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GREEN PUBLIC FINANCIAL MANAGEMENT IN INDONESIAN PUBLIC SECTOR ACCOUNTING: A LITERATURE REVIEW

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Abstract
This literature study, based on a synthesis of 6 peer-reviewed studies from the period of 2004 to 2025, investigates the role of public sector accounting in achieving environmentally sustainable government financial management in Indonesia. A good example is from Raja Ampat, where the costs of environmental damage and economy were continuously underestimated by standard pattern in public financial management such as from PT Timah. This study conducted in 20 developing countries confirms that good accounting quality has a significant positive impact on sustainability outcomes, such that not only is adoption limited where institutional and regulatory conditions are poor but firms with commercial interest can also benefit. Backed by a strong digital infrastructure, its decentralized governance model and ample cross-country support, Indonesia is favourably placed to adopt good public financial management (GPFM) practices. These are interrelated processes and need good PSA, good coordination between ministries to bring them into reality otherwise public sector accounting will be a rule on paper. To make this happen, we have to adopt GPFM not only as a need, but also as an opportunity that can act as scaffolding for Sustainable Development and meeting global climate goals.
***Key Words**: Green Public Financial Management, Environmental Accounting, Sustainable Development Goals, Public Sector Accounting, Natural Capital Accounting*

Abstrak
Studi literatur ini, berdasarkan sintesis dari 6 studi yang ditinjau sejawat dari periode 2004 hingga 2025, meneliti peran akuntansi sektor publik dalam mencapai manajemen keuangan pemerintah yang berkelanjutan secara lingkungan di Indonesia. Contoh yang baik adalah dari Raja Ampat, di mana biaya kerusakan lingkungan dan ekonomi terus-menerus diremehkan oleh pola standar dalam manajemen keuangan publik seperti dari PT Timah. Studi yang dilakukan di 20 negara berkembang ini menegaskan bahwa kualitas akuntansi yang baik memiliki dampak positif yang signifikan terhadap hasil keberlanjutan, sehingga adopsi tidak hanya terbatas di tempat kondisi kelembagaan dan peraturan buruk, tetapi perusahaan dengan kepentingan komersial juga dapat memperoleh manfaat. Didukung oleh infrastruktur digital yang kuat, model tata kelola yang terdesentralisasi, dan dukungan lintas negara yang memadai, Indonesia berada pada posisi yang menguntungkan untuk mengadopsi praktik manajemen keuangan publik yang baik (GPFM). Ini adalah proses yang saling terkait dan membutuhkan PSA yang baik, koordinasi yang baik antar kementerian untuk mewujudkannya, jika tidak, akuntansi sektor publik hanya akan menjadi aturan di atas kertas. Untuk mewujudkan hal ini, kita harus mengadopsi GPFM tidak hanya sebagai kebutuhan, tetapi juga sebagai peluang yang dapat bertindak sebagai landasan bagi Pembangunan Berkelanjutan dan pencapaian tujuan iklim global.
Kata Kunci: Green Public Financial Management, Akuntansi Lingkungan, Tujuan Pembangunan Berkelanjutan, Akuntansi Sektor Publik, Natural Capital Accounting

INTRODUCTION

As the world’s environmental challenges spiral, so has pressure on governments to apply sustainability principles to their handling of public money. Conventional public budget management is inadequate for the environmental crisis facing a world crisscrossed by climate change-related natural hazards long (Cardona Valencia & Calabuig Tormo, 2023). The global accords (e.g., the Paris Agreement and the United nations Sustainable Development Goals) which call for countries to embed sustainability principles into their economic frames are also strengthening this movement (Rahman et al., 2023).

An extensively studied and transparent budget management system can guide allocating of public resources into the fields that help in laying and maintaining social, economic as well as environmental sustainability needed for sustainable development (Hu et al., 2022; Tuyon et al., 2023) which has increasingly gained recognition worldwide. (Amin et al., 2025) argue that continued investment in renewable energy development, sustainable natural resource management practices, and initiatives to mitigate the destructive impact of natural disasters could collectively raise the standard of living for its citizens. Putri et al. advocate low-carbon development and green economy as possible ways of maintaining habitable environments for future generations while increasing national revenue and social welfare (2023).

Enter a fresh framework, labeled Green Public Financial Management (GPFM), to resolve these challenges. The thinking is that we will make better budgeting choices when we take into account how they impact the environment. GPFM is designed to seek a balance between the use of public funds in the context of economic growth and environmental protection, allowing both approaches (Cardona Valencia & Calabuig Tormo, 2023. When concepts of solidarity are used in public financial management, organizations may become stronger by working together based on social responsibility and kinfolk (Musmini & Yuniarta, 2023). This teaches us important things about how to establish power as a group and become independent as an organization.

Sustainable development is necessary for countries to fulfill their global climate commitments, enhance public health, and transition to a low-carbon, more resilient economy (Amin et al., 2025). To protect the environment from harm that might make future economic problems worse and to keep the US at the top of the world in green technology and energy transition, this is very important.

As things change, public sector accounting's job of keeping track of, monitoring, and reporting on government revenue and spending is becoming increasingly vital. Indonesia's financial industry has performed better in the market thanks to sustainable finance. In practice, good governance and sustainable finance concepts significantly affect performance improvement if there is sufficient profit (Artika et al., 2023). Green accounting has also gained relevance to help the government transition towards more sustainable public financing. Such accounting considers the environment and ensures that public policies as well as financial governance align with objectives for sustainability (Fleischman & Schuele, 2006).

Green accounting theory aims to measure the impact of new transactions that relate to pro-greenness such as conservation of invaluable natural resources or environmental activities helping lower greenhouse emissions (Pratama et al., 2019). Green Accountancy is a type of CSR and management approach that focuses on all business operations by considering environmental factors to improve components that lead to financial performance (Purnamawati, 2018). The concept of Green accounting or green book-keeping also describes this phenomenon.

Previous studies have shown, however, that the effects of using green accounting vary. (Yuniarta et al., 2023) used company data from the Indonesia Stock Exchange industrial and mining enterprises, finding discrepancies in environmental disclosures and environmental performance disclosure before and after the COVID-19 epidemic. This suggests that clean accounting procedures could be motivated by global crises. (Palgunadi & GA Yuniarta, 2024) assert that green accounting has not yet shown a positive and significant impact on financial performance, notwithstanding the influence of intellectual capital on financial outcomes. (Adnyana & IMP Adiputra, 2024) discovered the contrary they confirmed that the adoption of green accounting considerably and favorably influences the attainment of the Sustainable Development Goals (SDGs).

There are still big problems that make it hard to carry out the plan. (Hermawan & LS Musmini, 2025) assert that a disparity exists between theoretical knowledge and practical application in the realm of green accounting, since more than fifty percent of firms in environmentally related sectors have not consistently implemented these practices. (Asriani et al., 2024) say that environmental performance has not yet had a big effect, which means that there are still problems with how well sustainability practices work in the Indonesian business world. We need to find better approaches to tackle these problems.

One of the problems with public sector green accounting is that there aren't enough accounting standards that take environmental concerns into account. So, both these studies reveal significant gaps in the current frameworks (Lutfi et al., 2023). The technical pitfalls associated with incorporating environmental data into public accounting systems are real, so we need new methods of data collection, verification and reporting. Training and development programs are needed to generate the skills and knowledge necessary for a systematic application of green accounting throughout the public sector workforce, which currently lacks competence as well as capacity (Beauchamp & Hicks, 2004).

Environmental elements are emerging in the public-sector accounting field as it (used to) mainly deal with acquiring, spending and reporting for public funds (Imelia et al., 2021). The public sector accounting is founded on the positive accounting theory It aims to publicize relevant information so that the public can make informed decisions regarding public policy in a transparent, responsible and efficient manner (Dewi & Wulandari, 2023; Muradi, 2013). A paradigm shift is necessary because the importance of sustainability has become widely understood. What this does mean though is that accounting, and public sector accounting in particular, must change towards a more holistic portrayal of impacts on the environment (I Lapsley, 2008).

In fact, many problems remain unsolved in the current literature, especially related to find viable models of implementation of green accounting ideas in the public financial management systems of Indonesia. Indonesian academics have not paid as much attention to green public finance management as the banking and corporate sectors, where it has been examined more thoroughly. It is crucial to evaluate the actual effectiveness of governance activities, rather than only relying on theoretical policy frameworks, since weak governmental processes, corruption, and a deficiency of accountability in public resource management might jeopardize sustainability efforts (ly, 2025).

Because Indonesia is one of the world's biggest producers of greenhouse gases and is vulnerable to the consequences of climate change, it is becoming increasingly clear that the government has to adopt Green Public Financial Management. CNN Indonesia (2025) says that the government lost more than IDR 300 trillion in the Raja Ampat mining case. This is a good example of how unsustainable economic activities may hurt the environment a lot. This is more than the 271 trillion IDR that was lost in the PT Timah case. Outright extinction of unique species and other kinds of irreversible ecological destruction show that the cost of environmental degradation outweighs its immediate economic benefits to the state.

Indonesia needs its public financial management to be overhauled if it is to support the transformation government requires for a green economy and help achieve its target of net-zero emissions by 2060. But political will alone does not implement it. What is required: an umbrella framework that interlinks components of technical, regulatory and people’s capabilities. By virtue of the unique challenges that Indonesia faces in terms of governance, institutional capacity, and pre-existing socioeconomic complexities (Gupta & Yang, 2021), this study aims to explore the potential role of public sector accounting in achieving financial sustainability for the public sector through the successful and sustainable implementation of Green Public Financial Management.

LITERATURE REVIEW

Green Public Financial Management (GPFM)

“Green Public Financial Management” refers to the process of integrating environmental and sustainability issues at each stage in the government planning cycle in a way that alters how generally people think about these plans. According to (Cardona Valencia & Calabuig Tormo, 2023), GPFM is the means of producing eco-friendly budgets while accounting for the implications of every monetary choice. In sustainability theory as applied to public finance (Cardillo & Longo, 2020), financial and economic institutions were called upon not only to respond to the demands of today, but to critically examine how institutional short-termism may affect environmental conditions and how actions taken can impact future generations.

Green Accounting in the Public Sector

According to (Putra et al., 2024), green accounting means capturing, tracking and governing the environmental impacts at operational activities which integrated the environmental aspect of the company's financial report system. Green accounting is a system that the government may use to measure expenses and income associated with environmental issues resulting from their daily operations. (Fleischman & Schuele, 2006) set forth a comprehensive green accounting methodology for recording and reporting expenditures that contribute to reduction of greenhouse gases and conservation of natural resources. Environmental accounting plays a prominent role in rational decision-making as it provides greater insights into potential costs and benefits of environmental investments, which may improve the efficiency of operations within organizations (S et al., 2022).

Green Finance and Green Financial Instruments

Due to the global transition to ecologically responsible economic practices, green financing is an essential part of developments initiated by a green economy (Zhang, 2023). Green financial tools include carbon markets, green investment funds, green bonds and other financial goods and services (Naderi & Tian, 2022). Green bonds are increasingly being used for environmental projects such as those related to water purification, renewable energy, energy efficiency and pollution prevention (Anderson, 2016). Financial institutions are increasingly integrating environmental factors into their risk assessments and lending decisions (Malandrakis & Δράκος, 2024).

Green Banking and Financial Performance

(Fashli et al., 2019) Green banking, which emerges as a measure to reduce the harmful effects on the environment. Academic studies also show that green banking is connected to the financial performance of financial institutions. (Riyanti et al., 2025) has shown in Kenya, Bangladesh and China that banks made more money if they used green banking techniques. That means banks might be able to earn more by going green. Green banking might lead to long-term wealth creation and sustainable development, as well as reducing risk (Mir et al., 2025).

Theoretical Framework and Conceptual Relationships

(Tommasetti et al., 2020) use Stakeholder Theory as a conceptual framework to elucidate how GPFM public sector accounting should address the interests of many stakeholders, including society, the environment, and future generations. Sustainability theory posits that public finance systems must include concepts of economic, social, and environmental sustainability. The two areas work together in sustainable public financial management. Green finance provides the means to finance green investments, while green accounting provides the information required to make such investments (Cardona Valencia & Calabuig Tormo, 2023). This covariance proves that GPFM must be used with integrated financial systems and strict accounting for the public sector to achieve sustainable development goals.

METHOD

Public Financial Management (GPFM), aims to ensure long-term financial sustainability of the public sector and Accounting plays a crucial role in GPFM. To fully explore this novel research area, a narrative literature review was selected that allows for an in-depth consideration of all relevant materials (Greenhalgh et al., 2018).

To systematically search for literature from 2018 to 2025, the ScienceDirect database was used. The search was conducted using the following keywords: ("Green Public Financial Management" OR "GPFM" OR "Green Accounting" OR "Environmental Accounting") PLUS ("Public Sector" OR "Government" OR "Public Finance") PLUS ("Sustainability" OR "Sustainable Development" OR "Environmental Management").

Eligible publications were publicly accessible, peer-reviewed journal articles (in English or Indonesian) that focused on green accounting or green finance within the public sector. We also didn't look at publications that didn't go through peer review or that didn't explain the research methodologies utilized to reach findings in detail.

The four steps were: search through articles with specified keywords study their abstracts and titles read their entire texts and assess them then take a random sample of papers from their references. Reviewed six papers related to the research topic.

Data were analyzed thematically. This included organizing articles by major themes, distilling those findings to identify trends and patterns, and noting gaps in existing literature. To maintain internal validity, the study applied validated searches and clear inclusion or exclusion criteria. The scoring criteria were applied uniformly and documented procedures ensured the robustness of the outcomes.

For, argues the authors of the research, the uniqueness of the subject suggested that it should be seen from different angles and through various methodologies and so they held a narrative review to be most appropriate. Such a method can help identify conceptual models, theoretical principles, and practical implications of the domain under study because of its complexity and multidimensional nature.

RESULT AND DISCUSSION

RESULT

The review of literature indicates that public sector accounting has evolved to support green financing and environmental sustainability across four main aspects. These categories are flexible, but they illustrate the historical development and current condition of the field. The review identifies a wide range of empirical studies, theoretical models, and policy evaluations published between 2004 and 2025. It also presents summaries of key findings, recent developments, and existing research gaps.

The Relationship Between Accounting Practices and Sustainable Development Goals Achievement

The implications of the study suggest that accounting and GPFM systems shape decisively a corporation's ability to fulfil many areas encompassed in the Sustainable Development Goals, especially those related to environmental sustainability. Nakpodia et al. (2024) present strong empirical evidence that public financial management (PFM) and accounting matters at the country level significantly correlate with proxies for SDGs in health and well-being (SDG 3), affordable and clean energy (SDG 7), and climate action (SDG 13), outtaking as singular observations. Including interaction variables, the net positive effect of Human Development Index was 0.213, reaching 0.274 in a two-step GMM analysis. This means that PFM rules for improving the accounting system may have a substantial impact on reaching SDGs.

Still, the relationship is highly variable depending on context. Better accounting standards improve SDGs by 44.2% in low-income countries and by 52.9%, along with PFM initiatives, according to the report. That this relationship is context-dependent can be seen from the positive effects for middle-income countries (-10.1%) versus negative ones for high-income countries (-31.5%). This implies that not every tactic is effective everywhere. These insights contradict the traditional view on the causal dynamics between financial resources and sustainability results Matter not depositions how much funds are made but the accounting quality and rightfulness say.

Regional and Economic Disparities in Green Finance Implementation

Notably that proves the effectiveness of different accounting practices for Green Finance and Sustainable in research depending on the location. Nakpodia et al. But also mention that there are some patterns by region: Americas high match between accounting systems and HDI but poor results on environmental sustainability -especially on Europe & South America- In the Americas it is similar to Africa and Asia few countries with higher score of PFM but low HDI score.

The stakes with regard to the extent to which green finance initiatives contribute to sustainability outcomes are quite different for low- and high-income people, complicating what can be made of such regional differences. According to evidence, innovative accounting practices and public financial management systems can make the most impact in developing countries rather than more advanced economies where they must be planned on a broad scale or become highly uiform to achieve meaningful change. Outcomes bolster the notion of competing and adjusting tactics for various levels of economic modernisation. And they resist broader conclusions about the extent to which sustainability is context-dependent.

To bridge this gap, La Torre et al. This study by (2024) offers an overview of public and green financing in Europe. They classified them in four main categories, namely PPPs sustainability accounting measurement tools and sustainable development planning. While most EU initiatives struggle with the absence of common reporting standards and limited integration of sustainability information into existing public accounting measures, European countries should lead the global sustainability discussion through sophisticated green finance markets and stringent environmental regulations, their research suggests.

Evolution of Green Accounting Theory and Practice

It provides here a large qualitative contribution to sustainable accounting in English local government, and so to theory as a whole, Ball (2004) takes the bureaucratic theories of Davis and Olsson into a profound mapping of social theory. Utilizing four theoretical lenses, this research establishes a basis for a more complete perspective in relation to the range of Green Public Financial Management solutions. The research notes two groups: “light green” environmentalists who are seeking solutions through management and maintenance of core beliefs, and “dark green” ecologists who desire a complete reimagining of the human relationship to the natural world.

However, there are significant implications for how GPFM is enacted through the choices made between these methods (Ball, 2004), the framework here gives insight into this. Dark green practices question particular beliefs that are rooted in our society related to growth and consumer behaviour while light green is about optimisation which builds on less effective but more managerial solutions. While practitioners and policymakers only require a roadmap of how much to stretch the range of their green finance model, a theoretical basis can provide methodological insight.

Integration Challenges and Implementation Barriers

There may be theoretical foundations and empirical evidence for Green Public Financial Management, although significant challenges to implementation continue in the literature. (La Torre et al., 2024) say that two of the biggest problems in measuring and comparing the environmental performance of public institutions are the absence of standardized reporting formats and the way political interests affect the choice of indicators. Their results indicate that indicators continue to exhibit political biases and inadequately assess biodiversity issues and their cross-sectoral impacts.

Integration obstacles go beyond only technological problems they can include bigger problems with the system as a whole. (Ball, 2004) says that the sustainability accounting agenda has been focused on the private sector. This might signify that public policy hasn't worked out very well because of the "environment" and "development" disputes and the political radicalism that the agenda suggests. In fact, this development strengthens the notion that transitioning from partial GPFM to total GPFM requires significant political and institutional reformation along with technological advancement.

To further elaborate this insight, (Agrawal et al., 2024) which points out that robust circular economies are not created in isolation they require collaboration between academia, government and industry. It also serves to illuminate the interactions between formal regulatory systems and aspects of informal institutions, given that corporate environmental behaviour results from a puzzle composed of society’s norms, legal structures and institutional restrictions. And it is representative how institutional theory in this case is relevant.

Contemporary Developments and Future Directions

Green finance developments are both complexity and variety. (Kwilinski et al., 2025) show that countries’ emissions of greenhouse gases, climate risk and biodiversity conservation have significantly improved after issuing green financial instruments. We find a positive and significant impact of organizational ESG performance, GDP, and R&D expenditure across the countries. In contrast, both levels of urbanization do show comparative ESG performance (the negative and positive values respectively), suggesting that this interaction is more complex and reflects the importance of both location policy contextdependent drivers.

Research has shown that the COVID-19 pandemic, together with other recent exogenous shocks, had a massive impact on the relationship between accounting practices and sustainability outcomes. Strong post-COVID PFM significantly enhanced HDI outcomes relative to pre-pandemic trends, as shown by (Nakpodia et al., 2024), who illustrate that the pandemic profoundly altered the dynamics of accounting practices, PFM, and SDG achievement. These findings indicate that crisis situations may expedite the adoption of green financing methods but, they also reveal the vulnerability of sustainability programs to external meddling.

(Agrawal et al., 2024) identify four main research clusters: innovation and sustainable development with green finance, financing in sustainable operations, green finance for innovative waste management, and financing in energy-efficient technologies for sustainable development. They highlight green innovation and green finance as one of the major propositions in contemporary theme. Current GPFM therefore includes, as this framework points out, innovation ecosystems, operational efficiency, waste management and energy systems as well as traditional financial management problems.

Synthesis and Gap Analysis

Green management of public finance is a complex and multidimensional challenge that requires integrating political, institutional, and technical aspects as per the research. However, despite a large body of empirical evidence indicative of a positive associational relationship between quality accounting procedures and performance, little is known about the best ways to leverage these rigorous standards across varying settings. Two major challenges are the problems of standardizing measurements and the fact that political issues trump technical ones.

This literature reflects significant knowledge gaps in terms of manner in which pragmatic tools for local government practice have been developed and how GPFM has found its way into subnational financial reporting systems. There are far fewer studies that investigate the practical dilemmas regional and local governments encounter while attempting to implement universal green funding schemes compared to those focusing on national-level policies and international governance frameworks. Moreover, the literature inadequately addresses the professional development needs of public sector accountants to get the requisite skills for the effective implementation of GPFM.

While earlier research has established a robust theoretical foundation for comprehending the various methodologies of sustainability accounting, contemporary studies prioritize the necessity for pragmatic solutions to bridge the disparity between the principles of sustainability accounting and the constraints encountered in their practical application. These tendencies show that GPFM needs a continual mix of theory and practice to go forward in the future, particularly when it comes to satisfying the needs of different institutional and economic environments.

DISCUSSION

Indonesia is one of the countries most affected by climate change, yet it is also the fourth-largest producer of greenhouse gases in the world, making up around 2.3% of all emissions. The country's 17,504 islands have a lot of different kinds of plants and animals, and the economy depends on using natural resources. Rising sea levels, more frequent and severe weather events, and faster ecological decline all threaten this biodiversity and the economy. As evidenced by PT Timah's harmful mining operations in Raja Ampat, traditional public financial management systems always ignore the costs to the environment and the effects on long-term sustainability. The government put short-term rewards from tourism, fishing, and conserving biodiversity ahead of the long-term benefits of maintaining Raja Ampat as a Marine Conservation Area, even though 75% of the world's coral species live there.

Indonesia's public sector accounting system treats environmental damage as an externality rather than a direct cost to public welfare. It suggests that there are more significant faults in the system. This means that natural capital is always undersold. According to the World Bank, Indonesia loses some 2.3% of its GDP annually due to environmental damage. But this number is rarely used in budgeting or writing of financial reports. Due to space limitations only empirical findings from (Nakpodia et al., 2024) shows positive correlations between accounting and SDG achievement, particularly noteworthy considering the sharp improvements in SDG outcomes in low-income countries that has been achieved through improved financial management systems. Indonesia's environmental problems have been critical despite the ongoing economic growth therefore, accounting practices need to shift from mere compliance to strategic management tools for sustainable development. This is as much an extraordinary opportunity and a huge necessity.

Public Sector Accounting plays a critical part in facilitating Green Public Financial Management. It does so by providing many of the tools for tracking and improving the environmental impacts of budget decisions, as well as more standard recording and reporting chores. As per (Ball, 2004) theory of accounting and ecology light green and dark green, Indonesia can have transformations in the government through accounting systems. Dark green strategies would be fundamentally opposed to development based on resource extraction that brought disasters such as the Raja Ampat mining operations. Light green strategies might be much more modest, aimed at small wins such as energy efficiency in municipal buildings or sustainable procurement policies.

From a run-of-the mill record keeping mechanism, International accounting systems will become a working tool of planning and implementing continuous growth. (La Torre et al., 2024) note this in European instances where factors have been considered environmentally in accounting for budgets. Indonesia's the Paris agreement and Nationally Determined Contributions. Therefore, Indonesia needs (Fleischman & Schuele, 2006) green accounting concept which is environmental awareness with honesty in reporting.

Detailed environmental accounting frameworks by Indonesian government agencies would let them monitor progress toward emission reductions and discover inexpensive opportunities for both adaptation to climate change and mitigation activities, taking advantage of Indonesia’s strengths in renewable energy and forest conservation. Accounting will not simply be cash based for public sector accountants employed by governments, but should recognise the monetary value (the ecosystem service approach) of natural capital. And note to the economists: they should also learn how do green budgeting (which applies EIAs) to inform how money gets spent. This kind of accounting framework would be useful in Raja Ampat to put a dollar value on the benefits generated by marine-based tourism, which adds more than $1.8 billion annually for Indonesia the productive capacity of fisheries, which support millions of jobs and biodiversity conservation, which helps control global warming and may prevent mining operations from destroying this unique ecosystem.

There are several extent GPFM problems in Indonesia, which is also a common problems experienced by other developing countries that implement the green fund concept. The results of (Nakpodia et al., 2024) underlining there could be potential negative consequences of accounting practice reforms on middle-income countries emphasize the importance for careful planning of the order in which reform is implemented and building capacity within Indonesia's complex institutional landscape towards national transformation. With its vast archipelagic topography, the eco-regions of Indonesian cities 514 cities and districts with varying levels of technical skills, political will, and environmental concerns make it all the more difficult to apply different green accounting systems.

Lack of such intense and signed regulatory framework is one of the key barriers in the implementation of Green Public Financial Management. Existing Government Accounting Standards are primarily focused on traditional financial accounting and do not imposes mandatory requirements for natural capital accounting or environmental impact disclosure. Institutional capacity has been particularly weak; environmental accounting or sustainability reporting training was provided to less than 15% of public sector accountants in Indonesia, a number highlighted in 2023 by the Indonesian Institute of Accountants.

The separation of environmental data across government departments makes it hard to do a full environmental impact assessment, which makes it much harder to put plans into action. This gap in professional growth is in line with what other research has found: that environmental accounting requires specific abilities. It is particularly hard to integrate environmental considerations in budget planning since the Ministry of Finance and the Ministry of Environment and Forestry maintain their databases separate. The Raja Ampat mining catastrophe has clear environmental and economic implications, but there are also political economy issues that make it harder to put the plan into action. This is because Indonesia's political system encourages politicians to focus on visible, short-term development projects instead of long-term investments in protecting the environment.

Even with all of these problems, Indonesia has a possibility to become a regional leader in eco-friendly public finance management because of its new digital governance infrastructure. This makes it possible for innovative and creative ways to execute GPFM. The government's ambitious digitalization agenda, which includes the One Data Indonesia initiative and integrated government service platforms, could lead to environmental monitoring and reporting systems that use satellite monitoring data, AI-enhanced environmental impact assessments, and blockchain-based natural capital accounting.

It is very important for green finance projects to have outside checks, thus there is a big chance to make GPFM more accountable by giving Indonesia's Supreme Audit Institution (BPK) and Financial and Development Supervisory Agency (BPKP) more tools for environmental audits. The literature's emphasis on integrated methods to the implementation of green financing indicates potential for inter-ministerial cooperation. The Ministry of Finance, in conjunction with the Ministry of Environment and Forestry, and Bappenas can work to fill gaps and use each group’s specific expertise to tackle fragmentation issues.

Indonesia's system of decentralized governance is being tested, and can be enhanced with environmental accounting within the financial management systems of broad regions. Salah satunya adalah Sistem Informasi Keuangan Daerah (SIPD). It could do better — like by being able to monitor environmental impact and tagging budgets along green lines. If coordinated with, e.g., professional accounting organizations, schools and foreign assistance agencies, this knowledge could be spread and strengthen on the ground capabilities. This could translate Indonesia's large number of public sector accounting personnel into a sustainability true-up strategic advantage.

By 2030, Indonesia aims to achieve the Sustainable Development Goals (SDGs), reach net-zero emissions by2060 and become a developed country in 2045. Such objectives are conducive to investing in capabilities to stimulate green finance. Base on the experts, the sustainable(sustainable) framework of financial resources for the GPFM implementation activities could be developed. (Kwilinski et al., 2025) stating a positive relationship between green financing and ESG performance. And by investing in green accounting abilities, that would in turn yield more thorough reforms of government, a stronger economy and better environmental outcomes.

The literature review shows that Green public financial management is much different from regular accounting changes and presents challenges to the public sector leaders with democratic accountability and reforms for intergenerational equity concerning sustainable development that may align with it [18]. The ramifications of GPFM in Indonesia are broader than those traditionally captured by the current government accountability frameworks (for example indigenouss3 groups, future generations and international obligations to the climate) mediating stakeholder theory. In the Raja Ampat case, however, those communities and environmental groups potentially affected were not included in any standard stakeholder analysis as potential inputs to decision-making.

The finding of a positive relationship in our study suggests that accounting quality and sustainability performance are linked. So, fostering GPFM capacity in Indonesia can induce desirable reforms as good governance, better institutions and significantly enhanced environmental protection. If Indonesia wants to move beyond compliance and start measuring up on sustainability goals as well as being frank about the environmental costs of its machinery, it will need reform in public sector accounting legislation. In this journey, we must necessarily question the basic logical assumptions of government financial reporting.

Indonesia has a chance to share lessons with the world about how to improve environmental or sustainability considerations in domestic public finance management systems. And it is coupled with a deeper gymnastic gap new skills, refreshed education curriculum, different ways of assessing public sector financial management performance. The scale of the transformation knows no state boundaries, and other developing small archipelagic countries may learn here good lessons on errors in GPFM made by Indonesia itself in the face of geographical dispersion challenges, limitations of institutional capacity and allocation of resources.

The future consists of the awareness that environmental sustainability is no longer a signal potential growth hindrances, but rather a condition for economic progress and social stability to be maintained before climate change and the extinction of biological diversity accelerates. Indonesia's public finance management systems needed to respond to environmental issues so that the country trajectory of development supported not only current but also future generations while contributing to global efforts in addressing problems such as environmental degradation.

These new paradigms around managing public money to restore balance between economic growth, environmental protection and social equity alone can allow Indonesia to lead the world on its path to sustainable development. This disaster is undoubtedly a raja ampat symptom of corrupt and ineffective government, but it could engender institutional change. Indonesia can become a template and benchmark for developing countries around the world, if it manages to turn its natural resource endowments and quality institutional framework into sustainable wealth generation while preserving them with optimal value of Indonesia's economic potential. Research have shown that quality accounting process leads to high implementation of sustainability results.

CONCLUSION

This study systematically reviewed six peer-reviewed articles from 2004 to 2025, with a view to determine the potential role of public sector accounting in Indonesia's adoption of Green Public Financial Management (GPFM). This adds to the existing literature by providing a unique outline for developing archipelagic nations when it comes to GPFM implementation.

The proposition contributes to the following three major aspects. First, it suggests that standardized systems are likely detrimental to accounting quality and sustainability outcomes in middle income countries such as Indonesia. This makes it less likely that there is a uniform positive relationship between the two. Second, it draws on the PT Timah case in Raja Ampat to show that these costs contribute 2.3% of GDP but are not captured in official government statistics because natural capital is still undervalued by conventional accounting systems and the contribution of the 'real economy' is therefore underestimated. Third, it finds that Indonesia has a unique opportunity to effectively adapt GPFM through technology-enabled solutions within its digital governance infrastructure.

This is a companion contribution to (Ball, 2004) and provides new empirical evidence: the experience of developing countries implies that relative gains are more likely from light green than dark greens. This is a valuable contribution because it presents the first leaning GPFM in one major developing country having very serious environmental problems. Prior research has focused on industrialized economies. The findings nonetheless show that tools, developed for richer economies and in the context of GPFM applied to poor country contexts proved irrelevant. A further challenge is to develop mechanisms for ministries or departments working together on crosscutting issues, the evidence-based digital infrastructures will need to be deployed context relevant and tip into existing institutional capacities.

Indonesianenlanguaged summary An extension of this narrative review method cannot be generalized up to Indonesia. Future work would benefit from longitudinal analyses of the impacts of implementation, as well as comparisons to other developing nations. Such research will benefit policymakers, practitioners and academics involved in sustainability transitions both theoretically and practically by assisting to refine their understanding of the role of integrating sustainable public finance management systems into a developing country.

REFERENCE

Adnyana, I., & IMP Adiputra. (2024). Pengaruh green accounting, profitabilitas dan corporate social responsibility terhadap sustainable development goals dengan ukuran perusahaan

sebagai variabel. *Ejournal.Undiksha.Ac.Id*.
Agrawal, R., Agrawal, S., Samadhiya, A., Kumar, A., Luthra, S., & Jain, V. (2024). Adoption of green finance and green innovation for achieving circularity: An exploratory review and future directions. *Geoscience Frontiers*, *15*(4), 101669. https://doi.org/10.1016/j.gsf.2023.101669
Amin, A., bte Mohamed Yusoff, N. Y., Peng, S., Magazzino, C., Sharif, A., & Kamran, H. W. (2025). Driving sustainable development: The impact of energy transition, eco-innovation, mineral resources, and green growth on carbon emissions. *Renewable Energy*, *238*, 121879. https://doi.org/10.1016/j.renene.2024.121879
Anderson, J. (2016). Environmental Finance. In *Handbook of Environmental and Sustainable Finance* (pp. 307–333). Elsevier. https://doi.org/10.1016/B978-0-12-803615-0.00015-7
Asriani, N. K. A., Werastuti, D. N. S., & Atmadja, A. T. (2024). The Influence of Intellectual Capital and Environmental Performance on Company Value with Financial Performance as an Intervening Variable in Manufacturing Companies. *Jurnal Ilmiah Akuntansi*, *9*(1), 159–185. https://doi.org/10.23887/jia.v9i1.69045
Ball, A. (2004). A sustainability accounting project for the UK local government sector? *Critical Perspectives on Accounting*, *15*(8), 1009–1035. https://doi.org/10.1016/S1045-2354(02)00209-5
Beauchamp, S., & Hicks, C. (2004). Financial Management and Effectiveness in Public Service Organizations: The CIPFA FM Model. *Public Money & Management*, *24*(3), 185–191. https://doi.org/10.1111/j.1467-9302.2004.00418.x
Cardillo, E., & Longo, M. C. (2020). Managerial Reporting Tools for Social Sustainability: Insights from a Local Government Experience. *Sustainability*, *12*(9), 3675. https://doi.org/10.3390/su12093675
Cardona Valencia, D., & Calabuig Tormo, C. (2023). The Impact of Green Banking Activities on Banks' Green Financing and Environmental Performance. *Scientific Papers of the University of Pardubice, Series D: Faculty of Economics and Administration*, *31*(1). https://doi.org/10.46585/sp31011681
Dewi, G. A., & Wulandari, A. A. A. I. (2023). Tantangan dan Harapan Implementasi Sistem Informasi Pengelolaan Keuangan Daerah di Wilayah Provinsi Bali. *Jurnal Ilmiah Akuntansi Dan Bisnis*, *8*(2), 106–111. https://doi.org/10.38043/jiab.v8i2.4619
Fashli, A., Herdiansyah, H., & Dwi Handayani, R. (2019). Application of green banking on financing infrastructure project industry: environmental perspective. *Journal of Physics: Conference Series*, *1175*, 012027. https://doi.org/10.1088/1742-6596/1175/1/012027
Fleischman, R. K., & Schuele, K. (2006). Green accounting: A primer. *Journal of Accounting Education*, *24*(1), 35–66. https://doi.org/10.1016/j.jaccedu.2006.04.001
Greenhalgh, T., Thorne, S., & Malterud, K. (2018). Time to challenge the spurious hierarchy of systematic over narrative reviews? *European Journal of Clinical Investigation*, *48*(6). https://doi.org/10.1111/eci.12931
Hermawan, I., & LS Musmini. (2025). Pengaruh Corporate Social Responsibility Dan Green Accounting Terhadap Kinerja Keuangan Serta Dampaknya Pada Harga Saham Perusahaan Sektor Property. *JIMAT (Jurnal Ilmiah Mahasiswa Akuntansi) Universitas Pendidikan Ganesha*, *16*(1), 129–143.
Hu, Q., Li, X., & Feng, Y. (2022). Do Green Credit Affect Green Total Factor Productivity? Empirical Evidence from China. *Frontiers in Energy Research*, *9*. https://doi.org/10.3389/fenrg.2021.821242
I Lapsley. (2008). The NPM agenda: back to the future. *Financial Accountability & Management*, *24*(1), 77–96. https://doi.org/10.1111/J.1468-0408.2008.00444.X
Kwilinski, A., Lyulyov, O., & Pimonenko, T. (2025). The role of green finance in attaining environmental sustainability within a country's ESG performance. *Journal of Innovation & Knowledge*, *10*(2), 100674. https://doi.org/10.1016/j.jik.2025.100674
La Torre, M., Leo, S., Palma, A., & Zapata, J. D. S. (2024). Public spending and green finance: A systematic literature review. *Research in International Business and Finance*, *68*, 102197.

https://doi.org/10.1016/j.ribaf.2023.102197

Lutfi, A., Alqudah, H., Alrawad, M., Alshira'h, A. F., Alshirah, M. H., Almaiah, M. A., Alsyouf, A., & Hassan, M. F. (2023). Green Environmental Management System to Support Environmental Performance: What Factors Influence SMEs to Adopt Green Innovations? *Sustainability*, *15*(13), 10645. https://doi.org/10.3390/su151310645

ly, B. (2025). Leveraging leadership and digital transformation for sustainable development: Insights from Cambodia's public sector. *Sustainable Futures*, *9*, 100545. https://doi.org/10.1016/j.sftr.2025.100545

Mir, A. A., Bhat, A. A., Al-Adwan, A. S., Farooq, S., Jamali, D., & Malik, I. A. (2025). Green banking practices and customer satisfaction-way to green sustainability. *Innovation and Green Development*, *4*(2), 100221. https://doi.org/10.1016/j.igd.2025.100221

Muradi, M. , & R. Z. (2013). AKUNTABILITAS PELAYANAN PUBLIK. . *Jurnal Administrasi Pembangunan*, *1*(2).

Musmini, L. S., & Yuniarta, G. A. (2023). Understanding Solidarity in Cooperative Lessons to Become Stronger and Independent. In *Proceedings of the Unima International Conference on Social Sciences and Humanities (UNICSSH 2022)* (pp. 1327–1336). Atlantis Press SARL. https://doi.org/10.2991/978-2-494069-35-0_159

Naderi, N., & Tian, Y. (2022). Leveraging Blockchain Technology and Tokenizing Green Assets to Fill the Green Finance Gap. *Energy RESEARCH LETTERS*, *3*(3). https://doi.org/10.46557/001c.33907

Nakpodia, F., Sakariyahu, R., Fagbemi, T., Adigun, R., & Dosumu, O. (2024). Sustainable development goals, accounting practices and public financial management: A pre and post COVID-19 assessment. *The British Accounting Review*, 101466. https://doi.org/10.1016/j.bar.2024.101466

Palgunadi, N., & GA Yuniarta. (2024). Influence Intellectual Capital And Green Accounting Against Financial Performance with Business Strategy As Moderator. *Asian Journal of Management, Entrepreneurship and Social Science*, *4*(0), 377–399. https://doi.org/10.63922/AJMESC.V4I02.754

Pratama, I., Adam, N. C., & Kamardin, H. (2019). CORPORATE SOCIAL RESPONSIBILITY DISCLOSURE (CSRD) QUALITY IN INDONESIAN PUBLIC LISTED COMPANIES. *Polish Journal of Management Studies*, *20*(1), 359–371. https://doi.org/10.17512/pjms.2019.20.1.31

Purnamawati, I. G. A. (2018). GREEN ACCOUNTING: A MANAGEMENT STRATEGY AND CORPORATE SOCIAL RESPONSIBILITY IMPLEMENTATION. *International Journal of Community Service Learning*, *2*(2). https://doi.org/10.23887/ijcsl.v2i2.14198

Putra, I. G. M. P., Werastuti, D. N. S., & Adiputra, I. M. P. (2024). Penerapan Green accounting dan Business strategy Terhadap Nilai Perusahaan dengan Return Saham Sebagai Variabel Intervening. *Jurnal Penelitian Dan Pengembangan Sains Dan Humaniora*, *8*(3), 437–448. https://doi.org/10.23887/jppsh.v8i3.81795

Rahman, Md. H., Rahman, J., Tanchangya, T., & Esquivias, M. A. (2023). Green banking initiatives and sustainability: A comparative analysis between Bangladesh and India. *Research in Globalization*, *7*, 100184. https://doi.org/10.1016/j.resglo.2023.100184

Riyanti, R. S., Wulandari, P., Prijadi, R., & Tortosa-Ausina, E. (2025). Green loans: Navigating the path to sustainable profitability in banking. *Economic Analysis and Policy*, *85*, 1613–1624. https://doi.org/10.1016/j.eap.2025.01.028

Tommasetti, A., Mussari, R., Maione, G., & Sorrentino, D. (2020). Sustainability Accounting and Reporting in the Public Sector: Towards Public Value Co-Creation? *Sustainability*, *12*(5), 1909. https://doi.org/10.3390/su12051909

Tuyon, J., Onyia, O. P., Ahmi, A., & Huang, C.-H. (2023). Sustainable financial services: reflection and future perspectives. *Journal of Financial Services Marketing*, *28*(4), 664–690. https://doi.org/10.1057/s41264-022-00187-4

Yuniarta, G. A., Prayudi, M. A., Devi, S., & Dharmayasa, I. P. A. (2023). Transformation of Green Accounting Implementation Aspects Prior to and During the COVID-19 Pandemic.

In *Proceedings of the Unima International Conference on Social Sciences and Humanities (UNICSSH 2022)* (pp. 1284–1295). Atlantis Press SARL. https://doi.org/10.2991/978-2-494069-35-0_155

Zhang, Y. (2023). Impact of green finance and environmental protection on green economic recovery in South Asian economies: mediating role of FinTech. *Economic Change and Restructuring*, *56*(3), 2069–2086. https://doi.org/10.1007/s10644-023-09500-0