

# CHALLENGES OF ENVIRONMENTAL ACCOUNTING AND TAXATION IN ROMANIA

**Blidisel Rodica Gabriela**

*West University of Timisoara, Faculty of Economics and Business Administration*

**Popa Adina Simona**

*University "Eftimie Murgu" of Resita, Engineering Faculty*

**Farcane Nicoleta**

*West University of Timisoara, Faculty of Economics and Business Administration*

*Environmental problems that have arisen all over the world are concerning many controversial aspects that were created due to the advance of industrialization in tandem with scientific and technological development. For solving these problems, in the past 40 years many international and national organizations have adopted a substantial and diverse range of environmental measures aimed to improving the quality of the environment. Our research aims to highlight how Romanian authorities face the problems regarding environment. To accomplish our objective we trace two main directions of the study, firstly we conduct an analytical investigation of green accounting regulations and secondly we describe the environmental fiscal policy at national level and their impact on Romanian companies.*

*Keywords: environment, green accounting, fiscal policy, regulations*

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## **1 Introduction**

The correlation between accounting regulations and the taxation system is well known and a matter of common knowledge: accounting must reflect tax obligations and, conversely, tax regulations refer to book profit when defining the taxable portion of a company's income and to report the financial statements. Always for accounting there was a problem regarding its conciliation with taxation. The tax principles aim to stimulate or inhibit certain activities. Directive IV of the Economic European Community (EEC) established interaction between the accounting and the fiscal right. This is achieved through fiscal management of the company (Stoian, 2001).

In this context of interdependence, a more profound study of new accounting practices and tax incentives beneficial to the environment is required, and this analysis forms the basis of this article.

## **2 Brief framework and literature review**

Many internal and external users present an increased interest from the environmental performance of organizations, particularly companies in the private sector (e.g. employees). The types and intensity of pressures on the environment varies from country to country and between different economic sectors. Pressures on the environment concerned organizations seeking new ways, creative and efficient in terms of cost, to manage and minimize environmental impact.

Environmental accounting is a concept often used in different contexts:

- evaluation and presentation of financial information about the environment in the context of financial accounting and financial reporting;
- evaluation and use of monetary and physical information about the environment in the context of Environmental Management Accounting;
- estimating the costs and impact of the external environment when reference is made to Full Cost Accounting;

-accounting for stock and flow of natural resources in the context of Natural Resource Accounting;  
-aggregation and reporting of accounting information from the organizations in order to draw up national accounts;  
-monetary and physical information on the environmental context in diversity of accounting.  
Environmental values are beginning to be reflected in business accounting. A lot of papers developed the environmental accounting, as a real challenge of each country regulations (Jao, 2000, Yonkova, 2008, Caraiani et al. 2001, Blidisel et al. 2009). The Romanian literature points out the new tool in environmental management – the Environmental Managerial Accounting, defined as the identification, collection, estimation, analysis, internal reporting, and use of materials and energy flow information, environmental cost information for both conventional and environmental decision-making within an organization (Sendroiu, Roman and Chitu, 2006). Also, another literature emphasizes the integration of the environment in national accounts (Dachin et al., 2005).

#### **4 Research development and methodology**

The research is based on the environmental accounting and economic environmental protection methods debated on the European Union regulations.

##### ***4.1 Environmental accounting***

Environmental accounting is already becoming part of the business strategy of companies with advanced environmental policies, with the objective of promoting transparency and providing the investor with a greater quantity of relevant information. The international literature conducted in European Community states that it is not yet obligatory to disclose this sort of accounting information in all fields, binding agreements existing only in certain sectors, such as the electrical industry, where all parties are obliged to make provision for environmental risks and the impact of investments relevant to the protection of the environment are recorded in the annual report.

The European Union recommend to encourage business to publish environmental information, many countries making a step forward to approve regulations for recognizing, assessing and making public elements relevant to the environment in annual accounts (e.g. Spain).

##### ***4.2 Economic environmental protection measures***

Public initiatives on the environment have been created in many different areas across the diverse world of finance, as: environmental taxation, emission permits and green certificates. Apart from their environmental objectives, they are all economic measures.

Starting from the international approach regarding the environmental accounting and economic environmental protection measures, we want to research the implementation of the Romanian environmental regulations both in accounting and in tax field. Therefore, we want to study the impact and the most important measures taken by Romanian companies in order to divulge the environmental indicators.

The research methodology is based on a qualitative approach, pointing out the most important Romanian regulations and the impact upon companies that are active in the oil gas, pharmacy and minerals industry, as well as ecological education starts made by Romanian companies.

The main research directions are:

1. The relationship between accounting and environmental protection economic measures;
2. The influence of environmental accounting on the amount of corporation tax paid by companies;
3. The importance of environmental taxation in accounting practices and environmental accounting;
4. The importance of other economic measures in accounting;

5. Corporate change brought about by new accounting and tax-based measures of environmental protection;

### **5. Research findings and discussions**

In Romania, the incorporation of an environmental protection policy was a fact of the discussions for Romania's integration in the European Union. The policy of environmental protection was forecast in Chapter 22- Environmental Protection; this document was approved by the Romanian Government on 18.10.2001. Through The Treaty of Romania's Adherence to the European Union there was planned the implementation of a communitarian acquis in the field of environmental protection until the de date of adherence with some exceptions for which there was requested a transition period.

The Environmental Protection Law, modified and completed in 2002, states the way on how the assessment of the environment must be made, the regime of chemical substances and dangerous chemical compounds; the toxic wastes; the pesticides; nuclear activity; etc.

Romania joined the common objective of the European Union on sustainable development, purposing in this respect to achieve goals that will lead to pollution limiting and the effects of climate change on environment, such as a reduction of 8% of greenhouse gas until 2012, compared with 1989, and achieving a progressive reduction of emissions of sulfur dioxide, nitrogen dioxide and volatile compounds.

In the sectors of activity that generates pollution, the transport sector is the most evident. The auto park age (which, as is known in Romania is an average of 13 years) influence the emissions. Therefore, there are adopted the most effective instruments to stimulate the renewal. Considered appropriate to the other Member States (Netherlands, Greece, Hungary, Denmark, Finland, Portugal, etc.), Romania has established a system of charging vehicles during the first registration of its territory, in order to encourage purchases of machines with its latest manufacturing and less polluting.

#### ***5.1 The relationship between accounting and environmental protection economic measures***

The correlation between accounting regulations and tax rules is well known: the accounts of businesses must reflect tax obligations, and fiscal regulations refer to companies' book profit - with certain modifications - in calculating the amount of corporation tax to be paid. New accounting techniques also respect this parallel relationship.

Environmental accounting is still barely represented in accounting regulations, but International Accounting Standards have already laid down some indirect guidelines which "will have an effect on the payable amount of corporation tax". In Romania, the National Accounting Regulations, adopted through the Ministry of Public Finance Order no. 1752/2005 for the approval of accounting rules in accordance with European directives does not contain any information regarding the reporting of the environmental protection costs. According to the GO no. 25/2008, the ordinance amending and supplementing Government Emergency Ordinance no. 196/2005 on the environmental fund, starting from 1 January 2009 every trade company that distributes plastic bags will have to pay an amount for each distribute bag, even for the free bags. New bag tax that applies only to bags made of non-biodegradable material, will be shown separately on the sale documents and should be declared and paid monthly by traders to the Environment Fund. Moreover, the Ministry of Environment will check how the commercials display in visible places the amount of tax.

The objective of introducing new eco-tax is mainly to discourage the free distribution of bags, which usually leads to waste and environmental pollution, excessive consumers using this type of packaging. Also, several problems related to the assets, the liabilities and the environmental costs are treated in IAS/IFRS and by analogy, could be implemented by Romanian companies.

### ***5.2 The influence of environmental accounting on the amount of corporation tax paid by companies***

As in the case in many of European countries, like Romania, the corporation tax calculates the taxable portion of corporation tax by referring to the book profit (as a difference between total income and total expenses, subject to certain alterations arising from temporary and permanent differences. In Romanian regulations the accounting profit is decreased by the non-taxable income and is supplemented by non-deductible expenses (according to the Tax Law no. 571/2003).

The influence on the amount paid by companies in corporation tax permits in Romania, according to the current regulations (Fiscal Code from 2003) the deduction of expenses incurred for the purpose of taxable income, including those regulated by normative acts in force. Through the expenses incurred for the purpose of income are also the expenses for environmental protection and conservation. Also, according to Fiscal Code "Tax payers authorized to conduct business exploitation of natural deposits are required to record in the accounts and deduct provisions for the affected land restoration and to reintegrate them into the economic, forestry or agriculture, to a rate of 1% applied on the difference between income and operating expenses, throughout the duration of the exploitation of natural deposits. For holders of petroleum agreements, conducting oil transactions in perimeters which include marine areas with water depth greater than 100 m, the rate established for the provision of decommissioning probe, demobilization installations of annexes, and to rehabilitate the environment, is of 10% applied on the difference between revenues and expenditures recorded for the petroleum exploitation period."

Furthermore, the development of environmental accounting will enable the genuine useful lifespan of initiatives intended to protect the environment and so that its amortisation can be realised in a manner appropriate to the current conditions, which often do not correspond with the criteria quoted in the "amortisation index chart" that appears in the Romanian tax regulations.

### ***5.3 The importance of environmental taxation in accounting practices and environmental accounting***

The importance of environmental taxation in accounting is limited, an example of this is to be found in article 4.6 (g) of the EC Recommendation of 30 May 2001, "the following disclosures should be provided in the notes: [...] government incentives related to environmental protection received or entitled to by the company. The accounting treatment adopted should also be disclosed."

It seems clear that the payment of environmental taxes reveals information of great importance in awareness of the situation in which business finds itself regarding environmental questions (and the further economic implications of this situation). Moreover, in some cases the payment of environmental taxes may be related to the existence of public services whose use reduces environmental damage (circumstances which may be considered on calculation of certain provisions for environmental risks).

At the end of December 2008 in Romania a new legislation applied regarding the environment (GO 1607/December 2008 amending and supplementing the Order of the Minister of Environment and Water Management no. 578/2006 approving the methodology for calculating contributions and taxes due to the environment fund).

### ***5.4 The importance of other economic measures in accounting***

Both greenhouse gas emission permits and green certificates that are bought and sold by businesses will be reflected in accounting. On this point it is important to note that these

certificates have a bipolar economic nature. On one side they represent productive contributions in that in both cases they endorse raw materials used in the production processes; in the case of greenhouse gas emission certificates, they endorse the combustion of fossil fuels; in the case of green certificates, they endorse use of energy in such processes, regardless of its source, for the value authorised by the certificate. And what is more, both are commodities negotiable on the secondary market or, what effectively amounts to the same thing, financial assets which can be used to underwrite investments. All in all, both aspects must be taken into consideration when calculating their effect on business accounting.

The accounting implications of such certificates, when bought by companies with regard to the environmental impact of their actions, is discussed in the aforementioned EC Recommendation of 30, consideration 18, which states, if "they have been acquired for valuable consideration and, in addition, they meet the criteria for recognition as an asset laid down in paragraphs 12 and 13, they must be capitalised and amortised systematically over their expected useful economic lives. If not, they should be charged to the profit and loss account as occurred".

### ***5.5 Corporate change brought about by new accounting and tax-based measures of environmental protection***

Environmental accounting is beginning to be used as a key instrument in managing corporate resources as it gives businesses more complete information on the genuine cost of their activities, including as it does in its estimate models of sustainability. A short term ignorance of the environmental consequences of cost cutting measures can get to a longer term faced with the obligation of paying considerable sums of money to repair the resulting environmental damage. Furthermore, would result more responsible management of environmental issues not only in avoiding environmental damage, but also in more efficient management, optimising use of resources, with the resultant savings in costs.

## **6 Conclusions**

Environmental values are starting to be reflected in corporate accounting, creating a new network of relationships developed between environmental accounting and economic measures of environmental protection. Putting together these relationships and external consequences, starting with discussion of the correlation between green accounting and environmental taxation permits to analyse the influence of new economic environmental protection measures - namely emission permits and green certificates - on corporate accounting.

Environmental responsibility, whether required by law, contracts, or self-imposed, should appear on the balance sheet, as recommended by the corresponding regulations. Environmental expenditure should be, according to circumstance, capitalised and amortised within the period of their useful life when certain criteria are met (essentially if they form a permanent part of the company's activities, if they are concerned with the gaining of future profits or reduce environmental damage within their useful life) or written off directly in the profit and loss account. Conversely, according to IAS 41, "biological assets" should be entered into the account at their "fair value", except when this cannot be reliably measured. Profits and losses derived from variations in the fair value of biological assets should be recorded in the corresponding year's results. It is possible that this regulation will affect taxation once if it is adopted into Romanian accounting regulations.

Despite the fact that the corporate environmental expenses increase not only in importance but also in monetary units, several enterprises continue to underestimate and enter environmental costs in accounts as general expenses. However, some companies try to connect environmental costs with products or services but the methods of allocation cost used are inappropriate. When no proper allocation method, is used, the manager of an enterprise do not receive reliable

information with regard to the real costs and profits in order to maintain or change the products and/or processes. But, green accounting still faces a number of problems, such as, the lack of support of information, specialised personnel as well as the absence of proportional international accounting models.

Environmental issues are still very challenging for Romanian regulators and practitioners, also. As we have mentioned above only a few domestic companies have disclosed environmental items through their annual reports and/or on their own websites. The mentioned practices concerning green accounting in our opinion are asking for certain regulations in order to support the sustainable development of domestic companies and allow certain cost-benefit analysis.

The identification and interpretation of environmental problems and risk will continue to challenge the accounting profession. Accounting standard setters are actively evaluating approaches that may improve the reporting of the problems. However, realistically, we can hope that, in the course of time, general principles may be agreed upon and agreements arrived at with regard to cooperation in financial reporting for external users. An international agreement on general principles may facilitate the efficiency of international cooperation, boosting this effective cooperation. The added value of the paper and the authors' contribution is the presentation and the conciliation of the environmental aspects both from accounting and taxation point of view at the European and national level. This aspect it was not studied yet in national and international literature.

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