Vol. 5, No. 1/2015

Danubian Europeity

The Danube Region Protection – Challenges for Green Marketing and Corporate Social Responsibility in Serbia

Jelena Stanković[1], Marina Strižak[2]

Abstract: During past years the influence of climate changes on environmental factors, such as water, soil, and air, has become significant and pretty unavoidable. Based on that, anthropogenic influences like industrial, communal, and agricultural wastewater discharge, have become more dangerous for the eco-system as a whole. In this paper we will analyse the possibilities for reducing antropogenic influences through the processes of controlling and monitoring of the wastewater as well as the Danube river water-gang. The European Union Framework Directive has been implemented into the legislative system of the Republic of Serbia, with the purpose of more complete protection of the Danube Region. In that sense, the prevention of the drinking water deficit requires a multidisciplinary approach, which includes activities on green marketing and a higher level of corporate social responsibility. Water, in all its aspects, has a strong economic value, which is the reason why it has to be recognized as an economic resource as well as a highly influential factor of local community development. Integrated management system of wastewater has to be established on the overall cooperation among consumers, planners, and policy designers at all levels – local, regional and global.

Keywords: climate changes; antropogenic influences;wastewater; drinking water; deficit; sustainable management

JEL Classification: Q5

1. Introduction

The destiny of renewable natural resources, such as water, air and soil, in sense of maintaining their sustainability, depends on the destiny of their pollutants. *Fate of environmental pollutants* is the term which refers to the processes through which the pollutants are transported and transformed after being emitted into the environment (Darnault, Rockne & Stevens, 2005).

[1] Singidunum University, Belgrade, Serbia, Address: Kumodraška 261, Beograd, Serbia, Corresponding author: jstankovic@singidunum.ac.rs.
[2] Belgrade Water Supply and Sewage, Serbia, Address: Deligradska 28, Belgrade, Serbia, Tel.: 3612-790, E-mail: jstankovic@singidunum.ac.rs.

One of the ultimate factors for the global survival is water protection. In anthropogenic sense of the word, human factor is the key to water pollution as well as to water prevention. All the human efforts, professional and educational, has to be made in order to provide enough drinking water not only for the time being but for the generations to come. In another word, it is the priority for conducting sustainable development and is to be applied to all the natural resources not only water. Furthermore, it is expected that the growth of the total population on Earth will exceed 9 billion in the year 2050, which is about 2 billion inhabitants more than today, which is the period of environmental crisis[1] (In addition to that, the demand for fresh water has tripled over the past fifty years (Krist, 2003). However, it creates a global warning for all the companies and consumers. Therefore, the implementation of sustainable development and green marketing, as the activities aimed to improve relationships between market subjects and their environments, become of key importance for all the industries.

As the Danube region country, Serbia is to seriously consider and apply Corporate Social Responsibility concept (Kotler & Lee, 2005) at all the levels of its economy and industries. Corporate Social Responsibility (CSR), in global terms, proved to be an adequate way to successfully conduct green marketing and sustainable management ideas, firstly in sense of water protection – raising awareness of the importance of saving water-gangs and providing drinking water.

2. Pollutants, Fresh Water and Sustainable Management

Pollutants have been devastating environmental resources for more that two decades. Increased power of pollutants is the result of rapid technological and economic development as well as the aggressive influence coming from the anhtroposphere. According to International Energy Agency, the total direct and indirect CO_2 are being emitted from the following industries: manufacturing 38%, transport 25%, household 21%, services 12%, and other 4% (Dahlstrom, 2010).

Climate changes and influence of human activities, such as industrial, communal, and agricultural wastewater discharge, have become more and more dangerous for the eco-system as a whole. By climate change it is considered direct or indirect human activity that alters the natural composition of the global atmosphere and natural climates (United Nations, 1992). One of the worst results of climate changes and human activities is related to so called greenhouse effect which technically prevents the Earth to get rid of the enery and pollution. In 2007, participation of waste and wastewater in greenhouse gas emission accounted for 2,8% (IEA, 2010).

[1] http://www.infoplease.com/ipa/A0762181.html, 2015.

One of the critical influences of climate changes can be found in significant decline in the quantity and quality of freshwater. Greenhouse effect provokes the overall rise of temperature on the surface of the Earth influencing warming up the atmosphere. The warmer the atmosphere the greater the moisture withdrawal. Also, greater heat influences speeding up the evaporation. Both such changes decrease the quantity and quality of freshwater in all the regions in the world (Dahlstrom, 2010). Thus, highly vaporous pollutants would be more likely be transported through the atmosphere with a higher speed. Also, such substances would be more mobile in warmer conditions, especially in situations of fast air streaming. On the other hand, dissolving substances are more likely to be transported through water, while their mobility would rise in periods of heavy falls.

Companies, domestic and international, which conduct their business in Serbia, use natural resources in order to make profit, creating waste and pollution at the same time. Therefore, raising awareness of scarce resources and the possible violations of such resources, should be conducted through continuous communication and promotional strategies developed at all levels – from local communities up to the governmental level. Market participants are expected to develop the sense of urgence when planning their CSR activities in order to make efforts toward environmental protection. Some companies responded by investing more in CRS, while others resisted arguing that such additional efforts might be inconsistent with other company investments (McWilliams & Siegel, 2000).

Experience from the West countries, such as USA and Great Britain, which have been developing sense of environmental crisis (Shimp, 2006) showed that a great number of companies actively reacted to environmental issues, such as water shortage problem. Among others, for more than two decades, their efforts have been mainly directed toward accepting environmental oriented products and services, and applying green marketing (Bechtel, 1990).

3. The Importance of Integrated Management System: Entrance to CSR and Green Marketing In Wastewater Protection

There are many approaches to acting legally in order to respond to the environmental problems. One of the possible ways of action is promoting green products and services, selecting environmental friendly product packagings, especially through seal-of-approval programs and point-of-purchase diplays which are particularly aggressive and attracting attention. Effective and affective sources of green marketing communication which influence responsibility of the companies and the individuals, can be found among the following (Swarbrooke & Horner, 2007): information obtained from the media, reference and pressure groups; advice received from the industry; membership of particular environmental

pressure groups and conservation organizations such as Worldwide Fund for Nature.

Complex task of sustainable development and green marketing in period of environmental crisis asks for implementation of the multidisciplinary approach of companies called Integrated Management System – IMS (Zeng, Shi & Lou, 2007). The IMS includes both (a) internal factors, developed within the companies: human resources, organizational culture shaped by managers and employees, company culture, shaped by the nature of the business and the market, and understanding and perception, and (b) external factors: technical guidance from the industry, stakeholders, consisting of different publics such as customers and company clients, and company environment (Zeng, Shi & Lou, 2007).

The necessity for introduction of IMS was one of the conclusions of the conferences on environment protection, held in Stockholm in 1972, and after that in Mar del Plata in 1977. Raising awareness of the significance of implementing Integrated Management System at all levels of the economy, emphasizing the triad ”business quality development - customer safety – environment protection”, was one of the key tasks of the Conference in Rio de Janeiro in 1992, where the ”Agenda 21” was issued. Afterwards, conferences on environmental protection in Beijing in 1996, Paris in 1997, the Hague in 2002, as well as in Copenhagen in 2012, emphasized the importance of integrated efforts at all levels – local, regional and global in order to fight pollution and wastewater in the first place.

Green marketing asks for the implementation of IMS to environmental and water protection. Besides pointing out the green aspects of their products, it means that the companies should be aware of the dangerous effects of the pollutants, and thus, should demonstrate their commitment on multiple levels – from internal marketing activities to the activities of green advertising, and other environmental appeals and engagements.[1]

For global pharmaceutical giant GSK[2], which has been conducting its operations in Serbia for years, environmental responsibility is the way they do their business. GSK company mission is „to improve the quality of human life by enabling people to do more, feel better, live longer”[3]. During the year 2012, GSK developed 23 forward-looking commitments across the four main CRS areas. One of the CRS areas of GSK is called *Our planet*, and it deals with the issues on managing the environmental impact of their operations and products to reduce carbon emissions, water use and waste. GSK also implemented the term *green chemistry* which refers

[1] http://www.marketing-schools.org/types-of-marketing/green-marketing.html, 2015.
[2] Former GlaxoSmithKline.
[3] http://www.gsk.com/en-gb/responsibility/, 2015.

to „discovering new medicines while reducing the environmental impact of the manufacture, supply and use"[1]

On the other hand, it should be kept in mind that customers are usually skeptical when it comes to any form of emphasizing green marketing efforts by the companies. The point is that the customer is always aware of the basic reason why companies exist – their profit. In their heads, green marketing is called greenwashing, greenscam or big green lies (Swasy, 1991). They commonly connect companies' "green efforts" with the attempt to just appear environmentally friendly although it is of no real concern to them. For example, hotels ask their customers to "save the environment" by not disposing towels on a daily basis. Reusing towels should be a way to conserve water and act environmentally friendly. Instead of considering such efforts as a strongly incorporated CSR concept, hotel guests would usually see such communication as trying to use green rhetoric to save on their washing expenses (Shimp, 2006).

4. EU Water Directive – Challenges for Serbian Water Sector

The importance of water protection is highly visible through implementation of EU Water Framework Directive 2000 (Framework Directive 2000/60/EC) and its main daughter directives, which deal with rules and parameters of handling wastewater, waste water-gangs, levels of natural environment pollution and its synergetic effects.

In order to successfully implement EU Framework Directive, the *Strategy of approximation in water sector in Serbia* was delivered. The purpose of this national level adopted strategy was the implementation of IMS in managing water protection and conducting the planning process on all the levels and aspects of water protection in Serbia. The particular goals of the EU WFD in water protection would be the following[2]:

- continual monitoring, estimation and analysis of different environmental factors and influences to water sector;
- developing six-year plans for managing water-gangs, with the purpose of gaining wider environmental protection goals;
- connecting and harmonizing all quality standards in the area of natural environment protection, and
- establishing international cooperation in the sector of water protection as well as in the area of conducting integral activities of pollution prevention (water, air and soil).

[1] http://www.gsk.com/en-gb/our-stories/our-planet/green-chemistry/, 2015.
[2] http://www.ambassadors-env.com/.../Strategija-aproksimacije-u-oblasti-voda/, 2015.

4.1. IMS Implementation in Serbian Water Sector

According to previously mentioned, IMS in water sector would be strongly recommended for implementing in the countries of the Western Balkans region. Thus, IMS in Serbian economy should be based on the following activities[1]:

1. establishing integrated, overall cooperation among different subject: consumers, planners, and policy creators from all the levels – local, national and regional;
2. water should be recognized as the economic goods, having irreplaceable role in all aspects of life, economy and society;
3. adequate IMS in water sector should depend on financial resources and financial management;
4. water restrictions should be highly recommended especially in situations of rational water distribution;
5. water supply of both rural and urban regions should be enhanced;
6. IMS should be implemented on managing surface and underground water systems;
7. studies and project implementation with the purpose of environmental protection should be taken into consideration;
8. basic quantitative and qualitative (health) population demands for the fresh water should be satisfied;
9. sustainable development in water sector to protect eco-systems should be developed;
10. whenever current ones cease to be effective and appropriate latest solutions should be implemented, and
11. water resources should be managed with a high level of responsibility, by engaging and consulting the opinion of different publics.

As an answer to the requests for sustainable development coming from the EU, Serbia has created National Strategy for Sustainable Development. The strategy comprises recommended local and national activities as well as accompanying legislative obligations in the form of so called eco-centric concept.

The existence of a great number of limitation factors, such as insufficient water protection, irrational water consumption, lack of wastewater purifying systems, climate changes, created the existence of insufficient water resources and, based on that, anticipated potential fresh water deficit in Serbia. In addition to that, the above mentioned limitation factors are the restraints for further economic development, not only for Serbia, but also for the countries in the region of South East Europe. Up to 92% of all the disposable water in Serbia, belong to the category of transition waters which run through the Danube, Sava and Tisa river-gangs. Unsatisfying quality of drinking water in Serbia is basically a consequence of exceeded level of

[1] http://www.ambassadors-env.com/.../Strategija-aproksimacije-u-oblasti-voda/, 2015.

water pollution in Serbia. International cooperation in sector of water protection is conducted through bilateral and multilateral arrangements, mostly with the regional countries, and by using Convention of the protection and use of transboundary watercourses and international lakes, Convention of protection of the Danube river, and Framework agreement for the Sava river. According to existing regulations in Serbia, all the watercourses are categorized into I, IIa, IIb, III and IV class of quality standards. EU regulations in watercourse sector are demanding and very expensive for applying, encompassing a broad range of obligatory standards of water quality in categories of: drinking and bathing water; control of pollution sources such as wastewater and agricultural pollution; environmental protection regulations, etc.

4.2. Keeping Up With the EU Regulations

Water Directorate of the Republic of Serbia is in charge of all questions on water sector management, although current regulations are not yet completely compatible with the EU law standards.

National Water Regulations of Serbia from 2010, Waste Management Regulation, as well as Green Regulations for the period of year 2006-2014 are partially synchronized with the EU law in water sector. Still there is a lot of additional regulations to be adopted so to conduct IMS in water sector in Serbia in accordance with EU regulations. In another words, Serbia as an EU candidate should face the following challenges in water sector: (1) law system and standards in water sector should be synchronized with the EU law standards; (2) Serbian standards and practices should be in accordance with the EU standards in areas of agricultural practice, fresh water, wastewater and mud management, followed by building wastewater purification and refinement facilities in all big cities including Belgrade; (3) government and directorates should synchronize national strategies and plans with plans and strategies on local level, while administrative procedures should be simplified. In most of the EU countries regulations in area of water protection are complex and precise, encompassing institutions at all levels – central (national) and local. The reason is implementation of IMS in watercourse management, which includes: managing underground and surface watercourse, flood and drought risk management, good practice in the drinking water sector, water vapor management, wastewater management, pollution protection and prevention, etc.

Based on that, the future practice of watercourse management in Serbia should be based on internal and external cooperation of people employed in both governmental and public sector. Water Directorate of Serbia, water supply public companies and other institutions would be the companies and institutions

established on the national level, employing a great number of experts and professionals in the areas of environment protection.

It has to be emphasized that Serbia has already contributed in practical implementation of Framework Water Directive, as an active participant of International Commission for The Protection of The Danube River. Further contributions will be achieved through conducting the plans on water management.

However, Serbia is still not in a position to keep up with the crucial requirements for pollution control, mentioned in Urban Wastewater Treatment Directive (UWWTD) (91/271/EZ), Integrated Pollution and Prevention Control Directive, and Directive on Nitrates (http://ec.europa.eu/environment/water/, May 12, 2015). Such incompatibilities result in inability to achieve important environmental goals According to Statistical Office of The Republic of Serbia only 1,3 million households in Serbia is connected to the public sewer, out of the total number of 2,5 million. In addition to that, only 15% of all the wastewater discharge in 2013 and 2014 was treated by the primary standards (http://ec.europa.eu/environment/water/, May 12, 2015).

Most of the services in water sector is provided by urban public companies which, on the other hand, lack finance resources and governmental support which is crucial for maintaining complex water treatment equipment and facilities. Best available technology (BAT) is still used in accordance with contemporary EU water treatment standards and trends. The upcoming EU membership implies the need for effective dealing with current problems. There has to be achieved the following (http://www.ambassadors-env.com/.../Strategija-aproksimacije-u-oblasti-voda/, 2015):

- integrated planning and implementation processes in sectors of great number of interest groups;
- providing necessary infrastructure including building new systems and replacing key parts of the existing infrastructure; it is estimated that the investments in the sector of water infrastructure will exceed EUR 5,5 billion, and
- achieving financial sustainability of companies which provide services in water sector.

In order to successfully manage the above mentioned, one should also take care of the following prerequisites[1]:

- improving financial planning in water sector on national and local levels;
- implementing effective and efficient project development systems, based on the project list;

[1] http://www.ambassadors-env.com/.../Strategija-aproksimacije-u-oblasti-voda/, 2015.

- enabling access to the external sources of support such as EU and donations;
- implementing appropriate public financing;
- practical implementation of tariff reform measures within National Water Regulations (clause 157);
- developing willingness of local management units to adapt to changes in demand and to correct prices, and
- water deficit prevention through systematic decrease of water waste and increase of capacities for storage vapor water and drinking water.

5. Instead of Cnclusion: Challenges for Green Marketing and CSR in Serbia

In this paper we investigated possibilities for green marketing based on CSR activities through understanding obstacles and advantages dictated by EU regulations and how to adjust them with local Serbian law and passed directives, in order to push initiatives for community sustainable development promoted and coordinated by involved stakeholders, such as companies, organizations, PR, communication and advertising agencies, etc. According to that we are facing increasing importance of the Danube basin for the future European initiatives. However, considering Serbian Danube Strategy, this concept is still present more in a form of an idea. Such discrepancies are urging us to synchronize with the EU water protection regulations as soon as possible. This paper is in line with those intentions and finds cooperation between companies and organizations as crucial factor in future local community development, through CSR activities initiated by them. To be precise, there are four reasons to implement CSR: moral obligation in sense of business ethics, sustainability, social license to operate in the communities companies run their business in, and building strong image and reputation (Henderson & McIlwraith, 2013).

In 2012, GSK created *green chemistry teams* of employees which task was to eliminate potentially harmful waste products, using greener solvents and reagents. The company made guidelines to help teams to make environmentally sustainable choices. Other teams, for example, worked on implementing a new waste water treatment system and developing environmental friendly packaging. The results of their CSR and green marketing/chemistry activities were fascinating: GSK managed to cut by 80% the volume of water and zinc which they were sending to waste, produced 850,000 fewer plastic bottles for clinical use, and planned to save 600,000 tonnes of CO_2 emissions[1] Serbia has delivered National Strategy for Sustainable Development which is basically an attempt to conduct eco-centric

[1] http://www.gsk.com/en-gb/our-stories/our-planet/green-chemistry/, 2015.

concept in the economy, which is basically one of CSR types. To be more precise, eco-centric CSR[1]:

- has the purpose to protect and improve the quality of the environment, to maintain its crucial features and potentials, regardless of the benefits for the company;
- reflects the company's devotion to the environment as the source of all the current and potential resources of the company;
- became a core business activity of the contemporary companies, who are undoubtedly aware of the importance of eco-centric orientation to marketing in period of crisis;
- incorporates life-cycle assessment which purpose is to estimate the power of environmental factors in different stages of product's life: from the raw material to the final product.

As for companies in Serbia, especially domestic and public owned, sustainable development and CSR have to become a way of conducting their business, since their future depends on disposable natural resources where the Danube river plays sifnificant role. CSR encompasses business practices that integrate social, economic, and environmental concerns into a decesion-making processes which purpose is to meet or exceed legal and ethical standards (Henderson & McIlwraith, 2013). In addition to that, organizing meetings and events as green marketing promotional activities for example, can become an important factor for building awareness of market participants to the significance of achieving sustainalbe development of the Danube region. According to John Elkington, it is possible to generate sustainable solutions and development only if three aspects of business are considered: economic prosperity (meaning *profit*), environmental sustainability (meaning *planet*) with an accent on water protection, and social justice (meaning *people*) (Elkington, 1998). Synchronizing Serbian with the EU concepts and directives on one hand, and raising awareness of importance of the mentioned three elements for the businesses, on the other hand, could be a possible path for more serious CSR concept implementation in companies in Serbia, as part of the Danube water protection region.

[1] (https://www.boundless.com/management/textbooks/258/ethics-in-business-13/corporate-social-responsibility-98/types-of-social-responsibility-ecocentric-management-463-10564/, 2015.

6. References

Bechtel, S. (1990). *Keeping Your Company Green*. Emmaus, Penn: Rodale Press, 1.

Dahlstrom, R. (2010). *Green Marketing Management*. Mason, OH: South-Western Cengage Learning, pp. 29-40.

Darnault, C., Rockne, K., & Stevens, A. (2005). Fate of Environmental Pollutants. *Water Environment Research*, Vol. 77, No. 6, pp. 2576-2658, available at: http://tigger.uic.edu/~krockne/paper19.pdf, date: 15.05. 2015.

Elkington, J. (1998). *Cannibals with Forks:The Triple Bottom Line of 21st Century Business*. Gabriola Island, BC: New Society Publishers.

Henderson, E. &McIlwraith, M. (2013). *Ethical and Corporate Social Responsibility in Meetings and Event Industry*. Hoboken, NJ: Wiley, pp. 3-30

Kotler, P. & Lee, N. (2005). *Corporate Social Responsibility*. Hoboken, New Jersey: John Wily & Sons, Inc.

Krist, J. (2003). Water Issues Will Dominate California's Agenda This Year. *Environmental News Network*: 33.

McWilliams, A. & Siegel, D. (2000). Corporate Social Responsibility and Financial Performance: Correlation and Misspecification? *Strategic Management Journal*, vol. 21, no. 5, p. 603.

Shimp, T. (2006). *Advertising Promotion.* Orlando: The Dryden Press, Harcourt College Publisher.

Shimp, T. (2000). *Advertising Promotion.* Orlando: The Dryden Press, Harcourt College Publisher, pp. 50-76.

Swarbrooke, J. & Horner, S. (2007). *Consumer Behaviour in Tourism*. New York: Routhledge p. 183.

Swasy, A. (1991). Color Us Green. *The Wall Street Journal*, March 22, B4.

Types of Social Responsibiliy: Ecocentric Management https://www.boundless.com/management/textbooks/258/ethics-in-business-13/corporate-social-responsibility-98/types-of-social-responsibility-ecocentric-management-463-10564/, date: 10.05.2015.

United Nations (1992). United Nations Framework Convention on Climate Change. http://unfccc.int/resource/docs/convkp/conveng.pdf, date: 10.04.2010.

Zeng, S. X.; Shi, J. J. & Lou G. X. (2007). A synergetic model for implementing an integrated management system: an empirical study in China. *Journal of Cleaner Production*. Vol. 15. Issue 18. pp. 1760-1767.

http://www.marketing-schools.org/types-of-marketing/green-marketing.html, date: 15.05. 2015.

http://www.infoplease.com/ipa/A0762181.html, date: 11.05. 2015.

http://ec.europa.eu/environment/water/ , May 12, 2015.

*** Directive 2006/11/EC of the European Parliament and of the Council of 15 February 2006 on pollution caused by certain dangerous substances discharged into the aquatic environment of the Community. Official Journal OJ L 64, p. 52-59, http://www.ambassadors-env.com/.../Strategija-aproksimacije-u-oblasti-voda/, date: May 10, 2015.

*** GSK Global Report Green Chemistry: It's not easy being green, http://www.gsk.com/en-gb/our-stories/our-planet/green-chemistry/, date:14.05.2015.

*** GSK Report Serbia & Montenegro, Responsinility Reports & Data, http://www.gsk.com/en-gb/responsibility/ date:14.05.2015.

International Energy Agency IEA (2010) Synthesis Report, http://www.iea.org/Papers/2008/Indicators_2008.pdf, date: 10.02.2010.

*** ICPDR, Convention on Cooperation for the Protection and Sustainable Use of the Danube River (Danube River Protection Convention). Council Directive of 4 May 1976 on pollution caused by certain dangerous substances discharged into the aquatic environment of the Community (76/464/EE). Official Journal OJ L 129, 18.5.1976, p. 23, http://www.ambassadors-env.com/.../Strategija-aproksimacije-u-oblasti-voda/ date: May 10, 2015.

*** ICPDR, Convention on Cooperation for the Protection and Sustainable Use of the Danube River (Danube River Protection Convention). Directive of The European Parliament and of The Council 2000/60/ec Establishing a Framework for Community Action in The Field of Water policy, The European Parliament Council Luxembourg, 23 October 2000 1997/0067(cod) pe-cons 3639/1/00 c5-0347/2000 rev 1 lex 224 env 221 codec 513 Directive of The European Parliament http://www.ambassadors-env.com/.../Strategija-aproksimacije-u-oblasti-voda/, date: May 10, 2015.