

## Quality-of-life (QOL) improvement as a strategic resource of sustainable social and economic development of a region

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**Abstract.** One of the main objectives of the development of a region is a constant quality-of-life improvement of its population. There is a deep connection between the indices of QOL of a population and economic growth rates. On the one hand, economic growth is a necessary condition for the quality-of-life improvement of a population. On the other hand, higher indices of QOL of a population, including a lifespan, quality of education, income, and social care, accelerate the economic growth.

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### Introduction

The world modern situation is characterized by a steady transition of more developed countries into a totally new level of their development, post-industrial society. This transition is often associated with a new era that humanity enters, “the era of quality”. Quality becomes the main index and criterion of life.

It is also true for modern-day Russia which has all the prerequisites for entering in a principally new level of its development. Any kind of decrease in manpower destabilizes a country and threatens a national security. The main way to solve this problem is quality-of-life improvement of a population.

A new ideology reflected in the policy of a country has to be formed. A person and a family should become the priority in the society. A unified integral index of this new course’s success is the quality-of-life improvement of a person [1, 2]. In order to achieve this goal, the country’s top-priority national projects are directed to improve the quality of life.

From the economic perspective, quality of life as an indicator of a successful spread of the limited social and economic resources in the society shows how well the modern government does its main function, which is to spread the limited resources. In a broader sense, it serves as a tool to measure the development of various aspects of the life of a society. These aspects influence the life of a person, to a stronger or lesser degree [3].

### Theory

The concept of “quality of life” does not have a unified formal structure or standard set of indices. The priorities depend on the people’s needs,

which are closely connected to the level of development of countries or regions. That is the reason why the criteria to evaluate the quality of life are not the same for the developed and developing countries. The most complete list of the QOL components used in the international and national evaluations of the developed countries include as follows [4]:

- Population’s income
- Poverty and income discrepancy
- Unemployment and manpower
- Demographic processes dynamics
- Education
- Health, provision, and food supply
- Living conditions, infrastructure, connection
- Resources and environmental condition
- Culture, social connections, family values
- Political and social stability (safety)
- Political and civil institutions (democracy and participation)

To evaluate the quality of life is hard not just because of the complexity of the concept. Different groups within a population have different ideas about the quality of life. They evaluate it differently. In the western research, there is a combination between the objective (statistical) and subjective indices based on the regular mass quizzes of the population or experts’ evaluations. One can evaluate such components as social connections, family values, or political and social stability only subjectively, for there are no objective criteria for them. For the regions of Russian Federation, it is impossible to use the subjective evaluations yet [5, 6]. This requires a constant

sociological research which would represent each region of Russia. Therefore, only objective (statistical) data can be used, although it cannot evaluate all the components of the quality of life.

Another problem connected to the integral evaluation is the spread of the importance (weight) of each component of quality of life. It remains unsolved for now. Much foreign and national research is aimed at the complete reflection of all the components. However, this situation often provokes the so-called "average temperature in a hospital" (is a joke about statistics originated in Russia. It refers to the absurdity of certain statistical data: it does not make sense to measure the average temperature in the hospital, for some patients may have fever, whereas others - be dead): the more indices there are, the harder it is to implement the existing mechanisms (methods) for the social and economic analysis [4, 7]. In many regions of Russian Federation, this effect is almost inevitable because of the combination of indicators with the opposite (maximal and minimal) indices, as well as because of the problems connected to the measurements of the truthfulness of many indicators.

The priorities in the QOL evaluation were selected according to the most acute problems of the transitional period. In the times of Soviet Union, the discrepancy was defined by the living conditions, i.e. how well people were supplied with the basic services or how good the living conditions in a certain regions were. In a transitional period, the problems of the quality of life (low incomes and a big gap between rich and poor), employment, and population's health (low lifespan expectancy and kids' health) came forward.

The QOL evaluation is a productive tool which reflects certain policy of a government on its different levels. Moreover, it can even edit this policy depending on the needs of the social development.

In many ways, all of it can be applied to Russia. As for the Russian QOL index, the size of our country has to be taken into consideration, as well as a big territorial differentiation in a number of aspects such as economy, the level of social development, cultural and religious differences, climate and natural conditions, etc. The QOL index was evaluated according to the "cumulative" principal based on the results of the first quarter of 2006-2010. Thus, the research reflects the dynamic processes in the development of Russian regions and a certain degree of the quality-of-life change throughout the year [8, 9].

The quarter is measured according to the official statistical data which enters the Federal Service of Government Statistics of Russia. The aspects taken into the consideration are as follows:

1. The individual income rate of a population
2. The migratory attractiveness of a region
3. The survival rate of children under one
4. The level of life security
5. The development of service markets
6. The availability of jobs

## Results

The QOL index, on the one hand, reflects the necessary level of wealth, and, on the other hand, the presence of the necessary infrastructure and other conditions which are necessary to satisfy a person's material and spiritual needs. The QOL index is calculated as a simple average of the following indices [1, 10]:

- The migratory attractiveness of a region. This index is a migratory increase factor fixed by the Federal Service of Government Statistics of Russia. It is the difference between the numbers of migrated and immigrated people divided by 10.000 people on the territory. In case of a bigger amount of immigrated people, the index number is negative. Higher amount of migrated people signifies a better attractiveness of a territory and, therefore, a better quality of life.
- The survival rate of children under one. This is the opposite from the infant death-rate index, a number of deceased kids under one-year-old divided by 10.000 of those who were born. This is one of the most important and universally recognized QOL indices. It reflects both the quality of medical services and parents' health.
- The security of an individual. This is the opposite from the crime-rate index, a number of registered crime acts divided by 100.000 people (according to the data taken from the Interior Ministry of Russian Federation).
- The development of service markets. This index is an amount of charged services per person: the total amount of money, paid by a consumer or an organization he/she works in, for a service rendered to him/her or the members of his/her family divided by a number of people living in a region. This index is edited when taking into consideration an index of physical amount of charged services for a population which shows how the amount of charged services grew as a result of only its physical amount excluding the influence of price dynamics. Therefore, one can avoid the artificial overstatement of the QOL indices due to the inflation [11, 12].
- The availability of jobs. This index is the reverse to the level of unemployment which shows the percentage of the unemployed as related to the total amount of the population of a region capable of working.

- The individual income rate. This index is a relation of an average income rate to the living wage established in a region. The latter is set in Russia's regions by the decisions of the government.

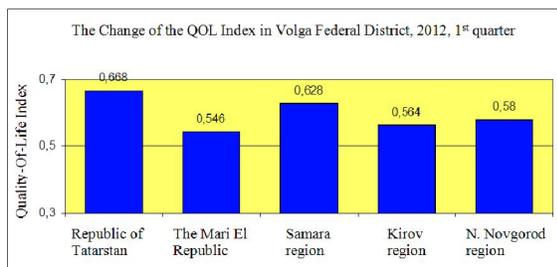
The quarter QO Lindex ( $QL_q$ ) is a line function of six variables which is calculated as follows [11]:

$$QL_q = \frac{W + M + B + C + S + J}{6}$$

where W- the number of individual incomes; M –the migratory attractiveness of a region; C–the survival rate of children under 1; B –the security of an individual; S –the development of service markets; J –the availability of jobs;

**Conclusions**

Thus, one of the paradoxes is that a simple rule seems not to work in Russian regions: the regions with a higher level of economic development should have better social characteristics due to the good chances of QOL improvement than well-developed regions should have, and not vice versa [13]. However, because this does not happen, the function of the central power is a certain evening-out of the regional differentiation in terms of quality of life with the help of the budget transferring system.



**Fig. 1. The Change of the QOL Index in Volga Federal District, 2012, 1st quarter**

Of course, quality-of-life improvement in a region is the problem that should be solved by the local and regional authorities in the first place. Most effectively, it should be done with the help of regional financial and economic potential (within the limits of the unified governmental interests). If some of the aspects of life are lower than the average Russian level due to the damage gained by the region while performing the functions of the state significance, it should be compensated by the Federal budget. These functions include providing a place to locate the dirty industries that have a strategic

significance, reduction of the industries due to the state structure, provision of the necessary facilities for the refugees or displaced people who were forced to migrate, and the compensation of the social damage in the districts with a sudden environmental misbalance.

**Table 1. The constituents of the quarter QOL index [11].**

Region		THE MIGRATORY ATTRACTIVENESS OF A REGION				
#	Region	2008. 1st q.	2009. 1st q.	2010. 1st q.	2011. 1st q.	2012. 1st q.
1.	Republic of Tatarstan	0.609	0.635	0.612	0.634	0.605
2.	Kirov Region	0.510	0.501	0.514	0.533	0.526
3.	The Mari El Republic	0.563	0.527	0.534	0.567	0.532
4.	Nizhny Novgorod Region	0.594	0.605	0.598	0.601	0.584
5.	Samara Region	0.608	0.601	0.628	0.641	0.631
Region		THE INDIVIDUAL INCOME RATE OF A POPULATION				
#	Region	2008. 1st q.	2009. 1st q.	2010. 1st q.	2011. 1st q.	2012. 1st q.
1.	Republic of Tatarstan	0.389	0.445	0.552	0.556	0.593
2.	Kirov Region	0.151	0.217	0.272	0.248	0.292
3.	The Mari El Republic	0.109	0.131	0.223	0.215	0.251
4.	Nizhny Novgorod Region	0.243	0.277	0.366	0.362	0.408
5.	Samara Region	0.316	0.358	0.432	0.452	0.492
Regions		THE SURVIVAL RATE OF CHILDREN UNDER 1				
#	Region	2008. 1st q.	2009. 1st q.	2010. 1st q.	2011. 1st q.	2012. 1st q.
1.	Republic of Tatarstan	0.770	0.853	0.833	0.843	0.865
2.	Kirov Region	0.780	0.755	0.868	0.843	0.760
3.	The Mari El Republic	0.718	0.815	0.773	0.838	0.830
4.	Nizhny Novgorod Region	0.655	0.775	0.798	0.768	0.813
5.	Samara Region	0.788	0.833	0.808	0.855	0.825
Region		THE SECURITY OF AN INDIVIDUAL				
#	Region	2008. 1st q.	2009. 1st q.	2010. 1st q.	2011. 1st q.	2012. 1st q.
1.	Republic of Tatarstan	0.433	0.523	0.516	0.595	0.649
2.	Kirov Region	0.411	0.540	0.597	0.624	0.670
3.	The Mari El Republic	0.359	0.516	0.368	0.416	0.591
4.	Nizhny Novgorod Region	0.399	0.389	0.417	0.427	0.523
5.	Samara Region	0.352	0.377	0.408	0.433	0.563
Region		THE AVAILABILITY OF JOBS				
#	Region	2008. 1st q.	2009. 1st q.	2010. 1st q.	2011. 1st q.	2012. 1st q.
1.	Republic of Tatarstan	0.931	0.948	0.945	0.940	0.919
2.	Kirov Region	0.926	0.924	0.947	0.911	0.906
3.	The Mari El Republic	0.898	0.908	0.906	0.908	0.876
4.	Nizhny Novgorod Region	0.948	0.945	0.951	0.942	0.920
5.	Samara Region	0.944	0.963	0.954	0.946	0.917
Region		THE DEVELOPMENT OF SERVICE MARKETS				
#	Region	2008. 1st q.	2009. 1st q.	2010. 1st q.	2011. 1st q.	2012. 1st q.
1.	Republic of Tatarstan	0.240	0.300	0.348	0.368	0.375
2.	Kirov Region	0.157	0.176	0.194	0.226	0.226
3.	The Mari El Republic	0.149	0.161	0.187	0.190	0.196
4.	Nizhny Novgorod Region	0.185	0.196	0.228	0.224	0.227
5.	Samara Region	0.288	0.316	0.348	0.354	0.338

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