defined type of thinking concerning development and the allocation of industrial investments. The socio-economic development of the socialist countries of socialism (especially Ex-USSR) was founded on the following features:
- governmental administration of all social and economic processes, including prices for all kinds of production;
- centralised distribution of all kinds of resources and capital investment, in times of complete isolation from the external market;
- complete absence of the private sector, therefore a complete absence of a management culture ;
- all social security expenses used to be paid out of the state budget.

All these features also have defined complexities of transition to market economy with a deep and long economic crisis covering all kinds of activity of the society. The transition period negatively influences the population as a whole, particularly the labour resources.

The Republic of Moldova as a member of the ex-USSR was considered a region rich in labour resources. Characteristic for the post-war years is a significant increase in workers with a high level of education and qualification. In the 1970-1987 period the number of the experts with a higher education increased by a factor of 2.6, and with the average professional education by 2.2 respectively. One of the results of closing all industrial enterprises of the military complex, significant reduction of production of other industrial enterprises, the closing of collective farms, state farms and inter-economic associations, is the release of a glut of labour resources. All this has resulted in a rise in the numbers of unemployed. The low wages and lengthy delays in the payment of these wages have resulted in many teachers in village schools, medical workers, and also workers in libraries and other cultural establishments giving up their jobs.

According to various sources the number of Moldova's citizens working abroad is estimated as being as high as up to 1 million. Such figures may be exaggerated to some extent, but in fact the numbers of the population working abroad might even be even greater. In certain rural districts these figures are very high indeed. For example, according to the data of the Mayoralty of the village Corjauti (Briceni district), more than one thousand out of 6,600 inhabitants work in France. Most these migrants left with their families.

Traditionally, in all ex-soviet republics the retirement age was 60 years for men and 55 for women. Certain groups (e.g. service members, police officers, state security employees, pilots, and many others) could retire earlier.

In January 1999 new legislation on the retirement age in the Republic of Moldova became effective. According to the new law the retirement age for the men was 65 and for women 60. Moreover, the numbers of those who kept their privileges on dropped significantly. The key feature of the law is that the transition to the new retirement age will occur gradually over a period of 10 years (till 2010). Thus, the number of the those able to work has increased by one 5-year group, leading to substantial growth in the volume of labour resources, and consequently to a reduction in the numbers of those of retirement age.

Ironically, the increase in the official retirement age coincides with the drop in average life expectancy in recent years. The last ten years (after 1990) witnessed a fall in the life expectancy of the population, especially of men in rural areas. After 1985 the life expectancy of such men did not exceed 63. The highest ages were registered in 1990 (63.4 years) and in 1993 (62.8 years), but in 1995 they had fallen to 60.7 years. Thus, it is difficult to welcome such a law, which will make it more difficult to maintain socio-economic standards in villages.

The educational standards of the population and the qualification of workers play a key role in the formation and use of labour resources. Improvement of educational standards is crucial for the development of society. However, educational standards differ considerably in the various social, economic and demographic groups of the population. Detailed analysis of the development and changes in educational standards is therefore necessary. Prospective development relies on

achieving improvement of educational standards and material production respectively.

The formation and qualifications of labour influence production in any state. Productivity depends directly on the educational level and qualifications of experts in every sector of the national economy. A qualitative basis for many socio-economic parameters is the educational standard. The Human Development Index used by UN bodies is based on four indicators, two of which are related to education (the educational standard and the level of participation in the education system). The importance of the formation of human capital is scientifically proven and globally recognised. On a global scale the social demand for education is growing constantly. The education system has therefore become a key factor in the social policy of every country.

The Republic of Moldova features a rather high human potential, which is defined not only through quantitative but also through qualitative indicators, which include the educational standard, degree and quality of formation, duration of training, recognition of qualifications of the experts with diplomas both in the countries of CIS , Europe, and the rest of the world. According to statistical indicators of the population education is considered positive.

The system of education in the Republic of Moldova includes primary, secondary and tertiary levels.

Primary and secondary level are compulsory. The educational system is oriented towards private educational institutions at all levels (table II/2-1).

Table II/2-1 The education structure in the Republic of Moldova

	1990-1991		1999-2000		
Type of school	Number of schools	Number of students ('000s)	Number of schools		Number of students ('000s)
			Public	Private	
Total schools	1,837	907.7	1,746	59	770.9
Including:					
Primary, secondary and higher schools	1,664	743.5	1,565	20	645.2
Middle professional schools	114	59.4	83	3	23
Vocational high schools	50	50.1	57	10	25.4
Higher educational schools	9	54.7	43	26	77.3

As shown in table II/2-1, the main directions of the dynamics of the educational system between 1990-2000 were the following:

- a drop in the total number of educational institutions from 1,837 to 1,746, or 5 %;
- this decrease is related to regular and middle professional schools only;

- the number of students has fell from 907,700 to 770,400 or by 15.1 %, a significant part of which refers to middle professional schools and vocational high schools;
- the increase in the number of vocational high and higher educational schools, a significant increase being characteristic for the latter. 26 out of 34 newly founded higher educational schools are private;
- the increase in the number of students in the higher educational schools. This increase is not determined on account of the increase in private schools only, but mainly on account of the increase in the number of public schools.

Today, the educational system is undergoing reform and diversification and orientating towards Western standards. The changes taking place in the economy of the Republic require a new approach to the training of specialists. The transition from a planned to a market economy to the market one required significant changes in professional qualifications. The evolving labour market that is being formed demands qualitative changes in specific professions, as well as a new attitude towards professional training. There is a need for substantial investment in human capital not only from the government but also from entrepreneurs and private economic entities. There are two parallel ways of paying for education: state grants and individual payments (49 % of students in higher educational schools pay for their studies). State investment in human capital in the Republic of Moldova is being constantly reduced because of economic crises and a state budget deficit. Expenses on education were 4.7 % of GDP (1999), compared to 10 % in 1997. The state expenses per student amount to some 220 US-$ per year – which is much less than in developed countries. For example, in France these expenses total 6,569 US-$, in Sweden 13,168 US-$ and in the USA 16,262 US-$. More and more trained specialists with higher education degrees leave the country searching for better-paid jobs, often taking jobs for which they are over-qualified.

During the transition period the labour market underwent enormous changes. The planned economy stimulated the development of certain sectors of the economy to the detriment of others. The number of trained specialists in the technical and agricultural sectors greatly exceeds the number of specialists in the third sector of economy. Starting in the 1990s, the trend to move qualified specialists into other sectors of the economy is evident. Law and economics became the most popular subjects. In 1999, out of 9.5 thousand graduates of higher educational schools 23 % majored in economics, and the four most popular subjects (economics, law, medicine, and philology) took up 56 % of the total number of graduates. A positive change in higher education trends can be seen. There is an increase in the demand for professionals in the private sector, which makes up 68.4 % of the total working population (2000). The Republic of Moldova has a large intellectual potential, capable of performing the transition towards the market economy. Nevertheless, the Republic lags behind developed countries by some indices of human resources. Just 217 out of 10,000 people are currently enrolled as college students; in Russia, this figure is 279. 25 % of the working-age population holds a degree in higher education, which is much less than in many developed countries.

The development level of the country and its economic specialisation determines the distribution of labour resources among the sectors of its national economy. Each sector requires its own qualified work force.

The ratio between productive and non-productive spheres is one of the most important factors for the national economy, which determines the distribution of labour resources among the sectors.

Socio-economic and political transformations in the Republic of Moldova during the last decade had a considerable impact on the branch distribution of the employed population.

Table II/2-2 Distribution of employed population by sectors

	1990	1995	1999	1999 to 1990 (%)
Employees (total)	100	100	100	-
Agriculture	32.7	46.1	48.8	149
Industry	22.0	11.9	10.7	49
Transport and construction	13.7	8.2	7.6	55
Trade and public catering	7.2	9.8	9.0	125
Science and education	12.8	11.6	9.2	72
Health care	5.6	5.8	5.4	96
Public services	2.7	2.8	2.6	96
State administration	1.5	1.7	3.3	220
Other branches	1.8	2.1	3.4	190

It is evident that between 1990-1999 the rate of employment in agriculture increased considerably, but in industry, transport and construction it fell by 50 % compared with 1990. There has been a considerable increase of employment in trade, state administration and new sectors such as financial services, real estate operations, etc.

The economic changes in the period of transition affected standards of living and the social security level of the population. The economic misbalance was accompanied by deep economic crisis that led to massive redundancies in industrial and agricultural enterprises. As a result, a new problem has appeared – unemployment. Another characteristic of employment dynamics in the transition period is the fall in the rate of employment in public production (table II/2-3).

As the 1994-1999 statistics demonstrate, the numbers of employed in the population dropped from 1,681,000 to 1,495,000 people, or by 186 thousand. It is important to mention that this is the minimum indicator, since the majority of the employed population were not made redundant but were sent unwillingly on unpaid leave, the evidence for which is not registered.

Table II/2-3 Distribution of the population according to economic activity (excluding the left-side of the river Dnister and the city of Bender)

	1994		1999	
	'000s	%	'000s	%
Entire population	3,608	100.0	3646	100.0
Including:				
economically active population	1,696	47.1	1682	46.1
Employees	1,681	46.1	1495	41.0
Un-employees	18	0.5	35	5.1

Source: The statistic almanac of RM; 1996, p.125; 1989, p. 106.
Due to a lack of data of the whole Territory of the Republic only the indicators for the right side of the river Dnister are analysed.

Another peculiarity of distribution in the working population is the drop in the numbers employed in the public sector of the economy and the increase in number and proportion of employees in the public sector (table II/2-4).

Table II/2-4 Employment in private and public sectors

	1994		1999	
	Population ('000s)	%	Population ('000s)	%
Employees (total)	1,681	100.0	1,495	100.0
including:				
Public	680	40.4	382	25.6
Private	995	59.2	949	66.8
Public-private	6.0	0.4	114	7.6

During this period the number of employees in the public sector of the economy fell from 40.4 % to 25.6 %, while the private sector witnessed an increase from 59.2 % to 66.9 %. The numbers employed in public-private enterprises have also increased considerably.

The main source of unemployment formation was the mass dismissal of employees in industry, especially in the military complex. The majority of the unemployed are involved in disorganised trade, although some of them are actually busy, working in other countries, such as Russia, Turkey, Israel, Germany, Spain, Portugal, etc.

In fact, larger numbers of unemployed do not register at the employment agency. As a result, the registered number of unemployed is very low (around 35 thousand people), while other sources suggest more then 257 thousand[25]. An alarming fact is that a large number of young people are unemployed. Statistics show that

[25]Raportul National al Dezvoltarii umane, Chisinau, 1997, p. 53.

around 50 % of the unemployed are younger than 29 years of age, including those 35 % in the 16-24 age group[26].

3 Agriculture and ecological problems

Agriculture in the Republic of Moldova is the basic branch of production. Between 1970-1980 agriculture contributed 34 % to the national profit and 25 % of the overall social product of the country. Almost 35 % of the employed population was engaged in agriculture. Taking into account agriculture production enterprises, the agro-industrial complex reaches 60 % of national profit production. Nowadays, the agro-industrial complex employs more than 54 % of rural inhabitants (peasants) or 42 % of the total employed national work force.

Today, agriculture in the Republic of Moldova is going through a period of transition. However, the process of transition, and thus privatisation, is developing slowly, with important territorial differences:

- in the central zone the land fund is private and small peasant farms are in operation, only in a very few cases do these peasants farms unite;
- in the north zone the land fund is divided between social farms, but in some cases the old farms are maintained with changes just of name and administration;
- in the south zone old farms were kept with insignificant changes in administration.

The main characteristics of agricultural development in the period of transition are:

- A drop in the volume of agricultural production. In 1996 the volume of agricultural production had fell by 50-60 %, and livestock by 50 %. In 1997 a small increase (10 %) was registered, followed in the next years by further decreases. Thus, from 1997-2000 the volume of agricultural production fell by another 23 %.
- The structure of farms is undergoing significant change. In the years of reform 131,000 farms were created (according to Annual Statistics of Moldova 1999). At the same time the number of state enterprises was reduced. Officially, 72 state farms remained intact in the Republic (as opposed to 400 in 1990) and 60 collective farms (as opposed to 534 in 1990).
- A significant drop in the volume of agricultural enterprises' and farm production was registered. In 1999 agricultural enterprises produced only 42 % of the overall volume of output they produced in 1996. At the same time, the volume of output of farms increased by 125 %.
- Between 1995-2000 an increase in livestock production was registered. In 2000 this was 35.6 % and 64.4 % respectively.
- Between 1990-1999 the volume of cereal production rose by 24-25%. At the same time the most important sectors in the economy, which have a strategic role, lowered their production volume. Thus, for example, the volume of sugar beet production fell by 32 %, vegetables by 45 %, or tobacco by 45 %.
- An important increase was registered in exports of agricultural production. In the past years agro-industrial production exports contributed 70 % to all exports from the country.

[26] Raportul National al Dezvoltarii umane, Chsinau, 1997, p. 53.

A positive factor is that the volume of exports to European countries is growing year by year.

In the years to come the fundamental problems and directions of agricultural development will be as follows:

- a land market must be established, including sound legislation;
- processes leading to the creation of associations and co-operative societies must be stimulated, including the establishment of economic agents in the agricultural sector;
- land reform in the villages must be speeded up and completed soon;
- agricultural producers must have access to financial services, including credits and loans;
- agricultural enterprises should get re-organised, whereby the requirements of international markets should be taken into account;
- structures should be developed which provide producers with goods such as fertilisers and equipment.

In comparison to other European countries the Republic of Moldova is characterised by a high level of utilisation of land resources. Some 70 % of the country's territory is used intensively, including 1,658,000 ha of arable land. In comparison, in Romania only 62 % of the total land surface is made up of arable land, and in Russia just 13 %.

The intensive use of land resources produces ecological problems; one of them is a high specific percentage of eroded ground. Eroded surfaces compose more than 80 % of arable land. There is also a high level of pollution in ground resources due to heavy usage of fertilisers and herbicides. Furthermore, the Republic of Moldova is known for other factors that influence the ecological conditions of the environment.

These include the following:

- A high specific proportion of territory prone to landslides, making up almost 60 % of the country's territory.
- A high population density. The average density of population is 127 people per km^2 .
- Use of problematic slopes, resulting in erosion and mass movement.
- Reducing hedgerows, which protected rural farms.

The basic issues and approaches to address the negative consequences of ecological pollution are:

- ensuring ecological measures in the privatisation of the land fund process, elaboration of national and district programs for soil protection, and increase of crop capacity;
- elaboration of land character and map drawing for ground resources that need protection, improvement and other measures;
- elaboration of measures that will improve the humus resources in the soil;
- elaboration of measures that are to stop the usage of land which is prone to landslides, erosion and other negative processes;
- elaboration of a system to monitor basic ecological dynamics of the natural environment.

4 Political situation

Fundamental changes and reforms have occurred during the last ten years in the Republic of Moldova. Some of the most important events, earmarking the Republic of Moldova's specific situation, were the following:

1. Just after the declaration of the Republic's independence the communist party was prohibited. However, successive legalisation has lead to its reorganisation and recovery. As a result it has once more become one of the most popular parties in the Republic. This was highlighted by the last parliamentary election when the communist party's members obtained some 70 % of the vote. Thus, the communist party has become the leading power once again. All power structures (legislative, executive) are held by representatives of the communist party. Factors for this party's popularity are its attractiveness among the elderly and some ethnic groups (in particular Russians), as well as the failure of economic and social reforms under the auspices of the former Parliament and Government.
2. The formation of a number of new political movements. Lack of experience in the political discourse resulted in the fact that many parties united only for the period of the preliminary ballot, and later on they dissociated until the next election. The struggle for power within the parties lead to the dissolution of many of them. This is why two parties function in the Republic of Moldova; the Communist Party and the Popular Christian Party. The role of certain parties in different regions of the country is quite difficult to judge. Generally, the democratic movement is supported in the central zones, but in the South and in the North communist party influence prevails.
3. An important political issue is the territorial division of the Republic. A new administrative unit called the "Gagauz Republic" came into existence when political reforms failed in southern parts of the Republic of Moldova in 1991. It comprises areas settled by ethnic Gagauz people, e.g. parts of the districts of Comrat and Ceadîr-Lunga as well as certain areas of Taraclia and Cahul counties. With a total area of 1848 km^2 it has a population of less than 160,000. As a whole, it includes three urban centres and 32 rural areas with the administrative centre in Comrat.
   The most difficult political problem in the Republic of Moldova is its relations with the territory on the left-side of the river Dnister and the city of Bender (on the right side of the river Dnister). After military conflicts organised by representatives of the Russian Army and from Tiraspol in 1991, an autonomous administrative unit was founded, which is practically separately managed both politically and economically. Not all attempts by the RM administration and neighbouring countries to solve this problem politically were successful. As a matter of fact, the "Pednestrovian Republic" has a separate educational system, its own powerful army, and its own currency and heraldic symbols as well as some 40 % of Moldova's former industrial potential.
4. Important achievements have been made in democratisation. According to its structure and political governing, Moldova has become a parliamentary republic. The Legislative Body of the Republic consists of 101 deputy's representatives of all the parties that received at least 5 % of the vote. At present, the structure of the Legislative Body is as follows: 70 % is represented by the communist party, 20 % are the representatives that support the former prime minister, and National Christian Party members constitute about 10 %. The

Legislative Body is elected for 5 years. The president of the Republic of Moldova is elected by Parliament. The president in power at the moment is the former first secretary of the communist party. The Executive Body is formed by the parliament according to the proposal of the president.

5. An acute political problem in the Republic of Moldova is the issue of the state language. Moldova is a multi-ethnic state. According to the last census (1989) the main nationalities were represented as follows: 64.5 % Moldovians, 13.8 % Ukrainians, 13.0 % Russians, 3.5 % Gagauzes, 2 % Bulgarians, 1.5 % Jews. In 1989, the Romanian language was declared as state language, later confirmed in the Constitution. The majority of Russians were dissatisfied, claiming to accept Russian as the second state language.
6. An important topic in political reform is adoption of the law concerning the territorial division of the Republic of Moldova. Until 1998 the Republic was divided into districts. There were 40 rural administrative regions and ten urban administrative units. The total area of the regions covered between 500 and 1300 km^2 and a population of 41,000 to 87,000 people.
   Since 1993 a new administrative division project has been elaborated. As a result, today the entire territory is divided into ten countries, two autonomous units and ten municipal authorities. By size these administrative units differ enormously. For instance, 505,000 live in the district of Bălți while in the Taraclia district there are just 46,400 persons.

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in Verbindung mit Prof. Dr. Hans-Joachim Bürkner (Erkner/Potsdam)

Federführender Herausgeber: Prof. Dr. Wilfried Heller

Schriftleitung: Dr. Waltraud Lindner

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