

Ungureanu, Mihaela

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# INTEGRATION OF GREEN ACCOUNTING INTO ROMANIAN ACCOUNTING SYSTEM\*

Mihaela Ungureanu  
Alexandru Ioan Cuza University of Iasi  
myhaella5@gmail.com

**Abstract:** *The aim of this paper is to present the concept of green accounting, its emergence at an international level, its entry in the Romanian economic environment and, especially, the way it is understood and applied in Romania. It seeks the awareness of managers and accounting professionals on this issue, especially in the context of growing pressure for environmental protection, from the general public, media and investors. An essential role is held by the accounting profession and its relevant legislation, through the elaboration of standards and guidelines in order to support the efforts of changing the mentality of business environment. The companies are also concerned for the future and not only for the present and they understand that environmental investments are not unnecessary expenses that burden the activities, but long-term profits prerequisites.*

*Understanding the concept is difficult without an agreement on its definition. Specialized literature presents different definitions, each author with his own interpretation and vision. This is why professional accountants' reluctance to adopt new ideas and practices of green accounting, this being an unknown territory to them and difficult to entered.*

**Keywords:** green accounting, environmental costs, indicators, benefits, performance  
**JEL Classification:** M41, Q51, Q56

## INTRODUCTION

If for the material resources the suppliers are responsible for ensuring them in the production process, for the natural resources the responsibility of their existence lies in all of us, through immaterial factors related to a responsible spirit, mentality and the awareness of future effects. It is looking for an answer about the need of green accounting at the micro and macroeconomic level. So, it is necessary to present the natural assets and liabilities, but also the delimitation between environmental investments and costs. To understand the economic benefits that can be obtained from environmental policies, the effects of green accounting and of an environmental management system implemented in an enterprise must be presented. Green accounting can also fulfill the deficiencies of traditional accounting and to integrate environmental issues in performance reporting.

Green accounting or environmental accounting has emerged as a necessity in the global problem of using natural resources in a sustainable manner. The answer is represented by the

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management of resources in a way that allows their use in the present work, but also their future existence. Those who consume the natural resources should be aware of the importance of ecosystem in the planet's life, these resources being life itself. Should be disposed of selfishness that governs the activities of various industry players, who are only concerned with current operating, immediate benefits, without taking into account the needs of future generations. There are many who do not understand that they are not due to natural existing infrastructure.

Any modern organization must investigate, know and exploit the conditions found in the environment, trying to integrate it as effectively. If on the internal environment the organization can exert an influence almost complete in the sense of building a sustainable competitive advantage based on related resources, the external environmental factors can be also influenced to some extent, but anyway, they should be taken into account by managers to establish the strategy of organizations they lead. On the other hand, any organization must be aware that, in fact, the external environment is part of its existence, as a provider of inputs entering the system as well as were the outputs of its work are launched. Therefore, the absence of permanent reports on environmental conditions, both internal and external, can be fatal to any organization, regardless of size, industry, power or success.

## **1. EMERGENCE AND EVOLUTION OF THE CONCEPT**

The Summit of Rio (3<sup>rd</sup> to 14<sup>th</sup> June 1992) had as result the emergence of Agenda 21 which brought to the attention of all new concepts and methods in a new field of applied statistics and specific environmental statistics. Thus, the need and importance of environment in economic decisions was recognized, several approaches of the relationship between natural environment and economy to be taken into account. On the one hand, a statistical description of the impact of economic activity on the natural environment was discussed, and on the other hand, a statistical framework focused on the economy, concerned about the interaction between economy and environment, only to the extent that environmental issues are reflected in economic transactions. Another important effect of the Rio Summit was the separation of monetary assessments of natural environment of the “green” national accounting of the non-monetary or physical ones.

The business world has appropriated as a primary purpose of obtaining short-term financial benefits, despite the sustainable benefits designed to maintain economic balance by even the ecological balance. The situation was also reflected in the Romanian society in an even more harmful manner, since in most other countries manufacturers have realized the danger of excessive

consumption of the natural resources without regenerating them. Resource sustainability ensures business continuity, so by default obtaining a continuous profit, but most important, the continuity of life itself. Even if the financial benefits are lower, is more important to obtain their future safety.

Environmental protection has emerged as a concern in Romania since the late nineteenth century, when questions have arisen about a strategy for nature protection and prevent abusive exploitation. The first environmental protection law – Law of Natural Monuments Protection – was enacted in 1930 and a year later the Natural Heritage Preservation Commission was founded, that works today under the patronage of the Romanian Academy. There have been followed by other regulations, but an environmental law has been applied only since 1973.

The 90s were a period of convalescence in Romania, after an excessive industrialization that had a negative impact on the environment and quality of life.

Green accounting has been a subject of dispute in the last two decades, although the methods developed and applied for European Union and the United Nations were approved to a certain point, but organizations have not agreed in many respects. Latest report on our country's preparedness for EU accession (September 26<sup>th</sup>, 2006) showed some progress in the administrative capacity of environmental protection and related professional organization. The report also emphasized the need to strengthen the role of the Ministry and National Environment Agency to local and regional agencies.

Romania's EU accession on the 1<sup>st</sup> of January 2007 had a profound impact on environmental policy and its instruments. Thus, the availability of statistical data based on the *acquis communautaire*, qualitative and comparable, has become a priority. The requirements imposed to Romania for the negotiation of accession were included in the *acquis communautaire* in Chapter 22 "Environmental Protection". This area enjoys in the European Union of a special attention various strategies and policies to provide tools to achieve objectives being implemented.

In this context, on the 12<sup>th</sup> of December 2008, the international colloquium titled *Globalisation of concepts in environmental law* took place in Paris, having studied the report of a research project of the University of Paris I developed by a French team in collaboration with other eight countries. Findings showed an alarming situation in the Central-European countries, especially in Romania, where the environmental aspect is almost ignored. There are no related strategies and the authorities focus on the problem, only after natural disasters. So the environment is blamed, many consider the nature the main culprit for the flooding, landslides, when people are losing their farms for agricultural losses, etc., without requiring them to know or realize that the main fault lies with the wrong intervention on the natural course of human nature. Understanding

these risks would be accessible to all, especially those in the economic field, the development of two branches: law and environment accounting.

Using environmental accounting in large companies of the world emerged as a necessity of preserving the natural environment, from the use of its resources in economic activities. The complexity of environmental problems shows the difficulties that enterprises face when deciding to implement and develop a system of environmental management and an environmental accounting. Currently, worldwide the ecosystem conservation problem is treated more seriously and more severe penalties are provided for those who disregard the efforts made in this regard. Among the most important environmental protection measures one can remember: application of the “polluter pays” principle, raising public awareness and encouraging non-governmental organizations in this field.

The present situation of the natural environment has been complicated by the current economic crisis, all the attention being focused mainly on economics, thus neglecting the environmental policies.

## **2. INTEGRATING ENVIRONMENTAL PERFORMANCE INTO ENTERPRISE ACCOUNTING SYSTEM**

In an enterprise, environmental accounting represents the intersection of environmental information system and accounting information, participating in the evaluation of flows taking place between the entity and the environment, but also in managing and presenting the results in financial but also the environment terms. Environmental informations are to be found as:

- capitalized costs, for the restoration of the affected area from an ecological point of view;
- current expenditures, those related to the environment material, collection and waste treatment, monitoring and control of pollution, without amounts covered by fines;
- environmental liabilities that reflect the provisions for restoration and ecological reconstruction of the area, for waste management, environmental certificates, etc.

The environmental management system focuses on issues related to the environment involved in the entity activities and identifies resources and the results thereof. If the activities and resources used can be measured by charges, the costs and benefits of environmental problems managing are more easily perceived by managers.

Implemented into the system of an entity, green accounting is acting on the its activities in several directions, the main purpose being the reduction of environmental harm.

In order to emphasize its role the effects of the implementation should be presented, namely:

- staff awareness and sensitization on the environment given that the accounting information system, ignores more or less the environmental information relevant, such performance being rarely shown;
- it often represents how an environmental information system is developed, as is at its intersection with the accounting information;
- helps assess the flows taking place between the company and the environment, the management and presentation of results on the environment and the financial plan.

Practical experience has shown that the implementation of a green accounting has immediate effects on the employee perception on the environment and the efficiency of managing non-renewable resources.

Developing an environmental accounting system is made, first, by connecting environmental management to financial accounting, conditioned by the determination of environmental elements, of the entity, selecting those considered significant and about which the management would like information. These are items of *environmental cost*.

Environmental cost represents an economic category universally accepted and that part of resources used that offsets the labor and raw material consumption for obtaining a environmental service. The cost expresses in value terms a whole of factors consumed in production of environmental services and consists of the expenses incurred by the manufacturer. Identification and recognition of environmental costs are significant in making good management decisions.

There are also cases when it is difficult to separate environmental costs by those with health and safety or risk management. Here it can be considered the cost of "clean" technologies, of monitoring the categories of raw materials and suppliers, etc.

*Conventional costs* are those implied by the consumption of raw materials, utilities, capital goods, that are reflected in cost accounting and investment budget, although there are not usually recognized as environmental costs. From the ecologically point of view, their reduction is preferred both in terms of environmental degradation and reducing the consumption of non-renewable resources.

*Potential hidden costs* are mainly the projected costs incurred in advance of the production process. These costs may be related to location, design of processes and products environmentally oriented, selection of suppliers, evaluation of various pollution control equipment. Secondly this category may also include the set and voluntarily supported in exploitation activity treated as indirect costs.

*Unexpected costs* (contingent) may or may not be required by future work, aiming to remedy or compensate an accident – pollution factor, fines and future penalties etc.

*Costs with image/relations* are considered as less tangible or intangible aim to improve the perception of management, customers, employees, community and other partners. They can be called “image charges”. Here the costs with annual environmental reports and activities of maintenance of relationships with the community may be included, those costs voluntary assumed for environmental activities (tree planting, pollution prevention programs).

*Conventional costs* include most types of costs: of capital, labor and materials. Many of these can be allocated directly to products and processes or may be included in financial evaluation of capital investment. Conventional and potential costs are private costs required by the entity, directly affecting its financial results.

*Social costs* are associated with the impact of economic activity on the environment and are often called “external costs”. Social costs include environmental degradation for which the company is not legally responsible and the negative impacts on the existence of individuals, their properties and their illness, which can not be compensated through the legal system.

Effective environmental costs and the imputed ones can be classified into the following categories:

- a) *costs of exhaustion*, which refers to the quantitative exhaustion of natural resources;
- b) costs of degradation, deteriorating quality of environment concerns. This can include damage to ecosystems, economic activities or discharges consequence residue in nature. Thus, the actual cost of restoration can contribute to reducing costs of degradation prior or current.

The objective of the environmental accounting system is to monitor the changes in the environment in connection with the economic activity, and its aim is to be a basis for integrated environmental and economic policies.

*Reporting environmental assets*, according to standards, should be made in the category of tangible (installations, anti-pollution filters, treatment plants) or intangible (environmental permits and certificates, development costs). IASB recommends presentation in the notes to the financial statements of information on environmental assets such as:

- the measurement bases in determining the value accounting;
- gross carrying amount and accumulated depreciation;
- the nature and the effect of change in an accounting estimate of the costs of dismantling and rebuilding the site, useful lives, depreciation methods.



Environmental liabilities are those obligations involving future payments due to past events or compensation to a third party harmed by environmental damage done by entity. These liabilities may be committed in the financial statements, from legal obligations (rehabilitation of land) or contractual arrangements (security environment). Accounting treatment is the same as for other liabilities of the company. Environmental liabilities can be even potential, which differ by the uncertainty of future payments and may be called probable when there is a legal entity or when management wants to prevent, reduce or repair environmental impact.

The financial statements shall be accounted for any environmental objectives resulting in operations involving other parties or train current and future financial obligations, known and estimable. Environmental assets and liabilities are usually integrated into accounting posts, legal rules do not require separate presentation, except for those items to be reflected separately in the notes.

Fines expenses are excluded from environmental costs because, even if they are related to impact of the environment, do not prevent, do not reduce, and do not remedy the damage caused.

Registration in accounting of environmental costs is done in association with other patrimonial elements, depending on how these costs appear or are allocated.

### **3. ROMANIAN ACCOUNTING PROFESSIONALS TO THE NEW CHALLENGE**

Previously, the costs associated with environmental performance were relatively low. Nowadays, environmental costs are introduced in many countries in response to increasing pressures on the environment.

Valorisations of natural capital in national accounting is a known disagreement, due to economic and environmental approaches, that consider the following:

- national accounting shows market transactions, the natural environment being a phenomenon of non-market;
- national accounting concerns only cash flows and natural environment the physical ones;
- national accounting is concerned on the current events and natural environment analyzes the long-term effects.

Green indicators are also regarded with doubts, especially green GDP, this being a primary factor in classical accounting. Arguments against a green GDP:

- its modification according to the pollution and natural degradation can affect the coherent usefulness of SNA in analyzing monetary economy, without the certainty of relevant results;



- a monetary valorisation of a natural damage is difficult;
- amended GDP that aims to reflect the environmental factors, would not be representative in all aspects of economic development.

In recent years, Romania has expressed an interest in the environmental performance of organizations, especially private sector companies. This interest is both for the internal, as well as for external users, such as environmental organizations, government, local communities, shareholders, investors, customers, suppliers.

These pressures implemented within the company policies can take various forms, such as:

- large companies request their suppliers compliance with EMS standards (Environmental Management System), issued by ISO (International Standardization Organization);
- recording the environmental performance of entities in the financial statements or voluntary reporting;
- increasing the social responsibility in investment;
- State control (regulations on using hazardous substances in electrical and electronic equipment sold in European countries);
- applying environmental charges.

Rules governing these issues favor an internationalization of additional variable environmental costs. Costs must be known by companies so that they meet the environmental rules, to comply with the cost of reducing pollution and control equipment, emission fees and necessary documents and reports. Entities need to understand the potential monetary rewards gained by implementing environmental performance, the professional accountants having an important role in this activity. They can influence management decisions, may propose the implementation of economic policies that take into account the environmental protection from the use or damage of natural resources. The target of economic activities should aim to reduce costs and waste, both natural and monetary resources.

Implementation of environmental performance in large companies has led to the identification of products and services necessary for the entry of *green business*, the possibility of adapting to environmental rules changes and keeping good relations with donors, local communities etc.

The organization that effectively monitors environmental pressures, being concerned with associated costs and benefits, requires different types of expertise: technical, environmental, financial-accounting, marketing, management. Professional accountants have again a special contribution, because they have access to internal information, can check the quality level and can use them for investment decisions.

In Romania, there are plenty of companies, firms, reluctant to face this new field, on which they still have limited information. Many accountants feel overwhelmed by this and are not able to act in pursuance of environmental policies. Green accounting disturbs traditional accounting information system that can not handle environmental information, so that financial criteria will be filled with various quantitative indicators – financial and physical – and qualitative ones directly involved in enterprise activity.

## CONCLUSIONS

In conclusion, green accounting represents that method which measures an organization's performance in economic terms regarding the environment as a tool for identification and costing of projects and activities that support biodiversity and human health. This information corroborates the management decisions not to harm the environment, such as the implementation of sustainable practices to conserve natural resources for future generations.

Green accounting is addressed to the shortcomings of traditional national accounting, because traditional national accounts system ignore the value of natural resources (soil and subsoil) and environmental degradation. In Romania this concept is relatively new and the interaction between economic and natural environment is still not considered a serious problem. However, some progress has been made, primarily at the legislative level, by the obligation to align with EU law.

Wishing to avoid further degradation in the natural environment there is a need for economic activities aimed at environmental protection, mainly with a prevention role. Such a role should be more effective and also reduce costs, both private and social. The legislation sets out clear obligations on the environmental impact of economic agents.

Depending on data requirements two variants for the necessary system implementation may be considered. The company can integrate management accounting in the existing accounting system, or to redesign it. Both systems require identification of environmental costs and relevant information about them.

Environmental management accounting comprises the identification, collection, calculation, analysis, internal reporting and use of information and materials related to energy, environmental costs, for adopting convenient decisions both economic and environmental protection point of view. The information provided may be used in most activities of management and internal decision-making, but particularly in the environmental protection.

An environmental accounting may reflect more accurately the impact of human activities on nature and the natural environment has value only to the extent that people appreciate the results of exploitation of its resources.

Thus, present serious problems such as exhaustion of deposits of oil or disappearance of forest areas could be even partially solved through a more effective use of these resources by national accounting. An evaluation of resources future efficiency can solve current environmental problems.

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