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## The Opportunities of Agglomeration Development for the Rise in Living Standards of the Population of Non-Urbanized Territories

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*The article represents the results of researches of the living standards of the population of the Krasnoyarsk agglomeration municipalities as a model of rise in the resource opportunities for the population, such as to application of labour and skills, creation of comfortable housing conditions, getting educational, medical and social services.*

*Keywords: the Krasnoyarsk agglomeration, standard of living, poverty rate, unemployment level, housing conditions, education, public health, social service and social security.*

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### Introduction

Good level and high quality of life of the population are the main conditions for development of the human potential and factors of social-economic development of the Krasnoyarsk Krai. The limitations in labor resources play the key role when executing large investment projects in the territory of the Krasnoyarsk Krai. Therefore, the priority objective of the formation of the Krasnoyarsk agglomeration is to create favorable conditions for development of the labor resources via achieving new quality of the social standards of living. The territory of the Krai is characterized by the significant

asymmetry of the social-economic development of the urbanized and non-urbanized territories. The agglomeration model is represented by the integrated social-economic and investment space with the common system of social, transport and engineering services and improvement of environmental structure.

All the municipalities follow the same scheme of development and inhabitants of different zones of the agglomeration can easily get access to labor, medical, educational, trading, cultural and other possibilities.

It should lead to the growth of welfare of the population, to the increase of the possibilities

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of educational and professional self-realization and, at the same time, retain the advantages of living in villages and towns that allows to reduce migration outflow of the population and to increase the concentration of the well-qualified personnel.

The authors marked three main directions of an assessment of standard of living of the population of the municipalities of the Krasnoyarsk agglomeration: 1) the possibilities of application of labour; 2) providing conditions of comfortable habitation; 3) getting education, medical services, social security.

The first direction includes the analysis of salaries, poverty and employment of the population; the second – the aspects of construction and the maintenance of housing, development of the transport system; the third – providing educational, health care and social security services. The analysis of the standard of living of the population of the Krasnoyarsk agglomeration was carried out in the aforementioned directions over a period from 2004 to 2011.

#### **Tendencies in the living standards of the population of the agglomeration**

**Steady growth of the income of the population.** As for per capita income and an average salary the Krasnoyarsk Krai is the obvious and steady leader among the other regions of the Siberian federal district over years. Its break was so big, that the leadership wasn't lost even during the world economic recession in 2008 – 2009 during the dramatic reduction of income. During recession in the city of Krasnoyarsk the real monetary income per capita fell by 6.5 %, in the Emelyanovsky district – almost by 20 %, in other municipalities of agglomeration the decline was about 2 %. The average growth of the monetary per capita income of the population of the agglomeration is about 8–12 % a year, except the period of recession.

#### **The main direction in the increase of the population income is increase of salaries.**

The monthly average nominal salary in the agglomeration increased 4.25 times for the considered period, that is slightly lower than the growth in the Russian Federation (4.3 times), but exceeds growth in the Siberian federal district (SFD) (3.94 times) and in the Krasnoyarsk Krai (3,5 times). Intersectorial and territorial differentiation in the level of salaries remains high, though tends to decrease in the recent years. The salary in the sectors which work directly for formation and development of the human potential – in education, health care, in the sphere of different social services had a tendency to match to the average sectorial value. It made no more than 55 % in 2005, but it was about 80 % in 2011. The highest salaries, which were almost 1.5 times larger than the average one in the agglomeration, were paid to the people who work for financial sector and in real estate sector, and who constitute about 10 % of the employed.

The level of an average salary in agriculture is about 60 % of the average salary in the agglomeration. The wage in the centre of agglomeration, the Krasnoyarsk city, is 1.5-2 times higher than in its periphery. The lowest salaries are in Sukhobuzimsky and Mansky districts. It is also caused by the structure of employment of the population according to the types of economic activity. In non-urbanized territories a very high percentage of the population are employed in agriculture.

#### **Decrease in an unemployment rate.**

The possibilities to increase the income of the population depend on a situation on the labor market, where unemployment rate is one of its indicators. The unemployed rate in labor force decreased almost twice (from 12.9 to 6.7 %) for the considered period. The largest unemployment rate was in 2009 as a result of the world economic recession. In the post-recession period the

number of unemployed in the agglomeration was reduced and in 2012 it makes 96 thousand people. Among the unemployed in the agglomeration, the number of young people is approximately 2 times less, than in Russia and in the Krasnoyarsk Krai. Share of continuous unemployment is much lower also than average Krai and average Russian levels. The share of long-time unemployment makes 22.3 – 32.2 % in the Krai and 28.7 – 36.7 % in Russia for the considered period, whereas in the agglomeration this indicator doesn't exceed 10.0–16.1 %. Thus, rather favorable situation with unemployment in the Krasnoyarsk agglomeration is caused by high business activity, especially in the centre of the agglomeration, and rather multifold opportunities for the realization of the work capabilities of its inhabitants.

**Steady leadership according to the rate of the population income among the regions of the SFD and the municipalities of the Krasnoyarsk Krai.** The rate of poverty level in the Krasnoyarsk agglomeration is lower than average in the Krai and the SFD. Salary disproportions in the economic sectors and unemployment, as well as other reasons are the causes the low income of

a part of the population. The share of the poor population in the total number of the population of the agglomeration, whose income is lower than the minimum wage, was 16.2 % in 2011 (in the Krasnoyarsk Krai – 18.6 %, in the SFD – 17.9 %, in the Russian Federation – 12.8 %). Since 2005 this indicator was reduced by 5 %, whereas in Krai it decreased only by 3.5. Asymmetry in the development of the labor market of the agglomeration, difference in the material welfare of the population of the urbanized and non-urbanized areas still cause the higher level of poverty rate in the territories, which are far from the agglomeration centre. The largest number of the poor population live in Sukhobuzimsky and Mansky districts (Fig. 1), the poverty rate reaches its lowest values in the agglomeration centre, the Krasnoyarsk city.

**Steady increase of the housing stock areas.** Favorable living conditions require separate accommodation for each household, with separate rooms for each member of the family, which type and quality should correspond with the tendencies of demand. Indicators of the total area of the premises, which an average inhabitant has, in the

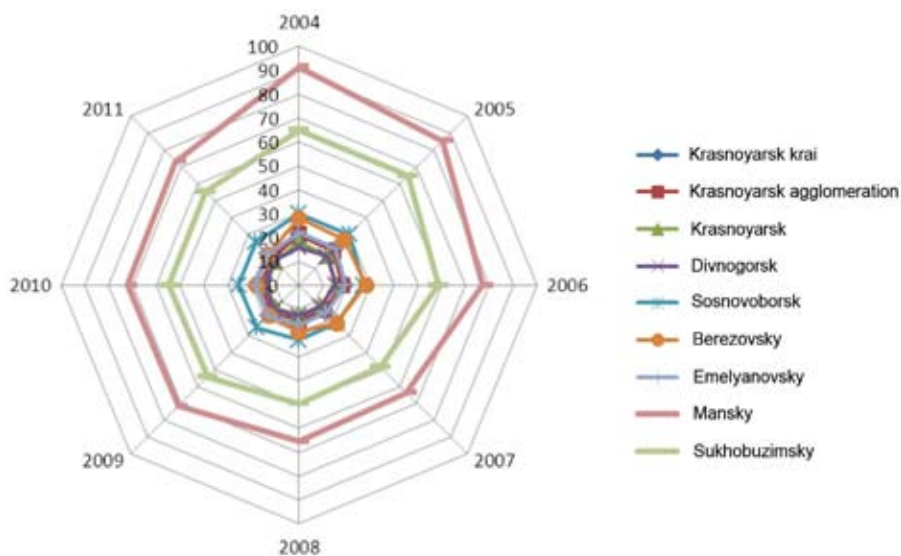


Fig. 1. Dynamics of poverty rate in the Krasnoyarsk agglomeration [according to the data of Krasnoyarskstat]

Krai are the highest in the agglomeration, and steadily increase. Thus, the total area of premises in the average per one inhabitant grew from 16.3 sq. m (2006) to 18.0 sq. m (2010) and this indicator is higher, than in the Krai (in 2006 – 6.9 sq. m, and in 2010 – 8.0 sq. m). The annual increase of the housing stock areas of the agglomeration makes from 2.3 to 4.9 % with asymmetry in the territories. The highest speed of construction among rural areas are in Emelyanovsky district, among the cities and towns – Krasnoyarsk and Sosnovoborsk. The share of the Krasnoyarsk city is about 63 % of the volumes of housing taken into use in the Krai. In the recent years the population prefers more spacious apartments. Thus whereas the average area of the apartments taken into use in 2007 – 2009 was 40.7 – 43.1 sq. m, in 2008 – 2010 it was 68 – 72 sq. m of the total area. Krasnoyarsk builders realized that the comfort of accommodation depends not only on convenience of the apartment, but also on how the area, surrounding a block of flats is planned and landscaped, on existence of the necessary infrastructure and parking places, thus, from construction of the separate houses the city gradually came to complex building of the residential districts.

**Development of the combined, mixed system of building of the residential districts.** Nowadays in the territory of the Krasnoyarsk agglomeration construction of low-rise buildings is carried out on 21 platforms (the area of building of 1007 hectares) at the expenses of investors: in Krasnoyarsk (4 platforms – 46 hectares), in the Emelyanovsky district (13 platforms – 703 hectares) and in the Berezovsky district (4 platforms – 258 hectares). The expected take into use of the low-rise buildings will constitute 800 thousand sq.m till 2015, the area of one dwelling unit is from 80 sq. m.

**Increase in the cost of housing and cost of land.** The prices for square meter of housing

in agglomeration increased more than twice since 2006. Despite the fact that in the cities the square meter of housing is more expensive, in non-urbanized territories its growth rates are higher. Only for the last year the average cost of apartments in rural areas increased by 98 %, in the cities by 13 %. Increase in the cost of housing shows the existence of demand which raises because of availability of the mortgage lending. In 2010 about 50 % of housing was bought by the mortgage and “the parent capital”. One year earlier the same indicator didn’t exceed 40 %. The same amount in separate housing complexes constitutes the apartments which were bought by the share equity participation contracts. Increase in the cost of the square meter of housing is a characteristic of economically developing territories attractive for the labor migrants.

**The priority reconstruction of the built up territories of the agglomeration.** There is a differentiation in the level of the municipal improvement and quality of housing and communal services between the urbanized and non-urbanized territories of the agglomeration. The number of shabby and unfit housing facilities grows in the total area of all housing stock of agglomeration. If in 2006 it was 1.98 %, in 2010 it increased up to 3.69 %. On the average 4.17 % of the families in the agglomeration are registered as waiting for the improvement of living conditions. The share of housing and communal services in the structure of expenses of the population is increasing. Wear of the fixed assets of the systems of engineering support of the municipal complex (by systems: heat supply system – 52.0 %; water supply – 63.5 %; sewerage – 75.0 %) causes more than 23.3 % losses in the networks and, respectively, overexpenditure of the energy resources and reagents, that causes the increase in tariffs for housing and communal services. Due to implementation of the programs of reforming

of the housing and communal services by 2020 they predict almost 2 times decrease in a share of shabby housing and growth of the volumes of municipal and housing services. Restructuring of the funds formation to the mixed financing and formation of the fund of assistance to the reforming of the housing and communal services will allow to carry out works on major maintenance in the territory of the agglomeration and to implement actions for improvement of the quality of the housing stock.

**Increase in loading of the transport networks.** The basis for access of the population to all the possibilities of the agglomeration is the need in the development of the transport system which is much overloaded now. For example, concerning road movement, despite constructed traffic intersections, according to the data of the Ministry of Transport, nearly third of the federal highways are overloaded and multiband roads make only 8 % from the total amount. It is promoted by the features of migration of the population of the agglomeration and increase of the intensity of commutation. Nowadays the investment passport of the Krasnoyarsk agglomeration contains 24 projects in the field of the infrastructure development. The total cost of the investment projects is 152798.6 million roubles. The most part of projects is directed at the development of the power industry, transport infrastructure and engineering communications of the residential area.

**Modernization of the educational system towards the availability of the educational services to the population and improvement of the quality of these services.** In the system of the general education of the Krasnoyarsk agglomeration 521 educational institutions, including 264 preschool educational institutions are functioning. The amount of children from 0 up to 7 years in preschool education services is 46 %, from 1.5 up to 7 years – 59 % from total

amount of children of this age. In this sphere there are the two main directions of development in agglomeration.

The first direction is a solution of the problem of shortage of places in preschool educational institutions (PEI). For the solution of this problem by 2016 (the task which was put by the President of the Russian Federation), the long-term target program «Development of a network of preschool educational institutions» for 2012 – 2015 is approved by the Government of the Krasnoyarsk Krai and considerable work on this program is being done.

The second direction – provision of the modern quality of preschool education. In this direction «The unified quality standard of preschool education in the Krasnoyarsk Krai» was developed. All the kindergartens are transferred to the new system of salary funds the 20 % increase in salary funds. In total 382,5 million roubles were allocated for these purposes. The concept of the long-term target-oriented program «Vital activity security of the preschool educational institutions for 2013 – 2015» was also developed.

Information and computer technologies are embedded in educational process, and today's availability of personal computers in the educational institutions of the Krasnoyarsk agglomeration is higher than all-Russian level and average level in SFD. (Table 1):

The needs of the educational sphere caused changes in the approach to the city planning. Now construction of the new residential districts begins from schools and preschool institutions construction. All the new and capitally repaired schools are equipped with the modern educational equipment. Vacancies at rural schools are essentially reduced: in the Russian language– by 90 %, in mathematics – by 63 %, in history – by 60 %, in biology – by 50 %, in primary school – by 42 %.

Table 1. Availability of personal computers in the educational institutions

Indicator	RF	SFD	The Krasnoyarsk Krai
Number of PC per 100 schoolchildren / including PC with the Internet access	4 / 2.2	3.6 / 2.2	4.4 / 3.0
Number of PC per 100 student of primary professional education / including PC with the Internet access	6.8 / 1.7	5.2 / 1.9	8.2 / 2.0
Number of PC per 100 student of dual education / including PC with the Internet access	11.5 / 5.7	10.6 / 5.6	11.0 / 5.2
Number of PC per 100 student of higher education / including PC with the Internet access	17.3 / 12.3	18.2 / 14.1	20.3 / 17.4

[source: statistical data "Education in RF", 2010 – by Rosstat]

Highly technological centers are created and operate in the agglomeration. They implement the new type of educational programs, which train experts of the high level of qualification, with the state support in a framework of the priority national project "Education". Implementation of the national project will allow increasing the number of people who are being trained in the hi-tech centers of the professional education and territorial colleges from 10.1 % in 2010 to 37.4 % in 2013 of the total number of students. Besides, the amount of highly-skilled personnel among adult population will increase from 14.3 % to 32.7 %.

The higher school of the Krasnoyarsk Krai is almost completely concentrated on the Krasnoyarsk agglomeration and located in Krasnoyarsk. Concerning the number of students of the higher education institutions, the agglomeration is on the second place, after the Novosibirsk Oblast, in SFD – 101327 people, including: specialists – 89765, bachelors – 9503, masters – 2059. In Krasnoyarsk more than 2300 graduate students are studying currently, more than 200 candidate's theses in various branches of science are submitted annually to defense.

The dynamics of a share of assignments on education in the budget expenses in the agglomeration for the last decade tends to

increase. The share of expenses of the households budgets on education tends to increase and this fact testifies the wish of the population of the agglomeration to get high quality education.

Active state support of young scientists, experimenters, cultural figures is conducted. The state awards of the Krasnoyarsk Krai for the encouragement of young employees of educational institutions of the professional education which has achieved good results in pedagogical activity and scientific development were founded. These measures are directed on social and economic development of the Krasnoyarsk agglomeration and the Krai in general.

#### **Development of the hi-tech medical services system with preservation of step-by-step treatment-and-prophylactic services.**

In all territories of agglomeration there are territorial health care establishments. The indicator "The number of doctors per 10 000 people in the Krasnoyarsk agglomeration" has a steady tendency to increase (Fig. 2) and exceeds all-regional figures (in the Russian Federation – 50.1; in the SFD – 51.5, in the Krasnoyarsk Krai – 51.2). The number of doctors in the subjects of the agglomeration is distributed erratically: availability of doctors in the cities is much higher than in the non-urbanized areas (in Krasnoyarsk – more than 3 times higher). In

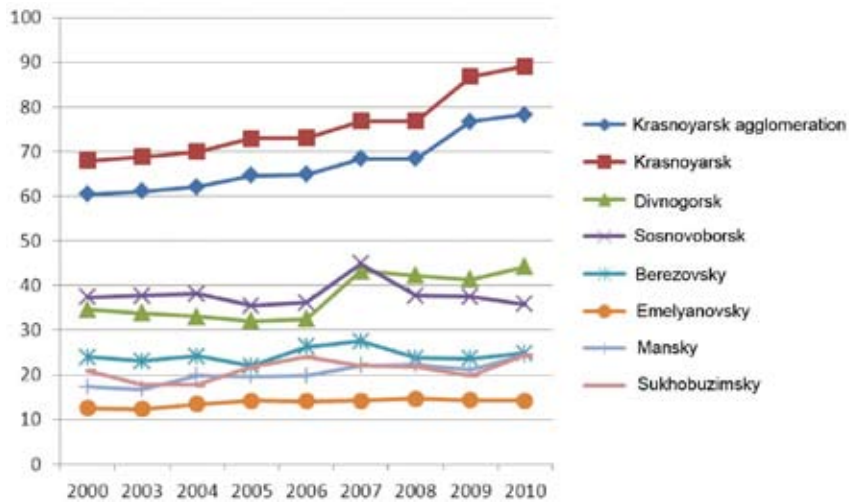


Fig. 2. Number of doctors per 10 000 people [according to the data of the Krasnoyarskstat]

the conditions of large spaces and distances and existence of transport problems, the municipal areas feel shortage of the qualified medical personnel. The local health care establishments that provide primary medico-sanitary aid do not have enough personnel: local GPs – 85.4 %, local doctors-pediatricians – 93.9 %, doctors of the general (family) practice – 84.5 %. The general staffing level in the positions of medical personnel is 93.5 %. The degree of staffing level in the nominal medical positions of the emergency medical service is 59.5 %, positions of medical assistants – 90.3 %, positions of nurses – 79.3 %.

In the agglomeration centre – Krasnoyarsk – they are already developing and plan to develop further directions for which highly technological centers has already been created or being created: the Center of Cardiovascular Surgery; the Perinatal Center; the Oncological Center; the Siberian Clinical Center of the Federal Medical-Biologic Agency; the Dental Clinic of the Public Educational Institution of Higher Professional Education Krasnoyarsk State Medical University, etc. These establishments have intermunicipal importance and are focused on servicing all the territory of the agglomeration. It is planned

to open 19 highly technological diagnostic laboratories in the territory of the agglomeration: at least 1 – 2 laboratories in the rural areas of the agglomeration and at a rate of one laboratory per 100 – 150 thousand people in the urbanized areas of the agglomeration.

In the process of development of the system of highly technological medical services, within already available health care establishments, the specialized centers are to be built: the traumatological centre, the burn centre, the pulmonological centre, etc. In the process of development of computer networks the significant part of the problem of providing high-quality services can be solved by the system of the automated management of the patients' addresses.

**Stabilization of the level of social security of the population of the Krasnoyarsk agglomeration.** Activity of the system of social security of the population of the agglomeration is directed to maintenance of the acceptable level and quality of life of the citizens in need, mitigation of the negative influence of social and economic instability to their activity, including an address approach. The state system of the social security

authorities and the social service establishments of the towns and areas of the Krasnoyarsk agglomeration, according to the federal and regional laws, provide different types of services. They are taking measures of social support on housing and utilities payments; provide financial support to the citizens in a difficult situations, give social support to the families with children, assist in the solution of social problems of the pensioners and disabled people.

The number of the citizens, who really use the measures of social support, from the total number of citizens who have the right to use the measures of social support and have addressed to get them, remains at the level of 100 % since 2007.

The number of families with children, who really use the measures of social support, from the total number of families with children, who have the right to get the support and addressed to get it, remains since 2008 at the level of 100 %, whereas it was 97.1 % in 2007.

There is a number of the programs directed at improvement of living standard and quality of life of the socially unprotected categories of the population, such as the long-term target program “The older generation” for 2011 – 2013, the long-term target program “Social support of the population of the Krasnoyarsk Krai”

for 2011 – 2013, which were developed both at the regional level and at the level of the towns and areas of the agglomeration. For example, the city target program “Social support of the population of the Krasnoyarsk city “, the city target program “The successful family – the successful city” for 2010 – 2012, the departmental target program “Social support of the population of the municipal unit the Divnogorsk town “ for 2011 – 2013, the complex programs of social and economic development of the municipalities of the Krasnoyarsk agglomeration.

### **Conclusion**

Rather high level of wages, quite low figures in unemployment and poverty, transport structure improvement and construction; already started modernization in the spheres of housing and communal services, education and health care in the Krasnoyarsk agglomeration testify about the positive dynamics of agglomerative development of the territory and improvement of the population’s quality of life. But in order to make the agglomeration really comfortable place of residence and attractive to the highly skilled migrants, the solution of a number of serious problems, including the territorial asymmetry in development of the territory of the Krasnoyarsk agglomeration is required.



**Возможности использования  
агломерационного развития  
в повышении уровня жизни населения  
неурбанизированных территорий**

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*В статье представлены результаты исследования уровня жизни населения муниципальных образований Красноярской агломерации как модели повышения ресурсных возможностей жителей, таких как применение труда, обеспечение условий комфортного проживания, получение образования, медицинских услуг, социального обеспечения.*

*Ключевые слова: Красноярская агломерация, уровень жизни, уровень бедности, уровень безработицы, жилищные условия, образование, здравоохранение, социальное обеспечение и социальная помощь.*

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