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DEVELOPMENT OF THE EU SOCIETIES AND SOCIAL PROGRESS

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ABSTRACT: Social development is defined as a process of social changes occurring one after another in conjunction with progress understood as direction of socio-economic development. The aim of the paper is to analyze and evaluate the development of the EU societies, and to assess social progress of the EU-28 member states. The author performed an analysis of the Sustainable Society Index (SSI) and the Social Progress Index (SPI). The findings reveal that the EU-28 countries have attained high level of sustainability in terms of *Human Well being* and there is an evident convergence between them in this dimension. As it comes to the other two dimensions, that is *Environmental Wellbeing* and *Economic Wellbeing*, variation within the EU-28 is much wider (ca. 40%), and points to cross-country divergence. Basic Human Needs that are best addressed across the EU-28, whereas the Foundations of Wellbeing and Opportunity score slightly lower and show a bigger variation.

KEY WORDS: social development, social progress, sustainable society

Introduction

The main goal of sustainable development is to improve the quality of life and ensure wellbeing for present and future generations. This can be achieved through the formation of well-balanced societies that are able to effectively use resources and the potential of environmental and social innovation to ensure economic wellbeing, environmental protection and social cohesion. Human wellbeing and environment wellbeing are inextricably linked. A precondition for achieving societal and environmental wellbeing is economic wellbeing, which, however, is not a goal in itself. Hence, a question comes up: Does social progress support the formation of a sustainable society? To answer this question two aspects are scrutinized in this paper: sustainable society and social progress.

A sustainable society is a society that meets the needs of the present generation, and does not compromise the ability of future generations to meet their needs, and one in which every human being has the opportunity to develop itself in freedom, within a well-balanced society and in harmony with its surroundings (<http://www.ssfindex.com/ssi/ssi-2016>).

Social development is a process of social changes occurring one after the other. These changes can be either positive or negative for the society. In case of positive changes we can speak of social progress, in case of negative – of social regress. Therefore the term “social development” is neutral, whereas the term “social progress” already involves a certain evaluation of social changes (Kubiczek, 2014). Progress means a possible socio-economic development direction.

Materials and methods

The paper uses statistical data derived from the World Bank, Eurostat and the Sustainable Society Foundation. 28 European countries, members of the EU in 2016, were the subject of the research. The scope of the research covered years 2006 and 2016. Research problems were examined from both the static and dynamic approach.

Sustainable development

One of the measures of the level of societal sustainability is *Sustainable Society Index* (SSI). It is published in a two-year-cycle since 2006. One of its objectives is to capture a country's stability with regard to the three wellbe-

ing dimensions: people (Human Wellbeing – HW), environment (Environmental Wellbeing – EW) and economy (Economic Wellbeing – EW).

Each country gets a score on 21 independent variables clustered into 7 categories and 3 wellbeing dimensions measuring societal sustainability (table 1).

Table 1. Framework of the Sustainable Society Index

SUSTAINABLE SOCIETY INDEX					
Dimension	Categories	Dimension	Categories	Dimension	Categories
HUMAN WELLBEING	Basic Needs	ENVIRONMENTAL WELLBEING	Natural resources	ECONOMIC WELLBEING	Transition
	Personal Development & Health		Climate & Energy		Economy
	Well-balanced Society				

Source: author's own work based on www.ssfindex.com/ssi/ssi-2016 [13-02-2017].

Each indicator is expressed on a scale from 0 to 10, where a score of 10 represents full sustainability, and a score of 0 no sustainability at all. To each variable (indicator) the same weight for the aggregation into dimensions is attributed. The scores of indicators are aggregated into scores for three wellbeing dimensions. Geometric average used for all indicators within the same category and within the same wellbeing dimension provides a general evaluation of a given country's sustainability and enables cross-country comparisons. Each indicator received the same weight for aggregation in given dimensions. Following the recommendations of the Joint Research Centre (JRC) of the European Commission regarding the Sustainable Society Index, because of the strong negative correlation between Human and Environmental Wellbeing no joint index for these dimensions was created (<http://www.ssfindex.com/ssi/ssi-2016>).

Social progress

Many indexes that take into account a country's socio-economic development have been elaborated, among which HDI is the most popular. However, *the Social Progress Index* captures a much broader scope of social, environmental and economic factors, and therefore provides a more comprehensive and long-term developmental picture of the countries of the European Union (www.ec.europa.eu).

The European Union Regional Social Progress Index (EU-SPI) is a collaborative project carried out by the Directorate-General for Regional and Urban Policy (European Commission), Orchestra (the Basque Institute of Competitiveness) and the Social Progress Imperative, a non-governmental organization, in partnership with Deloitte and institutions being member of the EU-SPI Scientific Committee. The EU-SPI has a hierarchical structure and consists of 3 sub-indexes (dimensions), 12 components and 50 indicators. Each dimension covers 4 major topic areas of sustainability (table 2).

Table 2. Framework of the EU Regional Social Progress Index

Social Progress Index					
Dimension	Categories	Dimension	Categories	Dimension	Categories
Basic Human Needs	Nutrition and Basic Medical Care	Foundations of Wellbeing	Access to Basic Knowledge	Opportunity	Personal Rights
	Water and Sanitation		Access to Information and Communication Technology		Personal Freedom and Choice
	Shelter		Health and Wellness		Tolerance and Inclusion
	Personal Safety		Environmental Quality		Access to Advanced Education

Source: author’s own work based on Methodological_note_eu_SPI_2016.

The EU-SPI overall score and scores at the dimension and component level are based on a normalized 0-100 scale which allows to benchmark the scores received by a region against the best and worst realistic performance on each indicator by any region.

For the purpose of this study, scores for both indexes have been put into 4 classes (table 3).

Table 3. Classes indicating levels of social sustainability and social progress

Class	Range for SSI	Range for SPI	Level of social sustainability/ social progress
1	7,50 – 10,00	80 – 100	High
2	5,00 – 7,49	60 – 79	Above average
3	2,50 – 4,99	45 – 59	Below average
4	0,00 – 2,49	0 – 44	Low

Source: author’s own work.

Research results

Sustainable Society Index

Analysis of the wellbeing dimensions indicates that the EU-28 countries scored high (above 7,4) on the Human Wellbeing dimension in 2016 (table 4). The spread between extreme values decreased by 37% against 2006 data. In this dimension a clear convergence of EU-28 countries can be noted. Alas, in the other two dimensions the variation increased by over 40%, which points towards divergence in Environmental and Economic Wellbeing.

Table 4. Data on Wellbeing – Sustainable Society Index for the EU-28

Scores on the three SSI dimensions	Human Wellbeing			Environmental Wellbeing			Economic Wellbeing		
	2006	2016	2016/2006	2006	2016	2016/2006	2006	2016	2016/2006
Maximum	8,95	9,00	100,61	4,27	5,93	139,03	7,98	8,09	101,40
Minimum	6,54	7,48	114,32	1,90	2,28	120,00	4,15	2,51	60,45
Range	2,41	1,53	63,39	2,37	3,37	142,62	3,83	5,58	145,75
Average	8,12	8,30	102,23	3,14	4,25	135,40	6,12	5,63	92,06
Standard deviation	0,46	0,39	85,59	0,64	0,91	143,21	1,27	1,51	119,16
Volatility %	5,66	4,74	83,72	20,34	21,52	105,76	20,75	26,86	129,43

Source: author's own work.

In 2006 the arithmetic mean of *Human Wellbeing* (HW) was 8,12 and in 2016 it rose to 8,30. *Environmental Wellbeing* (EnW) with a score of 3,14 in 2006 and an increase of only 1 point in 2016, showed a very low average. In 2006 the score on *Economic Wellbeing* (EcW) was 5,69 and in 2016 it achieved only 92% of that value. As the variation coefficients indicate, *Human Wellbeing* score throughout the EU-28 countries remains roughly at the same level (ca. 5,6% variation in 2006, ca.4,7% in 2016), whereas the level of *Environmental* and *Economic Wellbeing* differs by ca. 20% among the subject countries (figure 1).



Figure 1. Dynamics in the evaluation of Wellbeing Dimensions in 2016 against 2006 in %

Key to the Figure: country codes are presented in table 5

Source: author's own work.

In 2016 EU-28 countries performed very well on the *Human Wellbeing* dimension (table 5). As it comes to *Basic Needs*, the variance was ca. 2%, and the entire EU-28 scored above 9. Research countries showed a slightly lower score on *Personal Development & Health* (above 7,6), but the variance between them was also minor (ca.4,6%). EU-28 performed worst in the category of *Well-balanced Society* (above 5), and here the cross-country differences were large (ca.11%).

In the *Environmental Wellbeing* dimension, *Climate & Energy* showed the lowest score (range of 1,75 – 5,26 with variation of over 30%). Among the 28 countries Estonia performed the worst in this category with only 1,41, and Croatia the best – with 5,24.

The spread is the largest in the *Economic Wellbeing* dimension – of ca. 6 points – with very big cross-country variation, in particular with regard to *Economy* (ca.36%).

Table 5. Dimensions and Categories of the Sustainable Society Index for 2016

Country codes	EU countries	Human Wellbeing			Environmental Wellbeing			Economic Wellbeing			
		Basic needs	Personal development & health	Well-balanced society	HW2016	Natural resources	Climate & energy	EnW2016	Transition	Economy	EcW2016
AUT	Austria	10,00	8,44	7,23	8,5	6,47	3,48	4,5	9,31	4,03	5,6
BEL	Belgium	9,98	8,62	7,54	8,7	3,68	2,08	2,7	7,89	3,44	4,8
BGR	Bulgaria	9,49	7,96	5,72	7,6	7,28	3,10	4,5	6,63	5,90	6,2
HRV	Croatia	9,89	8,06	6,73	8,1	6,98	5,26	5,9	6,61	2,44	3,6
CYP	Cyprus	10,00	7,80	6,55	8,0	5,98	3,65	4,5	5,27	2,66	3,5
CZE	Czech	9,97	8,09	7,77	8,6	6,59	1,96	3,3	8,53	7,27	7,8
DNK	Denmark	9,99	8,68	7,46	8,6	4,39	4,56	4,5	8,52	7,10	7,6
EST	Estonia	9,89	8,41	7,09	8,4	4,01	1,41	2,2	9,45	7,30	8,1
FIN	Finland	9,92	8,97	8,20	9,0	5,97	2,47	3,6	8,48	5,28	6,4
FRA	France	9,96	8,62	6,93	8,4	5,31	3,23	4,0	7,32	3,27	4,5
GRC	Greece	9,97	8,40	5,51	8,8	6,83	3,81	3,3	3,45	2,03	6,6
ESP	Spain	10,00	8,65	5,71	7,7	6,46	4,15	4,9	8,16	2,09	2,5
NLD	Netherlands	9,92	8,77	7,94	8,2	6,06	1,93	5,2	6,90	5,42	5,2
IRL	Ireland	9,60	8,85	7,39	8,6	4,30	3,13	3,6	5,56	3,14	3,9
LTU	Lithuania	9,61	8,14	6,85	7,7	4,19	3,90	5,2	8,49	6,05	4,4

LUX	Luxembourg	9,92	7,90	5,34	8,0	4,25	1,75	4,7	7,37	7,98	6,6
LVA	Latvia	9,54	8,20	6,65	8,1	4,36	5,03	4,0	6,97	6,40	6,9
MLT	Malta	10,00	7,69	7,19	7,5	5,74	3,83	2,6	3,82	5,88	7,7
DEU	Germany	9,97	8,63	8,04	8,2	5,87	2,13	4,6	8,48	5,58	5,0
POL	Poland	9,85	8,27	7,33	8,8	6,45	3,10	3,1	7,66	5,99	6,0
PRT	Portugal	9,99	8,53	6,48	8,4	5,40	5,05	4,2	7,25	2,74	6,6
ROU	Romania	9,24	7,73	7,40	8,2	6,51	4,96	5,2	6,56	6,79	4,0
SVK	Slovakia	9,96	7,62	7,43	8,1	7,65	3,46	5,6	7,30	5,28	6,7
SVN	Slovenia	9,95	8,70	7,73	8,3	7,13	3,67	4,9	8,82	3,69	6,0
SWE	Sweden	9,98	8,93	7,52	8,7	4,24	3,54	4,9	9,51	7,00	5,2
HUN	Hungary	9,93	7,86	7,14	7,9	7,45	3,93	5,0	6,81	4,28	3,6
GBR	Great Britain	9,97	8,65	7,10	8,8	6,65	3,44	3,8	6,36	3,69	7,9
ITA	Italy	9,98	8,35	5,46	8,5	6,30	4,50	4,6	8,07	2,97	4,6
	Maximum	10,00	8,97	8,20	9,00	7,65	5,26	5,93	9,51	7,98	8,09
	Minimum	9,24	7,62	5,34	7,48	3,68	1,41	2,56	3,45	2,03	2,51
	Range	0,76	1,35	2,87	1,53	3,46	3,50	3,37	6,05	5,95	5,58
	Average	9,87	8,34	6,98	8,30	5,80	3,45	4,25	7,34	4,85	5,63
	Standard deviation	0,19	0,39	0,79	0,39	1,16	1,05	0,91	1,48	1,78	1,51
	Volatility	1,90	4,70	11,28	4,74	20,06	30,41	21,52	20,22	36,76	26,86

Statistics

Source: author's own work.

Social Progress Index

To provide a more complete picture of societal sustainability, particularly with regard to Human Wellbeing, EU-SPI Index for 2016 was used (EU Regional Social Progress Index is published since 2014). Basic EU-SPI data are presented in table 6.

Table 6. EU Regional Social Progress Index for EU-28

Statistics	SPI	Basic Human Needs	Foundations of Wellbeing	Opportunity
Maximum	90,09	96,63	88,86	86,56
Minimum	72,14	84,26	74,81	54,42
Range	17,95	12,37	14,05	32,14
Average	82,51	92,37	83,58	72,42
Standard deviation	5,24	2,96	4,17	9,21
Volatility %	6,35	3,20	4,99	12,72

Source: author's own work.

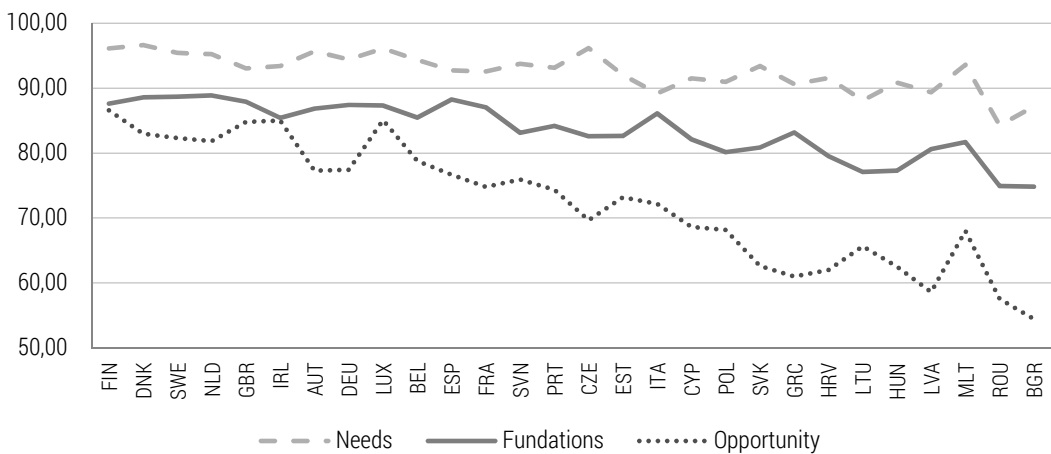


Figure 2. EU-SPI dimensions for 2016

Source: author's own work.

Overall, EU-28 countries performed best on *Basic Human Needs* (Needs), with a score above 84 and variation of ca.3%. Cross-country divergence is also low on *Foundations of Wellbeing* (Foundations), that is ca.5%, with the minimum score of 74. *Opportunity* (including personal rights, upwards social

mobility and inclusion) is the worst performing aspect of social progress for the whole EU, and shows the highest variation with the range of ca.32 points.

Figure 2 presents SPI for EU-28 countries with by the three dimensions.

Sustainable Society and Social Progress

Social development is understood as a certain direction for socio-economic growth is a way to build a sustainable society. A sustainable society is one that enjoys economic wellbeing, environmental protection and social cohesion. These values are captured by the three wellbeing sub-indexes of the Social Sustainability Index, whereas social progress is measured by the Social Progress Index. figure 3 presents the EU-28 countries grouped in clusters according to the above indexes' scores.

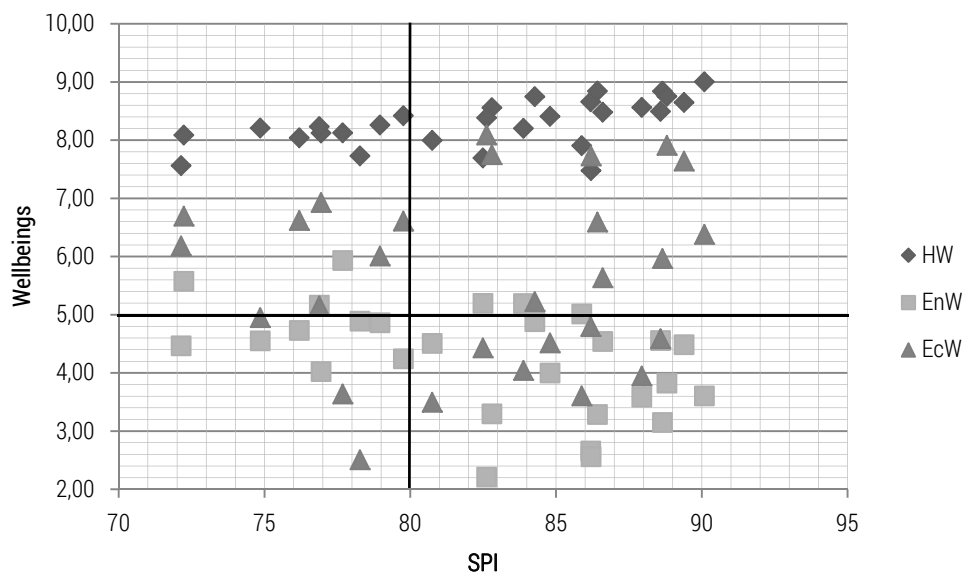


Figure 3. EU countries clusters by SSI wellbeing dimensions and SPI score for 2016

Source: author's own work.

In the countries surveyed social progress had a high, above average, score. SPI score above 80 stands for the highest social progress. Wellbeing SSI sub-indexes above 5 indicate above average values. Classes 3 and 4 represent negative score in the wellbeing dimension.

Table 7 presents clusters of EU-28 countries by SPI classes and SSI sub-indices.

Table 7. EU-28 countries broken down by SPI classes and SSI wellbeing sub-indices

Dimen- sions	Classes	SPI	
		80 – 100	60 – 79
HW	1	FIN, DNK, SWE, NLD, GBR, IRL, AUT, DEU, BEL, ESP, FRA, SVN, PRT, CZE, EST, ITA, CYP	POL, SVK, GRC, HRV, LTU, HUN, LVA, MLT, ROU, BGR
	2	LUX	–
EnW	1	–	–
	2	ESP, PRT, ITA	HRV, HUN, ROU
	3	FIN, DNK, SWE, NLD, GBR, IRL, AUT, DEU, BEL, FRA, SVN, CZE, CYP	POL, SVK, GRC, LTU, LVA, MLT, BGR
	4	EST	–
EcW	1	DNK, SWE, LUX, CZE, EST	–
	2	FIN, NLD, AUT, DEU, SVN	POL, SVK, LTU, HUN, LVA, ROU, BGR
	3	GBR, IRL, BEL, ESP, FRA, PRT, ITA, CYP	GRC, HRV, MLT,
	4	–	–

Key to the Chart: country codes are provided in table 5.

Source: author's own work.

EU-28 countries were grouped in class 1 (with the exception of Luxembourg) of the *Human Wellbeing* dimension, with the traditional EU members being more predominant in class 1 of *Social Progress* than the recent joiners. New EU members (since 2004) were grouped in class 2 of SPI.

As it comes to *Environmental Wellbeing*, none of the countries achieved the top rating, and only 6 countries were classified in class 2. In this dimension Spain ranked the lowest (class 4).

Class 1 of *Economic Wellbeing* contains only five countries: 4 old EU members and the Czech Republic. Recent EU joiners were grouped in class 2 – 7 countries, and class 3 – 3 countries.

No EU-28 countries were ranked in class 4.

Conclusions

Social development is a process of social changes occurring one after the other which are also related to advancement in the sense of a direction of socio-economic development. The main goal of sustainable development is to upgrade the general quality of life to satisfy the needs of the present generation without diminishing the prospects of future generations to meet their needs, involving the need to form a sustainable society.

A sustainable society is one in which economic wellbeing, environmental conservation and social cohesion are ensured. These values are captured in form of three wellbeing dimensions – sub-indexes of the SSI, whereas social progress is measured by the Social Progress Index.

Analysis of the SSI sub-indexes leads to the conclusion that the EU-28 countries are performing very well on Human Wellbeing (scores above 7,4), and in this dimension convergence of all the countries is evident. Alas, in the other two dimensions, there is a wide variation in performance across countries (up to ca.40%), which indicates divergence both with regard to Environmental and Economic Wellbeing.

Analysis of the SPI sub-indexes shows that Basic Human Needs are best provided for since they received the highest score (average of 94 per 100). Average performance on Foundations of Wellbeing is slightly worse (average of 83). Opportunity, including personal rights and upwards social mobility, with an average of 72, is the worst performing dimension, and shows bigger variance (ca.9).

The level of sustainability in the surveyed countries is far from ideal. Basic Needs is the best performing dimension, especially in terms of personal development as captured by the Human Wellbeing sub-index.

Assessment of the condition of natural resources, including Climate & Energy, allows to conclude that the Environmental Wellbeing dimension needs improvement, and particular attention should be given to Renewable Energy (indicator score in the range from 1,0 to 3,7 per 10 max). As it comes to Economic Wellbeing, Employment – with an average score of 3,9 – is the area that most needs urgent action.

Analysis of the Sustainable Society Index and the level of indicators allows to monitor the country's progress towards sustainability, and to set priorities and adjust the country's policy. Moreover, SSI can be used for comparative, educational and development purposes.

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