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**THE CONCEPT OF SUSTAINABILITY ASPECTS IMPLEMENTATION  
INTO THE FINANCIAL REPORTING SYSTEM**

**Abstract.** In the field of financial accounting, similarly as in the company management, besides the economic aspects arises also the need to incorporate the influence of enterprise's activities on environment and society. Nevertheless, almost all accounting systems are still based on financial view of the business and the level of environmental and social efficiency is assessed only rarely. Multidimensional business efficiency measurement is not feasible within these standard accounting systems. For this reason, the subject of interest and the main research goal of the authors has been to supplement and extend the existing legislative framework approved by the IASB on environmental and social accounting. The objective of this article is to present the proposal of individual standard focused on environmental reporting. Individual standard of financial reporting focused on environmental aspects provides the possibility of standardized view on the business that may be used within the harmonization of reported data. Compared to other environmental concepts the proposed standard is based on the same principles as the currently used reporting framework and is so easily grasped and applicable.

**Keywords:** Statements, environmental factors of business, accounting, reporting, sustainable development

**JEL Classification:** M21, M41, F64, Q57

**1. Introduction.** In the field of financial accounting, similarly as in the company management, the emphasis on the multidimensionality becomes increasingly important. The ability to think in the long run and to be able to bring various phenomena into the context becomes the necessity. Despite the fact almost all accounting systems are still based on financial view of the business and the level of environmental and social efficiency is assessed only rarely. The society changes currently. People start to aware of the unsustainability of the current way of life and exert more pressure on at least maintaining the current conditions of living for future generations. This view is also incorporated into the business environment. The principles of sustainable development influence also the area of accounting and financial reporting as well as the accounting harmonization and standardization. Besides taken account of the economic aspects currently, it is also needed to incorporate adequately the business influence on the environment and society. For this reason, a number of reporting standard setters as for example IIRC, GRI have created systems to capture environmental and social aspects. However, these systems affect all three pillars of sustainability, included the economic area that is already reported by businesses in compulsorily compiled financial statements. The aim of the research is not the creation of a new similar concept. The authors' intention is to enable businesses to simply fill in the missing social and environmental reporting area within the financial statements. Therefore the aim is to incorporate the newly proposed standard into an existing framework, namely IAS / IFRS.

**2. Brief Literature Review.** Business efficiency needs to be assessed newly not only from the quality of provided services, produced products and reported sales point of view, but also from the point of view of business activities impact on the environment, society and local community, because also these factors as many authors state (Roxas, Ashill, Chadee, 2017 [1]; Paksiova, 2016 [2]) have significant influence on achieving corporate success.

Sustainability aspects are monitored on two levels; at the macroeconomic level, where the information about the state of environment and the development of the

company are related to the information about economic efficiency of the state, and at the microeconomic level, business level. Whereas the sustainable development accounting at national level, macroeconomic, already uses number of sophisticated models (Marhas, Sakun, Klymenko, 2017 [3]), the microeconomic sphere still has no uniform concept. Following the activities of international communities and in many states institutionalization of sustainable development at national level, the companies more often select as their strategic goal besides the economic success also the long-term sustainability and positive impact not only on the environment, but also on the society (for example Taherdangkoo, Ghasemi, Beikpour, 2017 [4]; Ameli, Mansour, Ahmadi-Javid, 2017 [5]). For all management functions, ensuring and achievement of set goals, the enterprise needs to have sufficient number of good quality and relevant information, in this case information on sustainable development aspects, on business efficiency in relation to the sustainable development and on its impact on economic efficiency. Such information is collected, recorded and gathered and for the evaluation of efficiency provided by the sustainable development accounting (Bebbington, Russell, Thomson, 2017 [6]).

Sustainable Development Accounting is characterized by the following principles:

- incorporation of more than only economic event, extension of the reporting ability beyond reporting of just financial success,
- because social and environmental aspects have usually non-financial form, not to report information only financially, use also the physical (value, non-financial) expressions and put the emphasis also on non-financial information in relation to sustainable development
- and responsibility to a wider group of stakeholders (Valliřová, 2014 [7]).

To ensure all social and environmental stakeholders' requirements to be fully satisfied, the existing accounting system and financial statements need to be extended for reporting certain items related to sustainability. These include in particularly:

- income and expenses related to social, environmental and economic aspects within the statement of profit and loss and other comprehensive income for the period
- and in the statement of financial position (balance sheet) at the end of the period then related assets and liabilities.

In practice Constructing Excellence (2004) [8] recommends to express these items using of two different accounts: direct accounts and indirect accounts. Hyršlová (2009) [9] calls them information about internal and external flows. Similarly, they can be called direct and indirect accounts. As Hyršlová (2009) [9] states, sustainable development accounting is seen as one of the development stages of traditional accounting and its further implementation will not be easy, but inevitable with respect to business efficiency optimization point of view. To be able to implement sustainable development accounting successfully, the manager's and accountant's synergy together with the cooperation with external interested parties (customers, the public, local and state authorities) is necessary to enable as greatest information quality and reliability as possible (Rajnoha, Lesnikova, Krajcik, 2017 [10]).

This issue has also become more important because of the new European Council Regulation 13606/14 "New Rules on Transparency in Corporate Social Responsibility" issued on 29 September 2014. The large enterprises with more than 500 employees are required to publish environmental information, employment conditions, respect for human rights and anti-corruption measures. Annual report has to contain description of policies, strategies, results and risks associated with these areas. Member states are allowed to incorporate the measure into the national law during the two years period and came into force in 2017. On the basis of the description in scientific contributions of various authors (Masud, Bae, Kim, Jong Dae, 2017 [11]; Venturelli, Caputo, Cosma, et al., 2017 [12]) it is possible to summarize the main reasons for compiling such reports:

1. Mandatory disclosure of financial and non-financial information relating to the environment protection and labour relations in the context of the annual report is

based on the national legislation, eventually EU Council Directive, namely 2014/95/EU of The European Parliament and of The Council that came into force on October 22, 2014.

2. Voluntary provision of information to interested parties with the intention to reduce their environmental concerns or to explain to them in greater detail certain circumstances related to their social responsibility, the satisfaction of the partner's and public rights to obtain information.

3. For certified enterprises with implemented environmental management system (ISO 14001, EMAS), or companies meeting the corporate social responsibility (CSR) standards, is reporting in any form required and compilation of environmental and social report is appropriate for this type of communication.

4. The organization's own interests in terms of increasing its value or the need to internalize its own responsibility (Vallišová, 2014 [7]).

**3. Research Objectives and Methodology.** The objective of this article is to present partial results of conducted research focused on compilation of the concept of integration of aspects of the sustainability applicable to any accounting system and prepare the uniform framework for reporting in the area of economic, social and environmental activities of the organization, respectively to enable complex and multidimensional view of the enterprise. The aim of the research is not to create a new concept such as Integrated Reporting or Global Reporting Initiative. The authors' efforts are to enable businesses to extend the existing economic reporting framework to the missing area of social and environmental reporting. The aim is therefore to incorporate the newly proposed Environmental Reporting Standard into an existing framework, namely IAS/IFRS.

The whole authors' work is consisted of ten subsequent points of research and verification work:

1. Compilation of the catalogue of social factors, qualitative and quantitative. On the basis of the study, comparison and analysis of previously proposed systems

dealing with social and environmental activities of the enterprise assessment was prepared the proposal of the catalogue of basic environmental factors.

Based on the findings of the social and environmental activities identified by the questionnaire survey, as well as the study of different national accounting systems and the IAS/IFRS accounting system, by using a comparison technique there was made the proposal of the catalogue of basic social factors and the catalogue of basic environmental factors.

2. Own proposal of classification of requirements on disclosed information set by the interested parties. The three-step process of classifying stakeholder requirements by which the accounting unit determines their significance and considers the possible incorporation of that requirement in the accounting statements has been developed. The scope (boundaries) of the system will be determined to enable identify how wide range of the enterprise's impacts will be included in sustainable development accounting (how much responsibility is the enterprise willing to accept).

3. Proposal for modification and completion of the conceptual basis.

4. Proposal for modification and completion of the standards or norms related to the accounting statements.

5. Proposal of the individual standard on Environmental reporting.

6. Proposal of the individual standard on Social reporting.

Proposed concept will be created to meet the following general parameters:

- Versatility, simplicity and usability in practice. Note: International Accounting Standards and International Financial Reporting Standards are prepared on Principle Based Approach. Neither their framework, nor individual standards are focused on specific principles of accounting and reporting sub-accounting cases or setting of Key Performance Indicators (KPIs). These areas are directly dependent on individual decisions of the enterprise that considers their significance and ensures their adequate recognition. Proposal of the concept is

prepared similarly. It will be the concept with wide range of use by business subjects. Enterprises will have the sufficient extent of flexibility.

- Complexity, measurability and transparency. The concept will ensure the complex uncovering and comparability of information in the given area. Acquired information will be used to further application inside the whole business management with the possibility of integration to the system of corporate efficiency measurement and management.
- Quality policy. Proposed concept has to meet also other principles, because we deal with the accounting system. Provided information has to be significant, balanced, comparable, reliable, comprehensible and regularly reported.

7. The proposal of environmental and social reporting implementation. The own implementation of the proposed concept was divided into five parts. First, planning phase set the vision, individual stages of implementation including the terms and related parties with their responsibilities and competences. Analytical phase examined the current state of readiness of the accounting unit to the application of the concept. On the basis of proposed concept was further proposed new or corrected current information system to meet the specifics of selected accounting unit. Next phase was represented by staff training and simulation of individual processes. The last phase represents the application and use of proposed concept in practice.

8. Verification of the concept of integration of sustainability aspects to the accounting system in business practice with the objective to obtain feedback and eventual corrections of the defined concept on the case of a specific enterprise accounting and reporting in accordance with IAS/IFRS. Confrontation of the proposal with the actual conditions was accompanied by expert interviews made in 20 business units, which results were used as the base for proposal corrections.

9. Corrections of the proposals in accordance with the experience obtained by verification, control of the fulfilment of formulated objectives, evaluation of the research benefits.

10. Formulation of conclusions and recommendations in relation to the set primary research objective.

Because of the extent of conducted research, this article is focused on partial results of its phase focused directly on environmental aspects, specifically:

- proposal of the Environmental accounting standard (point 5), standard was designed with regard to the normal structure of the text prepared by the IASB in particular IAS/IFRS.

The content of the contribution determined this way predetermines the structure of the following chapter.

### **3 Proposal of the Environmental Accounting Standard**

**OBJECTIVE OF THE STANDARD.** The objective of proposed standard is to ensure submission of information about environmental position and efficiency of the accounting unit using the Environmental Accounting Statement. The purpose of this standard is to require all subjects preparing accounting statements in accordance with the International Accounting Standards to be obliged to submit this report.

**SCOPE.** Accounting unit uses this standard while compiling the Environmental Accounting Statement:

a) within its accounting statements prepared according to IAS/IFRS

b) and, where applicable, in each interim report that it presents under IAS 34 Interim Financial Reporting.

Accounting unit at the date of its first compilation of Environmental Accounting Statement presents initial statement that represents the base for environmental reporting. Accounting unit will further use the same accounting principles for all accounting periods. These principles need to be in accordance with IAS/IFRS.

**DEFINITION OF BASIC ELEMENTS.** Environmental profile: Environmental profile characterizes the enterprise and its relation to the environment. It is the measurable output of environmental management related to the environmental



aspects management ensured by the enterprise based on the environmental policy, objectives and target values.

**Environmental aspect:** Official definition of this term is set in the norm ČSN EN ISO 14001 as: element of an organization's activities, products or services that can affect the environment.

**Environmental impact:** A specific environmental change caused by the entity's responsibilities.

**Environmental costs:** Costs associated with the actual or potential use of economic assets or increase of environmental liabilities. These costs can be seen from two different points of view:

a) First of all, these are the costs directly incurred by the company and part of them is already included in the normally compiled financial reports and can be transformed into an Environmental Accounting Statement. These include environmental protection costs, costs associated with corporate actions taken to reduce or compensate the negative environmental impact of the enterprise, further the costs, fines and penalties related to damaging the environment.

b) Secondly, these are aspects that do not directly influence the enterprise itself, but are an accompanying phenomenon of its activities that restrict other economic entities, the population or influence negatively the environment, even with regard to future generations. These are called negative externalities. Their expression is little bit more difficult. Nevertheless, there are currently available models that allow their exact expression.

**Environmental revenues:** Environmental revenues represent an increase in economic benefits as a result of the adoption of environmental regulations by the enterprise. These are for example revenues from materials recycling and selling waste (eg. the revenues from the sale of substances caught by filter equipment, revenues from selling of sludge, etc.), subsidies and grants related to environmental protection such as revenues from waste heat utilization, revenues brought by cleaners of waste water, which regulates sewage also for external customers, etc. (MŽP ČR, 2002 [13]).

Environmental saving: Environmental saving is the reduction of consumed material, energy or water to a specific process / task / product compared to consumption before taking corrective action.

PARTS, STRUCTURE AND CONTENT OF ENVIRONMENTAL ACCOUNTING STATEMENT. Environmental Accounting Statements focus mainly on:

- a) material consumption, energy, water, and the percentage of recycled inputs,
- b) emissions, waste generated during the production process and the cost of their disposal,
- c) the impact of products and services on the environment,
- d) recovery of collected products and returnable containers,
- e) the impact of the enterprise on biodiversity and protected areas,
- f) costs or sanctions that arise as a result of regulations and standards relating to the environment.

Within the Environmental Accounting Statement, the accounting unit presents environmental aspects of its business activities in four segments: management and organizational security; use and management of natural resources, water and energy; outputs: emissions, sewage, waste and providing products and services and other aspects: logistics, supply chain, biodiversity, compliance with applicable environmental standards, laws, decrees and regulations, investment in environmental protection.

Management and organizational security: In this part of the Environmental Accounting Statement, the accounting unit indicates the number of environmental management personnel (and its structure) or environmental staff, including the labour costs attributable to them. (Note: Because of the fact that the establishment of environmental management is voluntary, it characterizes the way and mainly the extent to which an entity has an interest in improving the business activities that have or may have an impact on the environment, and furthermore indicates that the

accounting unit is actively and seriously approaching the reduction of environmental burden caused by its activities.)

Use and management of natural resources, water and energy: This part of the Environmental Accounting Statement describes how the accounting unit uses and manages natural resources, which are in most cases renewable with difficulties, respectively renewable in a long-time period: water, energy, livestock and agricultural production.

a) Material, agricultural and livestock production point of view indicates the strict requirements related with the production of these goods, the share of recycled material and the efforts of the accounting unit to reduce material costs and increase the production ecology.

b) Accounting units dealing with the mining and mining activities will further indicate the amount of extracted materials.

c) Segment water through indicators such as water consumption, water savings or investments made to improve water management, describes the organization and effects of its activities associated with the use of salt, ground, surface and recycled (re-used) water.

d) Segment energy indicates the consumption of individual types of energy, including renewable sources of energy. The accounting unit further describes the methods and procedures, such as taking active steps to reduction of the energy intensity of business activities, provided products and services, including the resulting energy savings.

Outputs (emissions, sewage, waste and providing products and services): In this part of the Environmental Accounting Statement describes the accounting unit the discharge of dangerous substances, compounds and other particles into the air, water and soil and further determines the nature of the influence of provided products and services on the environment.

a) From the point of view of the air emissions is crucial the nature and amount of discharged pollutants and further the fees and taxes for air pollution and

enterprise's initiatives resulting in reduction of these emissions, including the savings resulting from these initiatives.

b) Within the terms of emissions to water the accounting unit along with the total amount of wastewater divided by the level of pollution and the discharge point specifies also the amount of discharged organic pollutants and heavy metals, fees and taxes for wastewater discharges, investment and intensions to reduce emissions of pollutants and total volume of discharged waste water, including the savings generated by all these initiatives.

c) In addition to the actual discharges into the soil in the form of fertilizers, pesticides and heavy metals, waste and waste management also take place in the accounting unit's emissions into the soil. The organization reports the amount of produced normal and dangerous waste by the nature and the way of its disposal and the amount of radioactive waste, the amount of recycled waste, including the recycling revenue, waste management charges and taxes and waste management initiatives, resulting in reduction of the emission of particles into the soil and improvement of waste management.

d) Environmentally friendly products and services indicate indicators such as energy consumption, noise, recyclability, the amount of collected packaging, etc.

Other aspects - logistics, supply chain, biodiversity, compliance with applicable environmental standards, laws, decrees and regulations, investment in environmental protection.

Other important aspects of corporate activities with environmental impacts are ways of material, goods, but also people transportation, impact of the enterprise on biodiversity, nature of the suppliers and customers, compliance with legal standards and regulations in the field of environmental protection or investment in staff training in the area of environment.

**GENERAL CONDITIONS:** Disclosure of information by individual segments and perspectives enables users to understand better the relationships between them. The accounting unit discloses in the commentary, other circumstances not included in

the report, including the appropriate explanation. Additional information can be from the point of view of understanding the position and efficiency of the accounting unit significant for its users.

**5. Conclusion, Discussion and Proposed Recommendations.** Regardless of whether an enterprise compiles environmental statements on a mandatory or voluntary basis, the enterprise is facing the question of how to do so. If it will compile unified centralized report in the sense of „Integrated Reporting“ or the report will be divided to individual sub-reports: financial and environmental, eventually social report. There is currently no unified approach to this issue in business practice. There exist various individual systems focused on environmental and social accounting and reporting. However, it is a necessity to compile new additional reports or integrated reports (IR) in accordance with the new systems. The authors believe that it would be appropriate to take these sustainability principles into account to enable companies reporting environmental and social issues within the system that most businesses use and know, to implement sustainability aspects especially into the system IAS/IFRS. For this purpose, the authors' Concept of integration of sustainability aspects into the accounting systems is applicable to any accounting system, including the IAS/IFRS with the aim to provide a unified framework for reporting on economic, social and environmental activities of the organization, respectively to enable complex and multidimensional view of the enterprise, including the methodology of its subsequent implementation into corporate practice. Because of the large extent of authors' research in this area and its composition of numbers of structural parts, this contribution presents only its subsection, namely Environmental Accounting Standard. Accounting unit can use as the guideline many existing frameworks or standards proposed by the authors: Environmental (and Social) Accounting Standard. The transfer to compilation of environmental and social reports is a challenging process, which involves the synergy of the whole accounting unit and may finally lead also to changes in strategic management. Application of this methodical procedure in practice and consistent compliance with five consecutive

phases and their individual stages should make the whole process of implementation faster. Occurrence of errors and deficiencies should be minimized and finally the optimization of the resulting cost of compiling environmental and social reports and increase of their quality should be achieved.

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