

Visegrad group sustainable development – learning from the past, looking to the future

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Abstract

Countries of Visegrad group, Czech Republic, Hungary, Poland and Slovakia underwent major changes in economy, politics and society in the last 25 years. These lead to the implementation of sustainable development concept into sectorial policies and companies' operations. In the paper, the author analyses sustainable competitiveness of these countries and examples of sustainable development concept implementation. The research methods applied in the paper include literature review and case study method.

Key words: sustainable development, sustainable competitiveness, Visegrad group, energy sector, fair trade, tourism.

Introduction

In 1990s, Central Europe transformed politically and economically what influenced their policies regarding natural environment. This phenomenon applies to countries of the Visegrad group (V4) – Czech Republic, Hungary, Poland and Slovakia. After the regime changes in 1989-1990, these countries began the implementation of the sustainable development concept into various policies. In the socialist era, sustainability was often neglected. The governments were more focused on economic development and achieving economic targets. The environment and society welfare were not equally included in the strategies.

Before the transformation, the V4 countries struggled with unsustainable economic practices. Major environmental damages and challenges were reported by the Western media.¹ Environmental issues had lower priority than tourism, timber or agriculture.² Example is transport system in Hungary where a fleet of old cars affected air quality and consuming more fuel. The government introduced a program offering discounted public transport tickets which

¹ J. Carmin, S. D. VanDeveer, "Enlarging EU environments: Central and Eastern Europe from transition to accession", *Environmental Politics* 13.1, 2004, p.5.

² T. Kluvánková-Oravská, et al., "From government to governance for biodiversity: the perspective of central and Eastern European transition countries", *Environmental Policy and Governance*, 19.3, 2009, p. 190.

enabled retiring old Trabant cars (10 000 vehicles in 1993).³ In Poland the pollution of Silesia due to coal mining industry became a major environmental problem. In the Upper-Silesia Coal Basin in 1970s 200 millions of tons of coal were extracted each year (currently about 70 millions of tons). These operations resulted in water pollution (with radium) and occupational risks for workers.⁴ After the transformation, Poland and Czechoslovakia were the leading countries in introducing changes to the ministries and implementation of environmental priorities into sectorial policies in 1992.⁵

As a result, shifting to the sustainable development was needed for in the V4 countries. At the end of the 20th century, the theme of sustainable development emerged in global scientific discourse and was transferred into policy. It resulted not only in the in-depth research and publications in this field, first mostly focusing on environmental aspects, but also in shaping development of transition economies in a particular way.⁶ It was also adopted into policies of the European Union and as such it affects national strategies, industry recommendations and company's operations.

The aim of this paper is to analyze the V4 countries' current position in sustainable competitiveness and present specific examples of its introduction. The thesis of the paper is that V4 countries successfully apply sustainable solutions into business operations in energy, fair trade and tourism. The author analyses differences in the presented approaches and applied solutions.

Competitiveness and sustainable development in Central Europe

The V4 countries went through the transformation in the 1990s and oriented themselves towards accession to the European Union (EU). The European Union is a political and economic alliance of European countries created in 1993 under the Treaty of Maastricht

³ S. Rezessy, A. Antypas, K. Szeker. *Environmental policy integration: lessons from the energy and transport sectors*, Berlin Conference on the Human Dimensions of Global Environmental Change Greening of Policies–Interlinkages and Policy Integration, 2004, p.11.

⁴ B. Michalik, *Environmental pollution and remediation challenges in Upper remediation challenges in Upper Silesia Coal Basin*, Poland, 2nd Meeting of the EMRAS II Workings Group 2, Vienna 23-25 September 2009.

⁵ J. Carmin, S. D. VanDeveer,

⁶ S. Scricciu, L. Stringer, "The transformation of post-communist societies in Central and Eastern Europe and the Former Soviet Union: an economic and ecological sustainability perspective", *European Environment* 18, 2008. T. Kluvánková-Oravská, V. Chobotová, I. Banaszak, L. Slavikova, S. Trifunovova, Sonja, "From government to governance for biodiversity: the perspective of Central and Eastern European transition countries", *Environmental Policy and Governance* 19, 2009.

which replaced the earlier form of cooperation called the European Community.⁷ Currently 27 countries are members of the EU, including all V4 countries. One of the requirements which have to be met before joining the organization is the ability to prosper fully within the common competitive market. The V4 countries needed to transform their economies and at the same time adapt to market conditions in unified Europe. Adaptation processes in economy, regulations and institutions which accompanied negotiations before the accession to the EU, influenced countries' development and defined its direction⁸.

The OECD defines competitiveness as *the ability of firms, industries, regions, nations or transnational groups to confront international competition and to secure the sustainability of a relatively high rate of return on the factors of production, and of a relatively high level of employment*. High competitiveness improves productivity which assists in the international competition, and results in better quality of life and higher employment in the long term⁹. Currently, many researches analyze 'soft factors' of competitiveness and the origin of competitive advantage of certain countries or regions.¹⁰ One of them is sustainable competitiveness and its analysis for the V4 countries, which neglected environmental protection during the communist era, enables to assess the change in their policies. As Z. Wysokińska stresses, *within the ongoing globalization process, a strong correlation is observed between the sustainable competitiveness of the economy and the growing productivity of its different sectors on the global market*.¹¹

The concept of sustainable development become popular in Europe in the eighties in 20th century and was gradually introduced to economy and economics. Most accepted definition was presented in the report prepared by the Brundtland Commission "Our Common Future" where sustainable development is defined as *development that meets the needs of the present without compromising the ability of future generations to meet their own needs*.¹²

⁷ For the detailed history of the EU, please refer to: "The history of the European Union", http://europa.eu/about-eu/eu-history/index_en.htm, 10 March 2015.

⁸ The V4 countries policies are linked to the EU's Sustainable Development policies. "Sustainable Development". http://ec.europa.eu/environment/eussd/escp_en.htm. 10 March 2015.

⁹ Z. Wysokińska, "Competitiveness and Its Relationships with Productivity and Sustainable Development", *Fibres and textiles in Eastern Europe*, July/September 2003, vol. 11, no. 3(42). p.11.

¹⁰ T. Dołęgowski T., „Dylematy konkurencyjności, czyli dlaczego ekonomista lubi i nie lubi etyki biznesu”, in: *Seminaria Naukowe - Rok akademicki 2005-2006*. Instytut Handlu Zagranicznego i Studiów Europejskich SGH. Oficyna Wydawnicza SGH, Warszawa 2006.

¹¹ Z. Wysokińska, ..., p. 14.

¹² World Commission on Environment and Development (WCED) known as the Brundtland Commissions prepared a report stating definition of sustainable development in 1987. At the same time, the term was highlighted in the political debate after the United Nations Conference on the Human Environment's the Stockholm Conference. UN, United Nations, Report of the World Commission on Environment and Development. General Assembly Resolution 42/187, 11 December. Available at: <http://www.un.org/documents/ga/res/42/ares42-187.htm> 1987.

Sustainable development is a form of resource use that aims to meet human needs while preserving the environment with the purpose of having these needs met not only in the present, but also for generations to come. As a concept, sustainable development links the capacity of nature and social challenges for humanity. The idea of sustainable development involves three inter-related spheres which include economy, society and environment. Some researchers add culture. These elements should be considered in a holistic framework and long-term approach.¹³

The first pillar of sustainable development – ecological balance – concentrates on the human interaction with the environment. The major goal is to minimize the negative impact on the environment as well as to protect nonrenewable resources. It may be achieved only if the natural resources would be consumed at a pace, which guarantees that resources will last for future generations. Biodiversity maintenance, atmospheric stability and ecosystems stability are other vital aspects of ecological sustainability.¹⁴

The second sphere of sustainable development – economic growth – is linked to the business profits as well as to social and environmental costs and covers a wide spectrum of related economic issues such as externalities, public goods, economics of scale, market structures, information asymmetry, public choice and others.¹⁵

The last pillar – social progress – concentrates on the quality of life development. Social sustainability comprises distributional equity, adequate provision of social services (such as health and education), gender equity, and political accountability and participation.¹⁶

An index measuring the sustainability with regard to competitiveness is the Sustainability-Adjusted Global Competitiveness Index (SGCI) designed and measured by the World Economic Forum (WEF). It is the most elaborate and comprehensive indicator in this aspect and enables comparison among different aspects of competitiveness as WEF provides competitiveness rankings yearly. Other indexes concentrate on different issues, e.g. climate or

The process of sustainable development implementation was the Marrakech Process. “Marrakech Process“. <http://esa.un.org/marrakechprocess/regionseurope.shtml>. 10 March 2015.

¹³ A. Scerri, J. Paul, “Accounting for sustainability: Combining qualitative and quantitative research in developing ‘indicators’ of sustainability”, *International Journal of Social Research Methodology* 13 (1), 2010. Pp. 41–53.

¹⁴ K. Negacz, A. Para, „CO2 offsetting companies as consumer responsibility innovation”, *Economic and Environmental Studies*, Vol. 14, No. 4 (32/2014), Dec. 2014, p.414-416.

¹⁵ P.K. Rao, *International Environmental Law and Economics*, Blackwell Publishers, Malden/Oxford 2002, pp. 377-379.

¹⁶ I. Guijt, M. Alex, R. Prescott-Allen, *IUCN Resource Kit for Sustainability Assessment*, Geneva, IUCN Monitoring and Evaluation Initiative, 2001.

environment protection. According to the SGCI, the results of V4 countries are as given in the table 5 in Appendix.¹⁷

SGCI being an aggregated index shows the country position in relation to the number of factors. The best result was obtained by Czech Republic (24.), which is also the leader in Social-sustainability adjusted GCI and in Global Competitiveness Index. As it comes, to competitiveness half of the group improved their results, whereas the other half received lower position. The country closest to the average group scores is Poland. The average for the EU (26) is 5,09 points and 28 positions (see Appendix table 6).¹⁸ The V4 average result is 35./4,56, similar to the place of Slovenia. It shows that the position of the V4 is not as good as EU26, but promising with regard to the changes that already have been introduced. The result of the V4 is below some developed countries such as Japan (sixth place, 6,28). Countries in first 10 include Switzerland, Norway, Netherlands, Finland, Germany, Japan, Denmark, United Arab Emirates, Sweden and Austria.¹⁹

Sustainable development on the national level

Each of the V4 countries adopted national sustainability strategy. For Poland, it is State Ecological Policy for 2009-2012 with a perspective to 2016; for Czech Republic - Strategic Framework for Sustainable Development; for Hungary: National Sustainable Development Strategy; for Slovakia: National Sustainable Development Strategy, Action Plan for Sustainable Development.²⁰

The analysis of the abovementioned documents shows that there are certain similarities between the countries. Common elements are demographic changes and institutional support. Each country addresses as well the ecological elements, although they relate to the country specific problems. In case of Poland and the Czech Republic, they

¹⁷ The index enables measurement of “*the set of institutions, policies and factors that make a nation remain productive over the longer term while ensuring social and environmental sustainability*”. Sustainable Competitiveness, <http://www.weforum.org/content/pages/sustainable-competitiveness/>, 26 January 2015.

¹⁸ Average without Malta due to lack of data.

¹⁹ For detailed results please refer to “WEF”, <http://www.weforum.org/content/pages/sustainable-competitiveness/>. 15 March 2015.

²⁰ “The National Environmental Policy For 2009-2012 And Its 2016 Outlook”, http://www.mos.gov.pl/g2/big/2009_07/2826c539c3015384e50adac8fe920b0b.pdf; “The Strategic Framework for Sustainable Development in the Czech Republic”, http://www.mzp.cz/en/czech_republic_strategy_sd; “National Sustainable Development Strategy”; <http://www.stakeholderforum.org/fileadmin/files/National%20Framework%20Strategy%20on%20Sustainable%20Development.pdf>; “National Sustainable Development Strategy”, http://www.thegef.org/gef/sites/thegef.org/files/documents/Slovakia_NSSD_Final.pdf, 10 January 2015.

include energy security and resources management. For Hungary and the Slovak Republic spatial planning and landscape management seems to be core areas of interest. Strategies indicate directions in which each country's government plan to steer sustainable development policies. The analysis of the documents allows summarizing the priorities as presented in table 1.

Table 1. Visegrad countries' priorities related to sustainable development

Country	Czech Republic	Hungary	Poland	Slovakia
Priorities	society, people and health; the economy and innovation; regional development; landscape, ecosystems and biodiversity; stable and secure society	human resources natural resources economic resources social resources	social capital human capital infrastructure natural resources energy state and institutions quality	16 principles, 40 indicators

Source: Own work based on national strategies: The National Environmental Policy For 2009-2012 And Its 2016 Outlook,

http://www.mos.gov.pl/g2/big/2009_07/2826c539c3015384e50adac8fe920b0b.pdf; The

Strategic Framework for Sustainable Development in the Czech Republic,

http://www.mzp.cz/en/czech_republic_strategy_sd; National Sustainable Development Strategy;

<http://www.stakeholderforum.org/fileadmin/files/National%20Framework%20Strategy%20on%20Sustainable%20Development.pdf> ; National Sustainable Development Strategy,

http://www.thegef.org/gef/sites/thegef.org/files/documents/Slovakia_NSSD_Final.pdf,
accessed: 10 January 2015.

For Poland the key issues are corporate social responsibility as well as green economy. Polish Ministry of Economy highlights also sustainable consumption and production. The Czech Republic indicates energy industry as essential and puts forward the topic of cities and regions in green policies. The Hungarian approach involves: responsible citizens and families, businesses promoting sustainability and sustainable communities. In the Slovak Republic, the clusters of issues are broad and indicated as three pillars of sustainability with the focus on cultural aspects.

Case studies

The method used in the paper to identify examples of sustainable development's implementation is case studies. The selected cases are related to three topics of energy security, fair trade, and sustainable tourism. Each case includes an example of a company or an NGO. Field of their operations and main focus of sustainable activities correspond with three aspects of sustainability mentioned before: environment, economy and society. Strict division is impossible as sustainable development concept is a holistic approach.

In each area, there is one example from each country presented. As there are numerous initiatives, the cases were chosen as exemplifications of the trend and do not cover all activities in the field which may be subject to further research.

Table 2. Examples of sustainable development implementation - environmental aspect – energy industry

Poland
PGE (PGE Polska Grupa Energetyczna S.A.) is a group with comprehensive CSR strategy. Operating in the mining industry, it has implemented numerous programs and actions to limit emissions (CO, NO, SO) since mid-1990s. To give an example, in 2011 the group prepared a program with aims at emission reductions (desulphurization, dedusting and denitrogenisation of exhausts) and includes 18 actions. Six of them have been already implemented and 12 will be finished till 2016. Total cost of the program amount to 2 billion PLN. The group

participate in the UN Global Compact initiative and Respect Index (an index of socially responsible companies listed at the Warsaw Stock Exchange). ²¹
Czech Republic
Knezice biogas power plant is located 70 km east of Prague and supplies renewable energy from biodegradable waste. The project addressed municipal waste management problems, encouraged local energy self-sufficiency, reduced greenhouse gas emissions and became a cheaper source of energy for local inhabitants. The project addresses a number of challenges related to sustainable development, namely energy security, carbon emissions and community involvement. The Knezice power plant is one of the pilot energy projects of the Central Bohemian Region. In 2007, Knezice was awarded the European Energy Award for the innovative use of biogas district heating. Actions taken by the power plan enabled reduction in the CO2 emissions and stimulated economic development in this area. ²²
Hungary
EDF multinational company which operates also in Hungary. One of its projects is “Obstacle-free Sky”. In cooperation with the Hungarian Ornithological and Nature Protection Society and the national parks, the company equips its electricity posts with legged basket-shaped stork nest raisers and invested more than 300 mln HUF in bird protection. Another project was done in cooperation with the Hungarian Society of Renewable Energy and Nyír-Ökowatt Kft and concerned construction of wind and solar energy farm in Kiskunmajsa. ²³
Slovakia
The company Enel in Slovakia in 2008 introduced a comprehensive program “Energy for the Country” which include five categories: <i>Energy for Life – charity and social activities; Energy for Nature – environmental protection and biodiversity preservation; Energy for Education – support and development of education; Energy for Culture – development and protection of cultural values; Energy for Sport – prevention, healthcare and development of sport activities</i> . In 2013, 268 projects were supported in these areas 1,1 mln EUR. ²⁴

Table 3. Examples of sustainable development implementation - environmental aspect – energy industry – fair trade

²¹ “Raport środowiskowy PGE”, http://www.gkpge.pl/media/pdf/raport_srodowiskowy_pge.pdf. 20 January 2015, p.6-7.

²² “Knezice”, <http://www.skanska-sustainability-case-studies.com/Knezice-Biogas-Power-Plant-Czech-Republic>, 20 January 2015.

²³ “Environmental protection”. <http://hungary.edf.com/edf-in-hungary/sustainable-development--csr/environmental-protection-47402.html>. 10 March 2015.

²⁴ “Energy for the country”. <http://www.seas.sk/sustainability-corporate-social-responsibility-csr>. 10 March 2015.

Czech Republic
Fairtrade Cesko a Slovensko is a branch of Fairtrade International which among the others monitors local market for fair trade products, support their sales and raises awareness about the idea. It has developed three campaigns: Fair Trade Towns, Fair Trade Schools and Fair Trade Churches and Religion Societies. The first one is a labelling initiative which assists in promoting fair trade idea. In Czech Republic, the label was first obtained by 2011 Litoměřice and Vsetín. The two following campaigns are based on the same concept and relate to schools and churches. ²⁵
Hungary
Treehugger Dan's Bookstore and Café is a combination of a second-hand bookstore and fair trade organic coffee shop. The coffee beans come from cooperatives in Colombia, Mexico, Guatemala, Peru, and Tanzania. It cooperates with a number of NGOs and companies in Hungary, e.g. Rogner Hotel, Justice Initiative and Educational Support Program Departments at the Open Society Institute, Central and Eastern European Working Group for the Enhancement of Biodiversity (CEEWEB). The company is an example of a business concept based on sustainable development. ²⁶
Poland
Fair trade products became increasingly popular in Poland in recent years. Consumers have more financial resources to spend on their purchases and increasingly often they choose fair trade products ²⁷ . Fair trade movement in Poland is an example of following developed countries such as France or Great Britain. The association "Trzeci Świat i My" founded in 2003 was one of the very first promoting fair trade idea in Poland. Major breakthrough was creation of the Fair Trade Coalition in 2009 which includes non-governmental organizations, companies and individual members from Poland. ²⁸
Slovakia
Ten Senses is a fair trade company founded which premises are based in Slovakia. It imports macadamia and cashew nuts to Eastern Europe. It supplies Bulgaria, Slovakia, Poland and

²⁵ "Fair Trade Towns". <http://www.fairtrade-cesko.cz/#!our-campaigns/fair-trade-towns>. 10 March 2015.

²⁶ "About us". <http://www.treehugger.hu/aboutus>. 10 March 2015.

²⁷ J. Kronenberg, T. Bergier, "Sustainable development in a transition economy: business case studies from Poland", *Journal of Cleaner Production*, 26, 2012, p.24.

²⁸ *Sprawiedliwy Handel w Polsce: Stan obecny i perspektywy rozwoju*, Stowarzyszenie Polskich Konsumentów, Warszawa 2010.

the Czech Republic and sells products. It cooperates with 62000 farmers in Kenya and Rwanda.²⁹

Table 4. Examples of sustainable development implementation - social aspect – sustainable tourism

Czech Republic
Centrum Veronica Hostětín , together with village authorities and Tradice Bílých Karpat association organizes a number of environmental projects in Hostětín. The center offers ecotourism and trainings for individuals and companies. The projects include among the others apple juice factory Bio-Moštárna, local water treatment plant, and traditional garden showing local and traditional plants, village’s biomass heating system, and solar panels on the buildings. ³⁰
Hungary
Hortus Nature Hotels chain belongs to Hortobágy Nature Protection and Gene Preservation non-profit company and is an example of eco-tourism in the region. With a 17-hectare land and a stock of 3000 animals, it is one of the largest ecological farming companies in Hungary which offers eco-tourism. The company owns 5500-hectare of ponds with fish. The hotel proposes in its offer: bicycle rental, canoe rental, hunting to maintain the ecological balance, grassland zoo, visits traditional buildings and local museums. ³¹
Poland
Ecomuseum “Three cultures” in Lutowiska is an open-air museum linking nature protection and heritage preservation. It is driven by the local community and cooperates with local artists and craftsmen. The museum prepared 13 km of path which guides through various places linked to the cultural heritage of nations that inhabited Lutowiska (Jews, Ukrainians, and Poles) and environmental sites presenting local fauna, flora and landscape. The path includes e.g. the Jewish graveyard, the ruins of a synagogue, Orthodox churchyard, and the Greek-Catholic cemetery, old Boyce cottages called cheese and signs with information on local animals and plants. ³²
Slovakia
The rural tourism project started in Rosanna Okras (1620 km ² , 86,000 inhabitants), a

²⁹ “Ten senses”. <http://tensensesafrica.com/>. 10 March 2015.

³⁰ „10 důvodů, proč se vydat do Hostětína”. <http://hostetin.veronica.cz/>. 10 March 2015.

³¹ “Ecotourism”. <http://www.hortusnaturaehotels.hu/okoturizmus.en.php>. 10 March 2015.

³² “Ecomuseum Three Cultures”. <http://www.lutowiska.pl/ecomuseum-three-cultures>. 10 March 2015.

former mining area. It includes (1) a three year marketing plan, (2) creation of tourism center and local tourism association, (3) training courses for the staff. It resulted in: reintroduction of rural crafts in the area, supporting existing tourism businesses, incubation for the new start-ups, enhances town infrastructure, etc. Tangible results included 16 new small rural tourism bed and breakfast enterprises opened between 1997 and 1999; monitoring number of visitors by the information center, 25 trainings from 1996 to 1998 with 330 participants. The unique element is the Slovak-Hungarian cultural mix and traditional lifestyle.³³

The cases show that more and more companies link their activities to the sustainable development. This trend applies to all sizes of companies, although it happens faster in the larger multinational companies due to international pressures and strategies in the group.

Although much has been done to operate in more sustainable way, there are still some problems. Examples are bauxite sludge storage ponds in western Hungary in 2010.³⁴ Additionally, numerous activities lack data and impact measurement. They do not present transparent information which is one of the sustainability elements (stakeholder communication). Some of the activities are very vague and the link to environmental protection is controversial (hunting in one of the presented cases). Most projects have very limited scale. Some do not have English information which additionally limits their influence and scope.

As stated above, there is a visible shadowing of some sustainable development practices implemented in the Western Europe. Some of them are successful, as the case of organic farming in Hungary. Some have limited application – this is example of Rozava Okres. Some are highly dependent on cultural context. For example, in Poland the fair trade is mostly done by the non-governmental organizations whereas in the UK the market belongs to the companies. The idea of fair trade is slowly gaining popularity and the demand is not as high as in other CEE countries.³⁵

Conclusions

³³ J. Clarke et al., “Rural tourism in Roznava Okres: a Slovak case study”, *Tourism Management* 22, 2001, p. 193-202.

³⁴ “Hungary’s Red Sludge Spill: The Media and the Eco-Disaster”. http://e360.yale.edu/feature/hungarys_red_sludge_spill_the_media_and_the_eco-disaster/2330/. 10 March 2015.

³⁵ J. Kronenberg, T. Bergier, ..., p.25.

Application of sustainable development concept into the socio-economic development of Visegrad countries may be measured by sustainable competitiveness index such as Sustainability-Adjusted Global Competitiveness Index (SGCI) constructed by the World Competitiveness Forum. Being an aggregated index, it shows the country position in relation to the number of factors. In 2014-2015 among the Visegrad countries, the best result was obtained by the Czech Republic, which is also the group leader in Social-sustainability adjusted GCI and in Global Competitiveness Index.

All the Visegrad countries addressed sustainable development in the national strategies and legal acts. They translate them into the various priorities, but all highlight the role of human and social capital, as well as the institutions. The Czech Republic and Poland prioritize the issue of energy security. In case of Hungary and the Slovak Republic, the cultural aspect seems to play larger role. The analyzed countries share some of the challenges, namely institutional support, public-private cooperation, social cohesion. In Poland, a major focus is brought to education and stakeholder cooperation. In the Czech Republic, Slovakia and Hungary, common challenges are demographic issues and landscape management.

The case studies show that much has been done to integrate sustainable development into three analyzed fields. In each country, there are initiatives to that have positive impact on environment, society and economic development. At the same time, one should remember that many of them have limited range of influence and lack impact measurement.

Bibliography

1. “10 důvodů, proč se vydat do Hostětína”. <http://hostetin.veronica.cz/>. 10 March 2015.
2. “About us”. <http://www.treehugger.hu/aboutus>. 10 March 2015.
3. “Ecomuseum Three Cultures”. <http://www.lutowiska.pl/ecomuseum-three-cultures>. 10 March 2015.
4. “Ecotourism”. <http://www.hortusnaturaehotels.hu/okoturizmus.en.php>. 10 March 2015.
5. “Energy for the country”. <http://www.seas.sk/sustainability-corporate-social-responsibility-csr>. 10 March 2015.
6. “Environmental protection”. <http://hungary.edf.com/edf-in-hungary/sustainable-development--csr/environmental-protection-47402.html>. 10 March 2015.
7. “Fair Trade Towns”. <http://www.fairtrade-cesko.cz/#!our-campaigns/fair-trade-towns>. 10 March 2015.
8. “Hungary’s Red Sludge Spill: The Media and the Eco-Disaster”. http://e360.yale.edu/feature/hungarys_red_sludge_spill_the_media_and_the_eco-disaster/2330/. 10 March 2015.
9. “Knezice”, <http://www.skanska-sustainability-case-studies.com/Knezice-Biogas-Power-Plant-Czech-Republic>, 20 January 2015.
10. “Marrakech Process“. <http://esa.un.org/marrakechprocess/regionseurope.shtml>. 10 March 2015.
11. “National Sustainable Development Strategy”, <http://www.stakeholderforum.org/fileadmin/files/National%20Framework%20Strategy%20on%20Sustainable%20Development.pdf> , 10 January 2015.
12. “National Sustainable Development Strategy”, http://www.thegef.org/gef/sites/thegef.org/files/documents/Slovakia_NSSD_Final.pdf, 10 January 2015.

13. "Raport środowiskowy PGE",
http://www.gkpge.pl/media/pdf/raport_srodowiskowy_pge.pdf. 20 January 2015.
14. "Sustainable Competitiveness", <http://www.weforum.org/content/pages/sustainable-competitiveness/>, 26 January 2015.
15. "Sustainable Development". http://ec.europa.eu/environment/eussd/escp_en.htm. 10 March 2015.
16. "Ten senses". <http://tensensesafrica.com/>. 10 March 2015.
17. "The history of the European Union", http://europa.eu/about-eu/eu-history/index_en.htm, 10 March 2015.
18. "The National Environmental Policy For 2009-2012 And Its 2016 Outlook",
http://www.mos.gov.pl/g2/big/2009_07/2826c539c3015384e50adac8fe920b0b.pdf, 10 January 2015.
19. "The Strategic Framework for Sustainable Development in the Czech Republic",
http://www.mzp.cz/en/czech_republic_strategy_sd, 10 January 2015.
20. "WEF", <http://www.weforum.org/content/pages/sustainable-competitiveness/>, 15 March 2015.
21. Carmin, Joann, Stacy D. VanDeveer. "Enlarging EU environments: Central and Eastern Europe from transition to accession." *Environmental Politics*. 13.1, 2004.
22. Dołęgowski, Tomasz, „Dylematy konkurencyjności, czyli dlaczego ekonomista lubi i nie lubi etyki biznesu”, in: *Seminaria Naukowe - Rok akademicki 2005-2006*. Instytut Handlu Zagranicznego i Studiów Europejskich SGH. Oficyna Wydawnicza SGH, Warszawa 2006.
23. Guijt, Irene, Moiseev Alex, Prescott-Allen, R. *IUCN Resource Kit for Sustainability Assesement*. Geneva: IUCN Monitoring and Evaluation Initiative 2001.

24. J. Clarke et al. "Rural tourism in Roznava Okres: a Slovak case study". *Tourism Management* 22. 2001.
25. Kluvánková-Oravská, Tatiana, Chobotová, Veronika, Banaszak, Ilona, Slavikova, Lenka, Trifunovova, Sonja. "From government to governance for biodiversity: the perspective of Central and Eastern European transition countries". *Environmental Policy and Governance* 19, 2009.
26. Kluvankova - Oravska, Tatiana, et al. "From government to governance for biodiversity: the perspective of central and Eastern European transition countries". *Environmental Policy and Governance* 19.3. 2009.
27. Kronenberg, Jakub, Bergier, Tomasz. "Sustainable development in a transition economy: business case studies from Poland". *Journal of Cleaner Production* 26. 2012.
28. Michalik, Boguslaw. *Environmental pollution and remediation challenges in Upper remediation challenges in Upper Silesia Coal Basin, Poland*. 2nd Meeting of the EMRAS II Workings Group 2, Vienna 23-25 September 2009.
29. Negacz, Katarzyna, Para, Anna. „CO2 offsetting companies as consumer responsibility innovation”. *Economic and Environmental Studies* Vol. 14, No. 4 (32/2014), Dec. 2014.
30. Rao P.K. *International Environmental Law and Economics*. Blackwell Publishers, Malden/Oxford. 2002.
31. Rezessy, Silvia, Alexios Antypas, and Klara Szeker. *Environmental policy integration: lessons from the energy and transport sectors*. Berlin Conference on the Human Dimensions of Global Environmental Change Greening of Policies–Interlinkages and Policy Integration. 2004.

32. Scerri Andy, Paul James, “Accounting for sustainability: Combining qualitative and quantitative research in developing ‘indicators’ of sustainability”. *International Journal of Social Research Methodology* 13 (1), 2010.
33. Scricciu, Serban, Stringer, Lindsay. “The transformation of post-communist societies in Central and Eastern Europe and the Former Soviet Union: an economic and ecological sustainability perspective”. *European Environment* 18, 2008.
34. *Sprawiedliwy Handel w Polsce: Stan obecny i perspektywy rozwoju*. Stowarzyszenie Polskich Konsumentów. Warszawa 2010.
35. Wysokinska, Zofia. “Competitiveness and Its Relationships with Productivity and Sustainable Development”. *Fibres and textiles in Eastern Europe*. July/September 2003, vol. 11, no. 3(42).

Appendix

Table 5. Sustainability-Adjusted Global Competitiveness Index (SGCI) results for Visegrad countries for 2014-2015

Country/Index	SGCI 2014-2015 (place/value)	Social-sustainability adjusted GCI (place/value) 2014-2015	Global Competitiveness Index 2008-2009 (place)	Global Competitiveness Index 2014-2015 (place)
Czech Republic	24./4,93	25./4,97	33	37
Hungary	38./4,44	43./4,35	62	60
Poland	34./4,55	39./4,48	53	43
Slovak Republic	43./4,32	49./4,23	46	75
Average for Visegrad group	35./4,56	39./4,50	49	54

Source: Own work based on “Sustainable Competitiveness”,

<http://www.weforum.org/content/pages/sustainable-competitiveness/>, 2015.01.26. *Global Competitiveness Report 2014-2015*, <http://www.weforum.org/reports/global-competitiveness-report-2014-2015>, 2015.01.26, *Global Competitiveness Report 2008-2009*, http://www3.weforum.org/docs/WEF_GlobalCompetitivenessReport_2008-09.pdf, 26 January 2015.

Table 6. Social-sustainability adjusted GCI for EU 26

Rank	Country/Economy	Value
3	Netherlands	6,39
4	Finland	6,38
5	Germany	6,36
7	Denmark	6,14
9	Sweden	6,05
10	Austria	6,00
12	Luxembourg	5,96

14	United Kingdom	5,95
16	Belgium	5,89
19	France	5,56
21	Ireland	5,38
24	Estonia	5,13
25	Czech Republic	4,97
30	Lithuania	4,66
31	Spain	4,65
32	Latvia	4,64
34	Portugal	4,61
35	Slovenia	4,52
38	Cyprus	4,48
39	Poland	4,48
42	Italy	4,36
43	Hungary	4,35
45	Bulgaria	4,31
49	Slovak Republic	4,23
53	Romania	4,13
59	Croatia	4,06
68	Greece	3,85
28	Average	5,09

Source: Own work based on “WEF”, <http://www.weforum.org/content/pages/sustainable-competitiveness/>, 15 March 2015.