

PRACTICE-BASED ARTICLE



Enhancing environmental performance through green accounting-based financial reporting for achieving sustainable development goals

Murni^{1✉}, Nunsina², Munawarah³, Emalia Ariska³, Haryadi¹

¹Department of Accounting, Faculty of Economics and Business, Universitas Islam Kebangsaan Indonesia, Bireuen, Indonesia

²Department of Informatics, Faculty of Engineering, Universitas Malikussaleh, Lhokseumawe, Indonesia

³Department of Management, Faculty of Economics and Business, Universitas Islam Kebangsaan Indonesia, Bireuen, Indonesia

ABSTRACT

The phenomenon of global warming has become a pressing issue worldwide, drawing attention to corporate environmental responsibility. Companies must address environmental concerns to prevent pollution, resource depletion, and ecological damage. The emergence of green accounting introduces the Socio-Economic Environmental Accounting (SEEA) concept, rooted in the triple bottom line theory. This approach emphasizes that financial reporting should not only reflect economic performance but also incorporate environmental and social dimensions. Current development efforts focus on sustainable development goals (SDGs), balancing ecological, economic, and social aspects through green accounting, which has been proven to enhance environmental performance. An analysis of a partner, a livestock-focused SME, revealed a lack of understanding and implementation of green accounting in financial reporting, particularly in documenting environmental costs. Moreover, the partner does not utilize digital accounting applications to simplify financial reporting. To address this gap, the community services team conducted activities to increase the partner's knowledge of green accounting and its application in financial reporting. These activities included green accounting socialization, training in financial reporting, development of accounting information systems, and ongoing mentoring, monitoring, and evaluation. The results indicate that the partner has significantly improved their knowledge and skills in preparing financial reports aligned with green accounting principles.

KEYWORDS

Green accounting; SDGs; environmental performance; accounting information systems

ARTICLE HISTORY

Received: 27 December 2024

Accepted: 31 March 2025

Published: 31 March 2025

CITATION

Murni, Nunsina, Munawarah, Ariska, E., & Haryadi. (2025). Enhancing environmental performance through green accounting-based financial reporting for achieving sustainable development goals. *International Review of Community Engagement*, 1(2). 165-174.
<https://doi.org/10.62941/irce.v1i2.80>

1. Introduction

The phenomenon of global warming has become a hot issue in various parts of the world, leading corporate environments to receive increasing attention (Murni & Malik, 2022). A company's activities are inherently tied to the surrounding community, and

CORRESPONDING AUTHOR Murni ✉ murniyusuf04@gmail.com 📧 Department of Accounting, Faculty of Economics and Business, Universitas Islam Kebangsaan Indonesia, Bireuen, Indonesia

© 2025 The Author(s). *International Review of Community Engagement* published by Pelita International Publishing.



This is an open access article distributed under the [Creative Commons Attribution 4.0 International License \(CC BY 4.0\)](https://creativecommons.org/licenses/by/4.0/).

thus, companies are expected not only to focus on maximizing profitability but also to consider the surrounding environment to support their operations (Tisna et al., 2020). This is because the business world is one of the key actors in development, functioning through organizations that operate using limited resources to achieve predetermined goals (Pentiana, 2013). Every company must take into account its environmental surroundings to prevent pollution, environmental degradation, and to ensure the sustainability of natural resources (Burhany, 2012). The fundamental principle of development today is to meet the needs of the present without compromising the ability of future generations to meet their own needs (Kusumaningtias, 2013). Therefore, efforts to align economic interests with environmental preservation can be made through the implementation of green accounting, which results in more holistic financial reporting (Yanti & Rasmini, 2015).

The emergence of the green accounting discourse has led to the development of the Socio Economic Environmental Accounting (SEEC) concept, which serves as a brief explanation of the triple bottom line theory—whereby accounting reports to the public cover not only economic performance, but also environmental and social performance (Musyarofah, 2013). The terms profit, planet, and people, commonly referred to in accounting as the Triple Bottom Line, reflect a framework that has been widely developed in Europe. Profit signifies a company's focus on profitability and survival; People refers to a company's commitment to delivering real benefits to society; and Planet emphasizes that all corporate activities are closely connected to the environment (Burhany, 2012). Consequently, this concept serves as a foundation for companies to set sustainability goals while also generating profits (Dewi & Wardani, 2022).

Development today is oriented towards achieving sustainable development goals (SDGs) by balancing ecological/environmental, economic, and social aspects (Rahmayanti et al., 2024). This is carried out through the implementation of green accounting, which has been proven to enhance environmental performance (idcloudhost.com, 2019). The SDGs 2045 are a global development program aimed at improving the well-being of the global population and preserving the environment through the achievement of 17 key goals: no poverty; zero hunger; good health and well-being; quality education; gender equality; clean water and sanitation; affordable and clean energy; decent work and economic growth; industry, innovation, and infrastructure; reduced inequalities; sustainable cities and communities; responsible consumption and production; climate action; life below water; life on land; peace, justice, and strong institutions.

2. Literature review

2.1. Green accounting

The growth of the industrial world has impacted the environment, potentially causing issues such as water, soil, and air pollution, as well as social inequality, thereby pushing companies to be more environmentally responsible (Chairia et al., 2022). From an accounting perspective, social and environmental responsibilities can be fulfilled through the disclosure and reporting of environmental costs, which is examined within the scope of green accounting (Andi et al., 2020). Green accounting is a technique that involves recognizing, measuring, recording, summarizing, reporting, and disclosing information on objects, transactions, values of events, and the impact of a company's economic, social, and environmental activities on society and the environment, consolidated into a single accounting report for stakeholders in assessing and making economic and non-economic decisions (Lako, 2018).

Environmental accounting aligns closely with environmental cost accounting, as both combine information about environmental benefits and costs, whether for companies or governments, and identify techniques to reduce environmental remediation expenses. The objective of green accounting is to increase the relevance of information for stakeholders by improving the accuracy and reliability of accounting data in classifying all costs incurred by the company to mitigate its environmental impact (Chairia et al., 2022). Greenham (2010) proposed a conceptual framework for green accounting with three dimensions: WHO (who is responsible), WHEN (when the action and impact occurred), and WHAT (how we attempt to measure the impact).

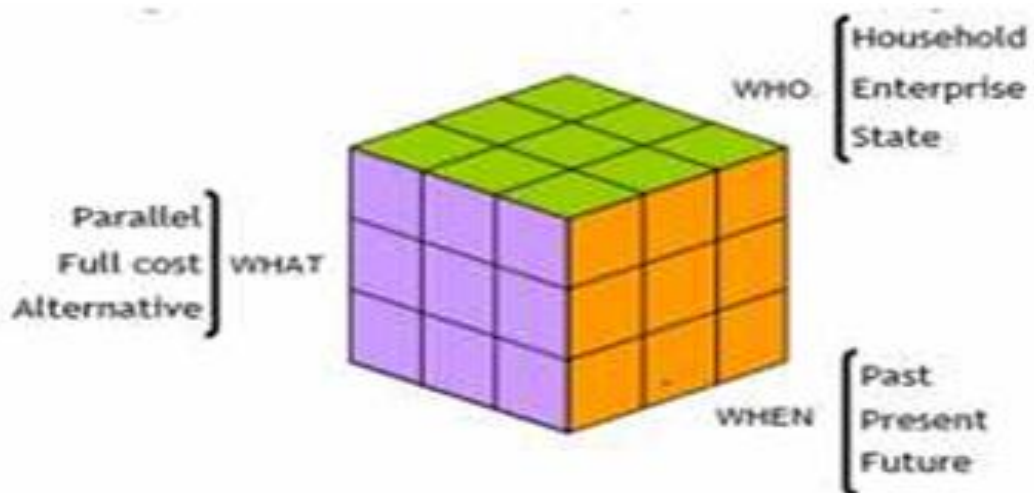


Figure 1. Conceptual framework of green accounting

2.2. Environmental performance

According to Lako (2018), environmental performance refers to a company's efforts to create a better environment by reducing the environmental damage it causes. Makower (1994) and Elkington (1997, 2001), as cited in Lako (2018), state that companies must manage and integrate three core pillars to support long-term business success and profitability: the environment/planet, people/society, and profit.

Following the Rio+20 Summit, Indonesia, under President Susilo Bambang Yudhoyono (2004–2014), actively promoted the green economy movement through the 4Pro strategy: pro-job, pro-poor, pro-growth, and pro-green. Concepts such as green industry, green business, green corporation, green management, green technology, green production, green operation, green marketing, green finance, green accounting, and others have been developed to green the economy, industry, business, and corporations—thus realizing sustainable development and addressing ecological and social crises (Lako, 2018).



Figure 2. Relationship between socio-environmental crises and the green economy, green industry, green business, and green corporation movements

2.3. Sustainable Development Goals

The Sustainable Development Goals (SDGs 2045) are a global development agenda aimed at promoting global welfare and preserving nature to achieve sustainable development through 17 key goals: no poverty; zero hunger; good health and well-being; quality education; gender equality; clean water and sanitation; affordable and clean energy; decent work and economic growth; industry, innovation, and infrastructure; reduced inequalities; sustainable cities and communities; responsible

consumption and production; climate action; life below water; life on land; peace, justice, and strong institutions (idcloudhost.com, 2019).

SDGs represent a sustainable development agenda that has been adopted by all United Nations member countries, including Indonesia, since 2015. This agenda serves as a shared blueprint for peace and prosperity for people and the planet, both now and in the future, through 17 development goals (UN, 2015).



Figure 3. Sustainable development goals

3. Research methods

This community service activity was conducted in Bireuen Regency, Aceh Province, with the target audience being CV Juli Makmur. The implementation method involved training and mentoring on the preparation of financial reports based on green accounting. The planned implementation stages can be described as follows:

1. Socialization of green accounting and its application to improve environmental performance in achieving the Sustainable Development Goals (SDGs);
2. Training in preparing financial reports based on green accounting to improve environmental performance in achieving SDGs;
3. Application of technology in the form of a green accounting-based accounting application;
4. Assistance in the preparation of green accounting-based financial reports to enhance environmental performance for achieving the SDGs;
5. Monitoring and evaluation;
6. Reporting and publication of the community service results.

4. Results

4.1. Socialization of green accounting and its application to improve environmental performance for achieving the SDGs

To provide the partner with an understanding of green accounting, the team conducted a socialization session with CV Juli Makmur on Tuesday, October 15, 2024. The speaker was Mrs. Murni, S.E., M.Si, a lecturer in accounting at the Universitas Islam Kebangsaan Indonesia. The event included stakeholders from the partner company, students, and lecturers from Universitas Islam Kebangsaan Indonesia and Universitas Malikussaleh. The materials presented to the partner included an introduction to green accounting, its benefits, principles for implementation, environmental cost categories, recognition, measurement and presentation of environmental costs, Sustainable Development Goals (SDGs), the 17 SDG targets, and the implementation of SDGs through green accounting.



Figure 4. Program socialization with partner

Based on discussions during the session, it was revealed that the partner had already allocated part of its income for environmental costs, usually donated to mosques as social funds. Additionally, the partner had budgeted part of their business proceeds for greening activities around their business premises. However, the partner did not fully understand that these actions fell under environmental costs, resulting in no reporting

of such expenses in their financial statements. Currently, the partner does not have an accounting information system to facilitate financial reporting, resulting in no records of environmental costs.



Figure 5. Green accounting socialization with partner

4.2. Training in Preparing Financial Reports Based on Green Accounting

After the partner gained an understanding of green accounting, the next activity was training in preparing financial reports based on green accounting. The training featured Mr. Muazzis Najmi, M.Kom, an informatics lecturer from Universitas Muhammadiyah Maha Karya Aceh (UMMAH), and took place on October 16, 2024. The session focused on how to present financial reports using a green accounting application.



Figure 6. Training on green accounting-based financial reporting

4.3. Delivery of technological products and innovation to the community

To deliver the application of technological products and innovation to CV Juli Makmur, the community service team took several strategic steps:

1. Identifying the partner's needs to determine what kind of technology was required for financial reporting;
2. Developing a product, specifically an accounting application, to facilitate real-time financial reporting;
3. Conducting education and socialization to introduce the technology to the partner;
4. Demonstrating the product directly to enable the partner to use it independently;
5. Performing monitoring and evaluation.



Figure 7. Delivery of accounting application to partner

4.4. Technological and innovative products (hardware and software)

The technological product implemented for the partner was an accounting information system application to facilitate the preparation of financial reports. The partner demonstrated active participation in the activities, evident from their enthusiasm in following each stage conducted by the community service team. The implementation of the accounting information system technology provided the partner with benefits in terms of the effectiveness of preparing financial reports.

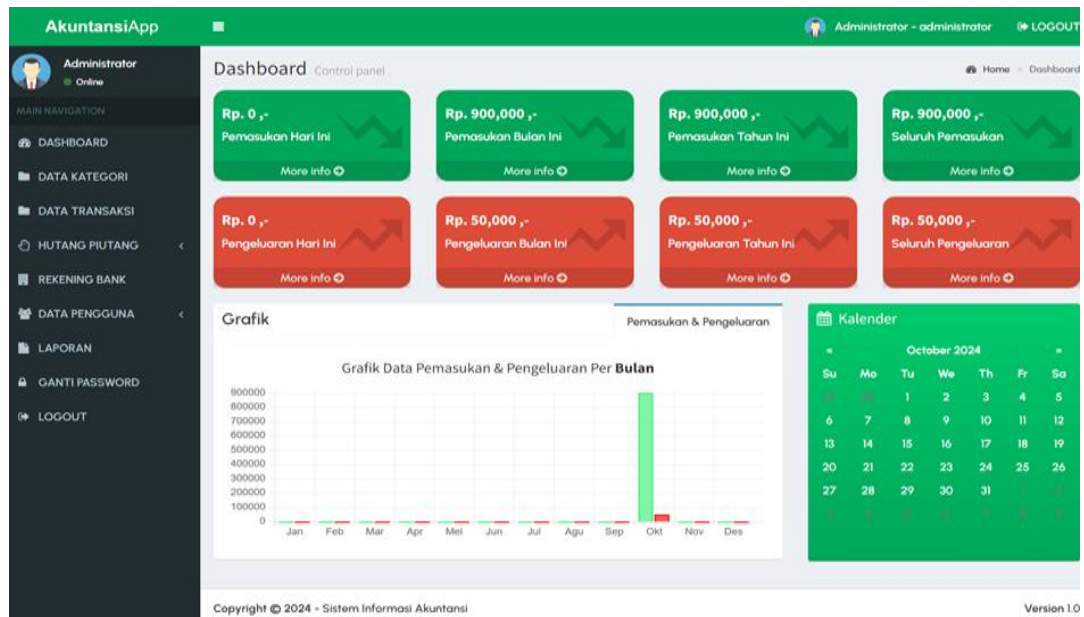


Figure 8. Model of developed accounting information system

5. Conclusion

The partner actively participated in the activities, as shown by their enthusiasm throughout the program stages implemented by the community service team. The application of the accounting information system technology had a positive impact on the effectiveness of financial reporting and good management practices. This initiative provided the partner with an understanding of the importance of environmental preservation in business activities. It has increased the partner's knowledge and skills regarding green accounting and the preparation of financial reports that include environmental costs.

It is expected that the partner will continue to enhance their knowledge and skills in financial reporting in the future through the use of the accounting information system.

Disclosure statement

The authors declare that there is no conflict of interest regarding the publication of this paper.

References

- Andi, K. Petta Lolo, A., Alimuddin, Hamid Habbe, Mediaty, & Andi, M. K. (2020). Green Accounting and Its Implementation in Indonesia. *Efektor*, 7(1), 59–72. <https://doi.org/10.29407/e.v7i1.14414>
- Burhany, D. I. (2012). Akuntansi Manajemen Lingkungan, Alat Bantu untuk Meningkatkan Kinerja

- Lingkungan dalam Pembangunan Berkelanjutan. *Ekonomi Dan Keuangan*, 17(80), 279–298.
- Chairia, C., Br Ginting, J. V., Ramles, P., & Ginting, F. (2022). Implementasi Green Accounting (Akuntansi Lingkungan) Di Indonesia: Studi Literatur. *Financial: Jurnal Akuntansi*, 8(1), 40–49. <https://doi.org/10.37403/financial.v8i1.368>
- Dewi, P. P., & Wardani, W. (2022). Green Accounting, Pengungkapan Corporate Social Responsibility dan Profitabilitas Perusahaan Manufaktur. *E-Jurnal Akuntansi*, 32(5), 1117. <https://doi.org/10.24843/eja.2022.v32.i05.p01>
- Greenham, T. (2010). Green accounting: A conceptual framework. *International Journal of Green Economics*, 4(4), 333–345. <https://doi.org/10.1504/IJGE.2010.037655>
- idcloudhost.com. (2019). Mengenal Sustainable Development Goals (SDGs) 2045. IDCloudHost. <https://idcloudhost.com/blog/mengenal-sustainable-development-goals-sdgs-2045/>
- Kusumaningtias, R. (2013). Green Accounting Mengapa dan Bagaimana. In *Proceeding Seminar Nasional Dan Call for Paper Sancall*.
- Lako, A. (2018). Akuntansi Hijau. December, December, 146.
- Murni, & Malik, I. (2022). Green Accounting Analysis Based on Triple Bottom Line Theory for Sustainability Development Goals in Districts Bireuen. *International Journal of Economics*, 1(2), 334–338. <https://doi.org/10.55299/ijec.v1i2.181>
- Musyarofah, S. (2013). Analisis Penerapan Green Accounting di Kota Semarang. *Accounting Analysis Journal*, 2(3), 352–359.
- Pentiana, D. D. (2013). Jurnal Ilmiah ESAI Volume 7 , No . 1 , Januari 2013 ISSN No . 1978-6034 " Global Warming " in the Perspective of Environmental Management Accounting (EMA) " Global Warming " dalam Perspektif Environmental Management Accounting (EMA) Pendahuluan usaha. 7(1), 1–14.
- Rahmayanti, E., Aryanie, I., Murni, & Aswadi, K. (2024). Green economy in tourism village development for sustainable development goals: A case study in Bireuen, Indonesia. *Review of Business and Accounting Research*, 1(4). <https://doi.org/10.62941/rbar.v1i4.78>
- Tisna, R. D. A., Diana, N., & Afifudin. (2020). Pengaruh Penerapan Green Accounting terhadap Profitabilitas Perusahaan Manufaktur yang Terdaftar di BEI Tahun 2015–2018. *E-Jra*, 9(1), 17–28.
- United Nation (UN). (2015). *Sustainable Development (THE 17 GOALS)*. United Nation (UN). <https://sdgs.un.org/goals>
- Yanti, F., & Rasmini, N. K. (2015). Analisis Pengungkapan Triple Bottom Line dan Faktor yang Mempengaruhi : Studi di Perusahaan Indonesia Dan Singapura. *Akuntansi*, 13(2), 499–512.