

DEVELOPING A MAQASHID SHARIAH-BASED GREEN ACCOUNTING MODEL FOR FOREST FIRE MITIGATION IN WEST KALIMANTAN

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ABSTRACT

Forest and land fires in West Kalimantan have become a serious issue with significant ecological and socio-economic consequences, including ecosystem degradation, increased carbon emissions that exacerbate climate change, and health crises caused by toxic haze. Despite government regulations prohibiting land clearing by burning, fires remain frequent, particularly in the palm oil plantation sector. This study aims to explore the potential integration of maqashid sharia-based green accounting as an innovative approach to enhance corporate accountability while supporting sustainable forest fire mitigation. Green accounting incorporates environmental impacts into financial statements, while maqashid sharia provides an ethical foundation for environmental responsibility. Employing a qualitative method with a literature review approach, this research identifies gaps in the application of green accounting within Indonesia's forestry and plantation sectors. The findings suggest that integrating green accounting and maqashid sharia could offer a comprehensive solution to recurring fires. However, implementation is constrained by inadequate regulation and limited economic incentives for sustainability. This study contributes theoretically by bridging environmental accounting and Islamic ethics, and offers practical implications for policy development. The proposed conceptual model reinforces the role of value-based governance and Islamic ethical principles in advancing environmental accountability, particularly in regions vulnerable to ecological degradation such as West Kalimantan.

Keywords: Forest and land fires; green accounting; maqashid sharia; mitigation; West Kalimantan.

ABSTRAK

Kebakaran hutan dan lahan di Kalimantan Barat telah menjadi permasalahan serius dengan dampak ekologi dan sosial ekonomi yang signifikan. Dampak ini meliputi kerusakan ekosistem, peningkatan emisi karbon yang memperparah perubahan iklim, serta krisis kesehatan akibat kabut asap beracun. Meskipun pemerintah telah mengatur pelarangan pembukaan lahan dengan cara membakar, kebakaran masih sering terjadi, terutama di sektor perkebunan kelapa sawit. Penelitian ini bertujuan untuk mengeksplorasi potensi integrasi akuntansi hijau berbasis maqashid syariah sebagai pendekatan inovatif dalam meningkatkan akuntabilitas perusahaan sekaligus mendukung mitigasi kebakaran hutan dan lahan secara berkelanjutan. Akuntansi hijau mengintegrasikan dampak lingkungan ke dalam laporan keuangan perusahaan, sementara maqashid syariah memberikan landasan etika dalam tanggung jawab lingkungan. Dengan menggunakan metode kualitatif dan pendekatan studi literatur, penelitian ini mengidentifikasi kesenjangan penerapan akuntansi hijau di sektor kehutanan dan perkebunan Indonesia. Hasil temuan menunjukkan bahwa integrasi kedua pendekatan tersebut berpotensi menjadi solusi komprehensif atas kebakaran yang berulang. Namun, implementasinya masih terkendala oleh regulasi yang belum memadai dan terbatasnya insentif ekonomi. Studi ini memberikan kontribusi teoritis dengan menjembatani akuntansi lingkungan dan etika Islam serta menawarkan implikasi praktis bagi pengembangan kebijakan tata kelola lingkungan yang berbasis nilai dan prinsip syariah.

Kata Kunci: Akuntansi hijau; Kalimantan Barat; kebakaran hutan dan lahan, maqashid syariah; mitigasi.

INTRODUCTION

The Sustainable Development Goals (SDGs) represent a global agenda initiated by the United Nations in 2015 to address pressing challenges such as poverty, inequality, climate change, and environmental degradation. Comprising 17 goals to be achieved by 2030, this initiative underscores the importance of sustainable development that preserves resources for future generations.

Indonesia, as a signatory to the SDGs, was ranked 78th out of 166 countries in the Sustainable Development Report 2024. Although this ranking demonstrates moderate progress, it highlights the need for more substantial efforts, particularly in the area of environmental protection (Sustainable Development Report, 2024). Among the most pressing challenges is the recurring incidence of forest and land fires (*Karhutla*), especially in regions such as West Kalimantan, which threaten biodiversity, public health, and regional climate stability (Astiani et al., 2023).

These fires directly impede the achievement of SDG 13 (Climate Action) and SDG 15 (Life on Land) (Syamsuadi et al., 2023), making mitigation efforts not only a national priority but also a global responsibility. The root causes are multifaceted: environmentally destructive land-clearing practices, weak law enforcement, and a lack of corporate accountability in sustainability reporting (Bafadal & Hestiantini, 2023; Ghofar & Nuswantara, 2022).

In response, green accounting has emerged as a mechanism for embedding environmental considerations into corporate financial reporting (Gonzalez & Peña-Vinces, 2023), while

maqashid syariah, which emphasises the preservation of life, property, intellect, religion, and progeny, provides an Islamic ethical framework that aligns with sustainable principles (Farhan et al., 2021). However, current studies rarely integrate these two frameworks explicitly in addressing the issue of forest fires. This study seeks to fill that theoretical and methodological gap by developing a conceptual model that combines green accounting with maqashid syariah principles, specifically applied to the forest fire crisis in West Kalimantan.

One of the main contributors to Indonesia's recurring forest and land fires (*karhutla*) is the use of environmentally harmful land-clearing practices, particularly burning for oil palm plantations and agricultural expansion. According to Astiani et al., (2023), such practices significantly increase CO₂ emissions, especially in peatland areas prone to subsidence. This highlights a persistent gap in environmental governance and the implementation of sustainability measures in the field. Although the Indonesian government has enacted various regulations and strict sanctions—including Law No. 32/2009 on Environmental Protection and Management, forest fires continue to recur, particularly during El Niño years, indicating weak enforcement and limited corporate accountability (Bafadal & Hestiantini, 2023).

These fires directly undermine Indonesia's commitments to the Sustainable Development Goals (SDGs), especially SDG 13 (Climate Action) and SDG 15 (Life on Land) (Syamsuadi et al., 2023). They pose serious risks to biodiversity, public health, and environmental sustainability, particularly in regions like West Kalimantan where peatlands are extensive.

Green accounting offers a solution by incorporating environmental impacts, such as carbon emissions, deforestation costs, and air pollution into a company's financial statements (Lusiana et al., 2021). In practice, however, most Indonesian firms, particularly those in the forestry and plantation sectors, lack transparency in reporting environmental liabilities (Ghofar & Nuswantara, 2022). This limited application highlights an empirical gap in the ways accounting tools are utilised for environmental mitigation.

At the same time, maqashid syariah, a key ethical framework in Islamic jurisprudence, emphasises the protection of five essential values: life, property, intellect, religion, and progeny (Farhan et al., 2021). These values provide a robust moral foundation for companies to adopt more responsible environmental practices. Consequently, safeguarding life directly corresponds to minimising health risks arising from haze, while the protection of property relates to the preservation of natural ecosystems as shared public goods.

Integrating green accounting with maqashid shariah thus presents a more holistic model for addressing forest and land fires in Indonesia. While green accounting provides the technical measurement and reporting mechanisms, maqashid shariah instils a deeper ethical commitment. However, the literature reveals a lack of models that systematically combine both approaches for environmental risk mitigation. This study seeks to fill that gap by proposing a maqashid shariah-based green accounting model, specifically tailored to enhance corporate accountability in forest fire mitigation in West Kalimantan.

RESEARCH METHOD

This study adopts a qualitative approach by employing a narrative literature review method, complemented by an actual case study focusing on West Kalimantan. The primary objective of this method is to examine the conceptual integration of green accounting and *maqashid shariah* in forest and land fire mitigation, and to develop a value-based environmental accounting framework that is relevant to the Indonesian context.

Secondary data were collected from various sources, including peer-reviewed journal articles, books, government regulations, and policy reports published between 2018 and 2024. These sources were identified through targeted searches on Google Scholar, ScienceDirect, DOAJ, and Garuda, using keywords such as “green accounting,” “forest fire mitigation,” “Islamic environmental ethics,” “maqashid shariah,” and “West Kalimantan.” The inclusion criteria focused on thematically relevant literature written in either English or Indonesian and available in the public domain. Literature deemed irrelevant or duplicate was excluded from the analysis

The data were analysed using thematic content analysis, through which three primary themes were identified: (1) the causes and impacts of forest and land fires in Indonesia, (2) the application of green accounting in environmental governance, and (3) the contribution of maqashid shariah to corporate environmental ethics and responsibility. These themes were examined manually and interpreted within the ecological and socio-economic context of West Kalimantan, a region characterised by recurrent fire incidents and intensive oil palm plantation activity.

The case study of West Kalimantan is employed illustratively to contextualise the relevance of the integrative model. This case grounds the theoretical framework in a real-world setting and underscores the urgency of adopting ethical and sustainable environmental management

practices. Although this study does not involve primary data or human subjects, ethical considerations were addressed through proper citation and the exclusive use of publicly available materials. Triangulation of sources, including academic, legal, and policy documents, was employed to enhance the validity and credibility of the conceptual findings.

The main limitation of this study lies in its reliance on secondary data and the scarcity of empirical research directly linking green accounting and *maqashid* shariah. Nonetheless, the conceptual analysis presented here contributes significantly to the theoretical development of a value-based accounting model for addressing environmental crises in Indonesia

RESULT AND DISCUSSION

Urgency of Forest and Land Fire Issues in Indonesia Forest and land fires (*karhutla*) in Indonesia, especially in West Kalimantan, continue to pose a critical threat to ecological systems and human livelihoods. These fires, driven not only by prolonged dry seasons but also by unsustainable land clearing practices—particularly for oil palm plantations—have led to massive carbon emissions, biodiversity loss, and regional health crises due to toxic haze (Astiani et al., 2023; Sari et al., 2024). The recurrence of these fires year after year indicates a failure in environmental governance and calls for a more integrated mitigation framework. The phenomenon directly hinders the realization of Sustainable Development Goals (SDGs), particularly SDG 13 (Climate Action) and SDG 15 (Life on Land) (Syamsuadi et al., 2023).

The Relevance of Sustainable Development Goals (SDGs) Indonesia's commitment to the SDGs is reflected in its national development strategies. However, the country's performance remains modest. According to the Sustainable Development Report (2024), Indonesia ranks 78th out of 166 countries. This middle-tier ranking highlights significant room for improvement, particularly in climate-related goals. Forest and land fires significantly undermine efforts to achieve SDG 13 and 15 by accelerating deforestation, increasing emissions, and threatening ecosystem resilience. Thus, addressing *karhutla* is not only an environmental imperative but also a developmental one.

Green accounting has emerged as a vital instrument for integrating environmental costs into corporate financial systems. It enables companies to identify and report the ecological impacts of their activities, particularly emissions and the depletion of natural resources (Gonzalez & Peña-Vinces, 2023). In Indonesia, studies by Lestari & Restuningdiah, (2021) and Alexander, (2023) have demonstrated that green accounting can positively influence firm value.

Nevertheless, its implementation remains limited, especially within high-risk sectors such as plantations. The absence of adequate incentives and a lack of transparency further hinder its adoption, despite existing government frameworks, including Law No. 32/2009 on Environmental Protection and Management.

Maqashid syariah, which emphasizes the protection of religion (*din*), life (*nafs*), intellect (*'aql*), lineage (*nasl*), and property (*māl*), provides an ethical framework for evaluating environmental responsibility (Farhan et al., 2021). In the context of forest and land fires (*karhutla*), this perspective calls for corporate actions that prevent harm to human health, conserve natural resources, and uphold justice in environmental stewardship. For instance, the protection of life aligns with efforts to mitigate haze-induced health crises, while the preservation of property supports sustainable resource management. Research by Hendar, (2023) and Erwaedy et al., (2021) underscores the relevance of *maqashid* in shaping ethical corporate policies. Furthermore, recent studies highlight that Islamic Social Finance (ISF), guided by *maqashid al-shariah*, plays a pivotal role in fostering environmental sustainability and inclusive development through instruments such as green sukuk, Islamic microfinance, and impact investing (Raimi et al., 2024).

The integration of green accounting and *maqashid syariah* offers a comprehensive model for mitigating forest fires. Green accounting functions as a technical framework for measuring and disclosing environmental impacts, while *maqashid syariah* grounds these practices in ethical and moral principles. Rather than operating independently, both frameworks interact synergistically to enhance environmental accountability and promote long-term sustainability. Green accounting enables organizations to identify and quantify their ecological liabilities, whereas *maqashid syariah* provides normative guidance based on Islamic values to inform ethical environmental decision-making. Together, they establish a value-driven approach to sustainability reporting, one that fosters not only regulatory compliance but also the internalization of ethical responsibility among corporate stakeholders. A comparable integrative model has been theoretically proposed by Rahim et al., (2024), who argue that the principles of *maqasid al-shariah* can be strategically applied to finance and advance global sustainability initiatives, including clean energy, eco-friendly urban development, and climate action.

Despite its conceptual merits, the implementation of this integrated model faces several notable challenges. Regulatory gaps remain evident, as no specific legislation currently supports the incorporation of Islamic ethical principles into environmental reporting. Additionally, the

absence of economic incentives, a shortage of professionals with expertise in both green accounting and Islamic ethics, and weak regulatory enforcement further obstruct its practical adoption (Rangkuti, 2023; Renaldo et al., 2022). Nevertheless, significant opportunities are emerging. Indonesia's increasing commitment to ESG (Environmental, Social, and Governance) principles, alongside institutional backing from entities such as the National Committee for Islamic Economy and Finance (KNEKS) and the Sharia National Council – Indonesian Ulema Council (DSN-MUI), can pave the way for pilot initiatives, capacity-building programs, and policy harmonization efforts.

This study contributes to the theoretical discourse by bridging the fields of Islamic ethics and environmental accounting, two domains that are often addressed separately in academic literature. From a practical perspective, it offers a conceptual model that can inform policy formulation, sustainability reporting standards, and corporate governance practices within environmentally sensitive industries. Furthermore, it paves the way for future empirical research to assess the model's applicability across different regions and sectors.

In summary, this chapter underscores the urgent need for an integrated ethical-accounting framework to address forest fire mitigation in Indonesia. The synthesis of green accounting and *maqashid syariah* not only represents a conceptual advancement but also offers a viable pathway toward more equitable and sustainable environmental governance.

CONCLUSION

The findings confirm that green accounting functions as a technical approach to quantify, disclose, and internalize environmental impacts within corporate financial systems. Despite its potential to enhance transparency and accountability, its implementation in Indonesia is still limited due to regulatory gaps, weak incentives, and lack of integration with value-based frameworks. On the other hand, *maqashid syariah* provides an ethical foundation that emphasizes the protection of essential human interests such as life, property, intellect, lineage, and religion, all of which relate closely to environmental stewardship.

This study recommends that regulatory frameworks should formally accommodate *maqashid syariah* principles within environmental disclosure and corporate sustainability standards. Firms in sectors with high environmental risk should be encouraged through policy incentives to adopt green accounting aligned with ethical and *syariah*-based standards. Capacity-building programs should be developed to produce professionals skilled in translating *maqashid*

principles into practical applications in accounting and environmental management. Furthermore, future studies should empirically assess the proposed model using case-based or comparative approaches across different industries and regional contexts. In conclusion, the integration of green accounting and maqashid syariah holds strong potential to reshape environmental governance into a more ethical, transparent, and accountable system. This conceptual model not only supports Indonesia's climate and environmental goals but also reinforces the nation's identity as a leader in Islamic ethical finance and sustainability.

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