

Sustainable Development as Seen by the Residents of Eastern and Western Europe on the Basis of ISSP Environment Data

Problematyka zrównoważonego rozwoju w opiniach mieszkańców Europy Wschodniej i Zachodniej na podstawie danych ISSP Environment

Paweł Rydzewski

College of Enterprise and Administration in Lublin
E-mail: p.rydzewski@wspa.pl

Abstract

The ISSP Environment 2010 data (random sample including more than 18,000 respondents) were used to demonstrate differences in opinions concerning sustainable development between the residents of Eastern and Western European countries. If it is assumed that the concept of sustainable development involves a relative balance among the three pillars (social, economic and ecological), then opinions of the residents of Western Europe are more in line with this assumption. On the other hand, a disproportion can be observed in the case of Eastern Europe, where the environmental pillar is clearly underestimated and the social pillar is much weaker.

Key words: sustainable development, ISSP, Eastern Europe, Western Europe

Streszczenie

Wykorzystując dane ISSP Environment 2010 (próbę losową o wielkości ponad 18 000 respondentów) wykazano różnice dzielące kraje Europy Wschodniej i Zachodniej w zakresie opinii związanych ze zrównoważonym rozwojem. Jeżeli w koncepcji zrównoważonego rozwoju zakłada się równowagę pomiędzy jego trzema filarami (społecznym, ekonomicznym i ekologicznym), to bardziej z tym założeniem zgodne są opinie mieszkańców Europy Zachodniej. W przypadku Europy Wschodniej zauważalna jest dysproporcja – wyraźnie niedoceniany jest filar środowiskowy i znacznie słabszy filar społeczny.

Słowa kluczowe: rozwój zrównoważony, ISSP, Europa Wschodnia, Europa Zachodnia

Introduction

As any large region of the world, Europe has both conventional and unconventional geographical, political, economic, historical, ethnic, cultural, and religious borders. For the last few decades, Europe was simply and commonly divided into two parts: Eastern Europe and Western Europe. However, after 1989 and then following enlargement of the European Union, this division is no longer so clear-cut; in many respects, the border between Eastern and Western Europe is not linear, but constitutes more of a zone. On the other hand, the traditional division into eastern and western part seems to persist in the

political discourse as well as in the common consciousness. The article attempts to establish whether this division functions with regard to sustainable development, and particularly with regard to environmental protection. For this purpose, the ISSP Environment 2010 data were used.

Methodology

The ISSP (International Social Survey Program) is a long-term international research project carried out annually in participating countries. It was created to regularly measure variables covering a broad scope of social life. The ISSP surveys are repeated every

few years, which allows to observe changes in the measured phenomena. One of the ISSP modules is the ISSP Environment, which was implemented three times: in 1993 (with Poland's participation), and in 2000 and 2010 (without Poland). The ISSP employs a questionnaire method on random samples. The ISSP Environment III data were made available in 2010 and they included 30 countries. For the purpose of this analysis, the data for 17 countries were used. These were: Austria, Belgium, Norway, Denmark, Finland, Germany, Spain, Sweden, Switzerland, and the United Kingdom (Western European countries); and Latvia, Bulgaria, Russia, Slovakia, Slovenia, Croatia, and the Czech Republic (Eastern European countries). A randomly selected study sample included 8441 respondents from Eastern Europe and 9770 respondents from Western Europe.

The ISSP Environment III data were used to answer the following research questions: What is the hierarchy of the components of sustainable development according to the residents of Eastern and Western Europe? What are the differences between the eastern and western part of the continent with regard to the social component of sustainable development? What threats to the natural environment are considered to be the most important? What factors determine the degree of concern in environmental issues in Eastern and Western Europe?

The analysis was limited to Europe and focused on comparing two groups of European countries – those of Eastern and of Western Europe. The comparison is not complete as the research did not cover all European countries. However, on its basis it is possible to form an opinion about general trends that can be observed in the context of the issues discussed in the article.

Results

The answers to the question about the most important issue for the respondent's country of residence, were used as an indicator of how significant each component of sustainable development was for respondents.

The natural environment was indicated as a priority by 3.2% of respondents from Eastern Europe and 8.8% of respondents from Western Europe. Social issues were indicated by 66% and 63.9% of respondents respectively, and economic issues – by 30% and 26.2%, respectively. The hierarchy of issues is clearly visible with social issues at the top, followed by economic and finally environmental ones. While for Eastern Europeans, social and economic issues are slightly more important than for residents of Western Europe, in the case of environmental issues the difference is significant: environmental problems are mentioned as the most important almost 3 times more frequently in the western region of the continent in comparison with its eastern part.

Table 1. Most important issues by region of Europe

Most important issues		Region of Europe		Summary
		Eastern Europe	Western Europe	
Health care	n	2021	2612	4633
	%	24,0%	27,1%	25,7%
Education	n	542	1518	2060
	%	6,4%	15,7%	11,4%
Crime	n	994	607	1601
	%	11,8%	6,3%	8,9%
The environment	n	269	852	1121
	%	3,2%	8,8%	6,2%
Immigration	n	172	768	940
	%	2,0%	8,0%	5,2%
The economy	n	2520	2525	5045
	%	30,0%	26,2%	27,9%
Terrorism	n	101	123	224
	%	1,2%	1,3%	1,2%
Poverty	n	1733	528	2261
	%	20,6%	5,5%	12,5%
Other	n	53	116	169
	%	0,6%	1,2%	0,9%
Summary	n	8405	9649	18054
	%	100,0%	100,0%	100,0%

Pearson Chi-Square= 1903,6; $p < 0,0005$

The ISSP data set contains a variable (expressed by a question about trust in most people), which can be seen as an indicator of the social component of sustainable development: the amount of social trust, which is usually perceived as a vital component of social capital (Wise, 2005).

Social capital is understood here as generalized trust in other members of society that are strangers to us. This trust helps to build an imagined or ideological community based on the systems of contracts and wider social agreements (Hull, 2008). In the classical approach of Robert Putnam, *social capital refers directly to the connections between individuals – social networks and norms of reciprocity, and trust that arises from them* (Putnam, 1995). Consequently, social capital is viewed as a factor directly resulting from social interactions and as such facilitating cooperation; it is some good that generates networking and cooperation. High levels of social capital should reflect potential possibilities for obtaining certain economic benefits (Munda, 1997). Resources of social trust that some group is endowed with, may increase the productivity of other capitals: physical, material, etc. (Zarycki, 2004; Pawłowski, 2008). Thus, the level of social trust is connected not only with the social but also economic domain of society (Littig, Griesler, 2005; Harris et al., 2001).

The analysis has shown that the amount of declared social trust is significantly higher in Western Europe (the average of 3.18 on a five point scale) than in countries of Eastern Europe (the average of 2.39 on the same scale).

Consequently, in the western part of the continent, the potential of civic society and the social component of economic development are stronger than in the east.

With regard to various threats to the environment and how important they are for the respondent's country as a whole, the differences in opinions between the residents of Eastern and Western Europe are seen primarily in the attitude to air pollution (27.9% in Eastern Europe, 16.3% in Western Europe) and climate change (8.6 % in Eastern Europe and 23.2% in Western Europe). To a lesser extent, these differences concern water shortage (3.4% and 6.2%, respectively), using up natural resources (9.1% and 12.7%, respectively) and domestic waste disposal (12.6% and 4.2%, respectively).

Table 2. ANOVA, Descriptive statistics, Amount of trust in most people

Region of Europe	N	Mean	Std. Deviation
Eastern Europe	8441	2,39	1,150
Western Europe	9770	3,18	1,247
Total	18211	2,81	1,266

Table 3. ANOVA, Robust Tests of Equality of Means

	Statistic	df1	df2	Sig.
Welch	1984,337	1	18133,578	,000

Levene Statistic = 23,19; p<0,0005

Table 4. Most important environmental problem for respondent's country by region of Europe

Most important problem		Region of Europe		Summary
		Eastern Europe	Eastern Europe	
Air pollution	n	2272	1540	3812
	%	27,9%	16,3%	21,7%
Chemicals and pesticides	n	925	937	1862
	%	11,4%	9,9%	10,6%
Water shortage	n	275	582	857
	%	3,4%	6,2%	4,9%
Water pollution	n	1006	1066	2072
	%	12,4%	11,3%	11,8%
Nuclear waste	n	486	916	1402
	%	6,0%	9,7%	8,0%
Domestic waste disposal	n	1024	398	1422
	%	12,6%	4,2%	8,1%
Climate change	n	698	2195	2893
	%	8,6%	23,2%	16,5%
Genetically modified food	n	579	477	1056
	%	7,1%	5,1%	6,0%
Using natural resources	n	744	1203	1947
	%	9,1%	12,7%	11,1%
Other	n	126	128	254
	%	1,5%	1,4%	1,4%
Summary	n	8135	9442	17577
	%	100,0%	100,0%	100,0%

Pearson Chi-Square= 1463,4; p<0,0005

On the other hand, taking into account the most important threats to the environment affecting the respondent's family, the differences in opinions between the residents of Eastern Europe and Western Europe concern water pollution (13.2% in the east, 9% in the west), climate change (9.3% in the east and

15, 6% in the west), using up natural resources (5.6% and 8.4%, respectively) and domestic waste disposal (13.7% and 8.8%, respectively).

Table 5. Most important environmental problem which affects respondent and his/her family by region of Europe

Most important problem which affects respondent and his/her family		Region of Europe		Summary
		Eastern Europe	Eastern Europe	
Air pollution	n	1609	1744	3353
	%	20,1%	19,6%	19,8%
Chemicals and pesticides	n	850	920	1770
	%	10,6%	10,3%	10,5%
Water shortage	n	345	450	795
	%	4,3%	5,1%	4,7%
Water pollution	n	1056	800	1856
	%	13,2%	9,0%	11,0%
Nuclear waste	n	314	398	712
	%	3,9%	4,5%	4,2%
Domestic waste disposal	n	1095	788	1883
	%	13,7%	8,8%	11,1%
Climate change	n	741	1392	2133
	%	9,3%	15,6%	12,6%
Genetically modified food	n	846	814	1660
	%	10,6%	9,1%	9,8%
Using up natural resources	n	450	751	1201
	%	5,6%	8,4%	7,1%
Other	n	689	853	1542
	%	8,6%	9,6%	9,1%
Summary	n	7995	8910	16905
	%	100,0%	100,0%	100,0%

Pearson Chi-Square= 361,2; p<0,0005

The analysis also compares the level of concern in environmental issues between the residents of Eastern and Western Europe. This concern is measured on a five point scale, where 1 denotes *no concern*, and 5 denotes *high-level concern*. The average for Eastern Europe is 3.4 whereas for Western Europe, it is 3.6. This difference is statistically significant (Welch = 131,5; p<0,0005).

Table 6. ANOVA, Descriptive statistics: How concerned in environmental issues?

	N	Mean	Std. Deviation
Eastern Europe	8387	3,4135	1,16184
Western Europe	9731	3,6016	1,02539
Total	18118	3,5145	1,09467

Table 7. ANOVA, Robust Tests of Equality of Means, How concerned in environmental issues?

	Statistic	df1	df2	Sig.
Welch	131,512	1	16871,536	,000

Levene Statistic= 185,9; p<0,0005

Additionally, the analysis aimed at identifying which factors affected the level of concern in environmental issues. Two regressions for categorical data were performed, each for Eastern and Western Europe.

The models show the approximate percentage of variance of the dependent variable (3% and 2.5%, respectively). The following independent variables: sex, age, education (measured by the number of years of schooling), and the size of the place of living were taken into account in the models.

Table 8. Categorical Regression Model Summary for Eastern Europe

Multiple R	R Square	Adjusted R Square	Apparent Prediction Error
,176	,031	,030	,969

Table 9. ANOVA: Categorical Regression Model for Western Europe

	Sum of Squares	df	Mean Square	F	Sig.
Regression	251,135	8	31,392	32,359	,000
Residual	7855,865	8098	,970		
Total	8107,000	8106			

Table 10. Categorical Regression Model for Eastern Europe: Coefficients

	Standardized Coefficients		df	F	Sig.
	Beta	Estimate of Std. Error			
Age	,093	,014	3	44,269	,000
Sex	,070	,011	2	41,393	,000
Place of living: urban - rural	-,035	,012	1	8,830	,003
Education: years of schooling	,158	,014	2	132,507	,000

Table 11. Categorical Regression Model Summary for Western Europe

Multiple R	R Square	Adjusted R Square	Apparent Prediction Error
,160	,026	,025	,974

Table 12. ANOVA: Regression Model for Western Europe

	Sum of Squares	df	Mean Square	F	Sig.
Regression	235,000	8	29,375	30,119	,000
Residual	8921,000	9147	,975		
Total	9156,000	9155			

In both models, all independent variables that were considered affect the level of concern in environmental issues. Moreover, their influence has a similar hierarchy. The difference concerns the influence of education and age: in Eastern Europe, the hierarchy is as follows (according to the Beta value): (1) education, (2) age, (3) sex, (4) size of the place of living. In Western Europe, on the other hand, the order is: (1) age, (2) education, (3) sex, (4) size of the place of living. Therefore, the only difference lies in the minimally higher importance of age in relation to

education. Regardless of where the study was conducted, the level of concern in environmental issues increased along with education, age, and size of the place of living; women were more concerned in environmental issues than men.

Table 13. Categorical Regression Model for Western Europe: Coefficients

	Standardized Coefficients		df	F	Sig.
	Beta	Estimate of Std. Error			
Age	,109	,019	1	34,350	,000
Sex	,088	,010	2	82,145	,000
Place of living: urban - rural	-,041	,012	3	11,909	,000
Education: years of schooling	,101	,021	2	23,385	,000

Summary

The issue of sustainability turns out to be vital for residents of Europe. Out of the three pillars of sustainable development, social issues are considered to be the most important both by Eastern and Western Europeans. Economic issues are viewed as slightly less important while environmental problems rank only in the third place. At the same time, the biggest differences between regions can be observed within this last category.

The residents of Western Europe give priority to environmental issues much more frequently than those of Eastern Europe but overall, these issues are not identified as the most important problems in Europe and lag far behind social and economic problems. Declared concern in environmental protection is higher in Western Europe than in Eastern Europe, but it is associated with the same socio-demographic characteristics and almost identical hierarchy of their influence.

Another noticeable difference between Eastern and Western Europe concerns the question of threats to the environment. Residents of Eastern Europe more often consider water pollution and problems connected with domestic waste disposal to be burdensome while for those living in Western Europe, these are climate change and using up natural resources.

Western Europe is characterized by a much higher level of social capital, which constitutes part of the social pillar of sustainable development, and the level of which is also linked to the economic potential.

In conclusion, if it is assumed that the concept of sustainable development involves a relative balance among the three pillars (social, economic and ecological), then opinions of the residents of Western Europe are more in line with this assumption. On the other hand, a disproportion can be observed in

the case of Eastern Europe, where the environmental pillar is clearly underestimated and the social pillar is much weaker.

References

1. HARRIS J.M., WISE T.A., GALLAGHER K.P., GOODWIN N.R. (eds.), 2001, *A Survey of Sustainable Development. Social and Economic Dimensions*, Island Press.
2. HULL Z., 2008, The Philosophical and Social Conditioning of Sustainable Development, in: *Problemy Ekorozwoju/Problems of Sustainable Development*, vol. 3, no 1, p. 27-31.
3. LITTIG B., GIESLERE., 2005, Social Sustainability: A Catchwork Between Political Pragmatism and Social Theory, in: *International Journal of Sustainable Development*, 1-2(8), p. 65-79.
4. MUNDA G., 1997, Environmental Economics, Ecological Economics and the Concept of Sustainable Development, in: *Environmental Values*, 6, p. 213-233.
5. PAWŁOWSKI A., 2008, How many dimensions does sustainable development have?, in: *Sustainable Development*, vol. 16 no 2, p. 81-90.
6. PUTNAM R., 1995, *Demokracja w działaniu. Tradycje obywatelskie we współczesnych Włoszech*, Znak, Kraków-Warszawa.
7. WCED, 1987, *Our Common Future*, Oxford University Press, New York.
8. WISE T.A., 2005, Economics and Sustainability: The Social Dimension, in: *Intern. Journal of Sustainable Development* 1-2(8), p. 50-51.
9. ZARYCKI T., 2004, Kapitał społeczny a trzy polskie drogi do nowoczesności, in: *Kultura i społeczeństwo*, No 2.

