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THE INDICATORS OF QUALITY OF LIFE OF REGIONAL DEVELOPMENT OF ASTANA CITY

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ABSTRACT

Sustainable development of the capital city of Republic Kazakhstan of Astana is a main task, which provides the high quality of the urban and environment development.

Astana city is an new capital, a large urban center of the country with the regional and global markets, the large business transit hubs and key transport corridors of the Central Asia. The population of the Astana city from 1999 to 2016 increased from 326,9 thsd. to 972.7 thsd. people. In 2016 the labor resources of city was 50.2%, indicators of population natural movement such as birth rate were 30.2 ‰ and death rate 4.4‰ respectively.

The aim is to study the problems and prospects of spatial and territorial development of Astana agglomeration, including of socio-demographical indicators of the quality of life of the capital city of Kazakhstan.

Data source and Methods: comparative geographical, cartographic, dynamics statistic methods. GIS and remote sensing are widely used for monitoring and mapping of urban areas and studying the development of urban infrastructure.

Results: Geodatabase the of the socio-demographical indicators of the quality of life of Astana city population will allow to monitor, manage and forecast of urban development of Republic of Kazakhstan. It has to become the administrative center of the country and an attraction of investments and human resources, to provide high level of quality of life of the population of the Astana city.

Conclusions: According to the Strategy Kazakhstan - 2050 Astana has to develop as large innovative and administrative center of the country, a regional transport hub and logistic center. In this regard it is necessary to stimulate development of branches and services outside the city, to improve quality of life of the population and the environment.

Keywords: agglomeration, capital city, socio-demographical indicator, quality of life, data base.

INTRODUCTION

Kazakhstan has proclaimed a policy of building a social state with high standards of living. It is reflected in the Strategy Kazakhstan - 2050, in strategic programs, state, regional and municipal programs and etc. [1-5].

In connection with the strategic goals of the state development, ensuring a high level of the quality of life of the population of Astana city becomes one of the main tasks of the city government [6].

Astana is an young capital that dynamically develops into a Smart City. This is its advantage in comparison with other large cities of Kazakhstan. The main goal of sustainable development of Astana is to raise the quality of life of the population through the optimal use of external and internal factors of development, to improve the economic and social infrastructure while maintaining the high reproductive potential of the population [7]. Research of quality of life of the population of Astana was held in the framework of the new scientific-research project of Ministry of Education and Science of Republic of Kazakhstan «Development of an atlas information system for complex spatial analysis of the quality of life of the regions of the Republic of Kazakhstan within the framework of the «DigitalKazakhstan» program» (2018-2020).

MATERIALS AND METHODS

The information base was the official data of the Committee on Statistics of the Republic of Kazakhstan, the Statistics Departments of Astana city and the Akmoia region [8-9] (<http://www.stat.gov.kz>, <http://www.astana.stat.kz>).

Data on the socio-demographic and economic indicators of Astana in the dynamics for the period of formation of the capital, 1999-2016, were considered to analyze the potential of Astana.

Softwares were used for data processing: ArcGIS, DemProj, Statistical Analyst module. Scientific research methods were used: comparative geographical, cartographic, dynamics statistics, GIS and remote sensing.

RESULTS AND DISCUSSION

Ensuring a high quality of life of population is the primary goal of urban development. To study the quality of life of the population of the city of Astana, were analyzed the indicators most often used in international and national assessments. The indicators are combined into two large blocks: socio-demographic indicators, socio-economic indicators.

One of the most important socio-demographic indicators is the population. In 2016 the population of the Republic of Kazakhstan was 17 733.2 thsd. people, and the population of Astana - 972.7 thsd. people. The population of the capital by 2018 amounted to 1 030.6 thsd. people.

In 1997 Astana became the capital of the Republic of Kazakhstan, city is experiencing the "urban boom" from this time. The growth of population of Astana from 1999 to 2016 years with very fast pace lead to the increasing of population in 2.6 times (from 381.0 thsd. to 972.7 thsd. people) (Table 1). Accordingly, its share in the urban population of the Republic has increased: in 1999 - 3.9%, in 2009 - 7%, in 2016 - 9.1% [9].

In the early years of the transfer of the capital (1997-2000) a number of rural settlements were introduced into the urban agglomeration, in the near future a noticeable increase in the number of citizens due to the inclusion of new rural settlements is not expected. At the moment there is no belt of closely located rural settlements around Astana. Nevertheless, in comparison with 1997 there is an increase in the city area in 2.7 times, which was achieved by mastering new, uninhabited areas.

As can be seen from Table 1 the natural growth of city's population increased from 2.3‰ in 1999 to 25.8‰ in 2016. The indicators of natural growth of population had a positive tendency to increase for the period under study.

Table 1 - Basic demographic indicators of the population Astana, 1999-2016.

Indicators	1999	2009	2016
Number of population, people	326 939	605 254	872 584
Number of births, thousand people	3.8	15.1	27.8
Birth rate (per 1000 people)	10.6	24.16	30.18
Number of deceased, thousand people	2.9	3.1	4
Death rate (per 1000 people)	8.3	5.00	4.39
Natural growth, thousand people	0.8	12.0	23.8
Natural growth rate (per 1000 people)	2.3	19.2	25.8
Demographic burden	486	376	538
Arrived, thousand people	61.8	49.9	135.5
Disposed, thousand people	8.5	18.0	59.2
Migration balance	53.2	31.9	76.3
Life expectancy, years	67.6	72.2	74.85
Marriage rate (per 1000 people)	5.36	10.69	12.25
Divorce rate (per 1000 people)	2.04	3.25	4.00

The territory of Astana is divided into 3 districts: Almaty, Yesil and Saryarka. The population of Almaty district in 2016 was 431.4 thsd. people or 44.3% of the population of the whole city, Yesil district – 162.4 thsd. people or 16.7%, Saryarka district – 378.9 thsd. people or 39% (Fig 1).

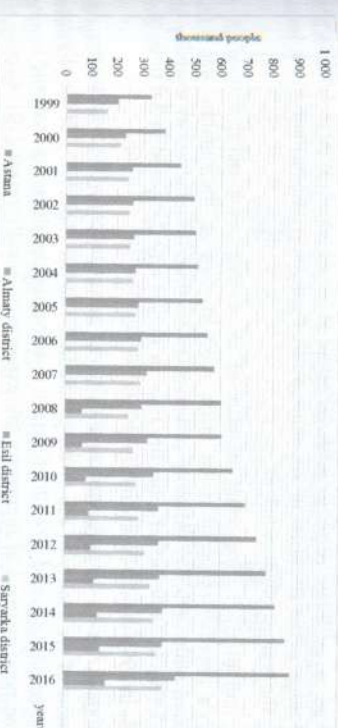


Figure 1 - Dynamics of the population of Astana districts, 1999-2016.

It should be noted that only since 2005 Astana has become the second most populous city in Kazakhstan. By the beginning of 2003 the number of Astana city exceeded 500 thsd. people. While drawing up a master plan for the development of the capital, it was assumed that the city would reach a half-million mark only by 2010 and all projects

were associated with this projected population. At the beginning of 2018 the population of Astana is 1 030,6 thsd. people.

This is mainly due to the rapid growth in the birth rate, which increased from 10,6‰ in 1999 to 30,2‰ in 2016 (the second place among the regions, the average for the whole Republic of Kazakhstan is 22,52‰) (Fig.2). The growth of the birth rate in Astana as a whole showed stable positive dynamics only since 2002. The birth rate in Astana increased in 3 times in comparison with 1999.

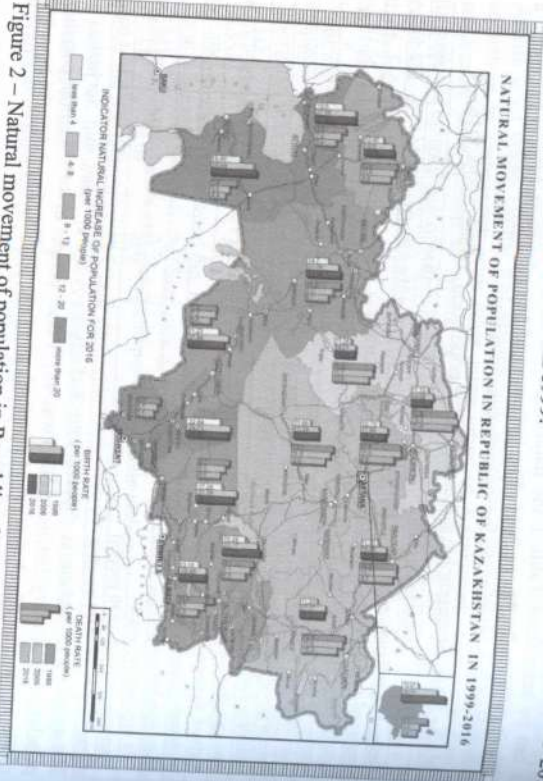


Figure 2 – Natural movement of population in Republic of Kazakhstan, 1999-2016.

The death rate of the capital's population decreased from 8,3‰ in 1999 to 4,4‰ in 2016 (on average in the Republic of Kazakhstan this figure is - 7,65 ‰) and is the lowest among the regions of Kazakhstan.

Infant mortality is an important indicator of the overall health and quality of life of country's population. In 2016 the infant mortality rate in the republic was 8,6‰, compared with 1999 this indicator decreased in 2,1 times. So, the infant mortality rate was 17,9 ‰ in 1999. Infant mortality rates in Astana city decreased in 2,6 times from 17,9 ‰ in 1999 to 6,75 ‰ in 2016.

An analysis of the average life expectancy is of vital importance for studying the indicators of the quality of life of the population. The life expectancy of the population has increased for period 1999-2016, which is a positive development. It should be noted that the positive trend of increasing life expectancy is still present [10]. Average life expectancy of the population in Astana increased by 7,5 years, from 67,6 to 74,9 years for 1999-2016. Since 1999, the city has experienced an increase in life expectancy, but it was also not stable and even. If from 1999 to 2008 the average life expectancy of the population increased significantly, then in 2009 the growth rate of the average life expectancy decreased.

The average life expectancy of the population in Astana in 2016 was 74,9 years, including 70,7 years for men and 78,4 for women. The average life expectancy of men is lower than that of women, and the difference was 7,7 years. Life expectancy in the capital is the highest and is 74,9 years (life expectancy in Almaty - 74,7 years and life expectancy in the republic - 71,6 years on average).

The capital status gives Astana an additional attraction both for internal migrants and for labor migrants from other countries, foreign investors, businessmen of different levels and tourists. The concentration of a large number of young people in the city contributes to an increase in the number of the population and due to the birth rate.

Migration growth in the capital for 1999-2016 was positive, and the balance of migration increased in 1,4 times (from 53 242 to 76 300 people). The rate of migration growth is about 17-19 thsd. people per year. So, in 2016 the balance of migration was 76,3 thsd. people, 70,8% of which accounted for the working-age population and 23,5% - under the working-age. According to the data of 2016, the largest number of arrived migrants was in the Almaty district of Astana (70 people) (Fig.3).

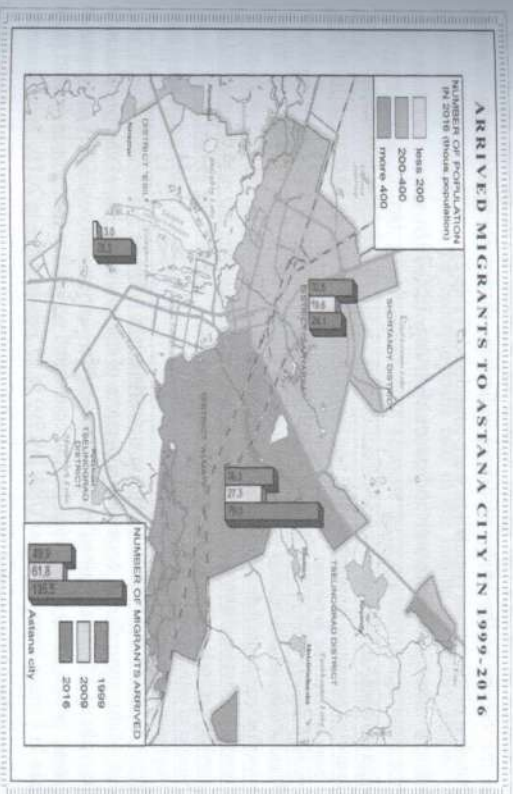


Figure 3 – Arrived migrants to Astana city in 1999-2016

The population mainly arrives to the city of Astana from Akmola, South Kazakhstan, Karaganda, East Kazakhstan regions and Almaty city.

In the context of the sex and age structure, Astana is one of the youngest regions in Kazakhstan - the average age of residents is 30 years. During the period under review, a higher share of women in the total population was observed, which in 1999 was 53,4%, in 2009 - 51%, in 2016 - 51,8%. The share of men in the total population of Astana was in 1999 - 46,6%, in 2009 - 49%, in 2016 - 48,2%.

According to the results of 2016, the number of men prevails in the context of age groups up to 19 years (on average by 6%) and from 29 to 34 years (on average by 2%), whereas the number of women is much larger in the range from 19 to 28 years (an

average of 10%) in the capital. The critical point of gender imbalance is the 35-year-old age group, in which the dominance of women at 2%, with a further increase to 19.3% in 58-year-old and 40% in 70-year-old groups.

One of the important indicators of the quality of life of the population is the indicators of the cumulative share of education by the population aged 6-24 years. An analysis of changes in the indicators of the cumulative share of education by the population aged 6-24 years for 1999-2016 years showed that currently 74.9% of the population aged 6-24 years is enrolled in education in Astana, compared to 1999 this indicator increased by 28%.

The largest cumulative share of education by the population aged 6-24 years was registered in 2008 - 91.5% in Astana. The level of education of the population aged 6-24 years began to increase significantly from 2000 to the present.

Thus, the considered socio-demographic indicators of the quality of life of the population allow us to talk about a fairly favorable socio-demographic situation in the capital of the Republic of Kazakhstan.

In the course of the study, statistical indicators, characterizing the socio-economic situation of the Astana population were considered (Table 2).

Table 2 - Basic socio-economic indicators of Astana, 1999-2016.

Indicators	1999	2009	2016
GRP per capita, dollar USA	1.9	18.1	13.5
Employed population, thousand people	148.9	347.2	626.1
Unemployment rate, in percent	13.0	6.6	4.6
Average monthly nominal wage of one employee, dollar USA	119.8	815.2	652.3
Share of the population that has incomes below the subsistence minimum from the total population, in percent	11.6	3.9	0.7
Number of preschool institutions, units	45	66	261
Number of schools, units	42	84	95
Number of colleges, units	11	24	31
Number of universities, units	7	12	14
Provision of the population with housing, sq.m. per one person	14.0	21.5	29.6

One of the generalizing economic indicators of the quality of life of the population is the volume of gross regional product per capita. As you can see, GRP per capita in Astana is constantly increasing. For the considered period this indicator increased more than 8 times from 1.9 dollar USA in 1999 to 15.5 dollar USA in 2016.

The transfer of the capital gave a powerful impetus to the economic development of Astana. High growth rates of the city's economy attract numerous investors. The share of Astana in the republican volume of attracted investments is 10%, the share of the city's GRP in the economy of the republic is 10.2%.

The basis of the capital economy is industrial production, transport, communications, trade and construction.

One of the important components of the quality of life of the population is the indicators of the sphere of labor and employment of the population. Statistics show that the number of economically active population, employed and unemployed citizens in recent years has changed with positive trends (Table 2).

The implementation of the policy to ensure productive employment of the population was carried out within the framework of the program "Employment Road Map 2020" in accordance with the allocated funding.

The positive dynamics of employment indicators for the period under review should be noted. Thus, the number of employed people increased 3 times from 148.9 thousand people in 1999 to 466.1 thousand people in 2016, including youth by 27.5% from 3.1 to 4 thousand people.

Measures aimed at stimulating and supporting entrepreneurial activities contributed to the creation of more than 54 thousand new jobs during 2012-2014 years.

Thus, the overall unemployment rate decreased from 13% in 1999 to 4.6% in 2016. However, the level of youth unemployment (aged 15 to 28) still remains at a high level, in 2001 - 10.9%, in 2009 - 8.2%, in 2016 - 4.8%.

The economic support measures implemented within the framework of state and government development programs allowed reducing the overall unemployment rate to 4.6% by the end of 2016, which is the lowest among the regions of Kazakhstan. Accordingly, the level of youth unemployment decreased by 10.9% to 4.8%.

It should be noted that the unemployment rate in the capital is largely shaped by migration from other regions. So, in the structure of the annual migration increase, which is about 20 thousand people, about 60% account for the working-age population. Active pendulum migration is observed from the adjacent areas of the Almaty region, which has an impact on the city's infrastructure and labor market.

The most important direction in social policy is the implementation of measures to reduce the poverty level of the population. One of the main indicators characterizing the welfare level of the society is the share of the population that has incomes below the subsistence level in the total population that in the capital in 1999 was 11.6%, which is lower by 0.1% of 2013 year's level and by 0.6% of 2012 year's level. In 2016 this indicator was 0.7%.

The capital is the leader in terms of construction in the republic. After Astana gained its capital status, 10 million square meters of housing was built in the city. Hundreds of domestic and foreign construction companies took part in the construction of Astana [11]. The provision of housing for 2016 was 29.0 sq.m per person, while the average national level - 21.4 sq.m per person.

Thus, certain positive changes in the economic sphere were observed in 1999-2016 in Astana: an increase in GDP, an increase in the level of employment of the population, a reduction in the level of unemployment and poverty.

Today, Astana has become the center of the Eurasian space, hosting various forums, congresses and other events of international importance. The Congresses of Leaders of World and Traditional Religions, the Astana Economic Forum and other internationally significant events are held on a regular basis in the capital. The historic OSCE Summit was held, the jubilee summits of the SCO and OIC were held in Astana. At the beginning of 2011 the capital of the republic hosted participants and guests of the VII Winter Asian Games. In 2017 the international exhibition EXPO-2017 was held in Astana.

CONCLUSION

In accordance with the Strategic Plan for Sustainable Development of the City of Astana until 2030, Astana should develop as a capital, administrative and cultural center, as well as a center for innovative technologies, the city of the future - Smart City. In this regard, it is necessary to stimulate the development of traditional industries and services outside of the city, improve the quality of life of the population, improve the ecological living conditions. A unique "green belt" is created around Astana, city becomes a green oasis in the center of a huge steppe region.

The results of the study revealed the competitive advantages of the development of the capital, such as a high birth rate, material and technical equipment of the education system, focused on international standards; access to high-tech medical care for the population; sustainable growth in living standards; annual creation of new jobs; an extensive network of cultural, leisure and sports facilities.

Currently, a large number of regional programs for social and economic development of the city are being implemented in Astana, the purpose of which is to further improve the quality of life of the capital's population.

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THE INTRODUCTION OF SYSTEMATIC CADASTRE IN ROMANIA. CASE STUDY: THE TERRITORIAL ADMINISTRATIVE UNIT BATA,

ARAD COUNTY

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ABSTRACT

At this moment, in Romania it is desired the introduction of the general cadastre and with it, the completion of specialized cadastres.

The cadastral works are carried out in order to provide realistic and complete real estate data to the interested persons, at all times, and is finalizing with the registration in the Land book.

The realization of general/systematic cadastre is the exclusive attribute of the Romanian State, through the National Agency for Cadastre and Land Registration (NACLR).

The objective of systematic cadastre is the registration into the Integrated cadastre and land book system of the real estates located outside towns, the works being initiated by the territorial administrative unit at the cadastral sector level.

According to the Order 533/2016 regarding the approval of the Technical Specifications for the systematic cadastral works, in order to enroll the real estate in to the Land book, the systematic cadastre refers to:

- identification, measurement, description and registration of the real estate in the technical documents of the cadastre, their representation on cadastral plans and the storage of data in digital format;
- identification of owners and other holders of real estate for registration in the Land book;

- public display of the results obtained after the execution of the systematic cadastre works, the correction of the errors reported by the owners and the opening of a new Land book.

Through a case study, this paper aims to present the legal framework, the steps and the final documents of systematic cadastre.

Keywords: systematic cadastre, real estates, land book

INTRODUCTION

The objective of systematic cadastre is the registration into the Integrated cadastre and land book system of the real estates located outside towns, the works being initiated by the territorial administrative unit at the cadastral sector level [1].