ENVIRONMENTAL ACCOUNTING

Dr. Lucia Liberková University of Prešov in Prešov Faculty of management Konštantínová 16, Prešov, 08 001 Slovakia

Dr. Ján Dobrovič University of Prešov in Prešov Faculty of management Konštantínová 16, Prešov, 08 001 Slovakia

ABSTRACT

Accountants have a special role in EMA, or certainly should have, since they're the ones with access to the important monetary data and information systems needed for EMA activities. Accounting (EMA), as well as public accountants and auditors, who more and more are tracking or verifying not only financial data but also environment-related information in financial and other reports, This new role of accounting is at presented as a latter method for accounting use .Taking care of the environment has become an enormous preoccupation virtually around the world, and accounting for the environment and related issues are beginning to take on increasing importance. A number of theoretical and practical issues need research and experiment to realize. There is a need to recognize a new dimension, namely costs which represent environmental benefits. The appropriate balance between the roles of physical and financial performance indicators is not yet definitive established. In the past, internal costs associated with environmental performance were relatively low. **Keywords:** account, environmental accounting, environment

1. INTRODUCTION

This new role of accounting is at presented as a latter method for accounting use .Taking care of the environment has become an enormous preoccupation virtually around the world, and accounting for the environment and related issues are beginning to take on increasing importance. A number of theoretical and practical issues need research and experiment to realize. There is a need to recognize a new dimension, namely costs which represent environmental benefits. The appropriate balance between the roles of physical and financial performance indicators is not yet definitive established. In the past, internal costs associated with environmental performance were relatively low.

2. ENVIRONMETNAL ACCOUNTING

Function of Environmental accounting is to support the delivery of the Environmental Policy and EMS. Our Environmental policy has included a commitment to develop environmental accounting for its own business purposes since 1995. "To develop an Environmental Accounting System to support the integration of environmental performance measures into our core financial processes and to track internal environmentally significant expenditure"

The drivers for development are the same as for any good business:

- \succ cost savings
- environmental improvements

corporate governance

Environmental accounting would receive a substantial boost if an international consensus could be reached on methodology. The UN Statistics Department has coordinated some of the ongoing efforts toward this end since the 1980s. In 1993, the UN published the System for Integrated Economic and Environmental Accounting (SEEA) as an annex to the 1993 revisions of the SNA. SEEA is structured as a series of methodological options, which include most of the different accounting activities described above; users choose the options most appropriate to their needs. No consensus exists on the various methods that the UN recommended. In fact, SEEA is now undergoing revision by the so-called "London Group," comprised primarily of national income accountants and statisticians from OECD countries. The group's work sensus on accounting methods, but the process will be lengthy: Development of the conventional SNA took some forty years.

The Environmental Accounting System (EAS) began developing in 1997. Its purpose is to integrate environmental performance measures into core financial processes to generate cost savings and reduce environmental impact through improved management of resources.

One important perspective that has emerged is that it is convenient to partition environmental concerns into two aspects; those concerned with environmental goods and those with environmental services. Environmental goods cover sub-soil deposits, natural forests, fish stocks and wildlife. These are all products that are drawn into economic activities and in the process acquire a monetary value as they are made subject to transactions. They are not just used in economic activities but used up so the stocks of such goods may be subject to depletion. It is the assets themselves that are subject to transactions and thus establishing balance sheets and other accounting entries relating specifically to environmental goods and in monetary terms seems feasible.

Environmental services cover the functions provided, mainly by air and water, as environmental sinks for residuals and waste. They are less inputs into the economic process than recipients of outputs from it. Although some small attempts to control the use of "sinks" by means of payments are being established, for the most part there is no monetary consequence of this use. These assets are used but not used up in the way that environmental goods are. The main concern is not with depletion but with degradation of these assets. Measurement of the use of air and water tends to be indirect, how much of which residuals are discharged into them, yet the process of assimilation of residuals and of natural regeneration is not perfectly understood and, thus, an exact measure of the use of the assets is elusive. For all these reasons, statisticians, if not economists and environmentalists, tend to have serious reservations at least at present about establishing balance sheets and monetary transactions relating to the provision of these services.

This dichotomy between environmental goods and services is approximated by two other dichotomies. Initially at least, it was supposed that the interests of developing countries was mainly in taking account of environmental goods, of running down the stock of natural non-renewable resources, while industrialized countries were more concerned with pollution caused by uncontrolled demands on environmental services. This dichotomy was never exact and is recognized as being less so over time.

3. ENVIRONMETNAL SERVICES & GOODS

Environmental services

For environmental services, there are still many unknowns in linking physical and monetary data. Many people feel these can be linked only by modeling rather than by strict accounting, though there is a difference between those who agree to this for practical reasons and those who adhere to it as a matter of principle. There is fairly general agreement that greater reliance must be placed on environmental indicators, many in physical terms, to portray what is happening to the environment and that analysts should be sensitized and exposed to these as probably more relevant to long term policy concerns as any adjustment to GDP.

Environmental goods

For environmental goods, there is a greater chance of securing agreement on a purely accounting approach to the depletion of natural assets and to making adjustments in the main SNA accounts. Paper spells out the position supported by OECD and it is the intent of this agenda item to explore the views of the participants on the following propositions

Emissions accounting

Developed by, the National Accounting Matrix including environmental Accounts (NAMEA) structures the accounts in a matrix, which identifies pollutant emissions by economic sector. Eurostat, the statistical arm of the European Union, is helping EU members apply this approach as part of its environmental accounting program. The physical data in the NAMEA system are used to assess the impact of different growth strategies on environmental quality. Data can also be separated by type of pollutant emission to understand the impact on domestic, transborder, or global environments. If emissions are valued in monetary terms, these values can be used to determine the economic cost of avoiding environmental degradation in the first place, as well as to compare costs and benefits of environmental protection.

Disaggregation of conventional national accounts

Sometimes data in the conventional accounts are taken apart to identify expenditures specifically related to the environment, such as those incurred to prevent or mitigate harm, to buy and install protection equipment, or to pay for charges and subsidies. Over time, revelation of these data makes it possible to observe links between changes in environmental policy and costs of environmental protection, as well as to track the evolution of the environmental protection industry. While these data are of obvious interest, some people argue that looking at them in isolation can be misleading. For example, while end-of-pipe pollution control equipment is easily observed, new factories and vehicles increasingly are lowering their pollutant emissions through product redesign or process change rather than relying on special equipment. In such cases, no pollution control expenditures would show up in the accounts, yet environmental performance might be better than in a case where expenditures do show up.

Natural Resource Accounts

These include data on stocks of natural resources and changes in them caused by either natural processes or human use. Such accounts typically cover agricultural land, fisheries, forests, minerals and petroleum, and water. In some countries, the accounts also include monetary data on the value of such resources. But attempts at valuation raise significant technical difficulties. It is fairly easy to track the value of resource *flows* when the goods are sold in markets, as in the case of timber and fish. Valuing *changes in the stocks*, however, is more difficult because they could be the result either of a physical change in the resource or of a fluctuation in market price. For environmental goods and services that are not sold, it is that much harder to establish the value either of the flow or of a change in stock. However, even physical data can be linked to the economy for policy purposes. For example, changes in income can sometimes be traced to changes in the resource base or to the impact of environmental catastrophes on the economy. *Environmental accounting is important tool for EMS which can help to proceed in new bossiness*.

4. REFERENCES

- Hyršlová, J., Vaňeček, V.: Manžerské účetníctví, Ministerstvo životního prostředí Praha 2003, ISBN 80-7212-227-4
- [2] FASB (Financial Standards Board) 1995- Accounting Standards –current texts. Norwalk : FASB
- [3] Joy E. Hecht coordinates the Green Accounting Initiative at the International Union for the Conservation of Nature. http://www.iucnus.org/greenacct.html . While on the RFF staff in 1980–81, she began working on environmental accounting. This article is based on a talk she gave last fall as part of RFF's Wednesday Seminar Series.
- [4] Turner, R. K., Pearce, D., Bateman: Ekonómia životného prostredia, Ekonomická univerzita v Bratislave 2002, ISBN 80-225-1663-5
- [5] United Nations (1993), Handbook of National Accounting, Integrated Environmental and Economic Accounting, interim version, United Nations (ST/STAT/SER.F/2/61).

- [6] United Nations (1968), A system of national accounts, United Nations (ST/STAT/SER.F/2/Rev.3).
 [7] www.eionet.eu.int/gemet/theme_concepts?letter=25&th=9&langcode=sk
 [8] www.scpc.sk/dokumentyTEST-brozura.pdf
 [9] www.unescap.org/drpad/uc/orientation/M7_3_
 [10] Zákon o účtovníctve č. 431/2002 Z. z.