

EUROPEAN FUNDS AS FACT OF SUSTAINABLE DEVELOPMENT IN CENTRAL EASTERN EUROPEAN COUNTRIES

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Abstract. *In this paper Pearson correlation coefficient method was performed to test the hypothesis whether the use of European funds as a form of foreign aid supports the development of countries, based on sustainability as a tool which meets human needs while the environment is preserved. The results obtained show that the application of European funds as participation in a country's economy does not support its sustainable development as expected. Some of the possible reasons for these findings are discussed in the paper.*

This paper brings its contributions to the literature by presenting the first empirical indications of the negative relationship between the actual level of EU funds exploitation and the Happy Planet Index (HPI). HPI is considered as an appropriate index that measures the success of the use of funding, observed from the aspect of sustainable development for the future.

Key Words: *foreign aid, European funds, policy making, sustainable development*

INTRODUCTION

The significant role of the European Union (EU) in the world economy is evident. Keeping up with its current importance within the world economy will be a major challenge in the upcoming years for the European Union. This alliance is forced to protect its own interests by the constant changes in its macro surrounding. In this sense, all of this

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cannot be reached without internal cohesion and economic power inside the EU itself (DG REGIO, 2005).

For this purpose, the EU has developed a clear aim to economically strengthen all its present members, but also its prospective members before they join this EU alliance. This is the reason why the EU develops mechanisms to provide financial assistance by establishing the EU funds. Apparently, effective utilization of the support coming from the EU can foster economic and social development of a country that receives it. It is a responsibility of each of the countries to utilize resources appropriately and in this manner meet the objectives given by the European Union.

The absorption of EU funds is a measurement of the EU funds usage, but also a measurement of fulfillment of the task to accelerate development of the states, and build a common European cohesion. Specific importance of the EU funds, which is often neglected, may be considered as a focus on development of certain sectors. By pushing the development of certain areas, EU funds can contribute to the long-term development and survival of European countries and their citizens. This aspect should be taken in consideration. The goal of this paper is to discuss the use of EU funds from the view of forcing sustainable development of the EU countries and the whole EU. This is a new approach to the EU funded project management by using measure of correlation between selected corresponding indexes and realized financial resources from the EU funds (The enlargement process, 2002).

1. LITERATURE REVIEW

Many research studies on the effects of EU funds are based on the measure of EU funds use at the beginning of the phase when they are allocated to a country. A lot of them discuss it through a few items which represent the level of funds use if they are only allocated or already paid. Important levels of funds use are following:

- available budget: Represents allocated financial resources for a state according to officially accepted National strategic framework. It is the amount accessible for applicants or potential beneficiaries.
- contracted resources: Represent financial resources which are already contracted by the competent authority. This is for officially accepted projects through severe European procedure.
- paid (realized) resources: Represent resources used for implementing projects or parts of projects.
- Absorption: Represents the amount of actual paid resources divided by available budget for the same period. (KPMG, 2010).

As far as the authors know, no empirical studies were done with the main aim to observe the absorption capacities of the Structural Funds before the year 2003. Brief coverage of some general macroeconomic aspects regarding the absorption problems brings authors closer to the central topic of their paper. Namely, the question is raised to answer how to measure the administrative capacities of particular candidate countries for Structural Funds. These measurements deal with the methodology and calculations of the administrative capacities in candidate countries before the end of 2003 (Horvat, Maier, 2004). A number of authors deal with the influence of the exploitation of the EU funds in

the process of Europeanization. There are attempts to measure the effects of funding on the process of acceptance of European values (Alakavuk, 2007).

Very rarely authors use some econometric model as Oana Gherghinescu (Gherghinescu, 2010) who presented data of an ARCH like model in order to analyze the absorption of Structural Funds in Romania. With an essay, by identifying the factors which influence the absorption rate of the Structural Funds in Romania, Corina Berica intended to make the first step in solving this problem (Berica, 2010).

Some studies present the difference in absorption rate between new (EU8) and old (EU15) member states (Marinov, V., Bahloul, H., Slay, B., 2010). The new member states have been posed with a great challenge to absorb effectively these structural funds. These challenges reflect both the magnitude of these funds, but also the strict and often complex requirements for their utilization. In qualitative terms, effective absorption requires inter alia the democratic articulation of stakeholder needs and priorities (Kranjac, 2010).

Some papers discuss modeling framework which has been widely used for Structural Funds analysis. The HERMIN model is used the most. They stress possible weakness of this model as the relatively high level of sectoral aggregation. For policy makers, particularly those interested in industrial policy, a breakdown within the model (e.g. breakdown of manufacturing into sub-sectors) would be interesting. The reason for this is observed in the different benefits that certain sectors could consume more or less from the Structural Funds (Bradley, J., Morgenroth, E., Untiedt, G, 2003).

In the speaking notes for introduction to plenary feedback session of Fifth European conference on evaluation of the structural funds „Challenges for evaluation in an enlarged Europe" (Budapest, 2003), it was stated that the EC herself will have to organize the ex-post evaluation of all programs funded during the 2004-2006 period. Evaluation can be addressed in many various ways in order to make progress: in terms of timing (ex ante, ex post), focus on the level (policy, program or project), at the scope (macro, mezzo or micro). It can look at financial, economic or social dimensions. Here we find specific sectors (environment, employment) as way to evaluate absorption capacities. Results of the authors of this paper research present evaluation of EU funds absorption capacities from the point of sustainability during process of countries development. This means, how the elected projects direct countries toward protection of environment and reasonable resources use.

Some papers said that while interest and demand in EU funding for (energy efficiency) EE and (renewable energy resources) RE measures is on the rise, the research findings show one major trend across all countries subject to this study - EU funds available for EE and RE projects are being contracted and spent very slowly. Almost three years have passed within 2007-2013 programming period, and the number of contracted projects is still low and really small value of spending has been utilized in practice. However, simultaneously these same countries are struggling to absorb as much as possible of the available funding. The total EU funds allocations for EE measures between 2007 and 2013 in all seven countries, where the field research took place, amounts to 1796 million EUR, whereas only 16.3% resources were absorbed. A great number of the countries have experienced and are still experiencing a very slow absorption rate (http://www.inforse.dk/europe/EU_SF_RE_07_13.htm).

2. EU FUNDS AS A TOOL FOR DIRECTING COUNTRIES DEVELOPMENT TOWARDS EU VALUES

The authors compare success of EU funding process with some indexes that are implemented to make an integrative measure of citizens satisfaction and relative efficiency of the conversion (on the national level) of the planet's natural resources into long and happy lives for the citizens in the observed counties. In such a way, the sustainable development is created and European values are supported. One of many existing indexes established by various organizations (like the UN) is taken into consideration. Having in mind sustainability as a significant indicator for the people: the potential for long-term maintenance of well being (which is characterized by its environmental, economic, and social dimensions) and encompasses the concept of stewardship, the responsible planning and management of resources (<http://www.happyplanetindex.org>) we have chosen the Happy planet index (HPI) as an appropriate indicator of the reached sustainable growth.

2.1. The Happy Planet Index (HPI)

The Happy Planet Index (HPI) is an index with an interesting feature to combine environmental impact with human well-being, for the purpose of measuring the environmental efficiency with which, differently among the countries, people live long and happy lives. For the first time it was brought up in July 2006, by the New Economics Foundation (NEF). The index is designed to challenge well-established indicators of development for the certain country, such as the Gross Domestic Product (GDP) and the Human Development Index (HDI), which do not take into account the point of sustainability. In particular, GDP is seen as inappropriate, because the usual ultimate aim of majority of the people does not necessarily have to be seen as monetary prosperity, but more probably as health and level of happiness (Sen, 1999). The Happy Planet Index reveals the ecological efficiency with which human well-being is delivered.

The Index does not necessarily reveal the country with the highest level of happiness in the world. However, it indicates the relative efficiency of the nations, when they convert the planet's natural resources into long and happy lives for their citizens. It also shows that there are different ways to achieve comparable levels of well-being. The model followed by the West can provide widespread longevity and variable life satisfaction, but it does so only at a vast and ultimately counter-productive cost in terms of resource consumption.

The HPI explains the economy perspective right back to its basic simplicity: what we input (resources), and what the output is (human lives of different length and different levels of happiness). The HPI value of each country is calculated as a function of its:

- average subjective life satisfaction,
- life expectancy at birth, and
- ecological footprint per capita.

This index also gives a relative picture of the carbon efficiency of European nations. The HPI reflects the average years of happy life produced by a given society, nation or group of nations, per unit of planetary resources consumed.

$$\text{Happy Planet Index} = \frac{\text{Happy Life Years}}{\text{Ecological Footprint} + \alpha} \times \beta \quad (1)$$

Carbon footprint is defined as a measure of the surface of land required to support the plant life needed to absorb and sequester CO₂ emissions from fossil fuels used by a country, based on its levels of consumption (<http://www.happyplanetindex.org/learn/>).

3. METHODOLOGY

Dependence is referred to as any statistical relationship between two random variables or two sets of data. Correlation uses dependence and refers to any of a broad class of statistical relationships involving dependence. Correlations are useful because they may indicate a possible relationship that can be observed in practice. Dependence refers to any situation in which random variables do not satisfy a mathematical condition of probabilistic independence. Correlation can refer to any departure of two or more random variables from independence, but technically it refers to any of several more specialized types of relationship between mean values. There are several correlation coefficients, which measure the degree of correlation. The most commonly applied measure of dependence between two quantities is the "Pearson's correlation". This measure is obtained by dividing the covariance of the two variables by the product of their standard deviations.

$$\rho_{x,y} = \text{corr}(X, Y) = \frac{\text{cov}(X, Y)}{\sigma_x \sigma_y} = \frac{E[(X - \mu_x)(Y - \mu_y)]}{\sigma_x \sigma_y}, \quad (2)$$

where E presents the expected value operator, cov is a regular covariance, and corr corresponds for widely used alternative notation for Pearson's correlation. The Pearson correlation results with the value of +1 when a perfect positive (increasing) linear relationship (correlation) is present, and with the value of -1 in the case of ideal negative (decreasing) linear relationship (anticorrelation). The elements of the calculation made in this paper are:

- series of n data of HPI index for different countries as X and
- paid resources of a fund for different countries as Y

written as X_i and Y_i where i takes the following values, $i = 1, 2, \dots, n$ and indicates the number of countries taken into consideration as a sample. The sample correlation coefficient can be used to estimate the Pearson correlation r between X and Y . The sample correlation coefficient is written as:

$$r_{xy} = \frac{\sum x_i y_i - n\bar{x}\bar{y}}{(n-1)s_x s_y} = \frac{n \sum x_i y_i - \sum x_i \sum y_i}{\sqrt{n \sum x_i^2 - (\sum x_i)^2} \sqrt{n \sum y_i^2 - (\sum y_i)^2}}. \quad (3)$$

where \bar{x} and \bar{y} are the sample means of X and Y , and s_x and s_y are the sample standard deviations of X and Y . According to (Petz, 2002) the level of correlation is significant for r from ± 0.40 till ± 0.70 correlation and from ± 0.70 till ± 1 is very high.

4. EU FUNDS AVAILABLE FOR CEE, SUBJECT OF ANALYSIS

In this paper the authors analyze Central Eastern European (CEE) countries absorption rate and its correlation with Happy Planet Index of the related country. The CEE countries are two groups of states: 1) ex-Yugoslav countries except Slovenia and with Albania which are still not members of the EU and 2) a group of countries members of the EU subdivided by their accession status to the European Union: the eight countries which accessed the EU in the first-wave in May 2004 (the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia, and Slovenia) and the two countries which joined the EU in the second-wave in January 2007 (Bulgaria and Romania) (Unleashing Prosperity: Productivity Growth in Eastern Europe and the Former Soviet Union, World Bank, Washington (2008), p. 42).

The object of authors' research is CEE countries and absorption rates of following funds:

- Instrument for pre-accession assistance (IPA) for countries, which are still not members of the EU.
- PHARE and Structural funds for countries members of the EU.

4.1. IPA as EU assistance program for non-members of the EU

European Commission (EC) has accepted new financial frame for the period 2007-2013 which established a new financial instrument for the provision of external assistance to the EU candidate countries and the potential EU candidate countries. EC decided to replace all pre-accession funds that were used till 2006 (PHARE, ISPA, SAPARD and CARDS) with a new pre-accession instrument, IPA. The idea was: The countries which are EU candidate and potential EU candidate will use simple and unique financial rules that will enable faster cohesion and integration. The budget of IPA is 9.23 billion Euros for the current budget period.

4.2. EU funds for EU member states

ISPA, SAPARD and PHARE were financial instruments for financial aid for candidate and potential candidate countries from Central and East Europe during their process of integration into the EU and before implementation of IPA program. There are short explanations of each:

- SAPARD (Special Accession Program for Agriculture & Rural Development)

The aim of this program is to ensure aid for structural reforms in agriculture during the process of implementation of European rules.

- *ISPA (Instrument for Structural Policies for Pre-Accession)*

ISPA is one of the instruments that should support EU integration by financing realization of infrastructural objects aimed at environment protection and transport.

- PHARE (Poland and Hungary: Assistance for Restructuring their Economies)

Started in 1989 as a program of aid for Poland and Hungary and it has spread to 10 countries. Since 2000 it has been available to Western Balkan countries. The PHARE program has two main priorities, namely institutional and capacity-building and investment financing.

(The enlargement process and the three pre-accession instruments: PHARE, ISPA, SAPHARD, 2002). In this paper we will analyze only PHARE fund and structural funds which are available to countries which entered the EU.

- The Structural Funds

The main message of the cohesion policy and its instruments between 2007 and 2013 will be "More growth and jobs for all regions and cities of the European Union". In this period, the investment worth 308 billion euro (in 2004 prices), for the purpose of supporting regional growth agendas and stimulating job creation, will be made (http://ec.europa.eu/regional_policy/sources/docoffic/official/regulation/newregl0713_en.htm) This is the greatest investment ever made by the EU through cohesion instruments.

The Structural Funds and the Cohesion Fund are set up as financial tools that have a purpose to implement the Cohesion policy of the EU. They aim to reduce regional disparities. These disparities are mostly in terms of income, wealth and opportunities. Together with the Common Agricultural Policy (CAP), they make the majority of the total EU spending.

- The Cohesion Fund

The Cohesion Fund is aimed to contribute to interventions in the field of the environment and trans-European transport networks. It is applied within the member states with a Gross National Income (GNI), which goes below 90% of the EU average. There are some priorities: attractiveness improvement of the member states, innovation encouragement, entrepreneurship and the growth of knowledge economy, creation of more and better jobs (http://ec.europa.eu/regional_policy/funds/prord/sf_en.htm).

5. CORRELATION OF EU FUNDS ABSORPTION RATE AND SUSTAINABLE DEVELOPMENT

The authors use the presented methodology to research Central Eastern European (CEE) countries absorption rate. The idea is to investigate the level of influence of the European policy of sustainable development through the use of European funds. Analysis of the previously used PHARE funds and nowadays used structural funds is made for the EU member states. PHARE fund is one of the funds that they used before becoming members of the EU. After entering the EU they became users of structural funds. Other analysis is made for pre-accession countries which are using IPA program. Research is focused on IPA component 1 which is oriented towards infrastructural objects.

5.1. Correlation between realized aid and HPI – PHARE fund

The authors use the methodology of Pearson coefficient test to investigate the correlation between realized financial aid from PHARE program and HPI index. Some results of the calculation are presented in Table 1. The value of realized aid per capita of a country is considered as the first element of calculation and the country's HPI index as the second.

Table 1. Calculation of the correlation between realized aid per capita from PHARE 2000-2006 and HPI 2006,
Source: <http://www.happyplanetindex.org/public-data/files/happy-planet-index-first-global.pdf>, authors

PHARE	Realized aid p.c. (%) 2006 (X_i)	HPI 2006 (Y_i)	$Q=X_i-\bar{X}_{sr}$	$R=Y_i-\bar{Y}_{sr}$	$Q*Q$	$R*R$	$Q*R$
Romania	97.41511	37.72	-41.4276	1.564444	1716.25	2.447486	-64.8113
Bulgaria	182.5935	31.59	43.75072	-4.56556	1914.125	20.8443	-199.746
Slovakia	113.552	35.81	-25.2908	-0.34556	639.624	0.119409	8.739373
Estonia	232.5429	22.68	93.70012	-13.4756	8779.712	181.5906	-1262.66
Poland	93.23977	42.8	-45.603	6.644444	2079.633	44.14864	-303.007
Czech	19.94298	38.3	-118.9	2.144444	14137.16	4.598642	-254.974
Latvia	161.598	36.7	22.75524	0.544444	517.8011	0.29642	12.38897
Lithuania	215.6271	40.9	76.78438	4.744444	5895.842	22.50975	364.2992
Hungary	133.0735	38.9	-5.76925	2.744444	33.28423	7.531975	-15.8334
Total	1249.585	325.4			35713.43	284.0872	-1715.61
\bar{X}_{sr}	138.8428	36.15556					
\bar{Y}_{sr}							
r							-0.538

As it can be seen from Table 1, the correlation coefficient between realized aid per capita from PHARE 2000-2006 and HPI index from 2006 is negative, it is minus -0.538 and it is significant. That means that the countries which have realized more projects from the EU funds have even worse HPI index, their natural resources getting even more exhausted. Actually, infrastructure built through the EU funds had not brought results within sustainable development. Namely, the European projects do not bring recommended results which are recognized as their goal. Figure 1 shows a graph which presents countries whose resources realization increases and the other graph presents their HPI indexes.

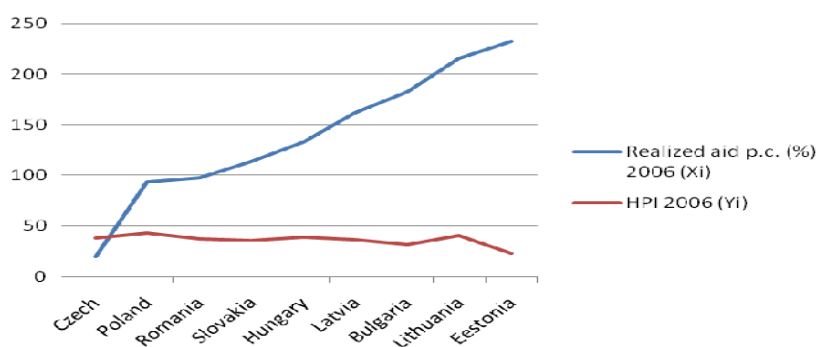


Fig. 1. Correlation between realized aid per capita from PHARE 2000-2006 and HPI 2006,
Source: Authors

Namely, PHARE funds are used at the beginning of use of EU funds and at that level of EU funds use, their positive effect on sustainable development can not be recognized.

5.2. Correlation between realized aid and HPI – Structural funds

Using the same methodology of Pearson coefficient, we can research the correlation between realized financial aid used from Structural funds and HPI indexes of countries which are already members of the EU, more developed states.

As it can be seen from Table 2, there is significant negative correlation $r = -0,663$ ($\pm 0, 4 < r < \pm 0, 7$) between the realized financial aid from Structural funds and related HPI indexes of countries.

Table 2. Calculation of correlation between Structural funds realized aid per capita (2006-2009) and HPI 2009, Source: <http://www.happyplanetindex.org/public-data/files/happy-planet-index-first-global.pdf>, authors

Structural funds	Paid aid per capita 2009 (X_i)	HPI 2009 (Y_i)	$Q=X_i-X_{sr}$	$R=Y_i-Y_{sr}$	$Q*Q$	$R*R$	$Q*R$
Romania	27	43.9	-234.556	4.633333	55016.31	21.46778	-1086.77
Poland	198	42.8	-63.5556	3.533333	4039.309	12.48444	-224.563
Bulgaria	59	42	-202.556	2.733333	41028.75	7.471111	-553.652
Czech	252	38.3	-9.55556	-0.96667	91.30864	0.934444	9.237037
Slovakia	131	43.5	-130.556	4.233333	17044.75	17.92111	-552.685
Latvia	426	36.7	164.4444	-2.56667	27041.98	6.587778	-422.074
Hungary	342	38.9	86.44444	-0.36667	7472.642	0.134444	-31.6963
Lithuania	470	40.9	208.4444	1.633333	43449.09	2.667778	340.4593
Estonia	443	26.4	181.4444	-12.8667	32922.09	165.5511	-2334.59
Total	2354	353.4			228106.2	235.22	-4856.33
X_{sr}, Y_{sr}	261.5556	39.26667					
r							-0.663

Next Figure 2 provides graph of this two variables.

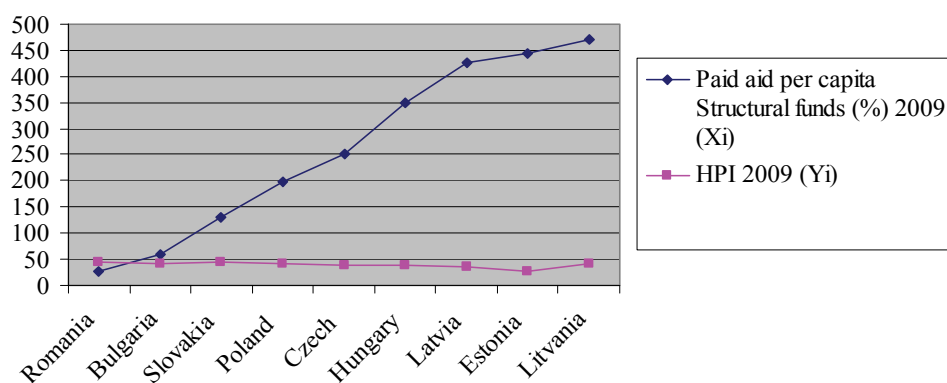


Fig. 2. Correlation between Structural funds realized aid per capita (2006-2009) and HPI
Source: Authors

Situation is even worse when using the data about Structural funds. Table 2 presents the correlation coefficient between realized aid per capita from Structural funds for CEE countries during period 2006-2009 and HPI indexes from 2009. It is negative, -0.663 and it is significant. The result is worst that in the previous analysis. How can this be explained?

Structural funds are used by most developed countries, which exploit the nature the most and as the analysis shows, this is still the case. The projects performed from the EU funds resources had not brought results in the area of decrease of utilization of natural resources. This could mean that these projects are minority within investments or that European projects do not bring recommended results which are recognized as their goal.

5.3. Correlation between realized aid and HPI – IPA component 1

Further analysis was done for IPA pre-accession assistance, component 1 which supports infrastructural objects building. As expected, correlation between realized aid and HPI for IPA component 1 for the period 2006-2009 is the least significant compared to the results of PHARE and Structural funds. Pearson coefficient is -0.286 and this proves lowlevel of correlation between realized aid from IPA program and HPI index. The reason is that countries which use IPA are the least developed. They have the fewest performed projects and the correlation between two variables can not be found. Results are in Table 3.

Table 3. Correlation between realized aid per capita and HPI for IPA component 1

Source: <http://www.happyplanetindex.org/public-data/files/happy-planet-index-first-global.pdf>, authors

IPA	Total realized aid	Realized aid p.c.2009 (X_i)	HPI 2009 (Y_i)	$Q=X_i-\bar{X}_{sr}$	$R=Y_i-\bar{Y}_{sr}$	$Q*Q$	$R*R$	$Q*R$
Croatia	575.7	130.8409	47.2	47.36335	3.85	2243.287	14.8225	182.3489
Turkey	2102.3	28.5251	41.7	-54.9525	-2.05	3019.772	4.2025	112.6525
Albania	258.4	80.75	47.9	-2.72756	4.15	7.439562	17.2225	-11.3194
Macedonia	254.1	127.05	32.7	43.57244	-11.05	432.8011	122.1025	-481.476
Serbia	595.4	62.67368	47.6	-20.8039	3.85	155.0502	14.8225	-80.0949
B&H	277	71.02564	45	-12.4519	1.25	155.0502	1.5625	-15.5649
Total		500.8653	262.5			6013.4	174.735	-293.453
\bar{X}_{sr} , \bar{Y}_{sr}		83.47756	43.75					
r								-0.286

Discussed results show level of correlation between realized aid and Pearson correlation coefficient for different programs of EU support. It can be concluded that the least negative correlation is found within IPA program which could be explained by the fact that IPA is a pre accession assistance for West Balkans countries which are still beginners in funds use, with a small sample of projects. For countries which are already EU members, the negative correlation is proved to be increasing due to the approach to the EU, and so becoming more significant. Structural funds have high negative correlation be-

tween realized aid and HPI. This means that EU projects do not force sustainable development as expected. The EU finance projects do not have enough influence on the natural resources and environment protection.

CONCLUSION

The authors of the paper investigated the influence of the realized EU funded project on sustainable development of CEE countries. The results are presented, showing realized resources per capita of various EU funds and their correlation with Happy Planet Indexes which is used as a measure of sustainable development based on energy efficiency and renewable energy resources. HPI index is a mark of economic growth based on the care of natural resources spending. The analysis of the results shows the following:

1. For the least developed countries (West Balkan) which are still not members of the EU and which can use IPA program, the results show that there is no significant correlation between the use of IPA funded projects and HPI index. That means that these countries still perform a few of small projects with insufficient significance on the environmental issues. It could warn the EU authorities who must have the „whole" picture of the projects achievements and ensure the best choice of projects which will really contribute to the EU strategic goals.

2. Analysis of results for projects funded from PHARE program and Structural funds presents significant negative correlation (Pearson coefficient -0.538 and -0.663) between their level of realization for a country and its HPI index. Namely, the countries with better utilization of the funds have even worse results of sustainable development. How can such unexpected results be explained? EU funded projects do not contribute to sustainable development as expected and this should be carefully analyzed. Realization of projects in bigger percentage is assigned to more developed countries with better project management knowledge. These countries are more successful in all projects in general. The contribution of the EU funded projects is still not sufficient to make a significant influence on the sustainability of a country. Other projects which do not have this goal prevail. The case with Structural funds is the worst, which means that the most developed countries are still the biggest danger to nature. The EU must develop better mechanisms for assessment of EU funded projects and their performance. The recommendation is to have an EU project center in each country which will be an education, information, monitoring and controlling center for the EU projects with the focus on European and national strategic projects. Such a center could bring an integrative review of the puzzles made of EU funded projects.

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FONDOVI EVROPSKE UNIJE KAO FAKTOR ODRŽIVOG RAZVOJA U ZEMLJAMA CENTRALNE I ISTOČNE EVROPE

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Korišćenjem Pearsonovog metoda korelacije kao ekonometrijskog alata u radu je izvršeno testiranje hipoteze da korišćenje fondova Evropske unije doprinosi razvoju baziranom na održivosti kao sredstvu da se zadovolje ljudske potrebe. a da se pri tome očuva životna sredina. Dobijeni rezultati pokazuju da korišćenje fondova Evropske unije i njihovo učešće u ekonomiji jedne zemlje ne doprinose njenom održivom razvoju u meri koliko se očekuje.

Ovaj rad je doprinos literaturi zato što predstavlja prvi empirijski dokaz negativne zavisnosti između sadašnjeg nivoa korišćenja fondova EU i Happy Planet Indeksa (HPI). HPI predstavlja koristan indeks za merenje speha u korišćenju fondova iz aspekta održivog razvoja u budućnosti.

Ključne reči: *spoljna pomoć, fondovi Evropske unije, formiranje politike, održivi razvoj.*