

# Measuring the Affiliation of the Qur'an and the Environment: An Evocation of Green Accounting at Fish Canning TeFain the Dimension of Q.S Al-A'raf Verse 85

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**Abstract.** Fish Canning Tefa, like other manufacturing entities, need to make substantial efforts to implement Green Accounting for sustainable practices. Grounded in Islamic principles that emphasize human responsibility as Earth stewards, Fish Canning TeFa has adopted eco-friendly measures like efficient waste management, government collaboration, and research for waste transformation. This study utilized qualitative research to provide a detailed description of the examined phenomena. The interview results with the head of Fish Canning TefFa showed that they collaborated with external parties to manage waste and integrate environmental protection costs into the company's operations. The practical implications of fish canning management at Fish Canning Tefa involved the implementation of green accounting, which needs to be improved in the accounting process. This research serves as an examination result that can be utilized by further studies in scrutinizing green accounting within the campus and its connection with Islam.

**Keywords:** Green Accounting, Environmental Sustainability, Fiqh al-bi'ah, Fish Canning TeFa, Waste Management, Quran, and Environment.

## 1 Introduction

Achieving a sustainable environment is a collective endeavor, a symphony of collaboration between the government, the business world, and society. As individuals, we are small notes in this grand composition, compelled to play our roles in preserving the harmony of nature. It's a collective action that begins with conserving energy, maintaining cleanliness, and adopting a clean lifestyle. However, like any harmonious orchestra, this achievement also requires guidance and harmonization from the government and wise regulations. Rapid advancements in science and technology (S&T) underscore the need for exceptional human resources (HR). These exceptional HR are the result of high-quality education processes [1]. According to Law Number 20 of 2003, education is a deliberate effort designed to create a learning environment

that supports spiritual growth, self-control, personality development, intelligence, noble morality, and the skills necessary for oneself, society, the state, and the nation.<sup>1</sup>

The importance of environmentally supportive accounting is crucial for all economies worldwide[2]. Specifically, the manufacturing sector in India has been identified as one of the primary causes of significant environmental and socio-economic issues. The adverse impacts of this sector have hindered the progress and sustainability of the country on a global scale.<sup>2</sup> Suppose communities worldwide synergize to build a green environment together, both in their daily activities, offices, government, and most crucially in manufacturing operations (companies) in waste disposal. In that case, it will create a good and high-quality ecosystem. Ironically, one of the problems is the lack of established standards to evaluate its environmental aspects[3].

According to [3], companies received the 2021 ASRA awards had a significant impact on creating Economic Value Added (EVA), with a significance level of 10% and a positive direction. These findings are consistent with research highlighting green accounting as a tool that helps assess whether companies fulfill their environmental obligations and, as a result, enhance their corporate value. In a broader perspective, using green accounting in reporting also plays a crucial role in promoting sustainable economic development.<sup>3</sup> However, governments and businesses need to increase their investments in practices and equipment that support the Environment to effectively implement environmentally friendly green accounting[4]. In Europe, the concept of green accounting first emerged in the 1970s and began to evolve[5]. Green accounting refers to a type of accounting that incorporates costs related to environmental issues. Green Accounting is an effort to improve a company's economic performance without causing negative impacts on the Environment. This initiative is known as "greening" the accounting process[4].

From various perspectives, religion provides insights into various aspects, including environmental conservation.<sup>4</sup> From the Islamic perspective, the message of environmental awareness is conveyed textually and through other means, including culture and art. One example is the message of awareness found in the song "Bebal" by Sisir Tanah, also known as Bagus Dwi Danto, which aims to remind people of the importance of caring for the Environment with compassion, just as we care for our mothers and nurture nature as an act of worship to Allah SWT. This song reflects messages found in several verses of the Quran, such as Q.S. Al-A'raf: 85, Q.S. Ibrahim: 32, Q.S. Al-Hijr: 19, Q.S. Ar-Rum: 41, and Q.S. Al-Israa: 23-24.<sup>5</sup> All sectors or components involved on Earth must work together to create a high-quality environment, including governments, communities, and, in this case, educational institutions. As places of learning and teaching, higher education institutions, including campuses, have many responsibilities in environmental conservation, mainly because they are institutions that have a significant environmental impact and play a role in shaping the thoughts and behaviors of the younger generation. Moreover, many campuses or universities have implemented experiential learning outside the classroom by utilizing facilities or creating facilities such as

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teaching factories (TeFa). Politeknik Negeri Jember (Polije) is a vocational campus with more than 20 TeFa facilities, one of which is Fish Canning[6]. As the name suggests, Fish Canning TeFa is a factory located within the Polije campus and serves as a learning place for students in fish processing. Indeed, in its production process, Fish Canning TeFagenerates waste that needs to be managed. Production waste from manufacturing companies can have severe environmental impacts if not properly managed.<sup>6</sup> This includes water and air pollution and soil degradation, and it can even affect ecosystems and human health if the waste contains hazardous materials [7].

If an entity generates production waste, whether a private company or, in this case, a teaching factory, it should also incur environmental costs and implement green accounting in its accounting processes. In line with the guidance found in the Quran stating that humans should also care for the Environment and nurture the Earth to the best of their ability, there is a correlation between the Quran and Green Accounting integrated into human actions to manage the Environment, including maintaining cleanliness, waste management, and implementing green accounting in accounting processes. This research, titled "Measuring the Affiliation of the Quran and the Environment: An Evocation of Green Accounting at Fish Canning TeFain the Dimension of Q.S Al-A'raf Verse 85," will delve deeper into the relationship between the Quran and the Environment using Fish Canning TeFa at Politeknik Negeri Jember as the research object.

## **2. Research Method**

This research employed a qualitative research method to provide a descriptive account of the subject under investigation. In the process, this study attempted to generate an exposition that presented an in-depth depiction of each phenomenon being examined, focusing on describing each phenomenon separately without linking it to other potential phenomena. The research was conducted to describe the relationship between green accounting and the Quran by comparing research findings with relevant scientific literature known as authoritative in the field of green accounting and sustainability. It presented the validity of the findings by referencing various perspectives and previous research findings. The qualitative descriptive analysis in this study utilized data sourced from primary data, which included interviews with the management of Fish Canning TeFa at Politeknik Negeri Jember, specifically with the current head of Fish Canning TeFa, who served as a key informant in this research. This is essential, as they are the responsible individuals well-versed in recording, management flow, and specific management practices carried out in the operational activities. The secondary data included literature such as journals, news, and articles related to green accounting, the Environment, and the perspective of the Quran (Islam).

The indicators used involved aligning activities performed in the operational processes within the company with Islamic values as outlined in the Quran, specifically in Surah Al-A'raf, verse 85. Additionally, it examined whether there is a tendency among management to pay attention to the Environment. The research employed an Islamic perspective as the researcher aims to understand and associate green accounting with a different viewpoint. This is deemed necessary because not many have linked Islam with accounting, especially regarding paradigms or new

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discussions. It involved both the management practices of Fish Canning TeFa and the green accounting processes involved.

### **3. Results and discussions**

Islam emphasizes the importance of environmental conservation and preservation, as elaborated in the Quran in Surah Al-A'raf, verse 85[7]. The use of the concept of *Fiqh al-bi'ah* by some scholars represents a recent understanding that prioritizes Islamic principles in efforts to manage and preserve the Environment. In Indonesia, a country with a majority Muslim population, this approach holds significant potential. Although it is a relatively new scientific approach, *Fiqh al-bi'ah* still lacks a fundamental framework, clear legal sources, or guidelines to distinguish between what is permissible (halal) and prohibited (haram) in the context of the Environment[7]. As a lesser-known term compared to the concept of the green economy, *Fiqh al-bi'ah* is still in the developmental stage. However, Islamic economic principles, especially when viewed from the perspective of *Fiqh al-bi'ah* and *maqashid syari'ah*, overall support environmental conservation efforts. This reflects Islam's commitment to preserving the natural world's sustainability and achieving the well-being of humanity.

#### **3.1 Affiliation of the Quran and the Environment**

Verse 85 of Surah Al-A'raf in the Quran is highly significant in the relationship between the Quran and the Environment.<sup>7</sup> This verse conveys a vital message about human responsibility towards the universe Allah created perfectly. Surah Al-A'raf, Verse 85 states: "And do not cause corruption upon the Earth after its reformation. That is better for you if you should be believers." The verse begins with a command not to spoil or destroy the Earth after Allah has created it in a state of goodness. It is a clear admonition against harming the Environment and the ecosystems Allah created in harmony and balance. This verse also reminds humans that they have a responsibility towards the Environment. As beings endowed with reason and free will, humans are granted the authority to utilize natural resources, but they also must protect them[8]. Therefore, humans are expected to act as stewards responsible for the Earth.

In line with this, various components that make up society are expected to create integration between personal spiritual intelligence (mental aspect) and their Environment (place of residence) to establish a green and quality ecosystem. In this discussion, one of the actions that groups or entities involved in manufacturing, such as TeFa Fish Canning, can be taken is establishing green accounting processes. Through green accounting, entities will support sustainability and government programs in regulating and accounting for environmental costs, aligning with the recommendations in Islam[8]. Although not yet deeply rooted in the application of *Fiqh Al-bi'ah*, at the very least, entities are aware of the waste generated from production processes and take post-production actions involving the expansion of environmental costs.

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### **3.2 Implementation of Khalifah (Steward) and Earth Responsibility at Fish Canning TeFa through Collaboration with the Government**

The Fish Canning TeFa at Politeknik Negeri Jember implemented green accounting in its production processes. Although waste management was not handled directly by TeFa Fish Canning, the management collaborates with the Hazardous and Toxic Waste (B3) Management Division of the Environmental Department called *Dinas Lingkungan Hidup* (DLH) of Jember Regency.

*“The amount of waste we generate is uncertain. What's crucial is that they come here, and we pay for it. For example, today, our production, and then the waste is collected tomorrow. So, it doesn't matter how much waste there is”.*

The Fish Canning TeFa implemented green accounting as part of their business practices. The Head of Fish Canning TeFa conveyed this, meaning that they officially identified, recorded, and reported all costs associated with the sustainable practices and environmental protection measures they apply in their operations. The expansion of environmental costs incurred through transportation and waste management services provided by the Environmental Department of Jember Regency. In the process, entities incurred environmental protection and management expenses were included in green accounting[8]. Although Fish Canning TeFa implements green accounting, their waste management is not conducted independently. They collaborated with the Environmental Department (*Dinas Lingkungan Hidup*) of Jember Regency, which managed hazardous and toxic waste.

*“They use trucks, ya; the cost we provide is between three hundred fifty thousand to four hundred thousand. I forgot, but it's around that range. It's above three hundred fifty thousand and below four hundred thousand.”*

The importance of efficient and sustainable waste management is gaining increasing attention in various industrial sectors, including the fisheries industry, as exemplified by the Fish Canning TeFa. As one of the active producers in fish production processes, they have made significant efforts to identify and integrate environmental elements into their operations. Their efforts culminated in a partnership with Dinas Lingkungan Hidup (DLH) of Jember Regency. This collaboration demonstrates that Fish Canning TeFa recognizes the importance of proper waste management and acknowledges that this task requires a high level of expertise and experience. They have entrusted DLH to manage the waste generated during their production processes, with confidence that it will lead to efficient processing and compliance with stringent environmental regulations.

In the interview, the Head of Fish Canning TeFa carefully explained how the costs associated with sustainable practices have been integrated into their green accounting. According to the information, these costs range from Rp 350,000 to Rp 400,000. However, it is more intriguing that these costs are not considered separate expenditures or additional burdens that could disrupt

their business sustainability. Instead, Fish Canning TeFa firmly acknowledged that these costs were inseparable from environmental protection and management expenses. This approach reflects a holistic approach to green accounting, where all cost aspects related to environmental protection and sustainable practices are considered integral elements in corporate accounting. This is tangible evidence of TeFa Fish Canning's commitment to social and environmental responsibility and their understanding of the importance of conducting a sustainable and environmentally friendly business.

The practices of Fish Canning TeFa and the integration of environmental costs into their accounting demonstrated a positive trend in the business industry, which increasingly recognized the need for environmental responsibility. These measures support the principles of environmental conservation and show that companies can integrate sustainable practices into their operations without sacrificing business sustainability.

### **3.3 Implementation of Khalifah (Stewardship) and Earth Responsibility at Fish Canning TeFa through Waste Utilization Research**

*"Back in 2016, A researcher conducted some kind of research at TeFa Fish Canning, where they tried to process fish head waste into oil. So, there was something like that in the past."*

In 2016, the head of Fish Canning TeFa stated that there was research being conducted. Fish Canning TeFa engaged in a research project that exemplified their commitment to greater innovation and sustainable practices. This research was directed at addressing complex challenges in waste management that arose during their production processes. In their explanation, one of the managers from Fish Canning TeFa revealed in the interview results that the research's focus was to transform what was once considered valueless waste, namely fish heads, into a valuable resource in the form of oil. This represents an extraordinary step in their efforts to optimize natural resources while reducing the ecological impact of their industrial activities.

Although an external party conducted this research, TeFa Fish Canning's role in supporting this initiative was highly significant. They granted permission for the research and took the initiative to facilitate and support the research with resources and access to their facilities. This action reflects their involvement in green accounting practices that consider research and development costs as long-term investments in their business sustainability [8].

In addition to the potential economic benefits that may be obtained, these efforts also created a significantly broad positive impact. By reducing industrial waste and creating added value from what was previously considered waste, Fish Canning TeFa actively fulfills their social responsibility. Furthermore, they also make a positive contribution to the surrounding environment by mitigating the negative impacts that industrial waste may otherwise generate. The research activity focuses on short-term benefits and long-term sustainability, aiming to enhance their operational efficiency, reduce environmental risks, and open up new opportunities in their business. Thus, Fish Canning TeFa is not just a conventional company but also serves as an inspirational example of integrating economic, environmental, and social aspects into their

operations. Hopefully, these principles will serve as a foundation for future companies and inspire students conducting internships and learning at Politeknik Negeri Jember.

### **3.4 The Implementation of Khalifah (Steward) and Earth Responsibility at Fish Canning TeFa through Water Content Testing**

One form of effort that can be undertaken in the implementation of Green Accounting in manufacturing entities is conducting laboratory tests on the water provided for employees or used in the production process[8]. This testing involves evaluating the water's physical, chemical, and microbiological parameters. This action aims to ensure that the drinking water provided to employees and the production process meets health standards and complies with the water quality requirements set by the government.

*“The drinking water we use for our production is nature-sourced. Well, we have tested it for its water content, and it is already suitable for production. The test results are available.”*

In the interview with the head of Fish Canning TeFa, he explained that the water used in the production process met the standards set by the government. In his statement, he mentioned that the drinking water used in TeFa's production process was nature-sourced, and they had conducted laboratory tests to measure its water content. The results of these tests indicated that the water met the established standards, making it suitable for use in the production process. In addition to laboratory water testing, manufacturing entities also considered additional steps in implementing Green Accounting. For example, they can regularly monitor waste generated during production to identify waste reduction potential or recycling opportunities. Furthermore, investments in renewable energy technology or eco-friendly raw materials can be another concrete step in supporting sustainable practices. These are tangible efforts that manufacturing entities can undertake in adopting Green Accounting to improve their operational efficiency while reducing environmental impact.

## **4. Conclusions**

Fish Canning TeFa had taken an approach to adapting management processes, namely the green accounting procedures they implemented. As one of their implementations, they collaborated with the local government to manage the waste resulting from production. Fish Canning TeFa also established a connection or relevance between environmental cleanliness, management that supported green development, and Islamic sharia, which emphasizes that cleanliness and environmental preservation were considered suitable and virtuous. Implementing Green Accounting in manufacturing entities involves various concrete efforts to ensure effective sustainable practices. One of the primary foundations of sustainable practices in Islam is the emphasis on human responsibility as stewards of the Earth, as expressed in the Quran in Surah Al-A'raf, verse 85. These efforts have been implemented by TeFa Fish Canning, a fish producer, by engaging in various environmentally sustainable practices. These practices include efficient waste management, collaboration with the government, and even research to convert waste into valuable resources. Furthermore, the company also practices green accounting, which includes testing the water quality used in their production processes. Through these laboratory tests, Fish

Canning TeFa ensured that the water they use met the government's health standards and quality requirements.

Interview results with the head of Fish Canning TeFa showed that the company actively collaborated with external parties, such as the Jember District Environmental Agency, to manage waste and create a green accounting system that includes environmental protection costs as an integral part of the company's operations. These efforts reflect their commitment to social and environmental responsibility while demonstrating how sustainable practices can be seamlessly integrated into business operations without sacrificing business sustainability itself. Thus, Fish Canning TeFa is an inspirational example of implementing environmental preservation principles in their business. It also provides a foundation for future companies to adopt similar sustainable practices and a deeper understanding of the importance of preserving and conserving nature.

This research is expected to be beneficial for TeFa Fish Canning, enabling them to recognize existing potential and recommending the development of Green Accounting practices. This involves proper record-keeping in accordance with applicable standards, with the involvement of accountants and manufacturing accounting experts. Although the company falls within the management scope of the campus, we emphasize its significance as a means of education and training for learning students. This initiative is aimed at aligning with external corporate standards and enhancing the quality of the existing management system.

The limitations of this research include the failure to address existing resource constraints, specifically whether Fish Canning TeFafaces limitations in resources (financial, human, technological) in implementing and sustaining their green accounting procedures and sustainable practices. Furthermore, there is no information on how the market, including consumers and competitors, responds to TeFa Fish Canning's environmental and social responsibility commitment.

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