ENVIRONMENTAL AUDITING – AN ORGANIZATION MANAGEMENT TOOL

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Abstract
The most types of economic activities affect environment. That's why, the effects of this connection have amplified in the last years and became a question of major public concern. As a target for the European Union, sustainable development enshrined in its treaties since 1997 but the first strategy was adopted in 2001, revised in 2006 and the last in 2009. Since 2001, the strategy set out measures on how to face the challenges of sustainable development and reaffirming the main aim of a permanent improvement in the life and health of peoples while prosperity, environmental protection and social cohesion are ensuring. Therefore, the Community Eco-Management and Audit Scheme (EMAS) has been set up at the EU level as a management tool that allows the voluntary participation of organizations carrying out activities with an impact on the environment, in order to further improve environmental performance. This paper presents the role and benefits of conducting environmental auditing in organizations as part of this management system, but also the influence of this community management scheme on the EU policies on sustainable development.

Key words: *business strategy, economic activities Eco-Management and Audit Scheme, environment audit, sustainable development*

JEL Classification: *Q51, Q56, M42*

I. INTRODUCTION

An organization endeavor a "green" strategy has as a request the adoption of an environmental policy, whereby environmental matters are considered of major impact (Brown, 1996). That's why, environmental accounting and auditing appears to arise attention for many authors (Guilding and Kirman, 1998; Schaltegger and Burritt, 2000; Warnken et. al., 2004). As a result, the development of environmental auditing is an answer of the need to manage environmental matters (Hillary, 1998) as an internal management tool.

In 1993, Christensen and Nielsen, in their paper "Environmental Audits, Clean Technologies and Environmental Protection in Denmark" analyzed the use of these methodologies and their correspondence with the public policy. In 1994, Wright emphasized that environmental auditing should be integrated as a part of environmental management systems. That's the reason why Specht and Buhr (1994) reflected the important role of accountants in the area of environmental auditing.

The first definition of environmental auditing as "a management tool comprising a systematic, documented periodic and objective evaluation of how well environmental organization, management and equipment are performing with the aim of helping to safeguard the environment" was given by The International Chamber of Commerce in 1989. This definition shows that the key word is management and the a policy of this key word determined the nature of the environmental audit.

Ten years later, Diamantis defines the environmental auditing as "the process of measuring the actual and potential environmental impacts of public and private sectors within the business industry" (Diamantis and Westlake, 1997; Diamantis, 1998).

II. BRIEF PRESENTATION OF THE GOALS OF THE 2030 AGENDA FOR SUSTAINABLE DEVELOPMENT

In their article entitled "Sustainable Development and Energy Resources", Badea and Angheluta (2018, p. 22) emphasized the connection between sustainable development, health and climate change: "Sustainable development of a community can be based on a good use of resources. The health of community members and the quality of their lives depend on environmental concerns. People's activities are negatively influenced by climate change".

European Council decided in 2010 to adopt the "Europe 2020 Strategy", which also included the EU's agenda for development and employment. This strategy is focused on three priorities of smart, sustainable and inclusive development/ growth that reinforce each other. Based on this strategy, each priority was assigned one or more targets in five important areas: employment, research and development (R&D) and innovation, climate

change and energy, education, and poverty and social exclusion. These eight targets entailed by the above-mentioned key priorities emphasized "the economic, social and environmental dimensions of sustainable development by bringing policy focus on education and innovation, low-carbon emissions, climate resilience and environmental impact, and job creation and poverty reduction" (Sustainable Development in the European Union, 2017, p. 19).

In response to the "United Nations 2030 Agenda for Sustainable Development", in 2016, the Commission adopted its Communication entitled "Next steps for a sustainable European future: European action for sustainability", announcing a two-step approach towards the implementation of the SDGs.

The "2030 Agenda for Sustainable Development and its 17 Sustainable Development Goals" (also known for short as SDGs) was adopted by the United Nations in 2015. This Agenda supported the global efforts made in order to achieve sustainable development by setting 17 goals:

"1. End poverty in all its forms everywhere; 2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture; 3. Ensure healthy lives and promote wellbeing for all at all ages; 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all; 5. Achieve gender equality and empower all women and girls; 6. Ensure availability and sustainable management of water and sanitation for all; 7. Ensure access to affordable, reliable, sustainable and modern energy for all; 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all; 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation; 10. Reduce inequality within and among countries; 11. Make cities and human settlements inclusive, safe, resilient and sustainable; 12. Ensure sustainable consumption and production patterns; 13. Take urgent action to combat climate change and its impact; 14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development; 15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss; 16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels; 17. Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development".

It is noteworthy that progress was made towards meeting almost all the above-mentioned goals. For instance, over the past five years, strong progress was noticed for the following goals: SDG 3 "Good health and well-being", SDG 4 "Quality education" and SDG 7 "Affordable and clean energy". However, while some goals are characterized by a marked progress, other areas departed from their sustainable development objectives. For example, as far as SDG 15 (focusing on terrestrial ecosystems) is concerned, although the selected indicators partly reveal good progress, this situation should not entail the conclusion that the biodiversity and all the ecosystems in the EU are in a good state. Moreover, for SDG 2, focus was placed on environmental indicators because food security does not pose a major concern in the EU.

In addition, marked progress was made towards the following goals: SDG 11, SDG 12, SDG 5, SDG 8, SDG 17, SDG 1, SDG 15 and SDG 2. In the case of SDG 9, both positive and negative developments of the indicators were noticed (in equal number). Nevertheless, the insufficient data for the past five years hindered the assessment of trends for the last four remaining goals, i.e. SDG 6 "Clean water and sanitation", SDG 13 "Climate action", SDG 14 "Life below water" and SDG 16 "Peace, justice and strong institutions".

III. DYNAMICS OF THE FACTORS WITH NEGATIVE IMPACT ON THE ENVIRONMENT IN THE EUROPEAN UNION

Increases in economic activity have long been associated with growing resource and energy consumption. To allow for a continued improvement of life without affecting natural potential, the EU strives to become a resource-efficient, green, and competitive low-carbon economy. Focus has therefore shifted to improving the efficiency of resource and energy use by restructuring economies towards producing more from the same resource and energy input. This is of particular relevance in view of a growing population and rising per-capita wealth, which may result in more overall resource consumption, despite an increase in resource efficiency. Such decoupling of economic growth from the consumption of natural resources should also go along with minimizing harmful impacts on human health and the environment.

The EU's progress in this area is monitored by four indicators. Two of them look at the ratio of resource use (materials and energy) to GDP, while the other two look at the harmful environmental impacts of consumption of toxic chemicals and emissions related to transport. Overall, these indicators show some progress over the past few years: the EU's resource and energy productivity has risen, while consumption of hazardous chemicals has decreased and CO2 emissions from new cars have remained stable.

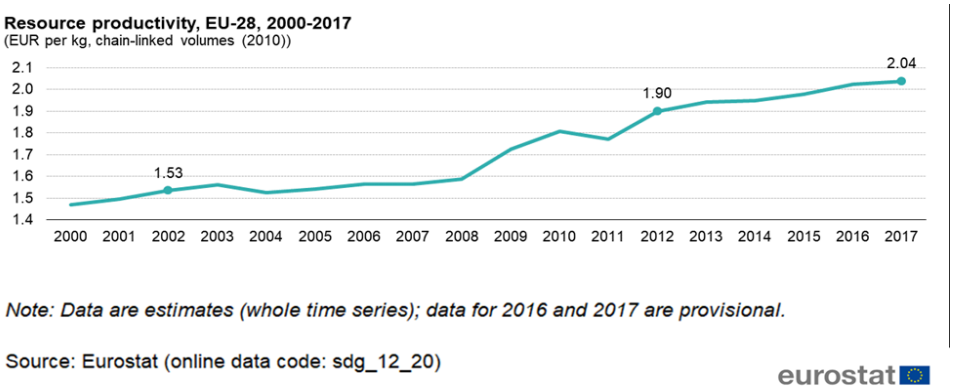

Figure 1. Resource productivity EU – 28
Source: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=SDG_12_-_Responsible_consumption_and_production#Responsible_consumption_and_production_in_the_EU:_overview_and_key_trends

Resource productivity and energy productivity directly monitor how much output (in terms of GDP) an economy produces per unit of used materials or energy. Between 2002-2017, the EU has increased its resource productivity by 32.9 % reaching in 2017 to EUR 2.04 per kg . (Fig. 1)

The growth of the EU economy is responsible of these trends, alongside reductions in domestic material consumption and gross inland energy consumption.

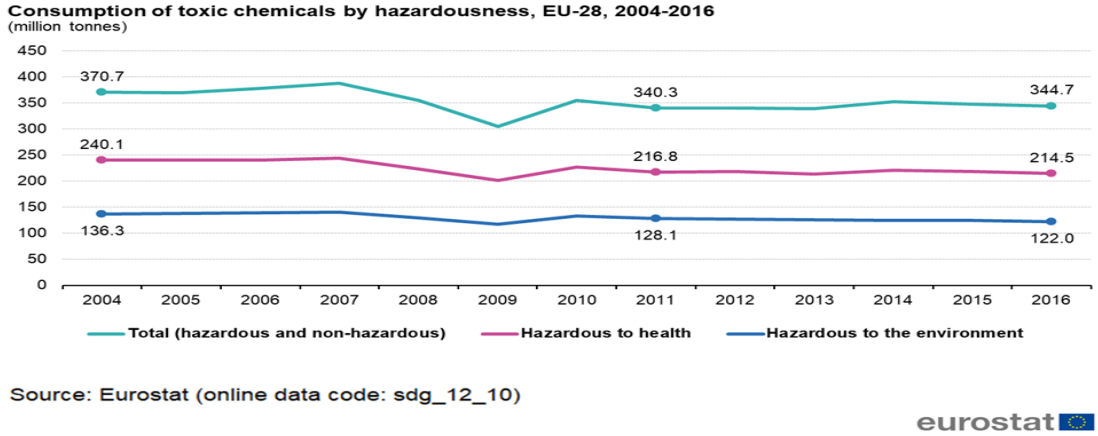

Figure 2. Consumption of toxic chemicals by hazardousness EU-28
Source: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=SDG_12_-_Responsible_consumption_and_production#Responsible_consumption_and_production_in_the_EU:_overview_and_key_trends

"Chemicals are one way for farmers to protect their crops from pests, and they are used as ingredients in pharmaceuticals, detergents, cosmetics, textiles, buildings and other artificial areas, as well as packaging. These uses make them a significant contributor to the EU economy, with sales worth EUR 507 billion in 2016". (http://www.cefic.org/Facts-and-Figures/) The consumption of chemicals gives advantages to society, but can also involve risks to the citizen health and society. Tracking the consumption volumes of industrial chemicals that are hazardous to human and environmental health is, therefore, used as an imperfect proxy for human exposure. (https://www.eea.europa.eu/airs/2017/environment-and-health/production-of-hazardous-chemicals)

Figure 2 shows that in 2016, a consumption of the 344.7 million tonnes of chemicals. Of this volume, 35.4 % (122.0 million tonnes) are hazardous to the environment and 62.2 % (214.5 million tonnes) as substances can affect human health. Since 2004, the consumption has declined by 10.5 % for chemicals hazardous to the environment and by 10.7 % for chemicals hazardous to health.

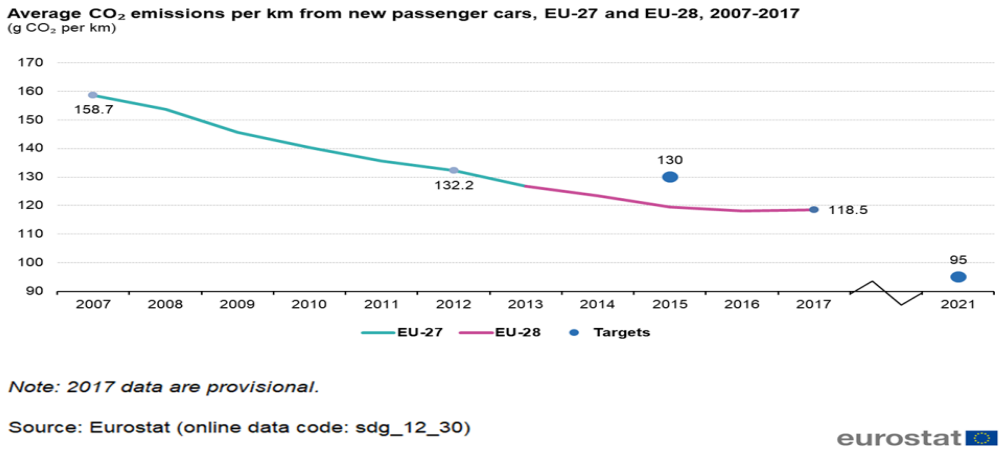

Figure 3. Average CO2 emissions per km from new passenger cars EU-28

Source:https://ec.europa.eu/eurostat/statistics-explained/index.php?title=SDG_12_-_Responsible_consumption_and_production#Responsible_consumption_and_production_in_the_EU:_overview_and_key_trends

To decrease the negative influence of cars on the environment, the EU has set mandatory emission reduction objectives for new vehicles of 130 grams of CO2 per kilometer in 2015 and 95 grams of CO2 per kilometer in 2021. (Fig.3). For each manufacturer, a specific emission target is set according to the average mass of its new vehicles, using a limit value curve. The curve is set in such a way that the targets for the EU fleet average emissions are achieved. "While the passenger car fleet in almost all Member States has grown over the past decade, average CO2 emissions per km from new passenger cars in the EU have fallen by 10.4 % since 2012, reaching 118.5 grams of CO2 per km in 2017. While the 2015 target has been met two years in advance, a recent slowdown in emission reductions observed since 2015 means further progress will be necessary to reach the 2021 target set at 95 grams of CO2 per km." (https://ec.europa.eu/eurostat/statistics-explained/index.php?title=SDG_12_-_Responsible_consumption_and_production#Responsible_consumption_and_production_in_the_EU:_overview_and_key_trends)

IV. THE ENVIRONMENTAL AUDIT REQUIREMENT - AN IMPLEMENTATION TOOL OF THE COMMUNITY ENVIRONMENTAL MANAGEMENT SCHEME AND AUDIT IN ORGANIZATIONS

The Community Eco-Management and Audit Scheme (EMAS) allows for the voluntary participation of environmental organizations that carry out activities in the Community Environmental Management and Audit Scheme, in order to improve environmental performance. The system has been available to companies since 1993. The European Commission proposed in 2008 to revise the EMAS Regulation to increase the number of participating companies and to reduce administrative burdens and expenditures, especially for small and medium-sized enterprises. A third revision of the EMAS Regulation was performed in 2009, the scope of the Regulation provisions being extended, making it available to all the organizations whose activities have an impact on the environment, for those located both within the European Community and outside it. Participation remained essentially voluntary and the EMAS continues to rely on a standard environmental management scheme, as embodied in the ISO 14001 standard. In addition, there are elements in the new regulation that strengthen the obligation to respect consolidated environmental reporting, using the main performance indicators. The EMAS regulation applies to all 28 EU Member States, to the three Member States of the European Economic Area and to the countries that candidate for the accession to the European Union. Special emphasis is placed on encouraging SMEs to participate in this scheme, and Member States provide support to SMEs by facilitating their access to information and to existing support funds and public institutions, as well as by promoting technical assistance measures.

Among the benefits of the EMAS registration, there are: maintaining and enhancing the public image vis-à-vis customers, business partners, investors and local community; ensuring compliance with environmental legislation; sustainable development through a better use of raw materials and resources; competitiveness on the European and foreign markets in general, by improving environmental and business performance; reducing the

risks of criminal and legal liability; increasing the organization's profit by boosting sales offers on European markets, an advantage in obtaining future public contracts.

The environmental auditing in Romania is based on Decision no. 57/2011 on the establishment of measures that ensure the application of the provisions of Regulation (EC) 1.221/ 2009 of the European Parliament and Council of 25 November 2009 on the voluntary participation of organizations in the Community eco-management and audit scheme (EMAS). It involves the systematic and well-informed assessment of internal or external environmental auditing evidence that has been objectively obtained and estimated in order to determine whether the established ISO 14001 environmental management activities, conditions, processes, and systems (ISO 14001) or data comply with auditing standards. It also communicates the results of this process to clients. At present, the SR ISO 14001 version of 2015 is in force in Romania.

The scope of the audits performed in an organization may range from auditing a simple procedure to auditing complex activities. All the activities of a private entity are subject to an audit over a given period. The time required to complete the auditing of all activities is called an audit cycle. In small organizations with a simple structure, all activities can be audited at the same time.

Each audit is planned and prepared according to its targets, in particular to guarantee the adequate allocation of resources and to arrogate the tasks of each person involved in the auditing process.

The preparation for the audit should include a good view and knowledge about the organization's activities and with the environmental management scheme established within the organization, as well as the assessment of the results and conclusions of previous audits.

The audit process includes at least the following steps:

a) familiarizing with management schemes;

b) evaluating the strengths and weaknesses of management schemes;

c) acquiring relevant evidence;

d) appraising audit findings;

e) elaborating audit conclusions;

f) reporting audit findings and conclusions.

At the end of each audit or audit cycle, the auditors are required to prepare a written audit report, the form and content of which should provide a full and formal presentation of all audit findings and conclusions.

The main goals of a written audit report are:

a) documentary support for the purpose of the audit;

(b) the state of compliance with the organization's environmental policy and the organization's environmental progress;

c) providing the management with information on the effectiveness and accuracy of the organization's environmental impact monitoring measures;

d) documenting the need for corrective action, as appropriate.

The auditing process ends with the preparation and implementation of an appropriate corrective action plan.

The purpose of the environmental report is to inform the public and other external stakeholders about the environmental impact and environmental performance of the organization.

V. CONCLUSION

In recent years, the companies' economic activities and expansive strategies have increasingly affected the environment; nowadays, the pollution issues are the effects of this development of industrial activities over time. At the EU level, a European Environmental Management Scheme (EMAS) was established to support organizations in order to continually improve their environmental performance, by integrating the concept of sustainable development.

Particular attention is paid to SMEs, in order to encourage them to participate in this scheme, and Member States provide support to SMEs by facilitating their access to information and to existing support funds and public institutions, and by promoting technical assistance measures.

The EMAS is a model (for organizations) that helps optimize production processes, reduce their impact on the environment and streamline the use of resources. As part of this system, the environmental auditing is the systematic and informed assessment of some internal or external environmental auditing evidence that have been obtained and estimated in an objective manner, in order to determine whether the activities, conditions, processes and established environmental management schemes or data comply with auditing standards; it also communicates the results of this process to clients.

At the end of each audit or audit cycle, the auditors are required to prepare a written audit report, the form and content of which should provide a full and formal presentation of all audit findings and conclusions.

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