

## Analysis of The Implementation of Environmental Accounting

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**Abstract:** *This research aims: to analyze the application of environmental accounting at PT Pelindo Terminal Petikemas New Makassar. The data collection methods used were interviews and documentation. The types and sources of data obtained were primary and secondary while the analysis method used was the qualitative descriptive analysis method.*

*Based on the research results, it was found that PT Pelindo Terminal Petikemas New Makassar has not implemented comprehensive environmental accounting, because PT Pelindo does not present a separate report regarding environmental management and in the Notes to the Financial Report (CaLK) environmental management costs are not disclosed in detail.*

**Keywords:** *environmental accounting, waste processing costs*

### 1. Introduction

The environment and natural resources are two factors that are closely related and influence the company (Muna, 2021). The interconnectedness and influence of the natural resource environment on companies has given rise to various issues related to the environment such as global warming, air pollution, careless waste disposal and other company activities that have an impact on the environment.

Environmental accounting is a field of accounting science that functions and identifies, measures, assesses and reports environmental accounting. Meanwhile, according to Suartana (2010), environmental accounting is a term that attempts to group the financing carried out by companies or governments in carrying out environmental conservation into environmental posts and company business practices. The use of environmental accounting concepts for companies can encourage the ability to minimize the environmental problems they face. Many large industrial and service companies are now implementing environmental accounting. The aim is to increase the efficiency of environmental management by assessing environmental activities from a cost and benefit perspective.

Currently in Indonesia disclosures regarding environmental accounting are still not specifically regulated in accounting standards. Explained in PSAK

No. 1 of 2009 which states that "companies can also present additional reports such as reports on the environment and value added statements," especially in sectors where environmental factors play an important role, and in industries where employees as users of reports play an important role.

The development of companies in Indonesia is currently growing rapidly, in line with the increasing needs of society itself. A company is an organization that carries out activities using available resources to achieve predetermined goals. The company was founded with certain goals, in achieving these goals, the company always interacts with its environment, because the environment contributes to the company, there is a shift in the company's goals.

The aim of establishing a company is to obtain the maximum possible profit for the company's survival, but apart from that, the company must also pay attention to the state of its environment. If this is not taken seriously it will have a bad impact on the surrounding environment. According to Muna (2021) , a company with good performance is a company that is able to obtain maximum profits for the welfare of the company and also the welfare of its environment. The company's objectives include profitability, efficiency, employee satisfaction and development, social responsibility and good relations with the community.

PT Pelindo (Indonesian Port) New Makassar Container Terminal is a State-Owned Enterprise (BUMN) company which is engaged in terminal and port facility management activities. Basically, New Makassar container terminal services are oriented towards several basic policies, namely: cost efficiency, time effectiveness, and also customer satisfaction. Container terminal services are also supported by the availability of modern facilities and equipment, as well as high-quality human resources capable of providing fast, precise and safe services.

Based on the concept above, PT Pelindo Terminal Petikemas New Makassar has quite busy activities every day, but each of these activities can have a negative impact on the environment due to the accumulation of waste at the port, both liquid waste and solid waste, causing pollution which reduces water quality. According to Mulya (2020) liquid waste can be defined as waste water that comes from human activities and contains various pollutants that are dangerous both directly and in the long term. Liquid waste can be divided into household waste and industrial waste, while the pollutants contained in waste can be divided into organic pollutants and inorganic pollutants and generally exist in dissolved or suspended form. Pollutants contained in liquid waste pose a serious threat to environmental sustainability because the presence of toxic pollutants can kill aquatic biota. Apart from physical, chemical and biological impacts on the environment, it results in changes in the properties of water which can cause a decrease in water quality (Darmono, 2016) . With waste production, companies will definitely incur waste management costs as an effort to reduce waste that can pollute the environment around the company. Environmental costs can be interpreted as costs incurred by monitoring

activities so that the environment around the location of the company's activities is maintained in accordance with the company's obligations (Muna, 2021).

In Law no. 23 of 1997 concerning environmental processing, waste is defined as the process of entering living things or substances and energy or other components into the environment by human activities so that their quality decreases to a certain level which causes the environment to be unable to function according to its function. By carrying out environmental management, this becomes a form of corporate responsibility in overcoming the problem of waste resulting from the company's operations. The company's operational waste management is carried out in a systematic way through a process that requires special costs so that the company allocates the value of these costs in the company's financial records. In this way, companies need to implement a system that can control the company's responsibilities in the environment where the company operates. Therefore, the author chose the title "**Analysis of the Implementation of Environmental Accounting at PT Pelindo Terminal Petikemas New Makassar**".

## **LITERATURE REVIEW**

### **Management of the environment**

According to Law of the Republic of Indonesia Number 32 of 2009 concerning Environmental Management, it is explained that "Environmental Management is an integrated effort to preserve environmental functions which includes policies for structuring, utilizing, developing, maintaining, restoring, monitoring and controlling the environment." Environmental management is carried out with the principles of state responsibility, the principle of sustainability and the principle of benefit which aims to realize sustainable development with an environmental perspective in the context of developing Indonesian people as a whole and developing Indonesian society as a whole who has faith and devotion to God Almighty. The environmental targets is:

- a. Achieving harmony, harmony and balance between humans and the environment.
- b. The realization of Indonesian people as environmental people who have attitudes and actions to protect and develop the environment.
- c. Guaranteeing the interests of present and future generations
- d. Achieving harmony in environmental functions.
- e. Controlled use of resources wisely.
- f. Protection of the Unitary State of the Republic of Indonesia from the impact of businesses and activities outside the country that cause environmental pollution and/or destruction.

So it can be concluded that the environment is not solely the responsibility of the government but the community also has a very important role and responsibility in carrying out environmental management. Every human being has responsibilities and obligations in managing the environment, in order to achieve sustainability of environmental functions.

## **Environmental Accounting**

Environmental accounting emerged in the 1970s as a result of increased environmental awareness and concerns about social and environmental welfare (Hecht, 2000). Environmental accounting is a term that attempts to group the financing carried out by companies or governments in carrying out environmental conservation into environmental posts and company business practices. According to Ikhsan (2008:9), environmental accounting is the identification, measurement and allocation of costs in making business decisions and communicating the results to company stakeholders. Environmental accounting is a term related to the inclusion of environmental costs in a company's accounting practices. Environmental costs are impacts, both monetary and non-monetary, that must be borne as a result of activities that affect environmental quality. The financial accounting part of environmental accounting is available through annual reports, sustainability reports and other reporting media, as well as management accounting information related to operations is usually considered internal and confidential (Venny, 2020: 9). Environmental Accounting is a type of accounting that includes indirect costs and benefits from economic activities, such as environmental impacts and health consequences from business planning and decisions (Sudarno, 2008:10).

The aim of environmental accounting itself is to increase the amount of relevant information made available to those who need it or can use it. The aim of this research is that environmental accounting disclosures relate to environmental conversion activities by companies and other organizations, namely covering the interests of public organizations and local public companies.

## **Environmental Costs**

Environmental costs can be interpreted as costs that arise in efforts to achieve goals such as reducing costs, reducing environmental costs, increasing income, improving environmental performance that need to be considered now and in the future. Environmental costs are also defined by (Susenohaji, 2002) as costs incurred by companies related to the environmental damage caused and the protection that is carried out.

According to Ikhsan (2008:35) , environmental costs are basically related to the costs of products, processes, systems or facilities that are important for making better management decisions. The objective of obtaining costs is how to reduce environmental costs, increase income and improve environmental performance by paying attention to the current situation, the future and potential management costs. Environmental costs can be called environmental quality costs. Costs incurred due to poor environmental quality or poor environmental quality may occur. Environmental costs are related to the creation, detection, improvement and prevention of environmental degradation (Hansen and Mowen, 2009:413).

Environmental costs can also be divided into two in accounting, namely direct costs and indirect costs.

- a. Direct environmental costs are costs that can be traced directly to an object (e.g. labor costs resulting from a process, manager costs for a product, energy costs for a product, etc.);
- b. Indirect environmental costs are costs allocated to object costs (environmental training costs, environmental manager salary costs, product purchase costs that do not directly affect the process, and so on).

### **Accounting Treatment of the Environment**

Before allocating financing for managing environmental impacts such as waste management, environmental pollution and other social effects on society, companies need to plan the recording stage of the financing. These stages are carried out in order to ensure that the budget allocation that has been prepared for the one year accounting period can be implemented appropriately and efficiently. The recording of financing for managing waste issued from the remaining production results of a business is allocated into certain stages, each of which requires costs that can be accounted for, and the recording stages can be carried out before the accounting period runs in accordance with the production process carried out. the company.

The groupings in the environmental analysis stage as specified in the Statement of Financial Accounting Standards (PSAK) include, among others, the following is identification, confession, measurement, presentation and disclosure.

## **RESEARCH METHODS**

### **Research Design**

This research was carried out at PT Pelindo Terminal Petikemas New Makassar. The type of research used in this research is descriptive qualitative. This research uses primary and secondary data, primary data which is the result of interviews and secondary data in the form of documents obtained from the New Makassar Container Terminal PELINDO company. The data collection techniques used in this research were interviews and documentation.

### **Population and Sample**

According to Sugiyono (2018: 130), "population is a generalization area consisting of objects/subjects that have qualities and characteristics determined by the researcher to be studied and then conclusions drawn." The population in this research is financial reporting at PT Pelindo Terminal Petikemas New Makassar.

According to Sugiyono (2019:127) the sample is part of the population to make it easier to obtain information according to what is needed and researched. The sample in this research is financial reporting at PT Pelindo Terminal Petikemas New Makassar in 2022.

## Data Analysis Technique

The data collection techniques used are:

- a. Documentation Technique, namely a method of collecting qualitative data, a large number of facts and data stored in material in the form of documentation.
- b. Interview technique, which is an activity to obtain in-depth information about issues or themes raised in research or is a process of proving the process of proving information or information that has been previously obtained by other techniques. The tool used in the interview process is a checklist. A checklist is a list that includes the factors you want to investigate.

## Data Collection Technique

The data analysis technique in this research uses qualitative descriptive methods. Qualitative data analysis is presenting data in written form and explaining what it is according to the data obtained.

Based on the answers obtained, analysis was then used using the Dean J. Champion formula. The formula is as follows:

$$\text{Percentage} = \frac{\sum \text{Jumlah Jawaban Ya}}{\sum \text{Jumlah Jawaban Pertanyaan}} \times 100\%$$

For research purposes, the results of Dean J. Champion's percentage calculation above are determined as follows:

Table 1 Criteria for Calculating Dean J. Champion's percentage

No	Criteria	Interpretation
1	1% - 25%	The company does not meet standards
2	26% - 50%	The company does not meet standards
3	50% - 75%	The company is quite up to standard
4	76% - 100%	The company meets the standards

Source: Processed data, 2023

The data analysis was carried out in several stages, namely:

1. Collect data and information relevant to research objectives.
2. Identify the data and information obtained in accordance with the research focus, namely data in the form of financial reporting and interviews related to environmental costs.
3. Analyzing the application of environmental accounting regarding identification, recognition, measurement, presentation and disclosure in the financial reports of PT Pelindo Terminal Petikemas New Makassar.
4. The results of this analysis will then be compared with the regulations in force in Indonesia regarding the Environment, such as: Law of the Republic of Indonesia Number 32 of 2009 concerning Environmental Protection and Management, as well as existing and supporting rules and concepts related to environmental accounting.

5. After analyzing and comparing the data from relevant theories, conclusions are then drawn based on the problem formulation and try to provide suggestions.

## **RESULTS AND DISCUSSION**

In the data collection process, this research carried out data collection using documentation and interviews. This aims to obtain information on how to apply environmental accounting and how to manage the environment. Based on the research results, using five indicators to implement environmental accounting, namely identification, recognition. Measuring, presenting and disclosing costs related to environmental management activities.

### **1. Identification**

PT Pelindo Terminal Petikemas New Makassar is a company operating in the social sector that provides services to the community. PT Pelindo cannot be separated from the waste produced as a result of the service activities it carries out. In managing the waste produced, of course PT Pelindo incurs a number of costs related to the environment. The results of the research show that PT Pelindo Terminal Petikemas New Makassar has grouped costs based on Hansen and Mowen's theory because of the four types of environmental quality costs proposed by Hansen and Mowen, there are PT Pelindo's environmental costs which are classified as prevention costs, detection costs, costs internal failure, and external failure costs.

### **2. Recognize environmental costs**

Recognition related to transaction issues will be recorded or not in the recording system, so that ultimately the transaction will affect the company's financial statements (Mulyani, 2013: 39). Basic Framework for Preparing and Presenting Financial Reports (KDPPLK), recognition is the process of establishing items that meet the element definitions and recognition criteria. Items that meet the definition of an element must be recognized if:

- a. It is possible that the economic benefits associated with the item will flow to or from the company.
- b. These items have a value or cost that can be measured reliably

PT Pelindo Terminal Petikemas New Makassar has recognized costs in accordance with the Basic Framework for Preparing and Presenting Financial Reports (KDPPLK). So it can be concluded that PT Pelindo Terminal Petikemas New Makassar has made an acknowledgment as explained in the Basic Framework for Preparing and Presenting Financial Reports that expenses are recognized when the expenses have occurred even though the company has not yet spent cash to manage its environment.

### **3. Measuring environmental costs**

The company measures the costs incurred in relation to environmental management using monetary units and referring to the realization of the environmental management costs budget for the previous period. PT Pelindo Terminal Petikemas New Makassar in measuring costs related to environmental management uses monetary units based on historical costs, the company uses the actual budget for the previous period as a measure for the draft budget for the next period. Because there are no standards governing the measurement of environmental costs, the researchers carried out a comparison according to the Basic Framework for Preparing and Presenting Financial Reports.

### **4. Serve**

The presentation of environmental costs in financial reports can be done with different account names because there are no standard provisions for account names that contain the allocation of the company's environmental financing. Therefore, PT Pelindo Terminal Petikemas New Makassar in presenting environmental costs tends to adhere to the normative model. This is proven that so far PT Pelindo Terminal Petikemas New Makassar in presenting environmental costs has not been presented in a special post or special report. The presentation of environmental costs is combined with the main report, namely the operational report as a maintenance expense.

### **5. Disclose**

Disclosure is a form of transparency carried out by the company to the public. Disclosure is the provision of information about financial activities that cannot be explained through financial data alone. One way to disclose environmental costs is through Notes to Financial Reports (CaLK). With disclosure in the notes to the financial statements, it can be explained in detail both quantitatively and qualitatively regarding the environmental costs that have been presented. In this way, the information conveyed in the Notes to the Financial Report can be described in a relevant and reliable manner, the disclosure is the same as improvements in the environmental cost accounting process.

PT Pelindo Terminal Petikemas New Makassar discloses environmental costs in the notes to the financial report (CaLK) only to the extent of total environmental costs combined with maintenance costs or other costs, without providing detailed information and information regarding environmental costs incurred by companies in managing their environment. So the disclosure of environmental costs at PT Pelindo Terminal Petikemas New Makassar is considered not to have included in the Notes to the Financial Report (CaLK) the accounting policies related to environmental costs. In relation to environmental management costs, they are included in the maintenance expense and service expense items in the operational report

only, company management costs. However, if you look at operational reports alone, the costs of environmental management will not be visible.

## **CONCLUSION**

Based on the results of the discussion carried out by researchers, it can be concluded that PT Pelindo Terminal Petikemas New Makassar has not implemented environmental accounting, identifying environmental costs in accordance with identifying environmental quality costs according to Hansen and Mowen's theory. At the stage of recognizing environmental costs, the implementation is in accordance with the Basic Framework for Preparing the Presentation of Financial Reports (KDPPLK).

The environmental cost measurements carried out are in accordance with the Basic Framework for Preparing the Presentation of Financial Reports. PT Pelindo Terminal Petikemas New Makassar in the environmental cost presentation stage tends to adhere to the normative model, in accordance with the environmental cost presentation model according to Winarno. The disclosures made by PT Pelindo Terminal Petikemas New Makassar do not comply with the Statement of Financial Accounting Standards because they do not make detailed disclosures of environmental costs incurred in the Notes to the Financial Report (CaLK).

## **SUGGESTION**

Based on the conclusions above, the author's suggestions for further research are is should prepare a waste management cost report separately from the general financial report to provide clearer information for environmental quality control as an effort to improve the quality of the environment around the company.

For future researchers related to this research, they can add to the discussion from the management accounting side, and it is hoped that they will find and explore environmental costs related to waste processing optimally as well as researching waste processing costs in companies that are directly related to the environment.

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