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Environmental issues and Financial Reporting Trends: Evidence from Serbia

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Abstract

In this paper we investigate presentation of environmental issues in Annual Reports and Web Sites of companies operating in industries that highly contribute pollution of Serbia, such as energy, cement manufacturing, petrochemical industry and iron manufacturing. The challenges created by privatization of these companies make it imperative for companies in the above mentioned industries to continually improve their environmental reporting practices. Research was focused on examining the location, typology and current practice on environmental reporting of above mentioned companies using content analysis. The results indicate that there is no systematic approach established by Serbian enterprises regarding environmental issues and environmental information is rarely included in financial statements but in a separate report or in a separate section of the glossy brochure.

Key words: green accounting, environmental issues, financial reporting

1 – Introduction

The last few decades have seen an evolution in community attitudes towards the environment in Europe. At the European level sophisticated legislation went into effect to solve the issues of environmental degradation and to find the best practice for commercial enterprises to report environmental information. In less developed countries like Serbia, problems of environmental pollution and potential harmful effects of industrial activities on environment have been given attention only by daily newspapers when certain environmental accident took place. Public informing on environmental accidents is still partial, unplanned and sensational. There is a lack of system-

atic approach to those issues. This is due to the fact that environmental awareness in Serbia is still low and public is little informed about ecological issues such as ecological ethics, ecological knowledge, natural and social discipline.

According to Report presented by UNECE Committee on Environmental Policy, main air, land and water pollution in Serbia is due to energy sector, especially Thermal Power stations located in Obrenovac, Lazarevac and Kolubara. In that sector lignite burning produces ash, sulphur acid and nitrous oxides that pollute air, land and water. Thermal power stations produce more than 5.5 tons of toxic ash per year. Other polluters in Serbia are cement manufacturers. Those polluters are located in Popovac, Kosjeric and Beocin. Pollution comes from emission of toxic chemical components because technology used in cement production is very old and air filters are not efficient. Besides companies mentioned in previous paragraph there are other polluters like petrochemical manufacturing companies, iron manufacturer and companies that operate in ore mining and processing industry. Total annual amount of environmental degradation in Serbia is expected to be near 0.45-1.37 billion Euro and that is 1.8% - 5.56% of Serbian GDP.

This brief overview is sufficient to suggest that pursuit of economic growth, industrialization and privatization processes should not be at expense of the environment and that environmental protection and monitoring is vital for Serbia and future of its citizens. Serbian accounting for medium sized and big companies is based on IFRS/IAS. Environmental accounting hasn't been area that gains considerable ground in Serbian corporate financial reporting. Serbian accountants have been struggling with IFRS/IAS implementation, so the area of environmental accounting unfairly has been neglected for many years.

In this paper we will focus only on the environmental information presented by selected Serbian companies operating in different industries such as: cement production, energy, iron manufacturing and petrochemical industry. In each of above mentioned industries we have picked up one company that represents the industry and appears to have huge influence on environmental accounting practice in Serbia.

The objective of this study is to present environmental accounting and reporting practice of selected Serbian companies. This study covers the following specific objectives:

- to find whether selected companies provide in their annual report information about environment,
- to find environmental policies (if any) used by selected companies in footnotes to the financial statements,
- to find additional statements that focus on environmental information,
- to find informative value of companies web sites in respect of environmental information,
- to find if any systematic approach to environmental accounting in Serbia exists.

Data were collected from secondary sources: journals, articles, periodical reports, research papers, web sites and annual reports.

The paper is organized as follows.

Having established the importance of environmental problems in Serbia in the first section, it proceeds to the second section to present legislative view on environmental issues (legislative environmental issues at European and Serbian level). Section 3 describes accounting standards adopted in Serbia and their effect on environmental reporting practice. Section 4 contains results of the study followed by concluding remarks in the last section.

2 – Legislative view

As a country in transition Serbia faces numerous difficulties on the way to organize all areas of society. If we take into consideration area of environmental protection, Serbia goes through an ongoing process to adopt and coordinate its domestic laws with EU legislation.

International obligations that our country ratifies are UN Framework convention on

Climate Change and the subsequent Kyoto Protocol, Convention on Bio-diversity, Convention on Environmental Impact Assessment in a transboundary context, Convention on protection and sustainable development of the Carpathians etc.¹ Most of those international conventions are now integrated at the European level, and main instruments to enforce them are directives and regulations. Many of these regulations are applied directly to member states, for example Eco-Management Audit Scheme (EMAS) Regulation (EC; 1993), Regulations on Trans-frontier Shipment of Waste (EC; 1994) and the Eco label regulations (EC, 2000). Many EU regulations and documents have been adopted in Serbia through establishing general national strategies in those areas and enforcing laws in order to implement strategies. In Serbia the following strategies have been adopted: National Waste Management Strategy (adopted 2003), Poverty Reduction Strategy (2003), Water Master Plan of Serbia 2002-2012, Energy Development Strategy (2005), National Strategy for Economic Development of Serbia 2006-2012 etc.

From the year 2004 till 2006 a set of several Laws have been passed by Serbian Parliament regarding environmental issues: Law on Environmental Protection, Law on environmental impact assessment, Law on strategic environmental impact assessment and Law on integrated environmental pollution prevention and control. It is estimated that 186 laws regarding environment should be passed by Parliament in order to fully comply with EU regulations.

The main legislation in Serbia in the area of environmental protection got into effect in 2004.

It is the Law on Environmental Protection (Official Gazette of Republic of Serbia, No. 135/04). Law has been divided into following paragraphs: management of natural resources, measures and conditions of environmental protection, environmental monitoring, information and public participation, economic instruments, liability for environmental pollution, supervision and

¹ List of all ratified international conventions can be found on official web site of Ministry for Environmental Protection of the Republic of Serbia, www.ekoserb.sr.gov.yu.

penal provisions. When we consider the impact of that Law on environmental accounting in Serbia, we should focus on the second section of the Law entitled as the „Measures and conditions of environmental protection”. According to this section of the Law domestic and foreign entities using natural values in their production should apply environmental management system (EMS)² in accordance to ISO 14001 and should register in EMAS system after fulfilling all conditions for establishing environmental protection (Article 44 and 45).

According to the Report of UNECE (United Nations Economic Commission for Europe) over 250 biggest Serbian polluters should finish implementation of EMS and apply for EU accreditation in the area of environmental protection. Deadline for that process is 2015. In order to fulfill these requirements Serbian enterprises should use environmental accounting. Serbian companies have to transform their internal accounting system into the system that facilitates environmental reporting. This is not a costless alternative; so many companies postpone EMS implementation. But there are several companies that are considered to be early adopters of the Law. These companies highly contribute environmental degradation in Serbia or they operate in environmentally sensitive sectors.

Electric power industry of Serbia is a biggest Serbian enterprise, fully owned by the Republic of Serbia and it is considered to be early adopter of the Law. Early adoption is forced by government donations and loans obtained from EBRD (European bank for Research and Development). Early adoption can be seen in companies owned by Government or where Government is a primary stakeholder. Early adopters are also companies that were privatized.

These companies act as subsidiaries of foreign parent company where general environmental policy already exists and that policy is cascaded from parent to acquired subsidiary level. Companies that provoked or still provoking environmental incidents are considered to be early adopters of EMS. EMS implementation in these companies is obviously seen as a device used for showing environmental responsibility to general public. Despite the fact that only several companies can be considered as early adopters of the EMS, in the next section of this paper we will examine effectiveness with which these companies comply with the Law in the area of environmental accounting and reporting.

3 – Accounting Guidelines for Environmental issues in IFRS/IAS and Serbian accounting regulations

Serbian accounting system for medium-size and big-size enterprises (listed and nonlisted) is based on IFRS/IAS. IFRS/IAS regulates areas of accounting treatment of assets, liabilities, eq-

² Environmental Management System (EMS) is „that part of an organization's management system used to develop and implement its environmental policy and manage its environmental aspects“ (ISO 14001:2004).

uity, revenues and costs but there are no specific standards regulating the area of environmental accounting.

We can find only one standard particularly impacting environmental such as IAS

37 Provisions, contingent liabilities and contingent assets. This standard got into effect in July 1999. Technical aspects of that standard do not reflect environmental issues directly, but there are examples and guidelines that can be used in recording environmental provisions. As noted previously IAS 37 is not an environmental accounting standard; it uses environmental examples to illustrate general treatment of liabilities and provisions. Among other standards, IAS 16- Property, plant and equipment indirectly focuses to environmental issues. Environmental equipment may be treated as addition to existing assets. So, these expenditures made for additions should be capitalized in a way prescribed by IAS 16. Paragraph 24 of that standard permits expenditures to be capitalized only when it is probable that enterprise will achieve future economic benefits, and this will happen if environmental equipment is added to existing assets. But further guidance and clarification of IAS 16 in the environmental area is required.

Serbian accounting is partially based on IFRS/IAS and partially on the Law on Accounting and Auditing and other regulations imposed by Government and Ministry of Finance. Serbian Regulation of the List of Accounts for Enterprises and Entrepreneurs (Official Gazette of the Republic of Serbia, No.53/2004, 11/2005, 51/2005) and the *Rulebook on the contents of items comprising Balance Sheet, Income statement and Statement of cash flows* are considered to be highly influential bylaws that contribute most to accounting practice in Serbia.

Serbian regulation known as the *List of Accounts for enterprises and entrepreneurs* governs accounting practice but it does not address specifically issues of environmental accounting, besides the area of above mentioned implementation of IAS 37. Just one account in the group of accounts 47- Long term provisions is permitted to be used in respect of environmental issues. This account is named as “471 Provisions for land restoration”. Bylaw permits company's accountants to set up additional accounts if needed but there is no specific guidance about environmental topics that should be covered in this group of accounts. All other accounts are not directly used for this purpose.

Bylaw named as the *Rulebook on the contents of items comprising Balance Sheet, Income Statement and Statement of cash flows* prescribes that content and form of basic financial statements should be followed without exception. It means that financial statements in Serbia are in prescribed format that does not take into consideration environmental assets and liabilities and environmental expenses.

Several conclusions can be drawn from the above mentioned facts: a) professional Serbian accountants do not try to establish double entry procedures and accounts used for environmental costs, assets and liabilities as an integral part of IFRS/IAS implementation guidelines, b) environmental accounting has been neglected area by Serbian Laws and Bylaws on Accounting

and Auditing issues and c) Serbian accounting professionals could not firmly hold onto regulations and IFRS/IAS when they deal with environmental issues, instead they should execute professional judgment.

4 – Design of the study

4.1 – Samples

Among other polluters in establishing this sample we have chosen four companies from the petrochemical, iron and cement manufacturing industry as well as from energy sector. In setting up the sample we assume that companies from these sectors challenge environmental risks, provoke environmental incidents and strongly affect quality of Serbian environment. Among mentioned reasons companies are selected because their environmental information practices can affect other polluters due to their size and capacity. So, it is considered that their environmental problems influence more general environmental practice in Serbia than practice of other companies not having relevant environmental problems.

4.2 – Data collection

In this context, we consider environmental information as any qualitative or quantitative information describing impact of business enterprise economic activities onto environment.

Selected companies use IFRS/IAS in the process of financial statement preparation and

Annual Report consists of: Balance Sheet, Income Statement and Statement of Changes in Equity, Cash Flow Statement, Disclosures and Auditor's report. Some of these reports contained Letter to shareholders, and other reports prepared by limited liability companies did not address their owners. The use of annual accounts (balance sheet, income statement and notes) to disclose environmental data is very limited in Serbia. But it is important to observe that extant and scope of this information changes from one period to another and so we gathered annual reports for two consecutive years (2006 and 2007). Annual Reports for the year 2006 were researched for all companies and reports for 2007 haven't been examined in more detail, instead of it we focus only on differences in form and content of environmental reporting between the two years. Besides annual reports we investigate web sites of these companies as another device through which companies may communicate environmental and other information to the general public.

This section of paper contains brief overview of selected company's operations followed by short description of environmental incidents (if any). The first company that we investigate is a public stock company for production of petrochemical products, raw materials and chemicals. It has over 30 years long operating tradition and produces almost 800,000 tons of petrochemicals per year. This company is in the process of privatization but privatization consultants found that possible integration between this company and one from the oil refinery sector should bring

benefits for companies, their employees and the state. So, we expect integration programs to be finished in the near future. Company is known as a polluter that has been involved in many environmental incidents during 2006, 2007 and 2008. Those incidents include air contamination with benzene and sulphure. Incidents endangered people of small town Pancevo (27 km away from Serbian capital city). In March 2008 criminal charges against general director of this company have been brought and he has been accused of industrial accident causing air pollution of the town and endangering the lives of their citizens. Another company included in the sample operates in cement manufacturing industry. This company is a subsidiary of foreign parent company since 2002. Plant is located in central Serbia, in the village 100 km away from Belgrade. Annual capacity of this cement plant is 1,350,000 tons of cement. Cement production impacts on environment through emissions of dust and gases, noise and changes of geological status caused by ore excavation. This company has not been directly involved in environmental incidents. The third company included in the sample produces and sells hot and cold roll sheet products and tin mill products shaped as coil and sheets. This company has been purchased out of bankruptcy in 2003 by very well known foreign iron manufacturer. Company has started as a subsidiary of a foreign parent company and it is established as a limited liability company. It has not been involved in huge environmental incidents except year 2007 when certain air pollution parameters came out of the boundaries established by municipality regulations. The last one included in the sample is considered to be the biggest Serbian company, 100% owned by the Government. It is vertically organized enterprise comprising of 11 Economic Associations (6 Economic Associations are for coal and energy production and 5 for energy distribution). Company has about 35,000 employees. Main activities performed by the company are: electric power generation, electric power distribution, coal production, processing and transport, steam and hot water production, design, construction and maintenance of energy and mining plants. This company and its affiliates were not directly involved in environmental incidents.

4.3 – Research findings

In order to better understand environmental responsibilities to stakeholders we have considered useful and necessary to carry out content analysis. Content analysis has been widely used in the literature examining non financial disclosure behavior (Gray, 1995 and Unerman, 2000).

The next table (see table 1) presents environmental findings of content analysis used for selected Serbian companies.

We can summarize nature of environmental reporting as follows:

- There is no environmental information directly presented in financial statements,
- In notes most of the Serbian selected companies disclose current environmental expenditures and do not give explanation for what particular environmental purpose are these expenditures made,

- One company from the sample recorded provision for future environmental costs caused by current operations (cement manufacturer) and iron manufacturer disclosed potential environmental obligation in two consecutive years,

- Accounting policies for environmental costs and provisions are not mentioned anywhere in annual report or in special environmental section of that report,

Comparing two consecutive years we may see that improvements are made only in one area (presentation of environmental report).

Table 1 – Structure and quality of environmental information in Annual Report

Questions	Findings 2007	Findings 2006
<i>Do annual reports disclose anything about environment?</i>	4 companies mentioned environmental aspects of their business in Annual Report	4 companies mentioned environmental aspects of their business in Annual Report
<i>Do annual reports include a dedicated section on Environment?</i>	3 companies environmental information attached as a part of annual report, (space left for this short section is usually one page)	2 companies environmental information attached as a part of annual report, (space left for this short section is usually one page)
<i>Do the companies disclose any information regarding environmental certification?</i>	Only companies that present Environmental reports have mentioned ISO 14001 and implementation of EMS	Only companies that present Environmental reports have mentioned ISO 14001 and implementation of EMS (environmental management system)- this is required by the Serbian Law on environmental protection (article 44 and 45)
<i>Do the annual reports contain any financial disclosure on Environment (environmental expenditures – operating expenses or capital expenditures)?</i>	3 companies disclose quantitative information about environmental expenses incurred, -iron manufacturer did not present quantitative information about environmental expenses	3 companies disclose quantitative information about environmental expenses incurred, - iron manufacturer did not present quantitative information about environmental expenses
<i>Do the annual reports contain any financial disclosure on provision for environmental protection?</i>	1 company - quantitative information about provisions for land restoration	1 company - quantitative information about provisions for land restoration
<i>Are there any environmental accounting policies mentioned in Notes/ Disclosure of Annual report?</i>	0 In annual reports of all 4 companies there are no environmental accounting policies referring to accounting criteria and evaluation criteria used to gather this items.	0 In annual reports of all 4 companies there are no environmental accounting policies referring to accounting criteria and evaluation criteria used to gather this items.
<i>Are there any information regarding potential environmental liabilities?</i>	1 company “Company did not record any environmental costs till 2007. Company	1 company “Company did not record any environmental costs till 2006. Company prepared

	prepared Base study about environmental protection and gave it to the Government of Serbia in 2004, and according to privatization agreement company will be liable only for those costs incurred after the acceptance of Base study. Company management found that environmental costs are not material.”	Base study about environmental protection and gave it to the Government of Serbia in 2004, and according to privatization agreement company will be liable only for those costs incurred after the acceptance of Base study. Company management found that environmental costs are not material.”
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In table 2 we have presented structure and quality of specific Environmental Reports of selected enterprises.

Table 2 – Structure and quality of Environmental Reports

Questions	Findings 2007	Findings 2006
<i>Number of companies presenting Environmental report?</i>	4 companies present environmental report	3 companies present environmental report
<i>Are there any information regarding environmental targets?</i>	3 companies environmental targets presented in environmental reports	3 companies environmental report contains environmental targets
<i>Are there any information regarding ISO certification?</i>	4 companies In all 4 reports we found information about ISO 14001.	3 companies In all 3 reports we found information about ISO 14001.
<i>Are there any information regarding future investments?</i>	1 company investments to be made till 2012	1 company investment to be made till the year 2012
<i>What other information are presented in Environmental report?</i>	1 company In one report we found information regarding Action Plan adopted by one company. Also we found information regarding finished environmental projects and improvements and future projects that have not been finished yet.	1 company In one report we found information regarding Action Plan adopted by one company. Also we found information regarding finished environmental projects and improvements and future projects that have not been finished yet.

We can summarize nature and content of Environmental Reports as follows:

- Selected polluters disclose mostly qualitative and descriptive information in special section of annual report named as „Environmental protection report“,
- Companies show only positive/optimistic environmental information, there is no negative information about past and current pollution status,
- Lack of quantified data about future investments in environmental protection,
- Comparing two consecutive years we can find improvement in only one area and that it that one other company joined the process of Environmental report preparation.

Structure and quality of information presented in companies' web sites can be found in table 3.

We can summarize findings about company’s web sites responsiveness to environmental information as follows:

- Web site is used as a mean of extended environmental communication with companies' stakeholders,

- One case shows us that company presented negative information, but this information was widely known and it is presented only to give credibility to other environmental information presented there,
- Companies do not follow systematic approach in presenting environmental information; instead they use different section and use different and confusing names for these sections.

Table 3 – Structure and content of informative value of companies' Web sites

Questions	Findings
<i>Are there any specific section of web site devoted to environment?</i>	4 companies dedicated section named differently: Ecology, Sustainable development, Environmental protection
<i>Is environmental information presented in some other sections of the web site?</i>	2 companies present information in News section
<i>What type of environmental information is presented?</i>	4 companies positive information repetitive
<i>Are there any negative information presented?</i>	1 company information contained in News section informing public that charges were pressed against general director because of his involving in environmental incident

5 – Conclusions - Discussion

In globalized economy that does not recognize boundaries, companies going through privatization process or prepare for that process in Serbia should recognize the importance of environmental information. Recognition of that fact should not be in descriptive and qualitative format as it is now, but should be the product of standardized environmental accounting practice.

The demands upon companies to behave in ecologically responsible manner are strongly felt by companies that have been privatized and those yet to be privatized trying to find appropriate strategic partner. In some of these companies' compliance to Serbian Law on Environmental Protection or compliance to ISO certificate are strong factors forcing companies to take care of environmental information. Separate reporting on environmental information in annual reports and web sites appears to be common practice followed by Serbian companies. In dedicated section Serbian companies report mostly qualitative and descriptive information, sometimes followed by information about environmental investments made or yet to be made in the short term. Environmental investments information is given in monetary terms (in millions RSD or EUR) because this information looks very impressive and can influence potential investors. In-

formation that looks impressive is also ISO certificate information and EMS implementation. In many reports of selected Serbian companies research found that these information is put in a very visible place. We were not in the situation to find deeper and clarifying explanation in Annual Reports to support quality of EMS implementation.

Despite the fact that we focused on sectors which are sensitive to environmental problems, it is our opinion that quantity and quality of this data are unsatisfactory. Information is fragmented and there is a lack of uniformed and standardized environmental reporting practice in all mentioned companies. Stakeholders can only be informed that these companies take care of environmental protection but they cannot be convinced about that. There is no comprehensive and precise information how environmental costs impact on future earnings and how these companies would keep up with environmental protection issues in the future.

While it is good to see more and more Serbian companies reporting environmental information in annual reports or on web sites, there is still more to be done. Without special environmental guidance prepared by Serbian professional association of accountants, environmental information would still be of questionable quality, comparability would be lost, as well as information usefulness for decision making purposes.

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