# THE ENVIRONMENTAL BALANCE SHEET

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***Abstract.*** *In this article, through the environmental balance sheet we try to get information on the cause and consequences of producing all the negative effects both in the past, now and in the future due to an economic activity that will have a significant impact on the environment and eventually upon us and our successors.The environmental balance sheet is necessary for the obtaining or renewal of an environmental authorization, either for the liquidation of a company, the cessation of its activity, even in the event of a change of the holder of an activity within an enterprise.*

*According to the law, the environmental balance sheet is based on well-defined and delimited requirements, so it is divided into three levels, namely: environmental balance sheet- level 0, environmental balance sheet -level i- and environmental balance sheet - level ii. More and more in Europe and Romania we are talking about "green houses", hence the concept of "green costs". The construction of such houses involves a larger budget, but monthly costs may be even 90% lower, and in the case of building such a building that will be destined for the headquarters of a company the costs will be gradually amortized and the most important entrepreneur will provide a working environment favorable to its employees.*

***Keywords****: environmental balance sheet, the management sustainability, environmental impact, environmental costs, IAS 38, IAS 36*

***JEL****: M41, Q51, Q56*

## Introduction

An enterprise orientation towards the environment, in every phase of its activity, helps us all to enjoy a better environment and more, we will have what to offer to future generations as well. And for the enterprise, there are a number of advantages offered by such an orientation, all focusing on a good business sense, with environmental performance improving business performance (Gradinaru, 2002, p. 120).

According to (Mates, Tulvinschi, Socoliuc, 2009, pp. 288), the environmental balance is a communication document that transmits the endeavor and environmental performance of the entity, representing a useful tool for managers to monitor their sustainability impact of the quality of life. In the opinion of the authors, the characteristics of the environmental balance can be summarized as follows: it is a document approved in parallel with the financial statement; highlights the efforts made in the environmental policy of the administration; report by physical and monetary indicators the entity's policies and activities.

The environmental balance sheet is a study that includes elements of technical analysis that allow us to access a series of information that includes the consequences and causes of the negative past, past, present and future impacts of an activity to quantify the environmental impact. If a representative impact is identified, a prospective risk assessment study will be added to the balance sheet.

It is necessary to create an environmental balance either to establish the environmental obligations or to decide the change of the activity holder, when we want to obtain or renew the environmental permit in case of liquidation, cessation of activity etc.

In the paper "The Role of the Environmental Balance in the Financing Decisions with the Eco-Impact", the authors (Mates, Tulvinschi, Socoliuc, 2009), performs a comparative study between the social balance sheet and the environmental balance, given the importance of preparing and reporting evidence in the company and the environment.

At the same time, they set the objective of assessing and quantifying the environmental impact of the company, providing solutions to reduce them, controlling costs and stabilizing the competitive edge in a more efficient and effective way, both ecologically and economically, responding in the same way time for questions such as: why it is useful to prepare the environmental balance, what is useful in that section, and how to integrate this type of document.

Loveday -Ibanichuka, Oyadonghan, (2014), using a content analysis, found that entities report their environmental cost without a specific classification to allow them to report either in the

income statement or in the statement of financial position. The study highlighted the negligence of the legal arm impeded by the disclosure of relevant costs and effects related to corporate activities that had a direct effect on the environment. Researchers argue, inter alia, that the environmental costs borne by equipment and machinery to prevent, reduce and compliance with environmental legislation are reported in the statement of financial position as environmental installations and equipment

**National and international accounting regulations for environmental issues**

The IASB has issued standards that are of particular relevance to environmental issues, in particular IAS 36 on impairment of assets, IAS on provisions, contingent liabilities and contingent assets and, to a lesser extent, IAS 38 on intangible assets. Although the technical parts of the standards do not explicitly address environmental issues, there are sufficient examples and illustrations provided elsewhere in the documents that allow guidance in the main areas of environmental obligations and provisions. For example, Annex C to IAS 37 contains, among other things, examples of contaminated land legislation that is almost certain to be adopted, the constructive obligation of contaminated land and offshore oil land decommissioning costs (Loveday -Ibanichuka, Oyadonghan, 2014, p. 41).

According to the legal requirements (Ministerial Order No. 184/1997 on the acceptance of the environmental balance sheet), they are constituted by observing a number of clear and different requirements, in the form of the balance sheet, namely:


In the practice of countries with experience in the field of environmental economic evidences, there are two ways of expressing this link, namely: the adoption of the "environmental cost" indicator or the "environmental protection expenditure" indicator.

Environmental Financial Accounting deals with accounting for, and reporting on environmental transactions and events that affect or are likely to affect the financial position and the performance of an enterprise.

IAS 36 states that the recoverable amount of a cash-generating unit is often determined after consideration of assets that are not part of the cash-generating unit, but the standard does not extend this approach to the impact of contaminated land, but the stigma effect may be recognized in practice by applying a further reduction to the value of an asset after all expected remediation costs have been allowed.

When the effect can not be measured reliably, e.g. if there was no disposal of comparable contaminated sites, appropriate disclosure should nevertheless be made. IAS 36 addresses the issue of measuring impairment of assets due to environmental factors, the difficulty in determining recoverable amount and uncertainties about the timing involved. Reference should also be made to the effect of stigmatization that environmental deficiencies can have on prospective buyers (Loveday Ibanichuka și Oyadonghan, 2014, p. 43).

When referring to IAS 38 Intangible Assets, we can say that the development and increased use of certain intangible assets in the environment, such as pollution permits and emission rights, would appear to meet the criteria for recognition as intangible assets insofar as they are likely to generate future economic benefits for an enterprise which otherwise does not would be able to operate and have a cost that can be credibly evaluated. Currently, the IAS 38 is not very clear whether elements such as pollution permits and emission rights that are increasingly used in the environmental field meet or fail to meet the criteria for recognition as intangible assets.

From an accounting and financial point of view, "the recording of environmental costs and the determination of the environmental cost generated by the entity and the related financial presentation are the way of assessing the performance of the work" (Betianu and Georgescu 2008. p. 48).

**Environmental Balance - an Appropriate Management Tool for the Entity**

*1.1 Environmental Level I (Preventive)*

The Level I environmental balance is being conducted in order to obtain information about the causes and consequences of the harmful effects of the past on the environment and consists of finding the origin of the information, gathering, analyzing and interpreting the theoretical works of the available data and establishing a balance sheet ratio level I environment.

The theoretical level I environmental surveys are required in all environmental impact assessments carried out in an area or facility, except where the competent environmental authorities decide to terminate the balance sheet valuation after the level 0 balance sheet has been completed. These preliminary investigations are indicated for all areas and installations that have a secondary impact on the environment, but also to changing the owner, modifying or ending the profile of an activity. The environmental balance must identify and quantify the environmental liability in the area of impacts of the activity under consideration in order to determine the assumption of obligations or to provide compensation under the law or to regenerate the quality of the environment. So in general terms, parts of the Level I environmental balance need to identify the areas where the sites or facilities under consideration can have a significant impact on the environment. With the help of these papers, they will focus on how they comply with the existing or to be adopted legislative provisions, but also on the investigation of possible soil pollutants through past or near-past activities.

The use of land in the vicinity of the location of the facility and its area is the field of analysis of the level I environmental balance.

In general, the site under consideration, which should contain a number of details, will be presented on: the nearby watercourses, areas of interest on nature conservation, important roads, including the description of the local topography of the site and its neighborhood and geological structure. Consideration shall be given to identifying any protected object less than 500 m from the location we are considering, depending on its location. Trade, residential and residential areas, non-built areas, recreational spaces will be indicated with a view to specifying the direction and distance to the location of the object under consideration.

Depending on the availability, you will also find details of underground and near-ground waters, or general information that could identify location, source, flow, and even use.

It is very impressive to know the history of the area, if there is access to historical maps, they will be presented and described in chronological order, identifying the evolution of the most important features of the site as the day of the areas in its neighborhood. If the use of these maps is not possible, documented evidence of the area's history will be provided, and it is mandatory to specify the source from which these samples were taken. Statements by former employees of the unit could be a good source of information.

It is important to describe all the activities carried out in the area concerned in order to exclude any possibility of soil pollution. All activities carried out in the area and its history are necessary to identify potential areas that could be polluted or already polluted, and it is mandatory to describe it as detailed as possible.

All waste from the activity we evaluate must be identified, making a clear assessment of the composition and quantity of the waste. Thus we will store a waste disposal site (it may be temporary or permanent) specifying the storage method.

If there are any capacitors or electric transformers in the area or in the vicinity, all details about them must be provided and if they remain the property of the person who owns the evaluated activity. If such equipment is obsolete, consideration should be given to the possibility of polychlorinated biphenyls in transformer oil (PCB). In the event of a fire, the burning of this oil is a

serious risk to human health. Also, the integrity of the transformers must be taken into account in order to determine whether there are leaks that can contaminate the soil.

Also in the environmental balance sheet I should be assessed the security of the area, because there are situations in which an area that is not properly guarded can be vandalized or accidental. The security of that area should be composed of a description of the surrounding areas, environments, alarm systems or guards as well as site illumination. At the same time, with the security of the area, all fire protection measures must be considered. These include the marking of fire exits, the provision of access without obstacles in the area, the provision of means of maintenance of a potential fire and regular checks in accordance with the current provisions.

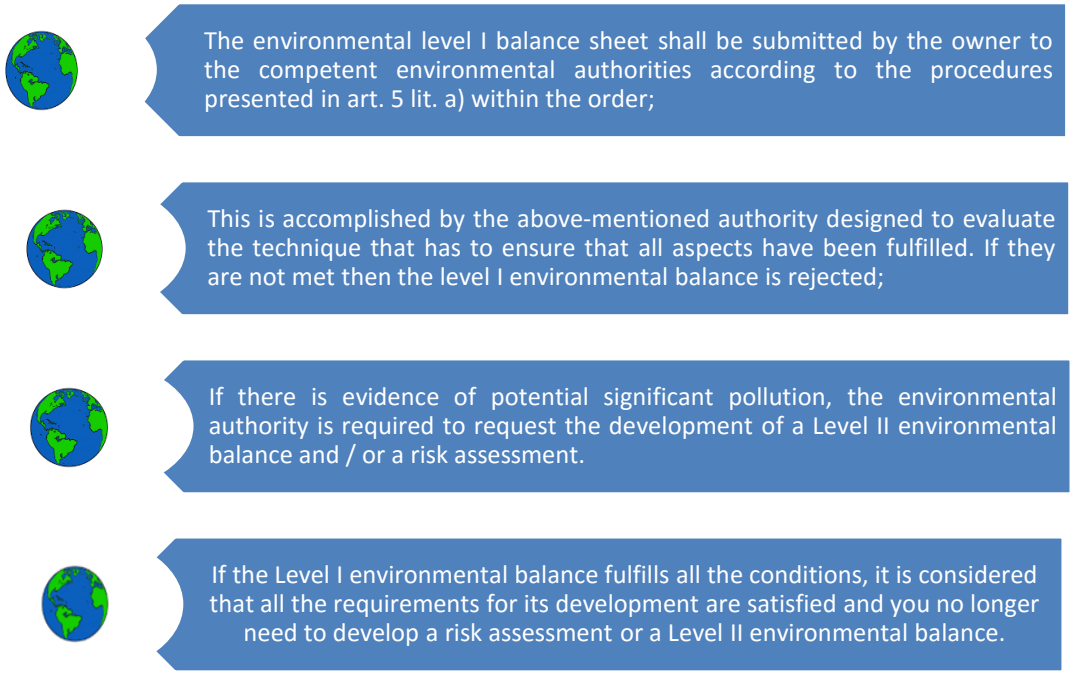
Another area required for the preparation of the Level I environmental balance is the overall dissemination of waste water evacuation systems. They must contain the discharge of technological waters when discharged into sewers or surface water; rainwater discharging into surface water or sewers and household sewage should be removed. The balance is necessary to identify the city purification station even to another administrator who deposits the household or technological tributaries within the analyzed area, what type of treatment is used and where it is discharged into natural receivers (inland waterways or inland waters ). Details of sewerage must be provided: the purpose of sewerage, the type of sewerage system if it is divisive or unitary, important details in case of a pollution incident. Let's not forget that all observations on the integrity of the drainage system across the site should be presented.

All atmospheric emissions that may be present on the tire will be identified and the air conditioning system as well as the cooling agent used by them will be examined and presented.

It is necessary to describe the impact of noise, the level generated by it on the site as well as in nearby areas. If the noise produced by the intended activity exceeds the maximum level and causes discomfort, a revision of the existing arrangements will be made to take all measures to mitigate the noise produced by the machinery or any other activity producing noise. The last field is the proximity of voltage cables, they should be examined to identify and locate high voltage cables near the surface and underground areas.

All of the areas I have described above are necessary for the environmental quality responsibilities specific to an installation or area and the environmental balance is designed to identify and quantify these responsibilities.

Presentation and analysis of the Level I environmental balance will comply with the following provisions:




*Source: own elaboration*

*2.2 Level II environmental balance (final)*

The Level II environmental balance is required when an area is polluted or when the environmental level I level indicates the pollution of the area and clarification is required about the nature of the pollution identified and the intensity of the pollution. Where possible, it is advisable to collect a standard sample from neighboring areas that are not affected by pollution, so that we can set a specific frame value to compare the result of the area pollution samples.

At the location of the sampling points, the following general provisions on soil samples shall be considered:

- ◊ They must be located in all directions, near sources polluting the atmosphere;
- ◊ To be located in all directions around atmospheric pollution sources, or at least on a sampling point according to its use (arable, meadow, pasture, orchards, etc.);
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On the areas where temporary materials containing dangerous substances or dangerous waste have been placed temporarily, sampling points are placed.

Surveys are required from the surface and under the surface of the soil, and for sampling there will be some points on the area's plane. If atmospheric pollution is found to be a major source of soil pollution, additional depths will be analyzed, as the surface of the soil will be analyzed independently of the depth layers. For samples taken from underground water drilling will be carried out using rotary, manual or electrical mechanical tools, depending on the required depth of drilling or the geological structure.

The study of gas and vapor in soil provides information on the concentration of gaseous and volatile compounds in the soil.

The sampling of surface waters both downstream and upstream of the area of interest is required to be compared. Even building materials are taken to identify the presence of asbestos.

It is necessary to determine potential atmospheric pollution involving a variety of measurements, starting with the monitoring of low concentrations of pollutants present in the air compared to high concentrations of pollutant sources in air emissions. After collecting all the samples, except for in situ monitoring situations, they should be analyzed by a competent, technically accredited laboratory.

Once samples have been sampled and analyzed, the report of the Level II environmental report is drawn up, stating a report according to which part of the report will contain the description and results of the investigations that were presented individually for each of the sections used and the other part contains conclusions and recommendations for actions to be taken. More and more in Europe and Romania we are talking about "green houses", hence the concept of "green costs". The construction of such houses involves a larger budget, but monthly costs may be even 90% lower, and in the case of building such a building that will be destined for the headquarters of a company the costs will be gradually amortized and the most important entrepreneur will provide a working environment favorable to its employees.

**Conclusions**

The concerns regarding the economic increase have taken the place of an obsession related to the ability to support this increase. The environment indicators and the green accounting indicators try to give the interactions between the economy and environment. There is actually a search for a better quality of the development that could be seen even as a condition of the development.

Based on the above discussion, we conclude that if the organization would enhance the coverage of environmental financial reports from current reporting practices, the consistency of methodological approaches, such as recognition and measurement of environmental costs, would benefit from environmental assets and environmental liability.

Environmental issues can dramatically influence the company's financial stance and its changes for long-term success. Today, this new variable should be taken into account in financial

and reporting accounting as well as in modern financial analysis as it substantially influences companies' risk and opportunities, and in extreme situations, business continuity.

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