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REGIONAL DEVELOPMENT INDICATORS CASE STUDY- SERBIA

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ABSTRACT: *Apart from various indicators, this paper is mainly focused on „The index of human resource development" (Human development index) as the most relevant indicator of regional development in modern conditions. The ranking of the countries in the United Nations is based on this index. All the data for the calculation of this index are taken from the official websites of the United Nations, the World Bank, Vienna Institute for International Economic Studies and Republic Institute of Statistics.*

Keywords: *Human development index, Indicators of regional development*

INTRODUCTION

Regional development is determined, apart from historical and development and strategic orientation, but also by the basic features of the resources: uneven territorial distribution, poorness and „imperfect mobility." It has to be observed in a broader context, like a set of contents and activities in an area. Regional development can be achieved by eliminating negative defects and this is achieved by interregional relations. The important thing is that the development of the region cannot be based on its tightness, because only by the connectivity and joint action it is possible to eliminate most of the problems (European Union, 2010).

One of the most important instruments of European Union, since its foundation, is the regional policy. Namely, in all the EU documents the special accent is put on the balanced regional development. Thus, in the preamble of the Treaty of Rome from 1958 it says that „Member States are anxious to strengthen the unity of their economies and to ensure their harmonious development by reducing the differences existing between the various regions and the backwardness of the less favoured regions." (European Union, 2010).

When it comes to indicators of regional development, it can be a relative concept. Namely, in the past, number of telephone lines per colony, number of cars, number of

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washing machines and etc. were mentioned as relevant indicators. (Radat, 2007). Nowadays, these indicators sound funny considering the fact that each resident has a mobile phone (many of them have two or more), each household has a washing machine, a car, etc.

Today, however, some other indicators are important and the United Nations and European Union insist on them. „Social Indicators" have a special significance. So, since 1990 the United Nations annually publish „The Human Development Report,"whose aim is to „analyze how economic growth is converted into human development"(United Nations, 2010). Also, the aim of the report is putting people at the center of development. The Human development index, as a life expectancy, education and income indicator, was used to rank the countries of the world.

EUROPEAN UNION AND REGIONAL DEVELOPMENT

European Union is basically the integration of countries, which was established with the aim of creating common economic space that will be imposed as a leader in developed world. Creating and supporting the common politics and regional approach in its development is the Union's vision and mission. The creation of a single EU market has led to a wide range of benefits like smooth flow of goods, people, capital and information, but it has also led to wide range of problems to the existing members as well as the ones that have yet to become. Primarily, those are the problems of strong competition and the costs of opposing, as well as the need for harmonization of the legal framework. Due to the inability of member states to deal with them, the Union's aim is the achievement of social and economic cohesion, reducing inequalities in its whole territory. Primarily, it refers to the less developed regions and countries. National economies don't have the strength to cope with the growing competition, as a consequence of the single market and globalization; and we must not neglect the fact of the faster development of the already developed areas and even greater lag of the undeveloped ones (European Union, 2010).

The Union applies number of programs which give incentives to regions in order to overcome the existing problems. Incentives are not based only on financial resources, but the emphasis is on assisting member states, while the national measures play the most important role. Besides an individual approach to each region, the Union encourages cross- border cooperation. What is important is that the member states, as well as the candidates, should base their principles on regional development. For this purpose, national development strategy should be built, as well as the regional development strategy, and a range of bodies such as the National Agency for Regional Development should be established, too (European Union, 2010).

Priorities of regional policy of the European Union (European Union, 2010):

- To encourage innovations, research and entrepreneurship, to relate sources of knowledge and industry for their commercialization, to create favorable political, economic, market and financial climate for enterprise development;
- To ensure full employment and non discriminatory access, to allow retraining and additional qualification to create new job opportunities, to adjust the educational system to labor market needs and the concept of „lifelong learning;"

- To create a market that will be able to fulfill the needs of economy and that will take into account the social and regional differences;
- The creation of network roads and infrastructure, for better connectivity of regions, and Union States;
- Sustainable development should be based on environment protection by introducing new renewable energy technologies.

Namely, the development of the country as a whole can be seen „through the development of its regions because only the developed regions mean developed society."(European Union, 2010).

HUMAN DEVELOPMENT INDEX

As a very significant and good indicator of the regional development „The human development index" (HDI) is mentioned nowadays. Namely, since 1990 the United Nations, annually publish „The report about the development of human potential" which represents the calculated result of „the report of human development index" for every country, and on that basis the ranking of countries is carried out (European Union, 2010).

The concept of „human development" starts with the fact that the true wealth of a nation are the people, so it actually represents the creation of that kind of environment where an individual person can develop his or her full potentials, and to lead a productive life according with his/her needs and wishes. Respectively, the concept of HDI is a summary indicator of human development. Therefore, the aim of „human development" is putting people in the center of development. Also, the main prerequisite of „human development" is for people to live a long and healthy life, to be educated, to have access to resources and to have possibility to participate in community life (United Nations, 2010).

Calculation of Human Development Index (Methodology I)

HDI is a composite development index of a certain territory. Three main dimensions are included into HDI: the possibility of long and healthy life, the level of education, economic well- being expressed in production e.i. domestic product of the territory (United Nations 2010).

Life expectancy is measured by life expectancy at birth, the average number of years from the time of birth to death (Republic Institute of Statistics, 2010).

Level of Education is measured by the adult literacy rate combined with the gross enrollment ratios of students in primary school through the university level. The adult literacy rate, above 15 years, is referred to a population expressed in percentages, in total or by genders in a specific country, territory or geographical area, at a given time (Republic Institute of Statistics, 2010).

Standard of living is adjusted with the gross domestic product per capita in purchasing power party terms, based on United States dollars. Gross domestic product is

Table 1. Dimensions, indicators and HDI indices

GLOBAL DIMENSION	INDICATORS	DIMENSION INDEX	
Life standard	GDP per capita	GDP index	HDI (Human Development Index)
Education	Involvment in education Adult literacy	Education index	
A long and healthy life	Life expectancy	Life expectancy index	

(United Nations, 2010)

defined as the monetary value of all the finished goods and services produced within a country's borders in a specific time period, and is usually calculated on an annual basis (Republic Institute of Statistics, 2010).

When it comes to calculation of HDI, the point is that it represents the simple arithmetic mean of the three main indices (United Nations, 2010):

$$HDI = (I_1 + I_2 + I_3) / 3$$

- I_1- Life expectancy index
- I_2- Education index
- I_3- Gross domestic product index

Considering the fact that each index measures relative achievements, each indicator has predefined minimum and maximum values. In order to calculate the index, it is important that each of the indicators has a certain value between 0 and 1, based on the relative position of the country.

Table 2. Internationally defined minimum and maximum values of the indicators

INDICATOR	MINIMUM VALUE	MAXIMUM VALUE
Life expectancy	25	85
Adult literacy rate (%)	0	100
Gross enrollment ratio (%)	0	100
GDP per capita (PPP US$)*	100	40000

(United Nations, 2010)

**Purchasing power party terms, based on US$*

All the indices listed, except from literacy index, represent the ratio of the difference of the actual and minimum values and the maximum and minimum values.

Therefore, formulas for specific indicators are (United Nations, 2010):

Life expectancy index

$$I_1 = (\text{life expectancy in the country} - 25) / (85 - 25)$$

Education index is a weighted arithmetic mean of literacy index (I_l) with a weight of ⅔, which includes the enrollment in education (I_e), with a weight of ⅓. Therefore, it is necessary to calculate the literacy index and enrollment in education index. This is achieved in the following manner:

$$I_l = (\text{literacy rate} - 0) / (100 - 0)$$
$$I_e = (\text{enrollment in education} - 0) / (100 - 0)$$

Once calculated these two indices, it is possible to calculate the education index using the formula:

$$I_2 = (2 \cdot I_l + I_e) / 3$$

Gross domestic product index – To allow international comparison GDP per capita is transformed in purchasing power party, expressed in United States dollars (PPP$). This value is later on transformed into logarithm (GDP per capita) and in this way income distribution can be taken into account. This means that the increase in income on the lower levels has a bigger influence on GDP index. Then GDP index is measured by dividing the difference of the logarithmic values of GDP for certain country according to internationally established values (United Nations 2010).

$$I_3 = (\log(\text{GDP per capita}) - \log(\text{min. value})) / (\log(\text{max. value}) - \log(\text{min. value}))$$

After calculating individual indices, according to the above formulas, calculation of HDI is quite simple.

If HDI is calculated in this way, countries in the world are ranked as follows: *countries with high human development* (the value of HDI is above 0.800), *countries with medium human development* (the value of HDI is between 0.780 and 0.800), *countries with low human development* (the value of HDI is between 0.550 and 0.780) and *countries with very low human development* (HDI is below 0.550) (United Nations, 2010).

Methodology II

There is another way of HDI calculation applied by the United Nations. The main difference between the previously mentioned way and this one is that with „education dimension" instead of rate of the education and literacy of adults, the mean years of schooling and expected years of schooling are considered, based on which the combined education index is calculated. But for „living standards" the GNI per capita is taken instead of GDP (United Nations, 2010). In that case, internationally defined maximum and minimum values of the indicators are as follows (Table 3).

In this case, life expectancy, mean years of schooling and expected years of schooling are measured using the formula (United Nations, 2010):

$$I = (\text{actual value} - \text{min. value}) / (\text{max. value} - \text{min. value})$$

Table 3. Maximum and minimum values of the indicators

INDICATOR	MINUMUM VALUE	MAXIMUM VALUE
Life expectancy	20	83.2
Mean years of schooling	0	13.2
Expected years of schooling	0	20.6
Combined education index	0	0.951
GDP per capita (PPP US$)	163	108211

(United Nations, 2010)

While the combined education index is measured by means of the formula:

$$I = \frac{\sqrt{\text{mean years of schooling} \cdot \text{expected years of schooling index}} - \text{min value}}{\text{max value} - \text{min value}}$$

Income index is measured in the following manner (United Nations, 2010):

$$I = (\ln(\text{actual value}) - \ln(\text{min.value})) / (\ln(\text{max.value}) - \ln(\text{min. value}))$$

Based on the obtained indices, the HDI is measured using the formula (UN, 2010):

$$HDI = \sqrt[3]{I_{\text{life}} \cdot I_{\text{education}} \cdot I_{\text{income}}}$$

If the HDI is calculated in this way then the certain differences appear in its value in relation to the calculated value of „the first way". Also, there are certain differences in the ranking of countries with respect to the value of HDI, measured in this way. Thus, the group of countries with high human development is the one with the HDI value above 0.785, countries with medium human development have the HDI value between 0.670 and 0.785; the HDI value of countries with low human development is between 0.480 and 0.670, while for countries with very low human development the value of HDI is 0.480 (United Nations, 2010).

RANKING OF COUNTRIES BASED ON HDI VALUES

Based on the result values of „Human development index" for each country, United Nations annually perform ranking of the world countries. In this way all countries of the world are divided into four groups: countries with high human development, countries with medium human development, countries with low human development and countries with very low human development (United Nations, 2010). Analyzing these results, the difference between most developed and least developed countries is very visible. Thus, according to available data from 2010, the first country in the world by HDI

Table 4. Top ten countries with the highest HDI

Country	HDI value	Life expectancy	Mean years of schooling	Expected years of schooling	GNI per capita
Norway	0,938	81	12,6	17,3	58810
Australia	0,937	81,9	12,0	20,5	38692
New Zealand	0,907	80,6	12,5	19,7	25438
United States	0,902	79,6	12,4	15,7	47094
Ireland	0,895	80,3	11,6	17,9	33078
Liechtenstein	0,891	79,6	10,3	14,8	81011
Netherlands	0,890	80,3	11,2	16,7	40658
Canada	0,888	81	11,5	16,0	38668
Sweden	0,885	81,3	11,6	15,6	36936
Germany	0,885	80,2	12,2	15,6	35308

(United Nations, 2010)

with the value of 0.938 (Methodology II) is Norway, while the last place belongs to Zimbabwe with HDI value of 0.140. Table 4 presents ten countries with the highest HDI in 2010, according to the United Nations data.

Among the top twenty countries with high HDI value are European countries, North American and Australian, while there are only two Asian countries in this group (Japan and South Korea). As opposed to countries with high human development whose HDI value is above 0.785 , there are counties with very low human development with HDI value below 0.475. Table 5 presents ten countries with the lowest HDI value in 2010.

Based on the data available to the United Nations, among the countries with the lowest human development index there are African and Asian countries, and one Caribbe-

Table 5. Countries with the lowest HDI value

Country	HDI	Life expectancy	Mean years of schooling	Expected years of schooling	GDP per capita
Zimbabwe	0,140	47,0	7,2	9,2	176
Congo	0,239	48,0	3,8	7,8	291
Niger	0,261	52,5	1,4	4,3	675
Burundi	0,282	51,4	2,7	9,6	402
Mozambique	0,284	48,4	1,2	8,2	854
Guinea-Bissau	0,289	48,6	2,3	9,1	538
Chad	0,295	49,2	1,5	6,0	1067
Liberia	0,300	59,1	3,9	11,0	320
Burkina Faso	0,305	53,7	1,3	5,8	1215
Mali	0,309	49,2	1,4	8,0	1171

(United Nations, 2010)

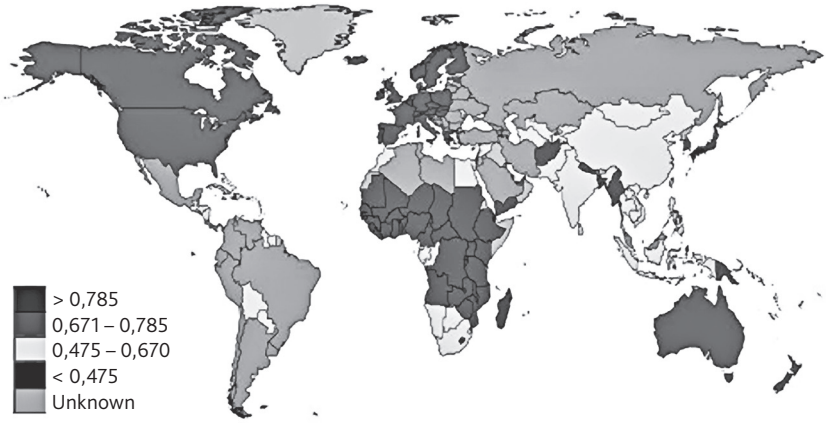

Figure 1. Cartographic representation of the world countries according to the HDI value (Methodology II), (United Nations, 2010)

an (Haiti). Using HDI it can easily be seen the gap between most developed and least developed countries. One of the main indicators is life expectancy which is over 80 years in almost all developed countries whereas in the least developed countries life expectancy almost never exceeds 50 years (United Nations, 2010).

Based on the obtained HDI values, United Nations, annually, perform mapping of the ranked countries. In Figure 1 there is a cartographic representation of countries of the world, which are divided into four main categories, according to 2010 HDI values.

HDI VALUE OF SERBIA

Serbia made the first HDI report in 1996. According to the report, the HDI value was 0.725, which meant it was in the group of countries with medium human development. That year , according to HDI value Serbia took 87th place out of 174 world countries (United Nations, 2010).

According to the available data, from the Republic Institute of Statistics and Vienna Institute for International Economic Studies (WIIW), it is possible to calculate the value of HDI in the last few years.

Life expectancy[1] – According to the available data, life expectancy in Serbia in 2010, was 74.4 years (Republic Institute of Statistics, 2010). Using the above mentioned formula the value of life expectancy index in Serbia in 2010 was 0.823.

Education index[2] – For calculating this index, the literacy data are available for year 2002 and the estimate includes educated population for the year 2004. Literacy rate in Serbia is 96.6% while the average rate education is 74.2% (Republic Institute of Statistics, 2010). To get education index value first it is necessary to calculate literacy rate ed-

[1] $I_1 = (74.4 - 25) / (85 - 25) = 0.823$

[2] $I = (2 \cdot 0.966 + 0.742) / 3 = 0.891$

ucation (value 0.742). After that, using the education index formula we get the value of 0.891.

Gross Domestic Product Index[3] – This index is calculated by dividing the difference of indicators of logarithmic values of GDP. GDP per capita (PPP US$) in Serbia in 2010 is 5485 American dollars (The Vienna Institute for International Economic Studies, 2010). So the value of GDP is 0.668.

Using the above calculated index, we come to the HDI value for Serbia that is:

$$HDI = (0.823 + 0.891 + 0.668) / 3 = 0.794$$

Based on the obtained HDI values, we can conclude that Serbia is in the group of countries with medium „human development".

Table 6 represents HDI values for the period between 2005 and 2010. The analysis of the data presented can show that the life expectancy and education indices do not vary much in short intervals.

Table 6. HDI values for the period between 2005–2010

Year	Education index	Life expectancy index	GDP index	HDI
2005.	0.891	0.810	0.658	0.786
2006.	0.891	0.810	0.658	0.786
2007.	0.891	0.815	0.662	0.789
2008.	0.891	0.818	0.690	0.799
2009.	0.891	0.820	0.668	0.793
2010.	0.891	0.823	0.668	0.794

(Republic Institute of Statistics, 2010; WIIW, 2010)

If you use Methodology 2 for calculating HDI, then its value will be different from the previous one, however, there will be no change involving the position of Serbia, e.i. it will still be in the group of countries with medium human development.

Namely, it is necessary to calculate five different indices:

Life expectancy index[4] – life expectancy at birth is 74.4 years, so the value of this index is 0.860.

Mean years of schooling index[5] – mean years of schooling in Serbia is 9.5 years (Republic Institute of Statistics, 2010). Using the formula for the given index we get the value of 0.719.

Expected years of schooling index[6] – expected years of schooling are 13.5 years (Republic Institute of Statistics, 2010.) The calculated value of this index is 0.655.

[3] $I = (\log 5485 - \log 100) / (\log 40000 - \log 100) = 0.668$

[4] $I = (74.4 - 20) / (83.2 - 20) = 0.860$

[5] $I = (9.5 - 0) / (13.2 - 0) = 0.719$

[6] $I = (13.5 - 0) / (20.6 - 0) = 0.655$

Based on the previous two indices ***combined education index***[7] is obtained, and its value is 0.721.

For calculating the ***income index***[8], GDP per capita is used, and in 2010 it was 10449 US dollars (The World Bank, 2010). The value of income index is 0.640.

Using the life expectancy index, combined education index and income index, the HDI value is calculated using the following formula:

$$\text{HDI} = \sqrt[3]{0.860 \cdot 0.721 \cdot 0.640} = 0.735$$

Therefore, according to this value, Serbia is in the group of countries with the medium human development. Also, based on the determined HDI value for 2010 Serbia is in the 60th place according to the value of „Human Development Index".

If we apply this methodology for calculating the HDI, we will get the values for the period between 2005 and 2010 as shown in table 7.

Table 7: HDI values for the period between 2005 and 2010

Year	Life expectancy index	Combined education index	GDP index	HDI
2005.	0.860	0.721	0.617	0.725
2006.	0.860	0.721	0.626	0.729
2007.	0.860	0.721	0.638	0.734
2008.	0.860	0.721	0.641	0.736
2009.	0.860	0.721	0.638	0.734
2010.	0.860	0.721	0.640	0.735

(Republic Institute of Statistics, 2010; The World Bank, 2010)

Differences in HDI values in the country

On the territory of Serbia regional differences in level of development are quite expressed, measured by the HDI. The City of Belgrade, which is a separate region by the population size and economy, is a leader in education and economic strength, while life expectancy is lagging. But as a whole, it has the biggest HDI value. Central Serbia has the lowest HDI value, while for Kosovo and Metohija there are no reliable statistic data, so there is no precise HDI value for this region.

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7 $I = \dfrac{\sqrt{0.719 \cdot 0.655 - 0}}{0.951 - 0} = 0.721$

8 $I = \dfrac{\ln(10449) - \ln(163)}{\ln(108211) - \ln(163)} = 0.640$

Table 8. HDI values by regions

Year 2005				
	Education Index	Life Expectancy Index	GDP Index	HDI
Belgrade	0.999	0.798	0.765	0.854
Vojvodina	0.877	0.772	0.699	0.782
Central Serbia	0.835	0.800	0.619	0.752
Republic of Serbia	0.891	0.810	0.658	0.786
Year 2010				
	Education Index	Life Expectancy Index	GDP Index	HDI
Belgrade	0.999	0.798	0.807	0.868
Vojvodina	0.877	0.772	0.692	0.780
Central Serbia	0.835	0.800	0.730	0.788
Republic of Serbia	0.891	0.823	0.668	0.794

(Republic Institute of Statistics, 2010)

Table 8 represents HDI values and its components of the regions in Serbia for the period between 2005 and 2010.

Analyzing the previous table we can conclude that , since 2005, the biggest rise in HDI value was achieved in Central Serbia, with the increase of 4.5%, while in the Belgrade region the increase was 1.5%. In contrast to that, in Vojvodina, the HDI value was reduced to 0.2%.

Analyzing the data from 2004 (considering the fact that the data from the following years are not available) big differences in HDI values in the districts of Serbia can be determined. Namely, the City of Belgrade has the highest HDI value (the value for year 2004 is 0.854), while Pcinjski District has the lowest HDI value, which is 0.696 (United Nations, 2006). So that, if we apply the International comparisons to the existing differences in Serbia, we could come to conclusion that the City of Belgrade falls within the range that applies to countries with high „Human Development", and as a contrast to that, Pcinjski District like most Districts in Serbia belongs to the group of countries with low „Human Development". Specifically, performance indicators for the City of Belgrade are comparable with the indicators of EU countries like Slovakia and Lithuania (the HDI value 0.856 e.i. 0.857). HDI value of Pcinjski District is comparable to the indices of Dominican Republic and Thailand (0.695 e.i. 0.683) (United Nations, 2010).

Figure 2 shows the HDI values for Districts of Serbia in 2004. Based on this, it can be concluded that only three Serbian Districts (City of Belgrade, Nisavski District and South Backa) can be sorted into countries with high „human development", one District (Northern Backa) can be sorted into countries with medium „human development," while the highest number of districts, twenty one, is sorted into countries with low „human development."

Figure 2. HDI values by districts for 2004 (Republic Institute of Statistics, 2010)

SERBIA'S POSITION IN RELATION TO OTHER COUNTRIES IN THE REGION WITH REGARD TO HDI VALUES

Analyzing the HDI value in the region, e.i. southeast Europe, the position of Serbia can be determined among the countries concerned. Based on the data of the United Nations Organizations and The World Bank, the HDI values for the ten countries in the region and the results are shown in table 9.

Analyzing the previous table we can conclude that Serbia lags behind most countries in the region when it comes to Human Development Index. Particularly noticeable is the lag behind some countries of the former Yugoslavia, the ones that have undergone the

Table 9: Values of HDI in the region in 2010.

Country	Education index	Life expectancy index	GDP index	HDI
Slovenia	0.974	0.896	0.912	0.927
Hungary	0.916	0.861	0.822	0.866
Croatia	0.960	0.815	0.812	0.862
Montenegro	0.891	0.826	0.814	0.843
Romania	0.915	0.803	0.738	0.818
Bulgaria	0.929	0.810	0.685	0.808
Serbia	0.891	0.823	0.668	0.794
Albania	0.886	0.865	0.616	0.789
Bosnia and Herzegovina	0.874	0.841	0.643	0.786
Macedonia	0.883	0.825	0.632	0.780

(United Nations, 2010; The World Bank, 2010)

same problems and conflicts as Serbia, but managed to join the group of countries with high „human development" rate.

In contrast to that, Serbia, along with Albania, Bosnia and Herzegovina and Macedonia, is in the group of countries with medium „human development".

Analyzing the individual components of „human development index" it is possible to conclude that Serbia and other countries in the region have similar achievements in the field of education and life expectancy, with the exception of Slovenia that has better results in all the HDI components.

Based on this, we can conclude that economic impact is the main reason for the lower achievements of Serbia in terms of „human development".

CONCLUSION

Besides the above mentioned components of „human development index", the United Nations Organization uses a number of different components in order to provide a more accurate „human development." CO2 emission per capita, unemployment rate, percentage of internet users etc. Besides HDI there are also the accompanying indices, among which are indices that are specifically focused on gender issues (GDI- Gender-related Development Index) (United Nations, 2010).

However, even though HDI is a powerful staging tool it does not represent comprehensive measure. It still does not include some important aspects of human development, e.i. the opportunity to participate in decision making on issues that affect human life and the opportunity to have respect of others in the community, because these aspects are hard to show synthetically in a statistical sense (United Nations, 2010).

When it comes to Serbia, the analysis of „human development" clearly shows that the country has relatively good results in health and education indicators. However, it can

be assumed that a big part of defects involving „human development" in Serbia is caused by prolonged economic crisis, which began with the disintegration of former Yugoslavia, and afterwards is exacerbated by conflicts and sanctions during the 1990s. Also, analyzing all the above, we can draw two main conclusions: firstly, in the last seven or eight years, Serbia has made a significant progress involving „human development", primarily by increasing the value of GDP per capita; and secondly, besides that, most socio-economic indicators for Serbia are still far from European standards.

REFERENCES

Petkovic, V. (2006). Local Economic Development of the Jablanica District - Analysis and recommendations for further development, Belgrade: Serbian Economic Forum.

Radat, D. (2007.). Information and communication model using EU funds for regional development purposes, Varazdin: University of Zagreb.

Dzelebdzic, O. (1994). Indicators and criteria of settlements in the municipal and regional spatial plans, Belgrade: Faculty of Geography.

European Union (2010). *Regional Policy*, [19. 02. 2010] [http://ec.europa.eu/regional_policy/index_en.cfm]

Statistical Office of the Republic of Serbia (2010). *Data base*, [21. 02. 2011] [http://webrzs.stat.gov.rs/WebSite/public/ReportView.aspx]

The Vienna Institute for International Economic Studies (2010). *Country expertise*, [02. 03. 2011] [http://www.wiiw.ac.at/?action=publ&id=countriesall]

The World Bank (2010). Countries & Regions, [07. 03. 2011] [http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/0,,pagePK:180619~theSitePK:136917,00.html]

United Nations (2006). *Human Development Report Serbia 2005*, [22. 02. 2011] [http://hdr.undp.org/en/reports/national/europethecis/serbia/name,3304,en.html]

United Nations (2010). *International human development indicators*, [16. 02. 2011] [http://hdrstats.undp.org/