COMMONWEALTH OF INDEPENDENT STATES: LEVEL OF HUMAN AND INFORMATION DEVELOPMENT

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Abstract

To study the issues of the preservation and development of human society, in order to provide conditions for a decent and creative life of people, knowledge is needed about the methods for calculating the indices of the development of people's potential, their life and development. Indices allow you to evaluate, compare and compare many of the criteria and indicators of people's living standards in the regions of the world. They have already been created. This will reveal the changes that are taking place. In the countries with "transitional economies" (the countries of the Commonwealth of Independent States - CIS), the situation has radically changed over the past 25 years. It is necessary to adjust the direction of further development. The CIS countries should occupy a worthy place in the modern information world. However, it is shown that the CIS countries still occupy not very high positions in the HDI rankings.

The purpose of the research is to characterize the positions of the CIS countries in the international rating tables on the Human Development Index (HDI) and the indices of the society's information in dynamics over a number of years.

Results and practical importance: It is necessary to adjust the direction of further development. The CIS countries should occupy a worthy place in the modern information world.

Keywords: CIS, human development, HDI, Indices of information society

1   INTRODUCTION

The profound analysis of human development presupposes a detailed study of the economic, political, administrative, social and social conditions in which human life passes or can pass. As noted in the Human Development Report 2014, "since the United Nations Development Program (further- UNDP) published in 1990 year the first edition of the global Human Development Report, most countries have made significant progress in human development [4], [8]. It is noted that at the global level, the risks are of a transboundary nature. Therefore, it is stressed that collective action is required with the adoption of global commitments and the improvement of international governance. These recommendations are important even now.

The extensive literature in Russia and other countries is devoted to the problems of human development, development and human activities. First of all, the Human Development Reports themselves are of interest,

since each of them focuses on characterizing one of the development directions. For example, the report of 2014 year is devoted to an analysis of the issues of ensuring sustainable human progress while reducing vulnerability and creating resilience. The 2015 year report analyzes employment issues for human development (Human Development Report 2015. Work for Human Development). The human development report 2016 year is called Human Development for Everyone. Human Development Reports (HDRs) are also produced in all regions of the developing world, focusing on regional issues. They contain an analysis of problem situations, and give clear recommendations for their solution. National reports are also issued. So, since 1992 year, with the support of UNDP, more than 700 national HDRs have been prepared. They cover many key development issues (from issues of climate change to the problems of youth unemployment or problems of gender, or ethnic inequality in the world). The scientific works of Zubarevich N.V. about the problems of socio-economic development of Russian regions present great interest [20]. We can note the published studies of Kazakh researchers [13], including the work of the authors of this article [12], [14], [15], [16].

2 SOURCES AND METHODS

The analysis of CIS countries' positions is based on a comparison of the world's rating tables on the Human Development Index in dynamics from 1990 year to 2016 year. The human development index was developed in 1990 year by the Pakistani economist Mahbub ul-Hak and Indian economist Amartya Sen. The first Human Development Report aimed to characterize the problem of comparing the living standards of the population and the well-being of people around the world. The idea was seen as the main goal of political, social and economic processes. All aspects of the life of the population should be considered through a single integrated approach, through the comparison of the complex indices developed by scientists.

Since the first publication on the Human Development Index potential (further- HDIP) or Human Development Index (further- HDI), the main components of this index have been improved and transformed. New indexes were also created. So, for example, scientists began to use the index Gender-related development index (further- GDI), which took into account the gender aspects of the development of society (it characterized the standard of living, health and education separately for men and women). In 1997 year, the Human Poverty Index (further- HPI) was presented in the Human Development Report, where the share of the poorest and richest groups of the population in the national wealth of the countries of the world was calculated [4]. In Canada, a new index for international comparisons of the level of development of society was invented - the Human Progress Index (further- HPI). It included the following indicators: 1) health (life expectancy, infant mortality, proportion of people who do not live up to 60 years); 2) education (literacy rate among the adult population, as for the HDIP index); 3) technology (indicators of communication infrastructure - the number of televisions, radios and telephones per 1000 inhabitants) [5]. It is clear that such a kind of indices, which will only differ to some extent from each other, can create a great variety.

HDIP or HDI (Human development index) in its composition has three important characteristics of social development. It is estimated, first, the indicator of life expectancy of the population from birth (that is, the indicator - longevity). Secondly, the level of literacy of the adult population (or the level of education) is fixed. Thirdly, the standard of living of the population is assessed by the criterion of the level of development of the country's economy - that is, by GDP per capita. Undoubtedly, these characteristics have high correlation dependence.

The index is constantly being adjusted. And the number of indicators and the number of countries - are added. So, in 2010 year, in addition to the HDI (not taking into account the internal inequality of the population in the countries of the world), were added new criteria. On the one hand, the HDI was adjusted for the level of socioeconomic inequality (it was the HDII). Then, gender (or gender - between men and women) inequality was taken into account - the Gender Inequality Index (further- GII). And third, the Multidimensional Poverty Index (further- MPI) was obtained. Therefore, UNDP proposed a more precise definition of the Human Development Index and, in general, the notion of human development. We quote the definition: "Human development is a process of expanding the freedom of people to live a long, healthy and creative life, to achieve other goals that, in their opinion, have value; actively participate in ensuring justice and sustainability of development on the planet "[9].

Currently, UNDP Human Development Reports are being created at different levels - internationally, by country and region. At the same time, many factors are taken into account (the situation in the field of human rights, the possibility of participation in public life, the level of social security, mobility of the population, the level of cultural development, the level of access to information, the level of health development, unemployment, crime, environmental protection, etc.). In the final ranking of the Human Development Index for 2016 year, all 190 states and territories (including Hong Kong and Palestine) are ranked on the basis of the HDI and are classified into four categories: from high HDI level to low HDI level [9].

To explain the low positions of the CIS countries in the international rating of the HDI, calculations of the correlation coefficients between economic developments indicators were performed the degree of dependence of GDP per capita and several indicators of economic development were determined. At the same time it is explained that not so high indicators of the countries of Russia and other CIS countries in international ratings are explained by the transformation processes in the society in the CIS countries in the 1990-2000 years due to the transition of the economy of the former socialist countries "from plan to the market".

3 RESULTS

The analysis of the data showed that the list of rating leaders on the HDIP index (HDI) for the last decades practically did not change. Canada - has been a leader since 1995 year (more precisely - even since 1975 year). Then it was replaced by Norway. And only in 2016 year the new countries entered the TOP-10 (See Table 1).

Table 1: The dynamics of the indicator of the Human Development Index in the leading countries, 1990-2015 years

Countries	1990	1995	2000	2005	2015*
Norway	0.913	0.938	**0.958**	**0.968**	**0.944**
Australia	0.894	0.934	0.949	0.962	0.939
Iceland	0.918	0.923	0.947	0.968	0.921
Canada	**0.926**	**0.932**	0.940	0.961	0.920
Ireland	0.875	0.898	0.931	0.959	0,923
Netherlands	0.914	0.934	0.947	0.953	0.924
Sweden	0.904	0.935	0.952	0.956	0,913
France	0.907	0.925	0.938	0.952	0.897
Switzerland	0.915	0.926	0.946	0.955	0.939
Japan	0.916	0.929	0.941	0.953	0.903

* After 2010 year, the index was adjusted

Source: compiled by the authors based on [6], [7], and [9]

The authors note that in 2016 year new countries entered the group of leaders in the rating of the Human Development Index: following the leaders of Norway and Australia follow: Switzerland, Germany, and Denmark (previously it was not among the top 10 countries), Singapore, Netherlands, Germany, Ireland, Iceland, Canada, and USA.

At the same time, there is almost no change in the list of outsider countries (those who always rank last in the HDI rankings). Among them are mostly the poorest countries in the world (the states of Asia and Africa with very low GDP per capita and educational levels). Nobody doubts that the weak development of the economy leads to poverty of the population, and all this hinders the development of human potential.

Unfortunately, all the CIS republics in the international rankings are not very high places (especially in the period after the collapse of the USSR after 1990 year). Indicators of the HDI index are clearly lower than those of the leading countries, and in recent years, these countries do not actually improve their position in the rating (See Table 2). And in fact earlier in all former socialist countries there were high indicators of a level of education and public health services. Now these indicators are changing and not for the better.

Table 2: The dynamics of the Human Development Index and positions in the ranking of selected CIS countries, 1995-2015 years

Countries	1995	Place in rating	2000	Place in rating	2007	Place in rating	2015	Place in rating
Belarus	0.776	60	0.788	56	0.826	68	0,796	52
Russia	0.779	71	0.781	60	0.817	71	0,804	49
Kazakhstan	0.740	76	0.750	79	0.804	82	0,794	56
Ukraine	0.745	91	0.748	80	0.796	85	0,743	84

Source: compiled by the authors based on [6], [7], [9]

The world countries have different levels of economic and resource potential, they have their own history, peculiarities and problems of development, so they are classified as different types (developed countries, developing countries, and countries with economies in transition). Some of them have a long history of development, while others gained political independence only in the second half of the 20th century, and they still have many problems, including socio-economic ones. In some countries there are high birth rates and natural population growth, and its number is growing very fast, there are many young people. In other countries, there is no such problem, but there are many others. For example, the population of these countries is aging; young people are few, etc. Therefore, it is interesting not only to compare countries on the change in the HDI indicator in the dynamics.

It can be interesting to select groups of countries that differ in terms of human development (the human development index). Experts of the United Nations Development Program usually divide countries into four groups, according to the integrated indicator (from very low to high).

The world's average HDI index in 2007 year was 0.753 (the situation in 182 countries and territories was analyzed) [6]. In 2016 year, the situation was analyzed in 190 countries and territories. Of the CIS countries, only Russia is in the group "with a very high HDI." All other CIS countries are in the "high HDI" group (Belarus, Kazakhstan, Armenia, Azerbaijan, Ukraine, and Uzbekistan) and "with the average HDI" (Moldova, Turkmenistan, Kyrgyzstan, and Tajikistan). At the same time, Russia (49th) is ahead of the BRICS partners rating (as Brazil is in the 79th place, China at 90th, South Africa - 119th, and India only 131st place 190 countries of the world) [9].

All the facts and analysis of the differences in the indices show that the living conditions of people of different countries are not the same. Any changes in society affect the level and quality of life of the population. The economic conditions that have changed in the last two and a half decades in the republics of the former USSR, the restructuring of the economy, the transition "from a planned economy to a market economy" have attracted such negative phenomena to the countries of the post-Soviet space as deep social inequality, unemployment, poverty, "the will" of the employer, low salaries, absence of state trusteeship. Many enterprises were closed (they were often city-forming or the only ones in cities and towns, for example, in single-industry towns), which significantly worsened the material and moral basis of people's lives.

The health care system has changed (medicine has become largely paid). And the level of education of the population and the level of human potential have markedly decreased.

For example, Russia, Tajikistan, Kyrgyzstan ranked below the 85th position in the Rating of 190 countries in the Expenditure on Health (Uzbekistan and Belarus for 104 and 105, Azerbaijan for the 120th, Kazakhstan for 153rd) [2]. In the ranking of the countries of the world in terms of education (Education Index 2016), which is used to calculate the Human Development Index, Belarus is at the 26th position, Russia - on the 34th, Kazakhstan and Ukraine - on the 39th and 40th, Uzbekistan - on the 50th, Armenia - on the 60th, Moldova, Azerbaijan, Kyrgyzstan - on the 63rd, 64th and 65th, and the Tajikistan - on the 97th [1]. In the ranking of the effectiveness of national education systems, Russia is located on the 34th place, Ukraine - on the 42nd (out of 50 countries analyzed) [3]. According to the Life Expectancy Index 2016, the CIS countries are also not among the leaders: Armenia - at the 74th position, Moldova and Belarus - at the 107th and 108th, Ukraine, Azerbaijan and Kyrgyzstan - by 111.112 and 113th , Russia is on the 116th, and Kazakhstan and Tajikistan are at 123 and 125th positions [11].

The authors calculated the correlation coefficients between the indicators for 117 countries of the world,

comparing the dependence of GDP per capita and some indicators. The formula for calculating the correlation coefficients are standard (calculated using the Exel program). The results of the calculations are shown in the table below (See Table 3).

Table 3: The results of calculations of the correlation dependence between the indices

	GDP per capita	The ICT Development Index (IDI)	"The coefficient of industrialization"	Manufacturing value added per capita	Electricity consumption per capita
GDP per capita		0.78	0.76	0.78	0.82
The ICT Development Index (IDI)	0.78		0.74	0.74	0.72
"The coefficient of industrialization"	0.76	0.74		0.95	0.62
Manufacturing value added per capita	0.78	0.74	0.95		0.63
Electricity consumption per capita	0.82	0.72	0.62	0.63	

Source: calculated by the authors

The low GDP per capita in the CIS countries is directly related to the indicators of innovative development (which directly depend on the level and effectiveness of the education systems) and on the level of development of the manufacturing industry. It should also be recalled that in the structure of the economy and exports of such CIS countries as Russia, Kazakhstan, Azerbaijan, the share of extractive industries (primarily the extraction and export of crude oil and natural gas) is too high.

The interest in the problem of human development is expanding. It should also be noted that there is a difference in the interests of the population of older age groups and young people, which grew in the CIS countries during the transition period (when the economy was being restructured "from plan to the market") and in the context of globalization. There is a marked shift towards the materialization of the way of life, towards the growth of satisfaction of the individual demands of the population with a decrease in the spiritual and patriotic aspects of the development of the individual.

In 1996 year, Russia developed a concept for its transition to sustainable development; however, back then the draft Sustainable Development Strategy for the Russian Federation was never adopted. There are more than 10 key documents that have been released in the past decade and that define the priorities, goals, objectives and mechanism for achieving the economic, social and environmental sustainable development goals now.

The research problems of the development of human society must continue, since in the conditions of a postindustrial society, the main value and the main potential for the development of civilization is the person himself, his knowledge and skills.

4 DISCUSSION

At the present, it is no longer possible to imagine a civilized society without information and the latest technologies and communications. Computerization and informatization of society expanded the information (network) space to global dimensions and involved virtually all spheres of human activity in a unified system. Therefore, the very concept of "networked economy" is logical. E-commerce is developing. A networked economy is an economic activity carried out by means of electronic networks. The scientific community is seriously talking about a new paradigm of world development - the Internet of things.

It is the ubiquitous use of information and communication technologies (further -ICTs) that underlies this new type of economy. Huge scale changes are recorded in economic processes. All of them are caused, including the possibility of transferring large amounts of information to any distance - all around the world.

From our conviction in the current conditions that Russia and other CIS countries need not miss a chance and adapt to the complex process of integration into the world economy through ICT. The level of informatization is now the most important indicator of the country's competitiveness. Which determines the possibility of using all electronic means of communication and information technology? Just - the level of literacy of the population, the level of education and qualifications, that is, the overall level of human development (HDIP or HDI).

Since 1996 year, the "Informational Society Index" is calculated. The indicators are broken down into blocks that characterize the computer, information and social infrastructure of society in the states. Since 2001 year, the World Economic Forum and INSEAD Business School published a report - The Global Information Technology Report [17]. This report presents the world rankings according to the "Networked Readiness Index" (further -NRI). This index assesses the level of development of information technology in a country by 67 criteria, divided into several blocks. They combine the parameters reflecting the availability of network infrastructure, and also inform about the opportunities and the probability (readiness for use) of the information infrastructure in the business environment, in state structures (including e-government) and among the population. There are also indicators that assess the real level of ICT use in the country.

The index not only assesses the willingness of a country to participate in the information world, but also shows what lies at the basis of the differences between countries. So, Denmark, Finland, Iceland, Norway and Sweden are almost always among the top ten leaders in the country's readiness index for the networked economy. From 2002 year to 2005 year, the United States took the leading position. The new leader was Singapore. In 2016 year, Singapore leads, followed by Finland, Sweden, Norway, the United States, the Netherlands, Switzerland, the United Kingdom, Luxembourg, Japan [19].

Let's characterize the situation of the CIS and Baltic countries in the list of countries, compiled on the basis of the index of network readiness - NRI in 2008/2009 year. Russia in this list held only 74th place. It was ahead of Azerbaijan (60), Ukraine (62) and Kazakhstan (73). Georgia (88), Moldova (99), Tajikistan (104), Armenia (114), and Kyrgyzstan (115) are located after Russia. The total of 134 states was included in the report [18].

In 2016 year, in the NRI rating, Russia (41 place) was ahead of Kazakhstan (39th position). Below the list are Azerbaijan (53rd place), Armenia (56th), Georgia (58th), Ukraine (64th), Kyrgyzstan (95th), Tajikistan (114th place) [19].

Consider the main problems of development in the example of Russia. The country's territory is very large (17 million sq. km). At the same time, the population is placed extremely unequally (depending on the natural and climatic conditions). The largest part of the population is concentrated in the European part of the country. The main problem lies in the fact that different regions have different levels of development (socio-economic and information). There is a significant difference in the readiness of individual regions to the networked economy. Basically in cities, and especially in large (metropolitan) cities, for example, in Moscow and St. Petersburg, the level of informatization corresponds to the indicators of European countries. But in many regions the situation is quite different [20].

In order to integrate into the community of economically developed countries, already taking advantage of innovative development to a high degree, the CIS countries need to move in this direction. And the development of information technology in the world is not just continuing. The conversation is already about a new paradigm of development - Industry 4.0 [10]. The Government of Germany, within the framework of the High-Tech Strategy-2020, also defined the project "Industry 4.0". It is considered that it represents the main opportunity for Germany to establish itself as the world leader and supplier of products in the field of information technology, which in the near future will seriously change the industrial sector of the economy. It is planned to intensify international cooperation and create new markets based on the Internet. This concept is the Internet of Things.

The experts believe that the world is on the threshold of the fourth industrial revolution, which promises to unite the world of production and the global network into a single Internet of things that makes "Industry 4.0" a reality. Smart ICT machines, systems and networks will collect information, share information and respond to it. It will manage industrial and production processes.

These are absolutely new conditions of life for all mankind. And the level of development of people, the development of their human potential will have to correspond to this stage of development. Only there is a fear that the current "digital divide" - a huge gap between the level of development of the population of rich and poor countries, developed and least developed - will only increase. This gap is also fixed in terms of the Human Development Index (HDI).

People live longer in those countries where great importance is attached to the development of the health care system, as well as where people have better nutrition, where their life and work are secure. Very good financial resources are needed to get a good education. In other words, a high prosperity of the population should be ensured, which can be given first of all in countries that have a high level of economic development. In other words, the order of location in the rating table by GDP per capita is almost the same as that of countries in the HDI.

This is, in our point of view, the methodological weakness of the HDI indicator. Harmonious development of a person, his self-realization in society, the level of satisfaction with life and harmony is far from always determined only by the level of material wealth and informatization of society. Often poor and large families look happier than rich and worried about occasions and business. And loneliness in life also cannot be replaced by the availability of wealth or even very much wealth.

From our opinion, neither the HDI considered by us, nor the new indices can be regarded as an index of measurement of human happiness, satisfaction with life, etc. For example, when assessing the level of development of people, it is important to take into account the characteristics of labor activity. And this is not only work or employment. This is still satisfaction with his work. Now there are (and in all countries of the world) unequal labor opportunities and unfair remuneration for work (including on the basis of gender - among the male and female population). All of this does not promote development, but, on the contrary, leads to the rooting of inequality. Globalization and the "digital revolution", on the one hand, contribute to the creation of enabling opportunities, on the other - generate contradictory moments and risks. The advantages and wealth (national wealth) in all countries of the world are distributed unevenly. There are very rich and very poor people. Social stratification is very significant.

5 CONCLUSIONS

All countries of the Commonwealth of Independent States require a serious state policy in order to create favorable opportunities for improving the living conditions of the population, for opportunities to find their place in the labor market for people of different sex and age (both for the local population and for migrants from other countries). And the number of refugees and migrants in the conditions of globalization only increases. In other words, there are many questions that the applicable human development indices do not give an answer.

Nevertheless, the Human Development Index (HDI), which we analyzed, has helped scientists for many decades to compare countries of the world that differ in their level of economic development, the level and quality of life of the population.

The presentation of the Report on Human Development in the Russian Federation "Environmental Priorities for Russia" included discussions of how Russia should go about transitioning to a sustainable environmental development model, as well as why this model can ensure efficient use of the country's natural resource in the long run while eliminating the impact of environmental threats on the human health. One real life example of this approach would be the Environmental Security Strategy through 2025 and the Economic Security Strategy of the Russian Federation through 2030 year.

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