Jelena Legčević, doc.dr.sc.
Martina Mikrut, dr.sc.
Nihada Mujić, prof. dr. sc.

Pravni fakultet Sveučilišta u Osijeku
Tel: 031/224-500 Fax: 031/224-540
E-mail: legcevic@pravos.hr, mmikrut@pravos.hr, nmujic@pravos.hr

ATTITUDES TOWARDS ENVIRONMENTAL RESPONSIBILITY: THE CASE OF CROATIA

STAVOVI O ODGOVORNOSTI PREMA OKOLIŠU: HRVATSKI SLUČAJ

The environment is considered as a serious social and economic issue that needs to be addressed comprehensively if we want to achieve and maintain the quality of life for ourselves and for generations to come. The environment is an integral part of the broader economic and social development of virtually every country in the world. All those who wish to preserve their environment and contribute to the overall protection and conservation of biodiversity are committed to developing its legal system and installed it to those normative values that can help the environment and sustainable development. The aim of this paper was to provide a theoretical framework for understanding the key concepts related to the environmental responsibility segment and to help create a clearer picture of Croatia's population by gathering secondary data from the available literature and previous research. For this analysis, backdate of eight research waves through 4 years, 2 waves per year from 2010 to 2013 was used, all of them conducted on a random sample of Croatian citizens, examining (as a part of wider study) attitudes and preferences of the respondents on environmental protection through prism of survival of the human species, behavior of individuals and society to nature and expected economic growth. Attitudes of the respondents differ mutually with regard to observed socio-demographic characteristics of the sample where the population of younger age (15-19 years old) and Region Slavonia as statistical significant difference in all the four waves of measurements in all examined variables. A healthy environment is a fundamental prerequisite for the preservation of human health and quality of life. Europe 2020 is a new strategy of the European Union, which succeeds the Lisbon Strategy, indicates the need for smart, sustainable and inclusive growth, and leads to high levels of employment, productivity and social cohesion.

Keywords: *environmental protection, sustainable development, measurement, economic framework, sustainable regional development*

SAŽETAK

Zaštita okoliša smatra se ozbiljnim socijalnim i ekonomskim problemom kojemu se mora pristupati holistički želimo li postići i sačuvati kvalitetu života za nas same, kao i za generacije koje dolaze. Zaštita okoliša danas čini sastavni dio gospodarskog i šireg socijalnog razvoja gotovo svake zemlje na svijetu. Svi oni koji žele sačuvati svoj okoliš te pridonijeti ukupnoj zaštiti i očuvanju biološke raznolikosti imaju obvezu razvijati svoj pravni sustav i u njega ugrađivati one normativne vrijednosti koje mogu pripomoći u očuvanju

okoliša i održivom razvoju. U tu je svrhu provedeno istraživanje na slučajnom uzorku stanovnika Republike Hrvatske u tri vala: 2010 (n=4029), 2011 (n=4015) i 2012 (n=4077), a kako bi se ispitali stavovi i preferencije ispitanika o zaštiti okoliša kroz prizmu opstanka ljudske vrste, ponašanja pojedinca i društva prema prirodi te očekivani gospodarski rast. Stavovi ispitanika međusobno se razlikuju obzirom na promatrane socio-demografske karakteristike uzorka pri čemu su populacije mlađe dobi (15-19 godina starosti) i regija: Slavonija kao statistički značajne razlike najzastupljenije u sva tri vala mjerenja na svim ispitivanim varijablama. Zdrav okoliš temeljna je pretpostavka za očuvanje zdravlja ljudi i kvalitete života. Europe 2020 nova je strategija Europske unije, koja nasljeđuje Lisabonsku strategiju, ukazuje na potrebu pametnog, održivog i uključivog rasta, te vodi prema visokim razinama zaposlenosti, produktivnosti i socijalne kohezije.

Ključne riječi: *zaštita okoliša, održiv razvoj, mjerenje, ekonomski okvir, održiv regionalni razvoj*

1. Introduction

To turn the economic and financial crisis into an opportunity, the EU considers it crucial "to address financial and ecological sustainability and develop a dynamic low-carbon and resource efficient, knowledge-based, socially inclusive society." The focus is on '*green growth*', since green measures help to revive the economy and create jobs, and stimulate new technologies and reduce the impact on climate change, the depletion of natural resources and the degradation of ecosystems (Commission, *Mainstreaming sustainable development into EU policies: Review of the European Union Strategy for Sustainable Development*, 2009). This is reflected in a key policy document for the EU sustainable growth strategy adopted in 2010, the 'Europe 2020'. Priorities of the strategy are: smart growth - development of an economy based on knowledge and innovation; sustainable growth - promoting a more resource efficient, greener and more competitive economy; inclusive growth - fostering a high-employment economy delivering social and territorial cohesion. Flagship initiatives attached to the strategy envisages a range of policy measures, e.g. on resource and energy efficiency, biodiversity, action on raw materials, decarbonise the economy, use of market-based instruments, greening of tax systems, phasing out of environmentally harmful subsidies (Commission, Europe 2020, 2010). During the preparations for the 2012 Rio+20 Conference on Sustainable Development, the Commission presented its view on the EU attitude towards '*green economy*'. It sated that responses to challenges posed by growing world population and environmental pressures "will not come from slowing growth, but rather from promoting the *right kind* of growth". Conventional model of economic progress should be fundamentally changed: "What is needed is an economy that can secure growth and development, while at the same time improving human well-being, providing decent jobs, reducing inequalities, tackling poverty and preserving the natural capital upon which we all depend. Such an economy – a green economy – offers an effective way of promoting sustainable development, eradicating poverty and addressing emerging challenges and outstanding implementation gaps" (Commission, Rio+20, 2011).

The Sixth EAP titled 'Our Future, Our Choice' also aims at a contribution to the EU Sustainable Development Strategy; it forms a basis for its environmental dimension. Its priorities are: tackling climate change, preservation of nature and biological diversity, protection of environment and human health, improvement of quality of life, improvement of resource efficiency, resource and waste management. In its proposal the Commission considered sustainable development as a major opportunity for Europe: "If we can support

and encourage the development of a greener market place, then business and citizens will respond with technological and management innovations that will spur growth, competitiveness, profitability and job creation" (Commission, Communication on the sixth environment action programme of the European Community, 2001). The draft Seventh EAP is an overarching framework for the EU environment policy to 2020, building on policy initiatives of the Europe 2020 strategy for smart sustainable and inclusive growth. As a follow up to the UN Rio+20 Conference, the programme sets as its objective to turn the Union into a resource efficient, green, competitive and low carbon economy, in the context of sustainable development and poverty reduction. Green economy is seen the one that secures growth and development, safeguards human health and well-being, provides decent jobs, reduces inequalities and invests in and preserves natural capital, as a central part of a broader strategy for sustainable development. The programme identifies principles and 9 priority objectives, *inter alia*, to protect, conserve and enhance the EU's natural capital and strengthen ecological resilience; to turn the EU into a resource efficient, green and competitive low carbon economy; to effectively address environment-related threats to health; to improve environmental integration and policy coherence, i.e. the way environmental concerns and requirements are reflected in other policies.

For building the green economy, the program envisages measures to further improve the environmental performance of goods and services on the EU market over their whole life cycle through measures to increase the supply of environmentally sustainable products, and stimulate a significant shift in consumer demand for these products. This will be achieved using a balanced mix of incentives for consumers and businesses, market-based instruments and regulations to reduce the environmental impacts of their operations and products. The programme envisages the review of existing product legislation such as the Eco design and Energy Label Directives and the Eco label Regulation, and the full implementation of waste legislation, with a view to improving the environmental performance and resource efficiency of products throughout their lifecycle, thus ensuring a more coherent framework for sustainable production and consumption in the EU. (Commission, Proposal on a *General Union Environment Action Programme to 2020*, 2012).

2. Economic Incentives and Regional dimensions for Environmental Responsibility

The European Union aspires to become the most dynamic and competitive economy in the world. The Lisbon Strategy, launched by EU leaders in 2000 and subsequently revised and simplified in 2005, emphasises the need to modernise Europe's economy and focus attention on growth and employment, in order to address the challenges of globalisation and demographic change and to support our wider economic, social and environmental goals (Commission, *Staff Working Document, Lisbon Strategy*, 2010). To achieve this, the updated strategy emphasises the need for Europe to become a more attractive place to live and work, to develop knowledge and innovation for growth, and to create more and better jobs. The current global economic crisis represents a significant setback in implementing Europe's economic agenda, with problems of loss of demand, unemployment and deteriorating public finances (Horvath, Z., Legčević, J., 2013) In order to address these economic problems, restore growth and tackle unemployment, a European Economic Recovery Plan (European Commission, 2008) was launched, which sets out the actions the EU will implement to deal with the crisis (Rayment et al 2009). It is explained how environmental policy may benefit the economy by delivering eight key economic outcomes (Hahn, R., 1999):

- *Enhances Productivity* - There is widespread agreement that environmental policy can enhance productivity by increasing the efficiency with which we use resources and

energy. This will benefit the economy and the environment alike, thus being a true winning strategy for the EU's economy. Resource efficiency including oil, raw materials and food are becoming increasingly scarce and expensive, while EU imports are increasing. There is much evidence that many resource efficiency gains can be achieved relatively easily and cost effectively. Studies of the EU eco-industries demonstrate that they have higher productivity and higher growth rates than the manufacturing sector as a whole (Commission 2011)

- *Environmental Policies and Innovation* - Environmental policies can stimulate innovation and investment in innovation. By internalising the external costs of pollution and natural resource use, policies change relative prices and stimulate research and development and uptake of alternative inputs, production methods and products. Similarly, restricting the use of certain processes and materials stimulates the commercialisation and diffusion of cleaner alternatives. Environmental policies have led to innovations in conservation of energy and resources, pollution prevention and environmental clean-up. The European Commission has estimated that the total commercial value of eco-innovative products and technologies in sustainable construction, renewable energy, bio-based products and recycling in the EU can grow from €92 billion in 2006 to €259 billion in 2020, creating more than 2.4 million new jobs (OECD, 2011).
- *Environmental Policies and Employment* - the net effects of environmental policies on employment are positive or neutral. While environmental policies can cause shifts in the composition of employment, evidence suggests that any negative effects on polluting products and processes are at least balanced by growth in less pollution-intensive ones (Raymet et al 2009, p.59)
- *Environmental Policies and the Balance of Trade* - Environmental policies can improve the balance of trade by enhancing competitiveness, supporting export-oriented eco-innovation, and reducing material use and hence imports. Furthermore, progressive environmental policies require industries to innovate and adapt quickly, giving them first mover advantages and positioning them well against foreign competitors when the latter catch up. High environmental product standards drive innovation and create export opportunities over time.
- *Environmental Policies and the Public Finances* - Environmental policies have positive effects on the public finances by (UNEP, 2010): raising revenue and expanding the tax base through environmental taxes and by reducing environmentally harmful subsidies.
- *Environmental Policies and the Capital Base* - Environmental policies can greatly add to and enhance the quality of our capital base, contributing to the stock of buildings and infrastructure, plant and machinery, human capital and natural capital. This capital stock determines the long term output and income streams of the economy. Environmental investments make a key contribution to economic development, providing the infrastructure necessary for growth, driving the transition to a resource efficient economy, maintaining the health and productivity of the workforce, and delivering the ecosystem services on which people and the economy depend.
- *Environmental Policies and Cohesion* - The environment has a key role to play in achieving the goals of cohesion policy and vice versa. Since poor environmental quality is often a barrier to development, investing in the environment is essential in many cohesion areas to provide the right conditions for growth and the necessary infrastructure for sustainable development. Environmental activity offers opportunities for all cohesion regions but has a special role to play in peripheral areas with few

alternative development opportunities for which high environmental quality may be one of the greatest economic assets.

- *Environmental Policies and the Transition to a Sustainable and Resilient Economy* - The EU's Growth and Jobs Strategy and certain aspects of the European Economic Recovery Plan (2009) aim at stimulating the transition towards a sustainable, low-carbon, low impact economy. This is needed, as by 2050, the global economy would need to grow to 15 times its current size for the global population to meet its aspirations of OECD levels of consumption (Rayment, 2009).

The aim of the EU regional policy - *cohesion policy* - is to strengthen the EU's economic, social and territorial cohesion, particularly to reduce disparities between the levels of development of the various regions and the backwardness of the least favoured regions (Art. 175 Treaty on the Functioning of the European Union - TFEU). The EU supports the achievement of these objectives by actions taken through its financial instruments, mostly the so-called Structural Funds (Cohesion policy is financed by the European Regional Development Fund (ERDF), European Social Fund (ESF), Cohesion Fund (CF), European Agricultural Fund for Rural Development (EAFRD), European Maritime and Fisheries Fund (EMFF), and through other financial instruments, e.g. European Investment Bank). During the present financial period (2007-2013) and in preparation of the next one (2014-2020) the EU regional/cohesion policy is going through a considerable reorientation in order to enable its contribution to the EU sustainable development goals and to the Europe 2020 strategy for smart, sustainable and inclusive growth, particularly its flagship initiative "Resource Efficient Europe" (Commission, A resource-efficient Europe – Flagship initiative under the Europe 2020 Strategy, 2011). Success in putting the EU economy on the path to sustainable and job creating growth will largely depend on decisions taken at local and regional level. The EU regional policy must serve to mobilise the potential of EU regions and cities to decouple growth from resource overuse, to change current patterns of consumption and production and to lead the way in developing innovation technologies. Thus, the EU regional policy plays an essential role in orientation of investments towards activities to support smart and sustainable growth, to tackle climate change, energy and environmental issues (Commission, DG for Regional Policy, *Regional Policy Contributing to Sustainable Growth in Europe* 2011).

3. Croatian Citizen's Attitudes on Environmental Protection

Since the aim of this paper was not only to provide a theoretical framework for understanding the key concepts related to the environmental responsibility segment but to help in creating a clearer picture of Croatia's population on attitudes and preferences on environmental protection, analysis of Croatia's population direct responses related to environmental protection was conducted.

3.1. Methodology Overview

Analysis was done using backdate[175] of eight research waves through 4 years, two waves per year for years: 2010 (n=4029), 2011 (n=4015), 2012 (n=4077), and 2013 (n=4075). Data

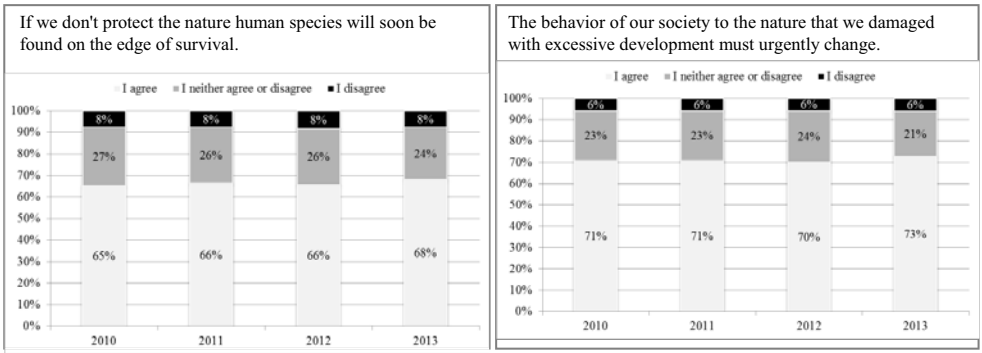
[175] BRANDpuls is a research project of IPSOS Puls market research agency, created in Croatia in 2006 in response to advertiser and agency dissatisfaction with other offerings in the market. By early 2011, BRANDpuls was running in seven countries: Croatia, Serbia and Bosnia/Herzgovina in Europe and Egypt, the Lebanon, Saudi Arabia and the United Arab Emirates in the Middle East. BRANDpuls blends four key aspects of consumer markets in order to build a comprehensive picture of consumers: attitudes, brand analysis, demographics, and media. BRANDpuls collects data by means of self-completion surveys placed by interviewers, who train respondents how to complete the surveys. IPSOS Puls agency gave us permission to use environmental part of data for purpose of this study.

collection was done using self-completion method, and data set related to environmental protection was a part of wider research project. Sample was representative for Croatian population aged from 15 to 65 years, meaning that sample represents around 2.970.000 Croatian inhabitants. Controlled variables were gender, age, and region and settlement type. Selected segment of measurement instrument was consisted of 4 statements plus questions related to socio-demography. Statements were evaluated using predefined answers of ordinal Likert scale (1 to 5, while analyzing recoded to 1 to 3 point scale: agree, nor/neither, disagree).

3.2. Research Results

First observed statement was evaluating importance of nature protection, related to survival of human species. In year 2013, with statement: "If we don't protect the nature human species will soon be found on the edge of survival" agrees 68% of adult Croatian population, while 24% of them are without attitude. There are 8% of populations who disagree. Stated did not changed through time: it is almost on the same level from 2010 to 2013. Although the biggest proportion of population is aware of importance of nature protection in relation to human species, rather "green agenda" – promotion and education of nature protection importance did not result in converting those 25% of population with no attitude. Rather similar situation can be detected when observing statement: "The behavior of our society to the nature that we damaged with excessive development must urgently change" (Graph 1). One small but determined segment (6% to 8% of population) is not aware of seriousness of the problem.

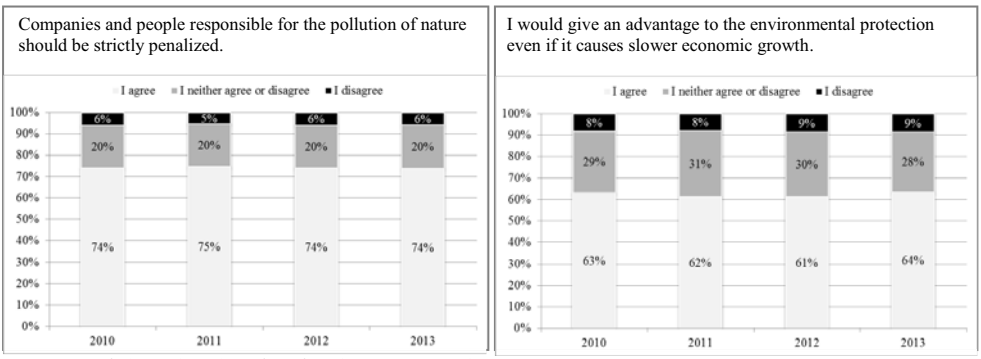
Graph 1 Agreement with statements about nature protection



Source: Made by authors based on data from BRANDpuls project, 2014.

That those segments are rather strong can be confirmed through analysis of next two statements related to responsibility (Graph 2). Three quarters of Croatian adult citizens thinks that companies and people responsible for the pollution of nature should be strictly penalized, while again, 20% doesn't have the attitude, and 6% are against. When it comes to personal responsibility, trend is the same, somewhat smaller proportion of those who would give an advantage to the environmental protection even if it causes slower economic growth. Again, stability through 4 years period can be recognized.

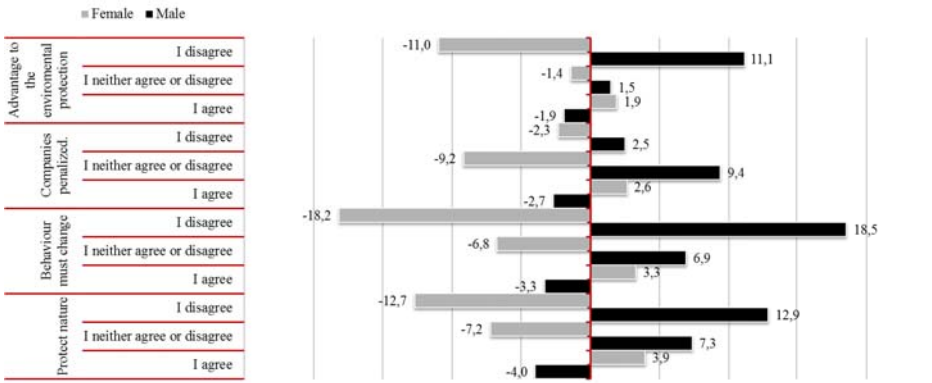
Graph 2 Agreement with statements about responsibility



Source: Made by authors based on data from BRANDpuls project, 2014.

After overall "attitude scan" of Croatian population, differences between demography groups were measured through affinity index = target's affinity toward particular answer (null point = 100, affinity reference - total sample). Since there are no changes in trend through observed years, further analysis is done based on 2013 results. Regarding gender differences (Graph 3), female are more aware importance and responsibility than men. The affinity is strongest on need that behavior of our society to the nature, must urgently change.

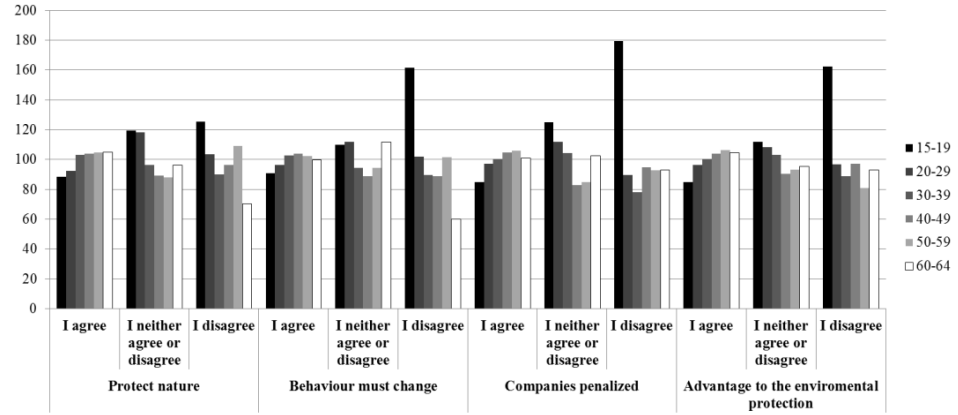
Graph 3 Affinity index difference rates - by gender



Source: Made by authors based on data from BRANDpuls project, 2014

Regarding age differences (Graph 4), youngest target group 15-19 are fully unaware of nature protection relevance, relation to human species and responsibility behavior. Although differ on every measured statement, it can be conclude that they are more familiar with general thinking about nature protection than responsibility since they although can accept that we need to protect the nature human or species will soon be found on the edge of survival, they cannot relate to personal responsibility (behavior should change or giving advantage to the environmental protection even if it causes slower economic growth). It can be understood since this is "young adult" category, but on the other hand, it is a crucial period for setting those values in minds of "future" generation.

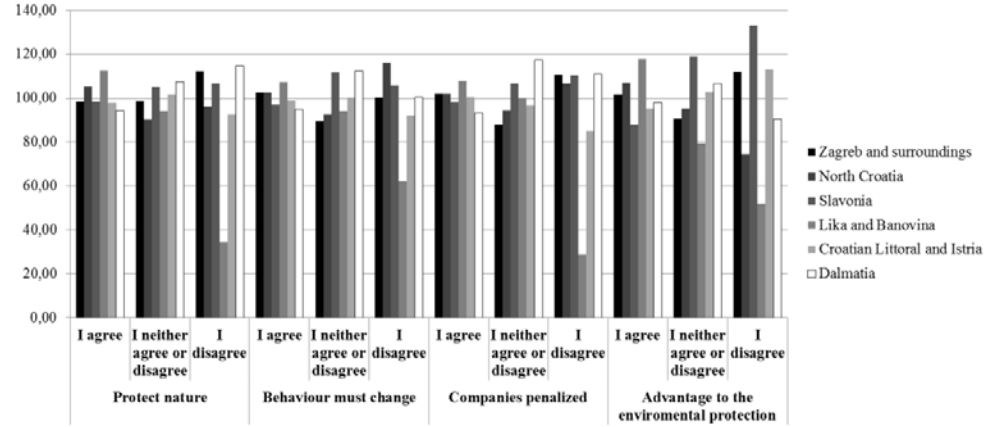
Graph 4 Affinity index - by age



Source: Made by authors based on data from BRANDpuls project, 2014

When observing regions in Croatia (Graph 5), there are some differences but the one that is continuous through observed years relates to Slavonia region that is not ready to give an advantage to the environmental protection even if it causes slower economic growth.

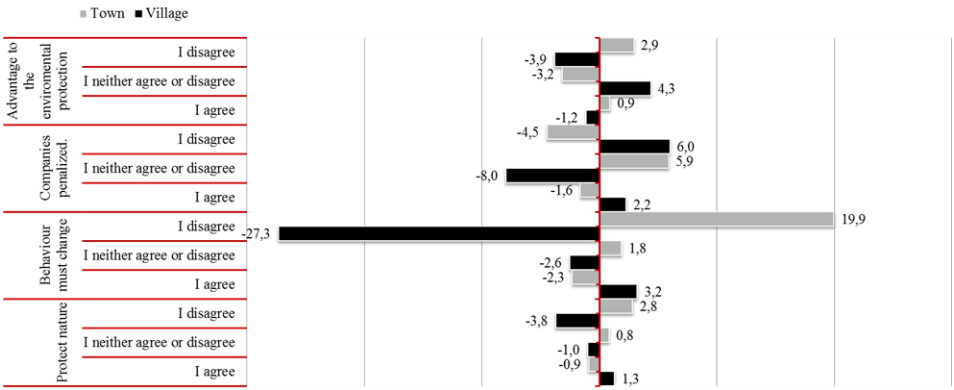
Graph 5 Affinity index - by region



Source: Made by authors based on data from BRANDpuls project, 2014

Last socio-demographic variable was type of settlement, where people from smaller rural settlements were compared to urban settlements (Graph 6.). People from villages are not aware of need that "The behavior of our society to the nature that we damaged with excessive development must urgently change." Since significant differences cannot be found on other statements, it can be discussed that people in villages are living more in harmony with nature and from that perspective not aware on need for global change in behavior.

Graph 6 Affinity index difference rates – by settlement type



Source: Made by authors based on data from BRANDpuls project, 2014

All commented differences can be tracked through time.

4. Conclusion

The environment is an integral part of the broader economic and social development of virtually every country in the world. All those who wish to preserve their environment and contribute to the overall protection and conservation of biodiversity are committed to developing its legal system and installed it to those normative values that can help the environment and sustainable development. Europe 2020 is a new strategy of the European Union, which succeeds the Lisbon Strategy, indicates the need for smart, sustainable and inclusive growth, and leads to high levels of employment, productivity and social cohesion which main priorities are: smart growth - development of an economy based on knowledge and innovation; sustainable growth - promoting a more resource efficient, greener and more competitive economy; inclusive growth - fostering a high-employment economy delivering social and territorial cohesion. Base of society "environment change" are people. Their attitudes are basis for their behavior. Croatia can be seen as rather nature oriented country since around 70% of adult population is aware of importance of nature protection and nature protection relation to survival of human species, as well as relation of personal and general responsibility toward environmental protection. Still, there are no changes within last four years, there are around 20% of people without attitudes, meaning that they need to be educated and converted to "environmentally conscious" segment, because they are open/available for changes (more than negatively oriented segment consisted out of 6% to 8% of Croatian population). In order to ensure smart, sustainable and inclusive growth, raising awareness of environmental importance must be done within segment of young adults in Croatia.

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