



PUBLIC ASSET MANAGEMENT STRATEGY THROUGH GREEN SUKUK AND PUBLIC-PRIVATE PARTNERSHIP INTEGRATED FRAMEWORK

Nayla Maulida Ellysia Rahma^{1*}, Rehan Perdana Putra², Syahrir Akbar³

¹Public Sector Accounting, Polytechnic of State Finance STAN, Indonesia

^{2,3}State Financial Management, Polytechnic of State Finance STAN, Indonesia

*Corresponding Email: Nayla_4131230197@pknstan.ac.id

ABSTRACT

This research aims to analyze public asset management strategies through the framework of integrating green sukuk and public-private partnerships (PPPs). A qualitative approach is employed, with data collected through a literature review to gather information on the potential and challenges of implementing such policies. The data is then analyzed descriptively to outline the framework for the proposed strategy. The findings of this study indicate that the primary potential of integrating green sukuk and PPP lies in inclusive and sustainable funding sources, significant environmental and social benefits, and efficient risk management. On the other hand, challenges to be addressed include regulatory complexity, limitations in financial capacity and infrastructure, and fluctuating investor risk perceptions. The framework for integrating green sukuk and PPP in public asset management begins with project planning and fundraising, selection and agreement with business entities, asset implementation and maintenance, followed by evaluation, reporting, and contract renewal. These stages are realized through a policy practice plan based on a pilot project.

Keywords: Public Asset, Management Strategy, Green Sukuk, Public-Private Partnership

ABSTRAK

Penelitian ini bertujuan untuk menganalisis strategi pengelolaan aset publik melalui kerangka integrasi sukuk hijau dan kemitraan publik-swasta (KPBU). Pendekatan kualitatif digunakan, dengan data yang dikumpulkan melalui tinjauan literatur untuk mengumpulkan informasi tentang potensi dan tantangan penerapan kebijakan tersebut. Data kemudian dianalisis secara deskriptif untuk menguraikan kerangka kerja untuk strategi yang diusulkan. Temuan penelitian ini menunjukkan bahwa potensi utama integrasi sukuk hijau dan KPBU terletak pada sumber pendanaan yang inklusif dan berkelanjutan, manfaat lingkungan dan sosial yang signifikan, serta manajemen risiko yang efisien. Di sisi lain, tantangan yang harus ditangani termasuk kompleksitas regulasi, keterbatasan kapasitas dan infrastruktur keuangan, serta persepsi risiko investor yang berfluktuasi. Kerangka kerja untuk mengintegrasikan sukuk hijau dan KPBU dalam pengelolaan aset publik dimulai dengan perencanaan proyek dan penggalangan dana, seleksi dan kesepakatan dengan badan usaha, implementasi dan pemeliharaan aset, dilanjutkan dengan evaluasi, pelaporan, dan perpanjangan kontrak. Tahapan-tahapan ini diwujudkan melalui rencana praktik kebijakan berdasarkan proyek percontohan.

Kata Kunci: Aset Publik, Strategi Manajemen, Green Sukuk, KPBU

INTRODUCTION

This decade, the world faces significant challenges in achieving the goal of overall societal welfare. These challenges are driven by population growth, rapid urbanization, and climate change, which distort development efforts. This necessitates global shifts and sustainable development initiatives (Moallemi et al, 2020). In addition to these issues, many countries, particularly developing nations, face budgetary constraints in financing national development (Valido, 2020). These constraints pose significant challenges to the implementation of strategic plans aimed at achieving societal welfare goals (Ahmad, A., & Zaheer, 2014). Such challenges serve as an incentive to explore alternative financing methods that are more effective and efficient, such as leveraging the role of green sukuk.

Green sukuk is a financial instrument designed to fund projects focused on environmental sustainability, such as renewable energy and green transportation (Alam et al, 2023). This instrument represents a breakthrough in aligning financial markets with the global agenda for sustainable development. The green sukuk initiative has also emerged as a reflection of growing societal awareness of the need to integrate sustainability into development processes. In this context, the government acts as a catalyst, playing a crucial role in ensuring that the primary goal of financing sustainable development can be effectively realized.

To achieve successful sustainable development, enhancing the effectiveness and efficiency of asset management is crucial (Sandu, Varganova and Samii, 2023). Efficient and effective asset management can increase profitability within a production framework based on maintenance strategies, particularly in supporting sustainable development through appropriate planning models and approaches. To facilitate financing and development processes while maintaining sound asset management practices, collaboration between the government and the private sector is essential (Martimort, Fay and Straub, 2018).

The collaboration between the government and the private sector in infrastructure development serves as a critical solution to address public budget constraints. This form of collaboration is known as Public-Private Partnership (PPP), which facilitates joint efforts in financing, constructing, and managing the operations of public assets while maintaining efficiency in project execution (McHugh, 2021). The partnership between the government and the private sector is of great urgency in development, considering the roles of both sectors and their influence on various components of development.

Data from the Directorate General of Financing and Risk Management (DJPPR), which closed in 2023, shows a significant increase in the sale of green sukuk. One of the forms of State Sharia Securities (SBSN), with the series ST011T4 or green sukuk, reported a total sale of Rp5.5 trillion, indicating high investor interest in green sukuk investments. Public-private partnerships also show a positive trend in Indonesia, directly overseen by Bappenas. This policy, with its potential, could serve as a reference for updates, with innovations such as the integration of green sukuk and public-private partnerships.

Policy integration is a process oriented toward strategic and administrative decision-making aimed at addressing issues related to policy sectors (Tosun and Lang, 2017). It serves as a mechanism to overcome policy fragmentation and ensure coherence across different domains of governance. In the context of public asset management, the benefits provided by these two policies are examined through the exploration of an integration model. Such a model is expected to support the management and development of public infrastructure while minimizing resource constraints and promoting sustainability.

With professional management oriented toward sustainable development, this integration model can be optimized not only to address resource requirements but also to encourage the active participation of multiple stakeholders in achieving long-term development objectives. Such an approach highlights the importance of collaboration between government, private sector, and financial institutions in strengthening public asset

management. Building on this perspective, the present study seeks to examine how green sukuk and public-private partnerships can be effectively integrated. Accordingly, the aim of this research is to identify the potential and challenges of such integration and to propose an integrated framework that supports national development goals.

LITERATURE REVIEW

Green sukuk has emerged as an innovation from developed countries with a high awareness of sustainable development. This concept aims not only to support economic growth but also to ensure optimal and responsible efficiency in the preservation of natural resources (Karina, 2019). Green sukuk is an Islamic financing instrument specifically designed to fund environmentally friendly and sustainable projects (green projects). It serves as a financial security instrument that has the potential to contribute to long-term economic stability with a focus on sustainability (Karina, 2019).

The implementation of green sukuk emphasizes investments aimed at preserving environmental assets and natural resources through infrastructure collaboration schemes. Infrastructure development is a primary objective in long-term planning, aiming to enhance economic aspects, societal welfare, and social resilience. Achieving these goals requires effective collaboration and synergy among various stakeholders with aligned visions.

Public-Private Partnership (PPP) represents a strategic collaboration between the government and the private sector in developing or managing infrastructure projects. This partnership aims to accelerate infrastructure development and ensure better service delivery for the well-being of society (Abbas, 2018). Through the PPP scheme, the private sector contributes to the management of infrastructure assets, including financial, managerial, and risk-sharing roles during project implementation (Karniawati, 2023). This collaboration not only increases efficiency but also alleviates the financial burden on the government.

Sustainable infrastructure financing focuses on developing projects that bring positive impacts to society and the environment. The priority of such projects includes minimizing environmental impact, resource efficiency, and strengthening socio-economic resilience. Sustainable infrastructure funding generally originates from innovative financial instruments such as green sukuk, green bonds, and support from international institutions committed to sustainable development (World Bank, 2024). Green sukuk is particularly relevant for funding environmentally conscious projects (Risanti, Alwyni and Nadya, 2020).

This approach also helps address the government's budget constraints by involving private sector participation. Strong and long-term institutional collaboration enables the achievement of shared objectives in a complementary manner (Karniawati, 2023). In Indonesia, the PPP model has been applied in various major projects, such as toll road and port development, significantly accelerating infrastructure progress and enhancing efficiency.

This study is further supported by comparative analyses of previous research, identifying similarities and differences in the context of green sukuk and PPP. These analyses provide insights into research gaps, which serve as a solid foundation for formulating the objectives of this study.

METHODS

This study employs a qualitative method with a descriptive approach. As stated by Syafrida Hafni (2021), qualitative methods focus on understanding perceptions of a phenomenon, analyzing collected data descriptively. Similarly, Sugiyono (2021) affirms that qualitative research is rooted in a philosophy applied to investigate in scientific conditions, where the researcher serves as the primary instrument, focusing on meaning-making. This approach is particularly suitable for research that aims to delve into strategies, as it allows for in-depth exploration based on perceptions derived from data analysis.

In line with this, the qualitative method provides a framework for studying a

phenomenon by emphasizing in-depth understanding, which is obtained through careful analysis of the data. This research methodology is ideal for this study, which aims to describe asset management through the integration of green sukuk and the public-private partnership (PPP) mechanism. This study specifically seeks to examine how these two mechanisms can support the achievement of sustainability goals in the context of Indonesia.

The object of research, according to Sugiyono (2021), refers to the scientific target that serves as the basis for gathering information necessary to obtain reliable, valid, and objective data. In this study, the object of research encompasses the theoretical framework and the practical application of green sukuk, the PPP mechanism, and public asset management in relation to sustainability goals in Indonesia. These components are critical to understanding how the integration of these elements can contribute to the effective management of public assets.

To support the research, data sources are essential. Sugiyono (2021) explains that secondary data, which is obtained from second-hand sources, is used when direct data collection is not possible. In this study, the researcher uses secondary data from sources such as books, journals, proceedings, and other relevant documents. These sources provide the necessary background and context for understanding the relationship between green sukuk, PPP, and asset management.

The technique for collecting data in this study is a literature study, which is consistent with Sugiyono's (2021) definition of data collection techniques. A literature study involves reviewing theoretical frameworks and other references that relate to values, culture, and norms within the social context being researched. Data obtained through this method includes relevant information found in books, journals, articles, and previous research that aligns with the study's focus on green sukuk and public-private partnerships.

Finally, the data analysis technique used in this study follows a qualitative approach, which allows for flexibility in applying various research analysis techniques, such as triangulation. Miles and Huberman (1984) describe qualitative data analysis as an ongoing process in which activities are interconnected and conducted continuously until data saturation is achieved. The main steps in qualitative data analysis include data reduction, data presentation, and drawing conclusions or verification. These processes enable the researcher to identify patterns and draw meaningful insights from the data.

RESULT AND DISCUSSION

Potential and Development Outlook

Public asset management through green sukuk and public-private partnership (PPP) offers significant opportunities to strengthen sustainable financing and infrastructure development. These opportunities reflect both the potential of innovative financial instruments and the growing demand for environmentally responsible investments. The following points highlight the key opportunities that can be leveraged to optimize asset management strategies.

1. Inclusive and Sustainable Funding Sources

Green sukuk offers environmentally-oriented investment opportunities for diverse groups of investors, including both Islamic and conventional financial institutions, to support sustainable financing. This instrument expands access to funding for infrastructure projects aligned with sustainability agendas, such as eco-friendly transportation, climate change adaptation, and water management. In 2023, green sukuk successfully raised USD 6.9 billion or approximately IDR 109.3 trillion. Meanwhile, public-private partnerships (PPP) schemes provide a strategic approach to developing, operating, and managing infrastructure. PPP enables the government to leverage additional capital and technical expertise from the private sector to meet increasing infrastructure needs driven by population and economic growth. This approach is an effective solution to support sustainable infrastructure financing in the long term (World Bank, 2024).

2. Environmental and Social Benefits

Green sukuk serves as a vital financial instrument for environmental conservation. As a developing country, Indonesia promotes substantial development across various sectors, often leading to excessive natural resource exploitation with adverse environmental impacts (Karina, 2019). The presence of green sukuk is both essential and promising, ensuring that development considers environmental preservation. Its benefits extend beyond environmental aspects to social welfare. This instrument supports infrastructure development with ecological and social considerations, including better waste management, renewable energy utilization, and reforestation. Positive social impacts are evident, such as the creation of new job opportunities in environmentally friendly sectors, thereby improving the standard of living for surrounding communities.

3. Risk Management and Efficiency

Green sukuk is a unique investment instrument often categorized as high-quality with relatively low risk. According to Hariyanto (2015), this instrument can mitigate environmental and social risks that might arise from conventional infrastructure projects. Within the PPP framework, the financial risk burden typically borne by the government can be shared with the private sector, thereby enhancing efficiency and reducing the government's fiscal burden (World Bank, 2024). Moreover, the strengthening framework related to green sukuk fund allocation ensures that investments remain risk-averse and positively impact sustainable development.

Key Barriers and Constrains

Despite its promising potential, the integration of green sukuk and PPP in public asset management faces several critical challenges. These challenges stem from regulatory complexity, market readiness, and institutional capacity that may hinder effective implementation. The following points outline the main barriers that need to be addressed to ensure the success of this strategy.

1. Regulatory Complexity

Proper and complex regulations aim to ensure the successful implementation of policies. However, without regular evaluation, these regulations have the potential to hinder policy achievement. Regulations regarding the implementation of Public-Private Partnerships (PPP) in Indonesia are directly governed by Presidential Regulation Number 78 of 2010, which strictly addresses the implementation of PPP or Government-to-Business Cooperation (KPBU) in Indonesia. Challenges often arise during the planning process within the cooperation framework. Consequently, many private entities fail to meet the administrative requirements stipulated by existing regulations. In this context, regulatory complexity may hinder the optimization of the process and necessitates evaluation and adjustment.

2. Capacity and Financial Infrastructure Constraints

The limitation of resources, particularly budgets, is the biggest obstacle in asset management focused on sustainable development. To address this issue, an analysis of the benefits of green sukuk and public-private partnerships (PPP) serves as the primary foundation for formulating policy integration strategies, involving community and private sector participation as solutions to capacity and budget constraints. However, the implementation of PPP faces challenges such as poor stakeholder management, the complexity of risk management models, extended project timelines, frequent cost overruns, inadequate consideration of all aspects of the project lifecycle, and excessive reliance on the Public Sector Comparator (Grimsey and Lewis, 2002). These challenges must be addressed to ensure the effectiveness of policies and the achievement of sustainable development goals.

3. Investor Risk Perception

Green Sukuk, as a financial instrument and an investment form in public-private partnerships (PPP), involves collaboration between two parties, each bearing their own risks

and benefits. Creditors, including the public and private sectors, are motivated by the potential for returns; however, the lack of investor understanding regarding policies and risk assessments may result in negative perceptions of government-implemented policies, hindering the optimization of investment value (Jayasuriya, Zhang and Yang, 2019). Furthermore, risk evaluation in PPPs for infrastructure projects is inherently complex and requires comprehensive analysis from both public and private sector perspectives.

Conceptual Framework for Integration

The concept of public asset management through the integration of green sukuk and the Public-Private Partnership (PPP) framework focuses on the synergy between the public and private sectors to finance and manage sustainable infrastructure projects, such as renewable energy development, green transportation, and natural resource management. Green sukuk, as a sharia-compliant financial instrument, is used to raise funds for environmentally conscious projects, while PPP allows the involvement of the private sector in designing, building, and managing these projects, sharing both risks and benefits. The integration of both can address government budget constraints and increase private sector participation in supporting the achievement of sustainable development goals, optimizing public asset management, and improving transparency and accountability in large-scale projects.

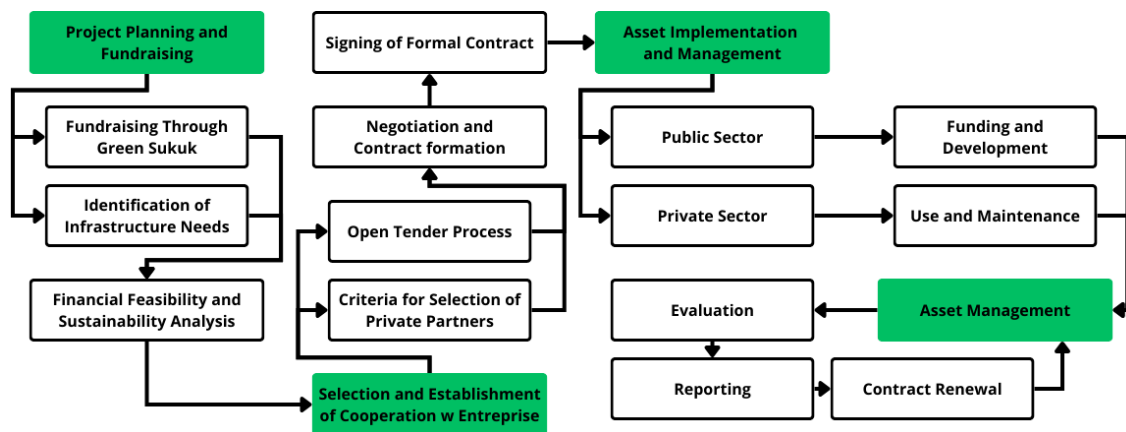


Figure 1. Green Sukuk and Public-Private Partnership Integrated Framework

Source: Processed by Authors, 2025

The integration of green sukuk and asset management through the public-private partnership (PPP) mechanism is a policy aimed at building sustainable infrastructure. In practice, this integration is transformed into a policy that goes through certain stages. Below are the stages in the implementation of this policy:

1. Project Planning and Fundraising

The first step in sustainable infrastructure project planning is identifying the type of infrastructure needed based on the priorities of the community. This identification is conducted through an analysis of the positive impacts the project can provide on quality of life, such as the development of renewable energy infrastructure or clean water management. Following this, the next step is to raise funds through green sukuk instruments. These instruments play a crucial role in financing infrastructure projects that support renewable energy and contribute directly to achieving sustainable development (Zain *et al.*, 2021).

Subsequently, financial feasibility analysis and project sustainability evaluation are carried out. This analysis includes financial projections and an assessment of the long-term environmental impact to ensure that the project is not only economically viable but also provides sustainable benefits for society and the environment.

2. Selection and Partnership Agreement with Business Entities

In managing public assets through partnerships with the private sector, careful selection of partners is done based on their commitment to sustainability and their technical and financial capacity to carry out sustainable infrastructure projects. Key criteria include experience with green projects, compliance with environmental standards, financial capabilities, and a good track record of collaboration. Afterward, a tender process is conducted to select private sector partners, followed by negotiations to set contract aspects such as risk-sharing, service standards, and responsibilities. Once the contract is clear, both parties sign it, binding them to comply with the agreement, ensuring mutual understanding of roles, responsibilities, and long-term commitments to sustainability goals.

3. Implementation and Asset Maintenance

At this stage, the government is responsible for the physical development of assets, while the private sector is assigned to manage operations and maintenance after construction is completed. Private sector participation in infrastructure programs can provide significant benefits, but balancing short-term gains with long-term sustainability goals requires effective governance practices (Warsen *et al.*, 2018). In terms of asset and infrastructure maintenance, the private sector is responsible for maintaining the optimal function of assets through regular and preventive maintenance. The private sector is expected to adopt environmentally friendly operational practices, including water efficiency, emission reduction, and sustainable waste management (Maqbool and Sridhar, 2023).

Overall, the government's role as the primary funder and developer of infrastructure, along with the private sector's role in maintaining and managing assets, represents a division of responsibilities that is expected to ensure the sustainability of the program. Thus, effective collaboration between the government and the private sector is anticipated to have a long-term positive impact on society and the environment.

4. Evaluation, Reporting, and Contract Updates

Evaluation at this stage involves assessing the performance of the partnership agreement within the PPP framework. The evaluation ensures that all asset management elements meet the established environmental, safety, and quality standards. Following the evaluation, periodic reporting is conducted, where the private sector provides updates on asset management and infrastructure performance to the government (Yang, Wang and Xiong, 2021). The report includes performance achievements, challenges encountered, and proposed resolutions. To maintain the relevance of the program's vision, contract updates are necessary in response to regulatory changes or emerging needs. This involves reviewing the contract terms and, if needed, renegotiating certain aspects, such as profit-sharing or risk allocation. Based on the evaluation results, the contract may be extended if the project shows positive results or terminated if the expected outcomes are not achieved.

In conclusion, the evaluation, reporting, and contract update stages form a triangulation of aspects aimed at ensuring transparency and quality in the collaboration program. These steps allow the government and private sector to optimize outcomes, address emerging challenges, and maintain the long-term relevance of the program.

This research makes a significant contribution to the literature linking green sukuk with public-private partnership (PPP) mechanisms in public asset management. The study demonstrates that integrating these two approaches can serve as an innovative solution to address budget constraints and support sustainable development. Theoretically, the findings broaden insights into how Sharia-compliant financial instruments can play a role in public-private partnership schemes to achieve sustainability goals. Public-private partnerships play a crucial role in promoting sustainable development and ensuring environmentally friendly economic growth, focusing on renewable energy, water supply, sanitation, and solid waste management (Tolstolesova, 2020). In this context, public administration plays a pivotal role in ensuring financial sustainability and compliance with regulatory constraints in urban sustainable development projects (Morano *et al.*, 2021). The proposed model in this research

also provides a framework that can be adapted for future studies to explore other aspects of public asset management.

From a practical perspective, this study provides guidance for the government and private sector to implement sustainable infrastructure projects through the integration of green sukuk and PPP. By understanding the associated benefits, challenges, and risks, stakeholders can design more effective strategies in asset management, risk allocation, and fundraising. Green sukuk can effectively finance sustainable economic development in Indonesia, including climate change mitigation in various renewable energy sectors (Santoso, 2020). Furthermore, green sukuk also positively impacts the implementation of Sustainable Development Goals (SDGs), though it requires government support and strategic policies to maximize its potential and social impact (Araminta, Qudziyah and Timur, 2022). The proposed framework in this study can serve as a guideline for pilot projects in infrastructure sectors, such as eco-friendly transportation or water resource management, thereby supporting the achievement of holistic sustainable development.

Based on the research, several policy recommendations can be made, including:

1. Inclusive Policy Development

The government needs to develop policies that encourage collaboration between the public and private sectors, including providing incentives to investors participating in green sukuk-based projects. These policies can leverage the potential of green finance, which effectively facilitates economic inclusion and addresses resource depletion while supporting the transition toward a green and inclusive economy. Furthermore, green finance plays a crucial role in promoting the equitable distribution of benefits with an environmental awareness orientation, thereby supporting fair and sustainable development (Van Niekerk, 2024).

2. Regulatory Harmonization

To reduce regulatory complexity, it is necessary to harmonize policies between Sharia-compliant financial instruments and the PPP framework. A supportive legal and regulatory framework is crucial for ensuring the success of public-private partnerships. Experiences in Ghana and Hong Kong demonstrate that a favorable legal framework is vital for these partnerships, while socio-political and economic conditions play a more significant role in Ghana (Osei-Kyei and Chan, 2017). With proper harmonization, regulatory challenges can be minimized, thereby supporting the effective implementation of green sukuk and PPP-based projects.

3. Investor Education

The government and related parties must enhance investor literacy regarding the benefits and risks of investing in green sukuk and PPP projects to minimize risk perceptions. The success of Sukuk Ihsan validates the feasibility of issuing socially responsible sukuk. However, future sukuk issuances must consider balancing disclosure and economic aspects, while also improving investor literacy and addressing potential structural issues (Mahomed and Mahbot, 2024). These efforts will strengthen investor confidence in green sukuk, supporting their participation in sustainable projects.

4. Pilot Project

The launch of pilot projects can help identify practical challenges and solutions in implementing this model. Similarly, pilot projects within circular business models have proven effective in uncovering both challenges and practical solutions during their application (Lauten-Weiss *et al.*, 2024). By leveraging insights from these pilot projects, stakeholders can refine strategies and improve the implementation process, ensuring the success of green sukuk and PPP-based initiatives.

In the end, future research on this topic could explore several in-depth opportunities, such as comparative analysis across countries to understand differences in regulatory frameworks and their impact on sustainable development. Further studies could examine the

social and economic impacts of projects based on green sukuk and public-private partnerships (PPP), as well as the development of more inclusive green financial instruments. Additionally, risk mitigation strategies should be updated, particularly for emerging markets with high economic volatility. The integration of technologies such as blockchain and artificial intelligence (AI) could also enhance transparency and efficiency, while studies on public awareness and participation could support more effective education programs. All of this could drive innovation in the sustainable and more inclusive management of public assets in the future.

CONCLUSION

This study proves that green sukuk and public-private partnership have the potential to be utilized in building sustainable infrastructure. This potential can be seen from the benefits gained, as well as the involvement of all parties in investment activities while still focusing on productive development. In addition, the development incentives that also have a positive impact on society provide a strong reason for these two policies to be comprehensive. However, in its implementation, there are various challenges, such as the lack of available budgetary resources and the perception of investors regarding the risks that may arise. As a result of these challenges, the management strategy involving the integration of these two policies becomes the foundation for effective and efficient asset management.

The role of the government as a catalyst and policy maker forms a strong foundation in providing opportunities for the community and the private sector to collaborate in development. The integration of green sukuk and public-private partnership policies is expected to be a strategic initiative, and its implementation should also create asset management that positively impacts development. To achieve this, the participation of the government, society, and the private sector is crucial and urgently needed.

The steps involved in integrating green sukuk and public-private partnership provide the foundation for achieving successful sustainable infrastructure development. The government, as the main party, must ensure that the policies created provide benefits for asset management as the basis for infrastructure development. This can begin by ensuring that the involved parties have the necessary specifications. Therefore, the integration of green sukuk and public-private partnership policies is expected to form a strong foundation for development and offer benefits for asset management, emphasizing the value of effectiveness.

REFERENCES

- Abbas, M.Y. (2018) 'Public Private Partnership Dalam Pembangunan Dan Pengelolaan Suncity Plaza Sidoarjo (Model Perjanjian Build Operate Transfer (BOT) antara Pemerintah Kabupaten Sidoarjo dengan PT. Indracco)', *Ilmu Administrasi Negara, Universitas Airlangga*, pp. 1–9.
- Ahmad, A., & Zaheer, M. (2014) 'Infrastructure projects financing. An alternative to debt financing', *IOSR Journal of Business and Management*, 15(5), pp. 48–52. Available at: <https://doi.org/10.9790/487X-1554852>.
- Alam, A. et al. (2023) 'Development and evaluation of Islamic green financing: A systematic review of green sukuk', *Environmental Economics*, 14(1), pp. 61–72. Available at: [https://doi.org/10.21511/ee.14\(1\).2023.06](https://doi.org/10.21511/ee.14(1).2023.06).
- Araminta, D., Qudziyah, Q. and Timur, Y. (2022) 'THE ROLE OF GREEN SUKUK IN REALIZING THE SUSTAINABLE DEVELOPMENT GOALS 2030 AGENDA', *Jurnal Ekonomi dan Bisnis Islam* [Preprint]. Available at: <https://doi.org/https://doi.org/10.20473/jebis.v8i2.37531>.
- Grimsey, D. and Lewis, M. (2002) 'Evaluating the Risks of Public Private Partnerships for Infrastructure Projects', *International Journal of Project Management*, 20, pp. 107–118. Available at: [https://doi.org/https://doi.org/10.1016/S0263-7863\(00\)00040-5](https://doi.org/https://doi.org/10.1016/S0263-7863(00)00040-5).

- Hariyanto, E. (2015) *Peluang Penerbitan Green Sukuk*. Available at: <http://www.kemenkeu.go.id/Artikel/peluang-penerbitan-green-sukuk> (Accessed: 19 November 2024).
- Jayasuriya, S., Zhang, G. and Yang, R. (2019) ‘Challenges in Public Private Partnerships in Construction Industry’, *Built Environment Project and Asset Management* [Preprint]. Available at: <https://doi.org/https://doi.org/10.1108/BEPAM-01-2018-0024>.
- Karina, L.A. (2019) ‘Peluang dan tantangan perkembangan green sukuk di Indonesia’, *Conference on Islamic Management, Accounting, and Economics (CIMAIE) Proceeding*, 2, pp. 259–265.
- Karniawati, W.Z.. & N. (2023) ‘IMPLEMENTASI KEBIJAKAN PUBLIC PRIVATE PARTNERSHIP (PPP) DALAM MENINGKATKAN INFRASTRUKTUR RISET DI INDONESIA’, *Jurnal Ilmu Pemerintahan* [Preprint].
- Lauten-Weiss, J. et al. (2024) ‘Dynamics of Business Models in Circular Economy: Shifting Challenges in Pilot Projects’, *Sustainability & Circularity NOW*, 1. Available at: <https://doi.org/https://doi.org/10.1055/a-2330-2567>.
- Mahomed, Z. and Mahbot, A. (2024) ‘Sustainable and Responsible Investment (SRI) Sukuk: Lessons from Khazanah’s Sukuk Ihsan’, *International Journal of Islamic and Middle Eastern Finance and Management* [Preprint]. Available at: <https://doi.org/https://doi.org/10.1108/imefm-05-2024-0219>.
- Maqbool, R. and Sridhar, H. (2023) ‘Governing Public–Private Partnerships of Sustainable Construction Projects in An Opportunistic Setting’, *Project Management Journal* [Preprint]. Available at: <https://doi.org/10.1177/87569728231214227>.
- Martimort, D., Fay, M. and Straub, S. (2018) *Funding and Financing Infrastructure: The Joint-Use of Public and Private Finance*. Washington DC: World Bank. Available at: <https://doi.org/10.1596/1813-9450-8496>.
- McHugh, C.A. (2021) ‘Mobilising Private Funding of Development Finance’, *The Journal of Development Studies*, 57(12), pp. 1979–2001. Available at: <https://doi.org/10.1080/00220388.2021.1945042>.
- Miles, M.. and Huberman, A.M. (1984) *Analisis Data Kualitatif*. Jakarta: Universitas Indonesia.
- Moallemi, E.A. et al. (2020) ‘Achieving the Sustainable Development Goals Requires Transdisciplinary Innovation at the Local Scale’, *One Earth*, 3(3), pp. 300–313. Available at: <https://doi.org/10.1016/j.oneear.2020.08.006>.
- Morano, P. et al. (2021) ‘The Public Role for the Effectiveness of the Territorial Enhancement Initiatives: A Case Study on the Redevelopment of a Building in Disuse in an Italian Small Town’, *Buildings* [Preprint]. Available at: <https://doi.org/https://doi.org/10.3390/BUILDINGS11030087>.
- Van Niekerk, A. (2024) ‘Economic Inclusion: Green Finance and the SDGs’, *Sustainability* [Preprint]. Available at: <https://doi.org/https://doi.org/10.3390/su16031128>.
- Osei-Kyei, R. and Chan, A. (2017) ‘Empirical Comparison of Critical Success Factors for Public-Private Partnerships in Developing and Developed Countries’, *Engineering, Construction and Architectural Management*, 24, pp. 1222–1245. Available at: <https://doi.org/https://doi.org/10.1108/ECAM-06-2016-0144>.
- Risanti, M.A., Alwyni, F.A. and Nadya, P.S. (2020) ‘Peran Green Sukuk dalam Mewujudkan Pembangunan yang Berkelanjutan’, *Prosiding Konferensi Nasional Ekonomi Manajemen dan Akuntansi (KNEMA)*, 1177, pp. 1–13.
- Sahir, S.H. (2021) *Metodologi Penelitian*. 1st edn. Edited by T. Koryati. Bantul: KBM Indonesia.
- Sandu, G., Varganova, O. and Samii, B. (2023) ‘Managing physical assets: a systematic review and a sustainable perspective’, *International Journal of Production Research*, 61(19), pp. 6652–6674. Available at: <https://doi.org/10.1080/00207543.2022.2126019>.

- Santoso, I. (2020) 'Green Sukuk and Sustainable Economic Development Goals: Mitigating Climate Change in Indonesia', *Global Journal Al-Thaqafah* [Preprint]. Available at: <https://doi.org/https://doi.org/10.7187/gjat072020-3>.
- Sugiyono (2021) *Metode Penelitian Kualitatif*. Bandung: Alfabeta.
- Tolstolesova, L. (2020) 'Green Economy and the Role of Public-Private Partnership in Financial Support of its Development', *Russian Journal of Resources, Conservation and Recycling* [Preprint]. Available at: <https://doi.org/https://doi.org/10.15862/08ECOR420>.
- Tosun, J. and Lang, A. (2017) 'Policy integration: mapping the different concepts', *Policy Studies*, 38(6), pp. 553–570. Available at: <https://doi.org/10.1080/01442872.2017.1339239>.
- Valido, J. (2020) 'Large Infrastructure Investments: Financing Mechanisms and Incentives in Decentralised Countries', *Fiscal Studies*, 41(4), pp. 905–921. Available at: <https://doi.org/10.1111/1475-5890.12225>.
- Warsen, R. *et al.* (2018) 'What makes public-private partnerships work? Survey research into the outcomes and the quality of cooperation in PPPs.', *Public Management Review*, 20, pp. 1165–1185. Available at: <https://doi.org/10.1080/14719037.2018.1428415>.
- World Bank (2024) *Pioneering Sustainable and Inclusive Finance*, *World Bank*. Available at: <https://www.worldbank.org/en/news/feature/2024/11/14/pioneering-sustainable-and-inclusive-finance> (Accessed: 15 January 2025).
- Yang, K., Wang, W. and Xiong, W. (2021) 'Promoting the sustainable development of infrastructure projects through responsible innovation: An evolutionary game analysis.', *Utilities Policy*, 70. Available at: <https://doi.org/10.1016/J.JUP.2021.101196>.
- Zain, N. *et al.* (2021) *Combating Climate Change in Malaysia*. Available at: <https://doi.org/10.4018/978-1-7998-6811-8.CH017>.