Socio-economic mobility of the population of the Baikal region in current conditions

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Socio-economic mobility of the population of the Baikal region in current conditions

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Abstract. Human factor plays an important role in the effective implementation of the socio-economic policy of the state and it is a key component of sustainable development of the regions. This study considers the current living standards of the population of the Baikal region. The analysis allowed identifying trends in the increase in the unemployment rate of the population living on its territory. It revealed that in recent years there has been a tendency to increase the poverty level of the population of Baikal region, which remains high compared to the average Russian level. Also, this paper analyses the quality of life of the population; determines the key factors of influence on the socio-economic mobility of the population of the region. It was determined that the fastest and most accessible channel of social mobility is education, which provides an opportunity to obtain a high-paid profession and rapid progress on the social ladder. In order to change the negative trends in the human development of the Baikal region, this article considers the role and prospects of implementation of the "green" development mode of the Baikal region as a driving mechanism on the way to sustainable development and strengthening of socio-economic mobility of the population.

1. Introduction
The human factor plays an important role in the effective implementation of the socio-economic policy of the state. It is also a key component of sustainable development of the regional economic system.

Within the framework of the Eastern orientation of the Russian policy, the study of the modern socio-economic mobility of the population of the Baikal region is of the greatest interest. At the same time, it is necessary to give a new qualified and systematic scientific assessment of social mobility of the population, the state of labor potential, the quality of life of the population.

The study determined that the fastest and most accessible channel of social mobility is education, which makes it possible to obtain a high-paid profession and rapid progress on the social ladder (other favorable conditions). The future of the country depends on it. All this actualizes the research aimed at analyzing the socio-economic mobility of the population of the Baikal region as a factor for improving the quality and standard of living of the population.

The aim of the study was to assess the current trends in the development of socio-economic mobility of the population of the Baikal region. The achievement of this goal determined the solution of the following tasks: description of the characteristic geographical and economic features of the Baikal region, comparative assessment of socio-economic mobility of the population of the Baikal region, analysis of the quality of life of the population of the Baikal region.
Systematic monitoring of the level and dynamics of social development of the region allows realistically assessing the current state and timely taking effective management decisions aimed at improving the quality and standard of living of the population of the region.

2. Models and methods
This paper proposes a model of socio-economic mobility of the Baikal region in the “green” economy. The main methodological approach of the study is based on the system analysis of processes, interrelations, and results of the studied problems. In this work was used the method of comparative analysis of indicators of subjects of the Baikal region characterizing social and economic mobility and quality of life of the population. During the study author analysed dynamics of the considered indicators by means of construction of time series and their chronological comparison, assessed the growth rates of indicators using the index method and the dynamics of changes in structural proportions by structural analysis.

3. Results and Discussion

3.1. Results
In order for a society to truly tackle the issue of opportunity to advance socioeconomically for all young people, there must be open communication, investment, and innovative partnerships between government, business, community centers, schools, and crucially the youth themselves. We must carefully consider each barrier faced in the life of a young person and implement and scale up successful initiatives for each step of the way. We must carefully consider each barrier faced in the life of a young person and implement and scale up successful initiatives for each step of the way.

According to the rating of the regions of the Russian Federation on the quality of life in 2017, Buryatia and the Irkutsk oblast retained their positions compare to last year and took 76th and 69th positions, Zabaykalskii Krai fell one line lower, being in the rating by 81 positions out of 85 (Rating of regions of Russian Federation on quality of life 2017, 2018).

3.1.1. Baikal region and its characteristics. Baikal region includes three subjects of the Russian Federation, united by belonging to the Lake Baikal basin to the phenomenon of the world importance. The total area of the region is 1558.1 thousand km², population – 4464.5 thousand. By subjects of the Russian Federation, the territory and population are distributed as follows: Republic of Buryatia – 22.5%, Zabaykalskii Krai – 27.7%, Irkutsk Oblast – 49.7% of the Baikal region territory; the population of the Republic of Buryatia accounts for 22.1%, Zabaykalskii Krai - 24.0%, Irkutsk Oblast - 53.9%. Lake Baikal has a special status, fixed not only at the federal but also at the world level as a part of the UNESCO world natural heritage (1996). Baikal natural area is located on the territory of the Republic of Buryatia, Irkutsk oblast, Zabaykalskii Krai. On the protected Baikal natural area lives 93% of the population of Republic of Buryatia, 55% of Irkutsk oblast, 9% of Zabaykalskii Krai. The 40-year environmental regulation regime has had a restrictive impact on the socio-economic development of the region. The region has all the features of landscape-ecological and economic-cultural integrity. The geographical and geopolitical position of the Baikal region compares favorably with neighboring regions. Located between Siberia and the Far East, this territory, which has good access to the countries of Central and East Asia, has always been used by Russia to establish contacts and trade with these countries. At the present time, when Russia became open to the world community, the strategic role of the geographical location of the Baikal region has further strengthened. It was promoted, first of all, by its transport and geographical position. The region is a link of Intercontinental transit Railways – Trans-Siberian and Baikal-Amur has direct rail links to China and Mongolia. On its territory are all the main transport and communication lines, international and domestic airlines, including cross-polar routes between the countries of South and South-East Asia, as well as the American continent (Baikal natural area. http://irkipedia.ru/content/baykalskaya_ prirodnaya_territoriya). Lake Baikal region is a world natural heritage, which is not only beautiful,
unique and complex for its landscape ecosystem and culture, rich in freshwater, flora, and fauna, but also one of the most attractive international tourism destination well recognized by international tourists [9].

3.1.2. Socio-economic mobility. Social-economic mobility is the movement of individuals, families, or groups through a system of social hierarchy or stratification. If such mobility involves a change in position, especially in occupation, but no change in social class, it is called “horizontal mobility”. If, however, the move involves a change in social class, it is called “vertical mobility” and involves either “upward mobility” or “downward mobility” (Social mobility. https://www.britannica.com/topic/social-mobility).

3.1.3. Socio-economic mobility of the population of Baikal region. In order for a society to truly tackle the issue of opportunity to advance socioeconomically for all young people, there must be open communication, investment, and innovative partnerships between government, business, community centers, schools, and crucially the youth themselves. We must carefully consider each barrier faced in the life of a young person and implement and scale up successful initiatives for each step of the way [1].

A key component of the functioning and development of the region is the human factor, acting as the leading subject and object of the changes. In this regard, the study and assessment of labor potential, measuring the quality of life of the population, etc., will allow better assessing and determining further actions for the implementation of regional socio-economic policy. Figure 1 shows a graph of occupation level of the Russian Federation as a whole and of the subjects of Baikal region.

![Figure 1. Occupational level, %.

The graph shows that the employment rate in the Russian Federation as a whole gradually increased until 2012, in 2013 there was a slight decline (by 0.1%), and by 2016 increased by 0.8% compared to 2012. In the subjects of the Baikal region, the picture is rather uneven, for example, in the Irkutsk Oblast, occupation level increased from 2010 to 2013 with slight declines in 2014 (by 0.8%) and by 2016 increased by 1.3% compared to 2012. In the Republic of Buryatia we can see increasing of occupation level until 2012, and in subsequent years – a gradual decline in employment and by 2016 is 57.7%, which is 0.8% less than in 2012. In Zabaykalsky Krai, the decline in employment was in 2010 compared to 2005, and since 2010 there has been a gradual increase and compare to 2012 in 2016 the employment rate increased by 2%. The data for the period 2014-2016 show that the dynamics of occupation level in the Baikal region is uneven. So, if in Buryatia there is a decrease in employment, then in Zabaykalskii Krai and Irkutsk oblast it is growing. Territorial differences in economic activity and employment largely depend on the characteristics of the region-demographic,
socio-cultural, settlement, environmental, the current structure of the economy, as well as the heterogeneity of territories determined by natural and geographical conditions [2].

Thus, the material wealth and social status of the population depend on the availability of jobs. Table 1 shows the unemployment rates of the population for 2005-2016 in Russia as a whole and subjects of the Baikal region.

Table 1. Unemployment rate, %.

| Year | Russian Federation | Republic of Buryatia | Zabaykalsky Krai | Irkutsk oblast |
|------|--------------------|---------------------|-----------------|---------------|
| 2005 | 7.1                | 12.2                | 8.6             | 9.8           |
| 2010 | 7.3                | 10.4                | 11.1            | 10.1          |
| 2011 | 6.5                | 9.0                 | 10.6            | 9.1           |
| 2012 | 5.5                | 7.9                 | 10.6            | 7.8           |
| 2013 | 5.5                | 8.0                 | 10.5            | 8.3           |
| 2014 | 5.2                | 8.4                 | 10.0            | 8.8           |
| 2015 | 5.6                | 9.2                 | 10.4            | 8.2           |
| 2016 | 5.5                | 9.6                 | 10.8            | 8.8           |

In recent years, the sharpest changes in the unemployment rate are observed in the Republic of Buryatia. During the period 2015-2016, there has been a tendency to increase the unemployment rate of the population living in the Baikal region. The dynamics of general unemployment in the regions coincides with the all-Russian trend, but significantly exceeds it, and the periods of growth and fall were sharper. However, in all three regions, there is a steady increase in the unemployment rate, while in Russia as a whole there is a slight decline.

Solving the issues of increasing and reducing unemployment requires: an active state policy in the field of employment and regulation of demand for labor; assistance to employers in creating effective jobs that meet modern requirements, as well as increasing the cost of retraining of personnel of organizations in order to improve its quality and competitiveness and further employment; social protection of workers [3].

The fastest and most accessible channel of social mobility is education, which makes it possible to obtain a highly paid profession and to move quickly up the social ladder (under other favorable conditions). And passing it will be sure to promote for any scale of social hierarchy [4][4]. Education is a very important factor in moving up the social ladder. Table 2 shows the structure of the employed population by level of education in 2016.

Table 2. Structure of the employed population by level of education in 2016.

| Region              | Employed, in total | Including education |
|---------------------|--------------------|---------------------|
|                     | Higher | Vocational secondary, in total | High school | Middle school | No middle school |
| Russian Federation  | 100    | 33.5 | 45.1 | 18.1 | 3.2 | 0.2 |
| Republic of Buryatia| 100    | 32.6 | 44.7 | 16.5 | 5.9 | 0.4 |
| Zabaykalskii Krai   | 100    | 24.5 | 40.5 | 27.5 | 6.9 | 0.4 |
| Irkutsk oblast      | 100    | 29.1 | 43.6 | 20.9 | 6.2 | 0.3 |

The table shows that among the subjects of the Baikal region in Buryatia, about a third (32.6%) of the employed population have higher education, which is 0.9% less than the national level. For comparison, in Irkutsk Oblast the share of employed with higher education is 29.1%, and in the Zabaykalskii Krai 24.5%.

3.1.4. Quality of life of the population of Baikal region. We have analyzed the main indicators of the standard of living of the population, such as the share of the urban population, real incomes of the
population and the population with monetary income below the subsistence minimum. Table 3 shows the share of urban population in the total population.

**Table 3. Share of urban population in total population (year-end estimate, in %).**

|                | 2005 | 2010 | 2012 | 2013 | 2014 | 2015 | 2016 | 2016 to 2005, % |
|----------------|------|------|------|------|------|------|------|-----------------|
| Russian Federation | 73.2 | 73.8 | 74   | 74.2 | 74   | 74.1 | 74.3 | 101.5           |
| Republic of Buryatia | 56.4 | 58.5 | 59   | 58.8 | 58.9 | 59   | 58.9 | 104.4           |
| Zabaykalskii Krai  | 64.2 | 66   | 66.8 | 67.1 | 67.4 | 67.7 | 68   | 105.9           |
| Irkutsk oblast     | 79.3 | 79.6 | 79.5 | 79.4 | 78.9 | 79   | 78.9 | 99.5            |

An analysis of the data in table 3 showed that the rural population was declining during the period under review. The current trend of outflow of rural residents to the city, despite the measures taken in the social sphere, is typical for the Baikal region. One of the main reasons is the irrational location of industrial production, the ratio of the arrived and decreased population and natural population growth. As it is known, Siberian regions are characterized by high differentiation in the standard of living of the population. One of the main indicators of the characteristics of the standard of living of the population is the value of per capita income. Analysis of the dynamics of real incomes (table 4) showed. From 2011 to 2013, all subjects of the Baikal region had stable income growth, but in 2014 there was a decline, which repeats the all-Russian trend. In the period 2005-2014 in Russia, there was an increase in real income of the population, since 2014 there is a decline. Similar dynamics can be seen in the Baikal region.

**Table 4. Real incomes of the population (% to the previous year).**

|                | 2005 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|----------------|------|------|------|------|------|------|------|------|
| Russian Federation | 111.7 | 105.4 | 101.2 | 105.8 | 104.8 | 99.5 | 95.9 | 94.4 |
| Republic of Buryatia | 111.6 | 102.5 | 100.9 | 103.3 | 109.5 | 99.8 | 100.2 | 93.3 |
| Zabaykalskii Krai  | 109.2 | 103.2 | 102.1 | 103.1 | 104.8 | 95.3 | 95.3 | 92.4 |
| Irkutsk oblast     | 117.9 | 100.8 | 96.8 | 104.8 | 102.2 | 97.5 | 97.2 | 91.1 |

In recent years, there has been a tendency to increase the level of poverty of the population, both in the Baikal region and in Russia as a whole. Table 5 shows the indicators of population with monetary income below the subsistence minimum in % of the total the population of the subject (Regions of Russia. Socio-economic indicators, 2017)ОшибкаР Источник ссылки не найден..

**Table 5. Population with monetary income below the subsistence minimum (% of the total population of the subject).**

|                | 2005 | 2010 | 2012 | 2013 | 2014 | 2015 | 2016 |
|----------------|------|------|------|------|------|------|------|
| Russian Federation | 17.8 | 12.5 | 10.7 | 10.8 | 11.2 | 13.3 | 13.4 |
| Republic of Buryatia | 32.6 | 19.2 | 17.7 | 15.9 | 16.9 | 17.7 | 18.3 |
| Zabaykalskii Krai  | 26.1 | 19.0 | 17.6 | 16.2 | 18.0 | 20.4 | 21.4 |
| Irkutsk oblast     | 21.3 | 18.1 | 16.8 | 17.0 | 18.0 | 20.1 | 20.6 |

As the table shows, the poverty level in Russia decreased until 2014 and began to increase in 2015. In the Baikal region, the poverty level in such regions as the Republic of Buryatia and Zabaykalskii
Krai decreased until 2013, and from 2014 to 2016 increased by 2.4% and 5.2%, respectively. In Irkutsk oblast, level of the population with monetary incomes below the subsistence minimum began to increase earlier, since 2013. If we consider the same period with other subjects, the poverty level in the Irkutsk region increased by 3.6%, and in Russia as a whole – by 2.6%. It should be noted that the level of poverty of the population of the subjects of the Baikal region in comparison with the average Russian indicators remains high.

Today, human development is one of the main factors of the successful functioning of individual territories and countries of the world. Low incomes and a high cost of housing determine the quality of life of the population. Income inequality causes inequality in the level, structure, and quality of consumption among different groups and has a negative impact on human development. That is, there is a significant differentiation of opportunities and social inequality in human development. [5]. In fact, social inequality is a constraint on human capital development.

3.2. Discussion
In modern conditions, the role of science, education, innovation has increased, and this also applies to the Baikal region. Therefore, one of the main tasks in the near future should be the investment in human and the creation of favorable conditions for life and activities, taking into account local natural and climatic characteristics [6].

Thus, in the context of improving the quality of life in the Baikal region, it is very important to use the principles of the "green" economy and to include them in new development projects. It should be noted that:

- "Green" economy is a means to achieve sustainable development;
- "Green" economy should promote the creation of green jobs and decent work;
- "Green" economy - equality, justice between countries and between generations;
- "Green" economy protects biodiversity and ecosystems;
- "Green" economy reduces poverty, ensures the well-being of the population, social protection and access to basic;
- "Green" economy improves governance and the rule of law. It is democratic, has principles of equal decision-making, responsible for the result, transparent and stable;
- The green development path should preserve, enhance and, where necessary, restore natural capital as an essential economic asset and source of public goods, especially for the poor [7].

The world, and in particular the Baikal region, continues to move along an unstable path of development. This is accompanied by the degradation of all natural life-support systems, increased inequality between countries and regions, and the aggravation of multilateral crises [8]. Therefore it is necessary to reduce the economic losses caused by environmental degradation by incorporating the value of natural resources into strategic national priorities, sound policies and institutional reforms; create quality jobs and reduce poverty - improve social equity by greening investment in sectoral policies such as renewable energy and climate-resilient infrastructure.

Obviously, the transition to a green economy varies from country to country and region to region, as it depends on the specific nature of the natural and human capital of each country or region and the relative level of development. In this transition, all countries have a number of new opportunities. Some countries have achieved high levels of human development, but this is often due to their natural resources, environmental quality and increased greenhouse gas emissions. These countries face the challenge of reducing their per capita environmental impact without compromising the quality of life. Other countries still have a relatively small per capita impact on the environment, but need to improve the quality of services and the material well-being of their citizens. They face the challenge of doing so without significantly increasing their environmental impact.

One of the most important conditions for poverty reduction is the transition to a green economy. Chronic poverty is the most visible manifestation of social injustice, resulting from unequal access to education and healthcare, unequal access to credit and income, and non-equitable protection of property rights. A key feature of the green economy is that it creates different opportunities for
economic development and poverty reduction without destroying or destroying natural assets (UNEP Towards a Green Economy: Pathways to Sustainable Development and Poverty Eradication – A Synthesis for Policy Makers, 2011).

4. Conclusion
The study of socio-economic mobility of the population of the Baikal region allows us to draw the following conclusions. It is obvious that for the transition to the sustainable development we need investment in human and physical capital. In practical terms, the state and the region, in particular, need to sharply increase investment in science, education, health, innovative development [10]. Today, human development is a determinative factor in the successful functioning of individual territories and countries of the world. The social and economic mobility of the population is one of the factors of improving the quality and standard of living of the population. Income inequality causes inequality in the level, structure, and quality of consumption among different groups and has a negative impact on human development. To improve the quality of life of the population, it is possible to apply the principles of "green" economy. The principles of the "green" economy should be taken into account developing the socio-economic development strategy of the region.

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