

# Application of social environmental accounting in village-owned business enterprises to realize green accounting

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**Abstract.** Village-Owned Enterprises (BUMDes) aims to improve village welfare by optimizing village resources. BUMDes are expected to carry out social responsibilities towards the community during their operations, including implementing environmental accounting. In environmental accounting, management informs stakeholders about their responsibilities and how an entity's business actions impact the environment. The term "environmental accounting" refers to accounting as a source of this information. The financial report in Green Accounting conveys information about the environmental impact. The aim of this research is to analyze the implementation of Green Accounting in BUMDes "Bagjaraharja" in relation to the existence of Green Accounting as a benchmark for the realization of the Green Accounting entity. This qualitative descriptive study involves in-depth interviews with related parties, environmental accounting observations, examination of BUMDes financial reports, and documentation of the results. After observations, interviews and documentation were carried out, data was collected, and conclusions were made. BUMDes "Bagjaraharja" has prepared a report on environmental impacts in accordance with PSAK 1 concerning the presentation of financial statements. Even though this report is still simple, the unique presentation of this environmental accounting report shows the attention of BUMDes "Bagjaraharja" to the provision of environmental accounting information. Ultimately, the policies, human resources and infrastructure readiness of the implementing entity are very important to optimize the implementation of environmental accounting.

## 1 Introduction

Village-Owned Enterprises (BUMDes) are institutions that operate in the socio-economic sector and provide services to village communities. The socio-economic context of BUMDes includes its role in creating close social networks between rural communities, being the parent of business units developed by village communities, and providing socio-economic services. The effectiveness of establishing BUMDes greatly influences the living environment of village communities in socio-cultural, economic and even political contexts. The increasing development of company activities in generating profits automatically has

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consequences for the surrounding environment [1].

The approach that is expected to encourage and move the wheels of the rural economy is the establishment of economic institutions that are fully managed by the village community. This economic institution is no longer established according to government instructions but the wishes of the village community, starting from managing the potential to generate market demand. The establishment of this institution aims to help the community's financial needs and grow the activities of economic actors in rural areas, creating equal business opportunities while increasing community income [2].

In this BUMDes "Bagjaraharja" includes the business of managing household waste and providing organic fertilizer at the request of village residents, where in Sukaharja village most of the residents are farmers. With this BUMDes providing fertilizer with a payment system, it makes things easier for farmers. For example, when farmers buy fertilizer on the market, they have to pay in cash. When they buy it from BUMDes, they can pay for it when the agricultural produce can be harvested. So the system is that BUMDes provides the fertilizer requested by the farmers. Of course, this way the farmers will be more prosperous in running their business.

This research phenomenon focuses on the role of social environmental accounting in realizing green accounting. This research is very important because it is to find out the extent of the role of environmental social accounting in protecting the surrounding environment. Because this phenomenon is often ignored in its application, this research was conducted in order to further encourage the importance of this social accounting treatment of the surrounding environment. Meanwhile, according to Haniffa (2002), social accounting identifies, assesses and measures important aspects of the socio-economic activities of companies and countries in maintaining the quality of life of society in accordance with the goals it has set.

In connection with environmental and social improvements, in the mid-1990s, when the term environmental accounting was not widely known, only a few companies applied it, at first by disclosing environmental problems. This is because it is related to the openness of companies or agencies to disclose environmental information as a result of their industrial or business activities. Environmental damage is an internal impact if companies/agencies are very eager to pursue profits and increase capital [3]. Environmental Accounting is a method for assessing the costs and benefits of environmental activities to reduce environmental and social impacts. The results of the following accounting are used by companies or agencies to reduce environmental and social impacts.

This research can explore how green accounting is applied and adapted to village contexts that may have different environmental, social and economic characteristics. BUMDes often involve the active participation of village communities in business management and ownership. This research can explore how the application of green accounting can increase community participation in environmental conservation efforts and improve their economic welfare.

The urgency of this research is the need to solve problems that have been studied from several phenomena in the field, namely environmental health problems which are often ignored in running a business. According to [4], companies do not only focus on making profits, but also play a big role in the environment. This is because environmental aspects are beneficial for the community around the company and have long-term implications [5] [6]. Seeing these problems, it is important to carry out this research to realize green accounting itself.

The development of the socio-economic base developed by village-owned enterprises has a positive role in the welfare of village residents and the environment in the village itself. Because the existence of BUMDes can help residents carry out their daily activities. For example, in Sukaharja village, the Bumdes provides household waste management services

and provides organic fertilizer for farmers in Sukaharja village. This research aims to evaluate the extent to which Bumdes have achieved the implementation of social environmental accounting towards their economic and social goals, such as increasing village community income, selecting businesses within BUMDes themselves so as not to damage the social environment, local empowerment, and increasing access to services. public, providing buying and selling of organic fertilizer with a credit system and to understand the factors that support or hinder the success of BUMDes in achieving their goals, such as support policies, resource availability, and level of community participation, identifying effective models and strategies in managing and developing BUMDes, as well as how these models can be adopted and adapted to various village contexts.

## 2 Material and Methods

BUMDes Mattirotasi has made significant strides in implementing environmental accounting, there are important areas that require further development, especially in financial reporting and categorization of environmental costs. Addressing these issues will strengthen their commitment to sustainable practices and improve their overall environmental impact. It is recommended that BUMDes Mattirotasi develop an environmental costs report to better link environmental costs to company activities. This will increase their accountability and transparency in environmental management; (b) Research [7] This research emphasizes the growing role of BUMDes in balancing economic activities with social and environmental responsibility, showing growing awareness of the importance of environmental accounting practices for sustainable development and stakeholder involvement. This research underscores the importance of integrating environmental considerations into financial reporting practices, in line with the broader concept of Green Accounting to promote sustainable business operations and societal well-being; (c) Research in BUMDes Karya Mandiri serves as a model for integrating environmental accounting into local governance, showing how community-based initiatives can lead to sustainable economic and environmental outcomes. This study underscores the importance of community engagement, innovative practices, and transparent financial management in achieving this goal. The organization has made significant strides in environmental management by sorting waste into organic, plastic, and glass categories. This sorting process is essential for effective recycling and waste reduction, contributing positively to the local environment; (d) Research [8], this research highlights the challenges and opportunities of BUMDes Mayangan in implementing effective environmental accounting practices, emphasizing the need for continuous learning and adaptation to achieve sustainable business operations. The findings show that while BUMDes Mayangan has not yet fully adopted environmental accounting, there is potential for growth and improvement. Advanced education and training in environmental accounting practices can improve their reporting and contribute to better environmental management in the future.

This research data is descriptive qualitative research. The descriptive qualitative research method is research based on post positivism philosophy used to research the condition of natural objects where the researcher is the key instrument [9]. In this research, there are two types of data used, namely quantitative data and qualitative data. Quantitative data relates to numbers or amounts contained in BUMDes financial reports. Data Collection Techniques This research uses three data collection techniques, namely interviews, observation and documentation studies. The interview method used in this research is in-depth interviews, so that in-depth interviews can take place in a directed manner, interview guidelines are prepared which contain the main ideas related to the problem being studied. Determining informants focused on key informants, namely the Village Head, Head of

BUMDes and the BUMDes finance section. Meanwhile, observation is by making direct observations regarding the business processes carried out in BUMDes, especially those related to the influence on the welfare of farmers in Sukaharja village. The last one is a documentation study by collecting BUM Desa activity plans, accounting records related to BUMDesa financial reports and other relevant documentation such as references. This data analysis technique itself processes data that has been generated from the field towards something general in nature. This data analysis technique uses several stages. The first is data collection. At this stage, data collection is carried out from primary and secondary data. Primary data comes from interviews with key personnel which include aspects of BUMDes characteristics, Environmental Potential and Problems, BUMDes Long Term Planning and BUMDes History. Meanwhile, Secondary Data comes from financial report documents, activity planning and references supporting data analysis. Next is data reduction. Data reduction was carried out through analysis of primary and secondary data results. The primary data results are reduced in relation to the problem formulation, then linked to the results of secondary data analysis.

### 3 Results and Discussion

BUMDes "Bagjaraharja" is one of the Village-Owned Enterprises (BUMDes) located in Sukabumi Regency, West Java. The management of BUMDes in this area is governed by several national and local regulations. First, Government Regulation (PP) No. 11 of 2021 outlines the legal framework for BUMDes, establishing their status as legal entities and allowing them to collaborate with other institutions while maintaining accountable financial reporting. Additionally, Village Minister Regulation (Permendesa) No. 3 of 2021 provides specific guidelines for the registration of BUMDes as legal entities, reinforcing the need for professional and transparent financial reports.

Although Sukabumi Regent Regulation No. 78 of 2020 and Sukabumi Regency Regional Regulation No. 7 of 2019 do not directly address BUMDes, they provide a broader context related to regional governance and gender mainstreaming in the area. Together, these regulations ensure that BUMDes in Sukabumi, such as "Bagjaraharja," operate within a legal framework that emphasizes village asset management, financial accountability, and cooperation with external partners. Since November 2023, BUMDes "Bagjaraharja" has been running a business unit focused on managing household waste and producing organic fertilizer, which is sold to local farmers at a price lower than the market rate. The fertilizer is sourced from distributors and made accessible to the village's agricultural community, promoting sustainability and cost savings.

In terms of financial accounting, the Financial Accounting Standards (SAK) issued by the Indonesian Accountants Association (IAI) provide a comprehensive set of guidelines. Specifically, PSAK No. 1, paragraph 14, mentions that entities with significant environmental impact should consider presenting environmental reports alongside their financial statements. This is particularly relevant to industries where environmental considerations play a critical role, aligning with BUMDes "Bagjaraharja's" focus on waste management and organic fertilizer production.

BUMDes "Bagjaraharja" has established a waste management program that provides waste storage areas for local residents. Once a week, waste is collected from homes and transported to the designated storage facilities. Additionally, since November 2023, BUMDes "Bagjaraharja" has been supplying organic fertilizer to farmers in the area. This initiative aims to promote environmental sustainability, improve the welfare of local farmers, and contribute to the adoption of green accounting principles. The BUMDes has also conducted outreach programs to educate residents about the importance of cleanliness and

the benefits of organic fertilizer, emphasizing its role in maintaining soil fertility, which has been affected by the excessive use of inorganic or chemical fertilizers.

In environmental accounting, identifying infrastructure costs and liabilities is crucial to ensure that environmental expenses are properly accounted for in financial management. This helps to reduce environmental-related costs while improving the surrounding environment. Based on interviews and a review of BUMDes "Bagjaraharja's" financial records, the environmental infrastructure and associated costs were identified. The infrastructure includes waste storage facilities and fertilizer transport vehicles, with the costs of IDR 15,000,000 for the vehicles and IDR 6,000,000 for the waste storage facilities. Environmental liabilities refer to the obligation to pay future expenses for repairing environmental damage caused by past events, activities, or transactions, or to compensate third parties affected by such damage (Sunitha, 2015). As of now, BUMDes "Bagjaraharja" has not allocated funds for such liabilities, as its environmental management program will only officially start in January 2024. Current expenditures are focused on providing the necessary infrastructure.

An analysis of BUMDes "Bagjaraharja's" financial reports reveals that while the BUMDes has made financial reports for its waste management and organic fertilizer sales units, these reports are incomplete. They do not include comprehensive financial statements such as balance sheets, ledgers, journals, or cash flow statements. Instead, the BUMDes has prepared simple cash receipt and disbursement reports. Based on these reports, BUMDes "Bagjaraharja" received cash support of IDR 17,000,000 for its organic fertilizer sales business unit. However, previous expenses, including IDR 6,000,000 for waste storage containers and IDR 12,000,000 for fertilizer transport vehicles, were financed from BUMDes cash but were not reflected in the fertilizer sales unit records.

**Table 1.** Business Unit Cash Records for 2023-2024

Date	Information	Cash In	Cash out	Balance
November01, 2023	Cash participation from Bumdes treasury	17,000,000		17,000,000
09 November, 2023	Operational		1,000,000	16,000,000
November31, 2023	Spending on organic fertilizer		1,000,000	15,000,000
November27, 2023	Capital loan		500,000	14,500,000
December 1, 2023	Wood spending		2,500,000	12,000,000
January 1, 2024	Purchase of wood		3,000,000	9,000,000
January 4, 2024	Waste levy for December 2023	1,500,000		10,500,000
January 04, 2024	Pay the trash collectors		250,000	10,250,000
January 4, 2024	Buy gas		40,000	10,210,000
January 06, 2024	Purchase banana fertilizer		700,000	9,510,000
January 25, 2024	Purchase of cassava fertilizer		1,100,000	8,410,000
February 06, 2024	Fertilizer Purchase		2,000,000	6,410,000
March 19, 2024	Purchase of ATK		100,000	6,310,000

Based on the report prepared by BUMDes "Bagjaraharja," the environmental accounting reporting format utilized is the Outlay Cost Approach, which involves disclosing the costs incurred by the enterprise in relation to its social responsibility, categorizing them accordingly (Parker, Ferris, and Otley, as cited in Purwono, 2000). Environmental accounting can be viewed from the user's perspective, distinguishing it into financial accounting,

management accounting, and cost accounting (Kusumaningtyas, 2013). At BUMDes "Bagjaraharja," financial accounting serves as a means of accountability to external users, ensuring environmental reporting complies with generally accepted accounting principles. This is manifested through specific records that track monthly income and expenditure, separate from other transactions, which, although presented simply as cash inflows and outflows, effectively communicate information about household waste management and organic fertilizer sales.

The research specifically examined the activities of the BUMDes in Sukaharja Village, which implements a household waste management program and provides organic fertilizer to the community. Throughout the four-month research period, we encountered various challenges, including difficulty in communicating with BUMDes staff due to their busy schedules and the distance between our homes, which complicated coordination. Different holiday schedules also hindered our progress. However, these challenges offered valuable lessons, allowing us to understand the work system of BUMDes and its financial reporting, which remains relatively simple, consisting mainly of cash inflows and outflows. Looking ahead, we hope that BUMDes can develop more detailed financial reports. During a survey conducted with local residents, facilitated by BUMDes staff, we observed an increased community awareness regarding environmental care, evidenced by their practice of accumulating waste in designated areas for collection by cleaning staff.

## 4 Conclusion

Based on the results of the discussion of this research, BUMDes "Bagjaraharja" has a business unit for managing household waste and buying and selling fertilizer which is managed by BUMDes directly using cash/credit payment methods. What this means is that if it is on credit, the farmer can take organic fertilizer first from the BUMDes and then pay later after the agricultural produce is harvested. For the financial reports themselves, BUMDes "Bagjaraharja" complies with PSAK 1 regarding the presentation of financial reporting which is still simple. BUMDes "Bagjaraharja" has prepared a report relating to environmental impacts. Even though the recording is still simple, the separate presentation of reports on household waste management and buying and selling of organic fertilizer has shown the concern of BUMDes "Bagjaraharja" in providing information related to the management of the surrounding environment. In terms of social environmental accounting, it is not yet well understood. So, the application of social environmental accounting

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