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ENVIRONMENTAL ACCOUNTING - ESSENTIAL TOOL FOR DECISION MAKING

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Abstract *Environmental accounting is rather a new, interdisciplinary approach, integrating environmental and accounting issues. In order to reflect an accurate picture on the impact of the entity on the environment, on accounting level, there must be an effective model necessary for the integration of environmental aspects into the decision-making process and the financial process of the entity.*

Keywords
Environment, accounting, accurate picture, administration, information

1. Introduction

Jaque Richard [1] has presented an adapted model of accounting through environmental involvement «La Comptabilité Adaptée au Renouvellement de l'Environnement» (CARE).

The model consists in identifying the impact of the economic activity on the environment and its integration into the financial accounting system, by determining costs and environmental benefits. The purpose of this model is to provide a conceptual framework and a practical methodology for assessing the environmental impact associated with the economic activity of the entity. The model is based on the characterization of the technological process of the enterprise, and determining the environmental impact of each activity, step or procedure of the technological process, succeeding to integrate the monetary value of it in the production cost and its reflection in the financial accounting system, using tools which are specific for environmental accounting. This accounting model aims to complete financial accounting with information provided by environmental accounting, which not only helps to reflect environmental costs, but also helps to identify and recognize income or environmental benefits, and report this information to internal and external users of the entity.

We will define the model to reflect the environmental impact as a set of concepts, principles, procedures, rules through which there are determined methods for recognizing, recording, measuring and reporting financial and environmental transactions within an organization.

2. Environmental accounting - tool of the environmental management system

Such a system of environmental management ensures the order and coherence within entities and their concerns towards environmental issues, resource allocation, assignment of responsibilities and proper and continuous evaluation of different practices, procedures, internal procedures meant to ensure the proper functioning of the activities of these organizations.

Environmental management system is part of an integrated process of environmental management, characterized by a series of phases that include auditing environment and which are standardized at international, European and national level. The following are components of developing and implementing environmental management:

- Adopting the environmental policy for continuous improvement of environmental performance;
- Making an intermediate check in order to identify significant environmental issues;
- Elaborating environmental programs with objectives, goals and concrete actions;
- Adopting an environmental management system for developing relevant activities for fulfilling objectives;
- Periodically organizing environmental audit in order to measure environmental performance and the impact on the environment;
- Writing an environmental statement on the environmental performance;
- Obtaining an independent certification of the environmental report by external audit.

An environmental management system (EMS) is that component of the overall management system of the

organization consisting of the organizational structure, planning, responsibilities, processes, practices, procedures and resources that help building, implementing, achieving, reviewing and maintaining the environmental policy of the organization. Implementing an EMS allows the organization to not only meet the expectations regarding its environmental performance, but also to control its costs and comply with environmental laws and regulations. The environmental management system is a system for managing of the impact that the activity of the entity has on the environment, which monitors the environmental performance of the entity.

Key of success of such a system consists in assuming responsibilities at all levels and functions existing within the organization, especially at the highest level of management of the organization. The main purpose of an environmental management system is to ensure protection of the environment, to prevent pollution and to ensure a balance between these elements and social and economic needs. The application of such a system allows the organization to establish and evaluate the efficiency of procedures used to develop its environmental policy, according to them and to prove this compliance. Regarding the relation between environmental accounting and environmental management system, Fortes (2003) [2] emphasized that for a successful management system there must be a method for calculating environmental costs and integration and use of these costs in making and substantiating decisions of the entity.

3. Certification of environmental management systems

An environmental management system is certified by ISO (International Organization for Standardization) and EMAS international standards (the scheme for environmental management and auditing).

Environmental management system is subject to ISO 14000 standards and it can be applied to any entity, regardless of its size. ISO 14000 is a series of standards for eco-management that allows the entity to minimize environmental effects. The standards of the ISO 14000 cover a range of five directions: environmental management systems, environmental auditing, assessment of the protection of human communities against industrial activities with negative impact, the classification in terms of environmental policy, the assessment of the life cycle of products and services.

User Guide, offered by ISO 14000, provides requirements for the integration of environmental management into the overall organizational management structure. Its actual implementation is done according to the environmental policy adopted by the organization. ISO 14000 standards are general standards on environmental management systems designed to control the overall organization processes impact on the environment.

These standards define models of environmental management systems that can be implemented by an organization for internal or external purposes provide the tools needed to assess compliance of environmental management system with the chosen referential, evaluate performance, preliminary analysis and environmental assessment of the emplacements of the organization.

ISO 14001 is the reference standard for EMS from the ISO 14000 series. It describes the main requirements which an environmental management system must comply with. ISO 14001 requires that each environmental management system reflects the nature of the organization, its own activity and specific environmental aspects. According to ISO 14001 an environmental management system provides a systematic and coherent framework for improving environmental performance, for achieving compliance with environmental and prevention of nonconformities legislation. Even though the main objective of implementing an EMS is to reduce the impact of activities, products and services of the organization on the environment, the benefits of implementing an EMS otherwise are multiple. Among the most significant is to increase profits by optimizing the use of resources (raw materials, energy), by improving waste management and reducing the costs of any environmental incidents. Such an environmental management system can be applied to those activities and ˝environmental matters", that can be controlled and influenced by the organization. Such a management system needed to meet a number of requirements so that it could allow the organization applying it to formulate environmental policy and objectives in the context of compliance with legislative provisions and taking into account the data on the significant impacts of "its activity" on the environment. Such an environmental management system is applicable to any organization that wishes:

a) to transpose into practice, to maintain and to improve an environmental management system;

b) to ensure compliance with the environmental policy stated;

c) to prove this compliance to others;

d) to certify/register the environmental management system by an outside body;

e) to conduct a self-assessment and a statement of compliance with International Standard ISO 14000.

European Environmental Management and Audit Scheme (EMAS) is an instrument of the European Union, whereby companies and other organizations evaluate, report and improve their environmental

related impacts. EMAS program was regulated by the European Council on June 29th 1993 (regulation number 1836/1993) for industrial enterprises; in 2001 it expanded to all areas, including public and private services (regulation 761/2001).
EMAS is a European tool for environmental management designed to help organizations to continuously improve the environmental performance by integrating the concept of sustainable development.
The registration and certification of the enterprise within the EMAS management scheme brings the following advantages [3]:

- It offers a better image and increases credibility with customers, partners, investors and local community;
- competitive advantage on national and European market by improving the environmental performance;
- granting of new business opportunities in markets where green production processes are important;
- in economic terms, it involves: saving resources and lower costs, thus reducing the financial burden due to reactive management strategies such as remediation, penalty payments for violation of legislation.

4. Comparative analysis of EMAS and ISO 14000

We will present the main differences between the two international reference standards, as figure 1.
As we can see the main difference between the two standards is that EMAS is only applicable at European level, in turn ISO standard applies internationally, regardless of continent. At first the environmental management and auditing scheme was used in the certification of activities of industrial enterprises, but today applies to any type of enterprise as with ISO standards. Another difference is that companies applying EMAS must prepare an environmental statement, after being audited by an accredited person, while ISO 14001 does not provide this obligation, so we believe that the ISO class of standards is less restrictive than EMAS scheme. Between the two standards there are also similarities, so the European standard for environmental management, ISO 14001, can provide a basis for EMAS.

EMAS	ISO 14001
Legislative regulation valid within the European Union since 1993.	Internationally applicable standards since 1996.
Initially restricted to establishments specific for the industrial activity	Applicable to all activities, products and services
Requires initial assessment of the impact on the environment	Preliminary analysis of the environment is not mandatory, only suggested
Continuous improvement of environmental performance at the level of the best available technology	Continuous improvement of the environmental management system, as reflected by increasing environmental performance
It requires a public environmental statement which grants acces to the environmental policy and program	Only requires public access to the environmental policy. It suggests external communication, the information to be contained remaining at the discretion of the entity
The frequency of achieving environmental audit at three years tops	It does not specify the frequency of achieving environmental audit
Environmental management system requires the existence of a register of environmental effects	It is not required

Source: *Rojanschi V., Bran F., Grigore F., (2004), "Elements of economy and environmental management", Economica Publishing House, Bucharest, p. 403.*

5. Conclusion

As a conclusion on this, we can say that environmental management is a component of the management system of the entity, necessary for calculating environmental performance, for integrating environmental costs and effectively managing the relation with the environment.

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