

## ENVIRONMENTAL DECISION BASED ON ENVIRONMENTAL ACCOUNTANCY

### FUNDAMENTAREA DECIZIEI DE MEDIU CU AJUTORUL CONTABILITĂȚII MEDIULUI

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**Abstract:** *An important moment in the development of the technical-productive and social-economic informational system has been played by accountancy methods. With the national bookkeeping, the human has managed to consolidate categorically the economic decisional support, transferring the problem solving and decision making from the probabilistic area into the certitude one. Bookkeeping represents a registration tool for stock movements, flow nature and sense, having as objective the determination, during time, of the activity results, added value, benefit or loss, the gross domestic product, national income, book debt and duty economy or balance account.*

**Rezumat:** *Un moment important în dezvoltarea sistemului informațional al activității tehnico-productive și social-economice l-au avut și îl au metodele contabile. Prin contabilitatea națională, omul a reușit să-și consolideze substanțial suportul decizional economic, transferând tot mai mult soluționarea unor probleme, fundamentarea unor decizii, din spațiul probabilistic în cel al certitudinii. Contabilitatea este un instrument de înregistrare a mișcării stocurilor, a naturii și sensului fluxurilor, cu scopul determinării în timp a rezultatelor activității, valoarea adăugată, beneficiul sau pierderea, produsul intern brut, venitul național, economia sau soldul creanțelor și datoriilor.*

**Key words:** *accountancy, environment, expenses for environmental protection, pollutant activity*

**Cuvinte cheie:** *contabilitate, mediu, cheltuieli cu protecția mediului, activități poluante*

#### INTRODUCTION

The current system of National Accountancy does not reflect an important segment of reality, of the stocks and flows related to the bi-univocal association between the economic-social system and the environment. World economy, human society on the whole, is facing a profound eco-crisis, whose overtaking needs the change of all classic practices according to the requirements of environmental preservation, and the environment accountancy may become the area for such decision making.

The account commission for environmental economy is part of the general account commissions, founded for the main departments of ministry of technology, agriculture, transport, health and industry. Each of these commissions elaborates accounts structured and coordinated according to the national accountancy, due to the methodology of “satellite-costs”, whose development at national scale is coordinated by INSEE (Institutul National de Statistica si Studii Europene – National Institute for Statistics and European Studies).

### **WHAT ARE THE “SATELLITE-COSTS”?**

The “satellite-costs” designate the relationships between collective functions, such as health, education, research-development, transport, tourism and economic activity.

These accounts have covered the following fields:

- continental water administration;
- waste removal and recuperation;
- protected natural areas (national and regional parks);
- sea area protection;
- hunting.

Beginning with 1990, the European Community Statistic Office (Eurostat) has started the defining of a European System for the Collection of Economic Information on the Environment (SERIEE). This system is concordant with the orientations specified in the National Account System, adopted at international level. It proposes a common framework for the member states for the collection, processing and presentation of environmental economic information, being focused on environmental protection and on the assessment of the expenses established in order to reduce the impact upon the environment.

They represent the object of a certain account, namely the account of Expenses for Environmental Protection. The complementary expenses are focused on the administration of natural resources: water, forest and recycling activity administration.

The objective of the account for Expenses for Environmental Protection is to give answer to the following three questions:

1. How much does the national collectivity spend and in what form, for the environmental protection?
2. What are the economic activities initiated for environmental protection?
3. How and what agents will finance this expense?

Another module of the Integrated System of Environment Economic Accounts is represented by synthesis indicators, which bring a synthetic information concerning pressure level and environmental status. Their objective is to assure a direct control upon public policies.

For example, OCDE has defined the indicators based on the model „pressure – status – response”. The pressures are caused by human activities, the status features the physical environments and the responses represent the effort carried out by public or corporate actors. The most important indicators are:

- for climatic change: CO<sub>2</sub> emission intensity;
- for ozone layer: harmful substances for the ozone layer;
- for air quality: the intensity of SO<sub>x</sub> and NO<sub>x</sub> emissions;
- for waste production: the intensity of city waste production;
- for drinkable water quality: the recordation rate of water purification stations;
- for drinkable water resources: the intensity of using water sources;
- for forest resources: the intensity of using forest sources;
- for energetic resources: the intensity of using energy;
- for biodiversity: the number of protected species.

In the current stage of national account reflection at international, European and French level, a world assessment upon the natural patrimony and on the degradations suffered by the

environment is still very difficult to be done. There is a preference for the elaboration of physical accounts, susceptible to describe the natural patrimony belonging to a country, with its different components, integrating the use of natural resource stocks on one hand and, on the other hand, the degradation of natural environments caused by economic activities. In some cases these physical data may be correlated to the national accounts which are expressed in monetary terms.

Current developments focus upon the accounts of atmospheric emissions, forest and water. For example, with regards to water, account improvement relies on two considerations: on one hand, the establishment, in 1999, of a new account related to water taking and distribution, with the necessity to change the structure of the account of expenses for waste water administration, and on the other hand, the adoption of the European framework concerning water. This directive, which stipulates the framework for water protection in terms of quality and quantity as well, plays a strategic role in water common policy. It establishes the fixation of the objective of „bringing water to a good condition” and the definition of measurements programs, passing through economic analyses. The establishment of a „characterization of hydro-geographical districts” was initiated at the end of 2004, including an economic analysis upon water administration which should present the percentage of recovering water costs at macroeconomic level, within which we may distinguish consumption, industry and agriculture.

The improvement of the account of waste administration expenses aims at the correlation between the account results and the objectives and decisions of the national policy regarding waste.

The account improvement may be carried out with:

- the integrated presentation of physical and monetary data;
- the extent of the account of waste non-administrated at the moment;
- a more precise study upon the circuits of expense financing, as a results of the implementation of „TGAP” (taxa generala a activitatii poluante – general tax for pollutant activity).

One of the objectives of account improvement is to provide a better estimation for the expense level, and not a more reliable diagnosis for the annual evolutions.

The main new sources of information are:

- bookkeeping data, much detailed, by introducing some new accounts available at the General Direction for Public Accountancy, with regards to local public institutions and to the annex city budgets;
- inquires concerning the „local collectivities and the environment” in partnership with Water Agencies and waste units;
- new inquires concerning waste, and also the results of certain studies coordinated by the ministry concerning environmental protection.

The improvement of these accounts allows the integration of monetary and physical data for a better supervision upon the policies carried out by the different agents, and also upon their impact. Regarding waste, the attention will focus on the correlation between the amounts of waste collected and processed, per categories, and the bookkeeping assessments concerning the expenses done.

Regarding water, the amounts of water collected and distributed, on one hand, and of waste water collected and purified, on the other hand, will be correlated with the corresponding expenses value.

The objective is not to get to strictly identical evaluations, but to identify the factors explaining the evolutions marked by the accounts. Beyond the result confrontation, necessary in the initial step, it is about the creation of a complementarity.

Certain organisms which intervene in the fields of water and waste have created systems of specific accountancy and/or financial information (Water Agencies, Waste Agencies, Eco-packing). The information provided by such systems clarifies important aspects related to accounts, and also to financing, service prices, equipment.

Accounts must allow the supervision of policy impact. Account improvement has as objective the contribution to the creation and consolidation of the corresponding policies and instruments. For this, accounts must integrate the supervision instruments for these policies, namely: data regarding price observation; data related to the networks of different taxes and to the utilization of the allocated funds; emission evolution and physical indices.

One of the main objectives of cost improvement is related to cost recovering, specified especially by the European Framework Directive. It means the verification if these costs, related to equipment depreciation, are effectively integrated within service price.

The inquiries' detailed results should record significant account improvements, namely:

- an analysis of current expenses' evolution depending on the service volume, treatment type, service quality;
- a precise description of the organization of intervention fields and conditions belonging to the public administration.

The statistical environmental system develops with the support of three major categories of statistic sources:

- the information resulted from the administration of environmental services, the information achieved from Water Agencies and from some other agencies belonging to the Ministry of Environment, updated every year, they representing an important step in cost elaboration;
- data resulted from the public statistic system, especially those provided from public accountancy;
- statistic inquiries specific to the environment. These inquiries do provide only an image of the situation at a certain moment. The project concerning the improvement of the expense account in the field of water and waste aims, especially, at the strengthening of the relationship between monetary and physical data, leading to categorical changes of the methods applied in the elaboration of accounts.

## CONCLUSIONS

In conclusion, despite the important initial effort carried out at methodological level, environmental accounts have been practically limited to the accounts of expenses for environmental protection.

## LITERATURE

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