



Adaptive Governance in Islamic Financial Institutions: A Strategic Approach to Realizing Green Banking in Aceh Through Qanun No 11 of 2018

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A B S T R A C T

Climate change and globalization have significantly impacted environmental systems, presenting challenges exacerbated by human activities. This study analyzes the implementation of green banking in Sharia Financial Institutions (LKS) in Aceh through Qanun No. 11/2018, with a focus on the concept of adaptive governance. The objective of this study is to identify how this strategic approach supports sustainable financial practices in line with Sharia principles, as well as to identify regulatory and institutional challenges. The present study employed descriptive qualitative research methods, conducting in-depth interviews with representatives of Commission III of DPRA and four leading Islamic banks in Aceh (BSI, BTN Syariah, Bank Aceh Syariah, and BCA Syariah). The results indicate that the implementation of adaptive governance in Islamic financial institutions in Aceh (based on Qanun No. 11/2018) supports the implementation of Green Banking, through three main indicators: collaboration, flexibility, and learning. The integration of green banking with Islamic finance in Aceh through Qanun No. 11/2018 is not significantly faced with regulatory barriers. Instead, it provides a robust legal foundation, with the maqasid syariah principle supporting environmental sustainability. Despite significant impacts, several areas still require improvement, particularly in policy socialization, optimization of corporate social responsibility (CSR) programs, and the efficiency of green banking practice implementation.

INTRODUCTION

Climate change and globalization are pressing global issues that significantly impact environmental systems and sustainable development. The Intergovernmental Panel on Climate Change (IPCC, 2021) reports provide the scientific basis for climate change and encourage collective action to address this challenge. Furthermore, climate change has driven global commitments such as the 2015 Paris Agreement (Rayhan et al., n.d.), bilateral agreements, such as that between the US and China (Karatayev et al., 2021), and the Sustainable Development Goals (Tamang, 2024; UNFCCC, 2007).

Nonetheless, these challenges are exacerbated by human activities that accelerate environmental degradation and pose risks to economic resilience. Today, climate change has become a crucial concern that demands immediate action to prevent severe consequences, including environmental damage and economic crises. This urgency arises from the profound impact of climate change on economic growth, as it generates risks and necessitates adjustments in macroeconomic policies and infrastructure development to enhance economic resilience (Khan et al., 2023).

According to Syahra (2023), climate conditions are inevitable and can only be predicted and anticipated to mitigate associated risks. To address this issue, the government must implement adaptive governance through policies oriented toward environmental conditions while preserving local wisdom. In supporting environmentally friendly policies, the government adheres to the "Back to Nature" (BTN) concept by collaborating with financial institutions to promote environmental awareness through the implementation of relevant policies.

Financial institutions play a crucial role in integrating climate change concerns into their operations, investments, and lending activities, enabling them to achieve more sustainable outcomes both in terms of development and financial stability (Bonnell,

2015). In combating climate-related challenges, financial institutions also contribute by directing funds toward sustainable initiatives and facilitating the transition to a low-carbon economy. Nonetheless, the implementation of this strategy within Islamic financial institutions has received minimal attention, despite the fact that global Islamic financial assets are expected to reach USD 3.38 trillion by 2023 (IFSB, 2024).

However, financial institutions, particularly banks, do not directly interact with the environment, their operations have significant external impacts on customers. Moreover, while banks are not identified as direct sources of environmental pollution, they are closely linked to environmental degradation through the loans and funding they provide to clients, thereby influencing activities with direct environmental consequences (Budiantoro, 2014). Through financial institution policies, the government strives to support environmental care programs in response to climate change and human intervention by fostering collaboration between government institutions and financial institutions. These policies are then adapted to developments and local wisdom in each region. One form of policy that considers local wisdom in advancing the green economy is the implementation of green banking by Islamic financial institutions.

Islamic financial institutions are financial entities that operate in accordance with Sharia principles (Muheramtohadi, 2017). Essentially, Islamic financial institutions function like conventional financial institutions, but all transactions must comply with Sharia principles. Specifically, Islamic banks do not merely conduct business activities; they also integrate Sharia principles, including the green banking concept, which in the context of Islamic institutions is referred to as Corporate Social Responsibility (CSR).

Corporate Social Responsibility (CSR) is a form of corporate social responsibility that aligns with sustainable finance. This concept is recognized as a long-term business strategy that prioritizes environmental and social sustainability while also aiming for financial benefits (Syukron, 2015). Green banking is a banking concept that provides financing or credit for banking products and services while emphasizing economic, social, and environmental sustainability. Its objective is to enhance economic efficiency and reduce negative environmental impacts (Khan et al., 2023). The core principle of green banking is to improve bank risk management, particularly in relation to environmental concerns, while encouraging banks to expand their portfolios in environmentally friendly investments, such as renewable energy, energy efficiency, organic agriculture, eco-tourism, sustainable transportation, and eco-labeled products (Khoiruddin, M., 2023).

Green banking incorporates several indicators in supporting the green economy, which are outlined in the Green Coin Rating (GCR) system. These indicators include carbon emissions, green rewards, green buildings, reuse/recycle/refurbish practices, paperless transactions, and green investments (Nath et al., 2014; Aryani, C.S., 2020). The green banking principles applied by Islamic financial institutions, specifically Islamic banks, serve as an initial step in addressing climate change and environmental degradation through Sharia-based sustainable practices.

Uniquely, as a special autonomous region, Aceh Province holds legitimacy in implementing Islamic law (Sharia). Sharia is not only applied in governance but also in the economic sector, as evidenced by the enactment of Qanun No. 11 of 2018 on Islamic Financial Institutions (LKS). The Qanun LKS officially designates Aceh as the only province in Indonesia that fully regulates Islamic financial institutions. While other provinces may also have Islamic financial institutions, Aceh is the only one that institutionalizes them through a regional regulation (Qanun). The Qanun on Islamic Financial Institutions (LKS) in Aceh refers to a regional regulation that governs the operations and management of financial institutions based on Sharia principles in Aceh (Zulfahmi, 2021; Musadir, S., 2022). This regulation aims to strengthen the financial sector by incorporating Islamic principles into its operations. Moreover, the Qanun LKS establishes a framework for financial institutions that not only align with Islamic teachings but also promote social and economic responsibility. This supports sustainable economic development while ensuring that financial activities operate in a just and ethical manner.

From a correlation perspective, the Qanun LKS plays a significant role in implementing green banking, which focuses on environmental sustainability in banking practices. Green banking aims to support environmentally friendly projects, reduce banks' carbon footprints, and integrate sustainability into all aspects of operations. In Aceh, green banking initiatives can include funding for renewable energy projects, energy efficiency programs, and other environmental initiatives.

The Qanun LKS emphasizes the avoidance of *riba* (interest), *gharar* (uncertainty), and *maysir* (speculation) while prohibiting investments in businesses that contradict Islamic values. Meanwhile, green banking focuses on promoting eco-friendly and sustainable economic activities, emphasizing environmental ethics in financial decision-making. Therefore, the implementation of green banking in Aceh aligns with Sharia principles, ensuring both financial sustainability and environmental preservation.

To effectively address these challenges, an adaptive governance approach is required. Adaptive governance is a decision-making framework designed to adapt to social changes, technological advancements, and dynamic environmental crises. Globally, adaptive governance has been recognized for its effectiveness in disaster risk reduction, crisis response, and climate change policymaking, providing flexible and responsive mechanisms for governments to address complex environmental challenges (Van Assche et al., 2022; Folke et al., 2005; Armstrong & Kamieniecki, 2017).

This study examines the role of adaptive governance in implementing green banking within Islamic financial institutions in Aceh. This is due to the fact that Qanun Aceh is the sole regulation in Indonesia that integrates Islamic financial institutions with sharia principles in a comprehensive manner. Consequently, this study offers a distinctive opportunity to examine the integration of sharia principles with adaptive governance in the context of green banking. This model is particularly relevant for Muslim countries such as Malaysia and the UAE, which are developing analogous policies. While the role of Islamic financial institutions in green banking has been examined in previous studies (Fathihani et al., 2024; Marwan et al., 2023; Nadwi et al., 2024), no studies have explored adaptive governance approaches based on local regulations such as the Aceh Qanun. This gap shows the urgency of this study to fill the literature gap and provide a new perspective for a country with an Islamic legal system.

It analyzes how adaptive governance supports sustainable financial practices while ensuring compliance with Sharia principles. The research also explores challenges in integrating green banking with Islamic finance, including regulatory constraints and institutional preparedness. By highlighting governance mechanisms that facilitate environmental sustainability, this study aims to demonstrate how adaptive governance can bridge financial sustainability with Islamic ethical values. This study explores How does adaptive governance support green banking implementation in Islamic financial institutions in Aceh through qanun no. 11 of 2018? And What are the key challenges, including regulatory and institutional barriers?

METHOD

This study employs a descriptive qualitative analysis approach. Research informants were selected using purposive sampling. The informants consist of policymakers from Commission III of the Aceh Regional House of Representatives (DPRA) and directors from four major Islamic banks: Bank Syariah Indonesia, Bank BTN Syariah, Bank Aceh Syariah, and Bank BCA Syariah. Qualitative data were obtained through interviews, transcribed, and analyzed using thematic analysis to identify key patterns and insights relevant to the research objectives.

Table 1. Key Informant Characteristic

No.	Category	Institution	Position
1.	Legislative	Commision III of DPRA	Representative
2.	Banking Sector	Bank Syariah Indonesia (BSI)	Representative

3.	Banking Sector	Bank Syariah	BTN	Representative
4.	Banking Sector	Bank Syariah	Aceh	Representative
5.	Banking Sector	Bank Syariah	BCA	Representative

RESULTS AND DISCUSSION

Adaptive governance is conceptualized as a form of social coordination in which actions are voluntarily organized by individuals and organizations with the capacity for self regulation and reinforcement (Sobari, W., & Hakim, M. L., 2022). According to Folke et al. (2005) (as cited in Putra, A. H., Oktariani, C., & Andriani, C. P., 2020), this governance model relies on networks that connect individuals, organizations, and institutions across multiple organizational levels.

In the context of Islamic financial institutions, adaptive governance serves as a critical mechanism for ensuring resilience and sustainability, particularly in response to evolving regulatory frameworks and market demands. The interconnected networks within adaptive governance align with the structure of Islamic finance, which emphasizes ethical, risk sharing, and participatory principles. As financial institutions navigate the transition toward green banking, adaptive governance facilitates the integration of environmental, social, and governance (ESG) considerations into Sharia compliant financial practices. This review explores the application of adaptive governance within Islamic financial institutions, particularly in the context of implementing green banking initiatives in Aceh through Qanun No. 11 of 2018.

According to Dietz, Ostrom, and Stern's theory as cited in Steelman (2022), optimizing the implementation of adaptive governance requires three primary indicators: collaboration, flexibility, and learning. Following are several field findings and analyses examined from the perspective of adaptive governance in Islamic Financial Institutions to Realizing Green Banking in Aceh Through Qanun No 11 of 2018:

Collaboration

Collaboration is a fundamental aspect of governance that involves coordinated efforts among government institutions, commercial sectors, and community groups to address public issues effectively (Agustin & As'ari, 2022). In the context of Islamic financial institutions, collaboration plays a crucial role in fostering adaptive governance, particularly in implementing sustainable financial practices such as green banking. The transition toward environmentally responsible banking requires synergy between policymakers, financial institutions, and stakeholders to ensure that regulatory frameworks align with sustainability goals while remaining compliant with Islamic principles.

In Aceh, Qanun No. 11 of 2018 provides a regulatory foundation for the implementation of Islamic financial governance, necessitating an adaptive approach to accommodate evolving economic and environmental challenges. financial institutions can develop dynamic strategies to implement green banking initiatives, such as sustainable investment projects and environmentally friendly financial products. This process involves continuous learning, institutional flexibility, and stakeholder engagement to ensure that Islamic banking in Aceh

not only adheres to Sharia principles but also contributes to environmental sustainability.

Maqasid shariah, as the philosophical foundation of Qanun lks, is the key to encouraging Islamic financial institutions to take an active role in environmental preservation. This principle can be translated into environmentally friendly funding policies, such as financing for renewable energy projects, green infrastructure, and waste management programs. The implementation of Green Banking from the perspective of maqasid shariah also provides opportunities to integrate religious values with global sustainability initiatives, creating a holistic approach to financial management, particularly in banking. The four banks operating in Aceh Bank BSI, Bank Aceh Syariah, Bank BTN Syariah, and Bank BCA Syariah have each demonstrated positive impacts on the adoption of Green Banking practices.

"Bank Syariah Indonesia (BSI) in Aceh has implemented a comprehensive approach to operationalize Green Banking principles through strategic multi stakeholder collaborations. Our institution has established and cultivated various partnership frameworks that encompass multiple dimensions of environmental sustainability. These initiatives include the allocation of financial resources toward environmentally sustainable projects, particularly in the domains of renewable energy infrastructure and sustainable natural resource management systems. Furthermore, BSI has maintained an active presence in educational outreach and public awareness programs designed to enhance community understanding regarding the significance and practical implications of sustainable banking methodologies". (interview with BSI Syariah).

The interview results reveal the implementation of adaptive governance through a collaborative approach to realizing Green Banking practices. The collaboration initiated by BSI is evident in its partnerships with various stakeholders, including funding renewable energy projects and responsibly managing natural resources. These efforts highlight the bank's active involvement in fostering cross-sectoral synergy to achieve sustainability goals. This aligns with research by Sumanjayadi, S., & Putra, S. J. (2024), which emphasizes that the principles of adaptive governance prioritize collaboration and openness to innovation in addressing environmental and development challenges.

Furthermore, BSI's multi stakeholder engagement strategy exemplifies the collaborative dimension of adaptive governance, where diverse actors contribute complementary expertise and resources toward shared sustainability objectives. By establishing partnership frameworks across sectors, BSI creates an integrated approach to environmental finance that leverages collective capabilities. This collaborative model corresponds with Dietz, Ostrom, and Stern's theory (as cited in Steelman, 2022), which identifies collaboration as a fundamental indicator for optimizing adaptive governance implementation. Their research indicates that institutions fostering robust multi stakeholder collaborations can more effectively coordinate actions across different scales and domains, thereby enhancing the coherence and impact of sustainability initiatives within the specific regulatory context of Qanun No 11 of 2018.

Flexible

Flexibility refers to the ability of governance systems to adjust policies regulations and decision-making processes in response to evolving social economic and environmental conditions ensuring adaptability through continuous feedback

mechanisms stakeholder collaboration and responsive strategies to address complex and unforeseen challenges (Utama, P., 2023).

Flexibility is particularly relevant in the context of adaptive governance within Islamic financial institutions as they navigate the regulatory framework established by Qanun No 11 of 2018 in Aceh. The strategic implementation of adaptive governance enables these institutions to integrate green banking principles by aligning their financial practices with sustainability goals while maintaining compliance with Sharia law.

In interviews conducted with bca banks regarding flexibility, the following results were obtained:

"In our implementation of green banking concepts, BCA Syariah operates within the established regulatory parameters applicable within our jurisdiction. Specifically in the Aceh context, this necessitates adherence to the Qanun LKS (Sharia Financial Institution legal framework). Our institutional approach to environmental sustainability manifests through multiple operational dimensions. We actively engage in and provide support for programmatic initiatives that align with green banking principles. These include participation in environmental conservation efforts such as reforestation activities and the systematic integration of energy efficiency protocols within our organizational infrastructure. The latter is exemplified by the implementation of energy conservation measures throughout our office facilities, representing our commitment to environmental responsibility at both the external community level and within our internal operational practices." (Interview with BCA Syariah).

The interview results reflect that the implementation of adaptive governance through the adaptability indicator, namely the ability to adapt policies and practices to the local context and global needs (Novita, A. A., 2021). By following the Qanun LKS as the applicable regulation in Aceh, BCA Syariah shows flexibility in integrating sharia principles into the concept of green banking. The implementation of programs such as tree planting and energy saving practices in offices are tangible adaptations that are relevant to environmental challenges while fitting within the local regulatory framework. This approach shows that adaptability is key in harmonizing sustainable banking policies with local sharia-based values.

Moreover, BCA Syariah's approach demonstrates the flexibility element of adaptive governance through its dynamic response to evolving environmental priorities within the constraints of Islamic financial principles. This flexible adaptation aligns with the theoretical framework proposed by Dietz, Ostrom, and Stern (as cited in Steelman, 2022), which emphasizes that flexibility is essential for effective adaptive governance systems. Their research suggests that institutions capable of modifying their strategies and procedures in response to changing conditions and emerging knowledge can more effectively address sustainability challenges while respecting contextual factors such as the unique regulatory environment established by Qanun No 11 of 2018 in Aceh.

Learning

The learning indicator represents a governance framework that ensures decision-making processes are conducted with precision. The success of an organization is largely determined by its ability to develop into a learning organization where continuous improvement knowledge acquisition and institutional adaptation play a crucial role in enhancing organizational effectiveness and longterm sustainability (Agustin & As'ari 2022).

In the context of adaptive governance within Islamic financial institutions the learning indicator plays a critical role in facilitating the transition toward green banking under Qanun No 11 of 2018 in Aceh. By fostering a learning organization these institutions can enhance their capacity to integrate sustainable financial practices through continuous knowledge development regulatory adaptation and strategic decision-making. The ability to acquire and apply new insights enables Islamic financial institutions to navigate the complexities of green banking while maintaining compliance with Sharia principles thereby ensuring long-term economic resilience and environmental sustainability in Aceh.

"BTN Syariah maintains a strong commitment to green banking principles through our strategic focus on ESG (Environmental, Social, Governance) framework implementation. Our principal initiative in this domain is the development of low-emission mortgage products, which have been successfully deployed across several jurisdictions. While this specific product offering has not yet been extended to the Aceh market, our institutional strategy includes plans for geographical expansion of these environmentally conscious financial instruments to the region in subsequent implementation phases". (Interview with BTN Syariah).

This statement shows an adaptive governance approach through learning indicators, especially in implementing green banking programs. BTN Syariah's support for green banking is realized through a focus on ESG (Environment, Social, and Governance) initiatives including the development of low-emission home mortgages that have been running in several regions. Although this program has not yet been implemented in Aceh, the commitment to improve its implementation in the future reflects a continuous learning process. BTN Syariah appears to be integrating experiences from other regions to adapt their strategies to the local needs and context in Aceh. This is in line with the principle of adaptive governance described in research (Hakim, M. L., & Dwiranda, I. F., 2022) where learning is used as a tool to improve the institution's ability to respond dynamically to challenges and opportunities.

The learning dimension of BTN Syariah's approach is further evidenced by their systematic knowledge acquisition and application processes regarding sustainable finance practices. By piloting low-emission mortgage programs in other regions before adapting them to Aceh's unique regulatory environment, the institution demonstrates deliberate sequential learning that enhances program effectiveness through iteration and refinement. This knowledge-based adaptation exemplifies the learning indicator highlighted in Dietz, Ostrom, and Stern's theory (as cited in Lozhkina, A. (2019), which positions continuous learning as a critical component for optimizing adaptive governance implementation. Their theoretical framework suggests that institutions engaging in structured learning processes where experiences are systematically evaluated and incorporated into evolving strategies can more effectively navigate complex sustainability transitions while respecting contextual nuances, such as the specific requirements of Qanun No 11 of 2018 governing Islamic financial institutions in Aceh.

The challenges in integrating green banking with Islamic finance through Qanun no 11 of 2018

Qanun No. 11 of 2018 on Islamic Financial Institutions in Aceh serves as the foundation for the transformation of the

conventional financial system into an Islamic financial system. In the context of promoting environmental sustainability, this policy has the potential to drive the adoption of the Green Banking concept, which emphasizes environmentally friendly banking practices. Islamic finance principles, such as the prohibition of *riba*, *maysir*, and *gharar*, guide socially and environmentally responsible investment and financing (Zulhikam, et al., 2024). Islamic financial institutions can prioritize financing for projects that contribute to environmental preservation, such as renewable energy, waste management, and reforestation.

The Qanun also offers significant opportunities for the development of financial products aligned with sustainability and environmental preservation principles. Furthermore, environmentally friendly sharia-based financing agreements, such as *musyarakah* and *mudharabah*, provide a framework for risk management with a fair and transparent approach. This aligns with the statements made by one of the DPRA members during the research interview:

"Islamic finance adheres to the regulations outlined in the Qanun on Islamic Financial Institutions (LKS). The Qanun LKS itself follows the principles of Sharia law, which are based on the Quran and Sunnah. Within this framework, maqasid syariah is explicitly embedded, emphasizing environmental preservation, which is now more commonly referred to as green banking. I believe that the implementation of the Qanun LKS in Aceh does not pose any obstacles to the green banking concept because, fundamentally, Sharia regulations also emphasize environmental sustainability in the same way as green banking." (Interview with the Aceh House of Representatives).

Islamic finance implemented in Aceh, grounded in Qanun No. 11 of 2018 on Islamic Financial Institutions (IFIs), firmly adheres to the principles of Islamic law as derived from the Qur'an and Sunnah. Its implementation is guided by *maqasid syariah*, the primary objectives of Islamic law, which encompass the protection of religion, life, intellect, lineage, and wealth (Alwi, M., Kara, M., Abdullah, M. W., & Fachrurrazy, M., 2022). One of the essential aspects of *maqasid syariah* is environmental sustainability as a form of safeguarding human life. This aligns with the concept of Green Banking, which aims to promote financial practices that support environmental preservation and sustainable development.

In addition, Bank Aceh also stated the same thing regarding the challenges in implementing green banking:

"Regarding the regulatory framework established by the qanun LKS (Sharia Financial Institution legal code), we have not encountered significant impediments to green banking implementation. This regulatory harmony stems from the foundational alignment between green banking principles and Islamic jurisprudence, as the qanun LKS is fundamentally derived from Islamic law. Environmental stewardship and protection are explicitly endorsed within the maqasid sharia (objectives of Islamic law) framework, thereby providing theological and regulatory legitimacy to our sustainability initiatives." (Interview with Bank Aceh Syariah).

This indicates the application of adaptive governance through adaptability indicators in supporting green banking programs. Based on the Qanun LKS in accordance with the *maqasid sharia* principle to protect the environment, Bank Aceh Syariah shows flexibility in integrating Islamic values into sustainable banking practices. Adaptability can be seen from the bank's steps to collaborate with various parties in supporting environmental programs such as mangrove planting. This adaptation shows similarities in perception with research

conducted (Haryanti, et al, 2024) which shows how institutions can responsively translate Islamic sharia-based policies into concrete actions that are relevant to global challenges such as environmental conservation.

The overall interview data shows that Qanun LKS fully supports the implementation of the green banking concept as part of *maqasid sharia* that emphasizes environmental preservation. Each Islamic financial institution has implemented sustainability initiatives, such as funding environmentally friendly projects, tree planting programs, developing low-emission home mortgages and implementing energy-saving principles in offices. In addition, collaboration with various stakeholders is the main key in ensuring the success of these programs. The alignment between sharia values and the concept of green banking strengthens the potential of Islamic finance as a driver of sustainable development in Aceh.

CONCLUSION

The present study demonstrates that the implementation of adaptive governance in Islamic financial institutions in Aceh plays a pivotal role in actualizing the concept of Green Banking in accordance with Qanun No. 11/2018. Adaptive governance in this context is manifested through three primary indicators: collaboration, flexibility, and learning. The collaboration between the government, financial institutions, and other relevant stakeholders is identified as a pivotal factor in promoting the sustainability of Islamic finance and facilitating the funding of sustainable projects, including renewable energy and waste management. Bank Syariah Indonesia (BSI), for instance, has established numerous strategic partnerships to support sustainable projects, including investments in renewable energy and responsible natural resource management. These collaborative endeavors exemplify an adaptive governance approach, underscoring synergies among stakeholders in pursuit of sustainable development objectives.

The adaptation of low-emission mortgage and energy efficiency programs exemplifies the responsiveness of LKS to local-global dynamics. Moreover, flexibility plays a pivotal role in ensuring that green banking policies remain congruent with sharia principles while adapting to evolving economic and environmental factors. Banks like BCA Syariah exemplify this adaptability by embracing energy-efficient practices and participating in environmental conservation programs, showcasing their capacity to navigate and adapt to both local and global challenges. The final indicator, learning, plays a role in ensuring the sustainability of the Green Banking program. For instance, BTN Syariah employed a learning-based approach by developing a low-emission mortgage product in multiple regions prior to its adaptation to the Aceh context. This approach underscores the commitment of Islamic financial institutions to ongoing evaluation and adjustment, thereby enhancing the effectiveness of sustainable finance programs.

Qanun No. 11/2018, which is grounded in *maqasid sharia*, has been demonstrated to both align with green banking principles and to enhance regulatory legitimacy in promoting environmental sustainability. The primary challenge identified in this study pertains to the limited socialisation of green products and human resource capacity, despite the absence of significant regulatory barriers. The present study reveals that Qanun No. 11/2018 has provided a strong legal foundation for the development of green banking in Aceh. The *maqasid sharia* principle underlying this qanun naturally supports

environmentally friendly financial practices. By integrating Islamic values into the concept of global sustainability, Islamic financial institutions in Aceh contribute not only to environmental preservation but also strengthen their role as agents of sustainable development at the local and global levels.

REFERENCES

- Agustin, E., & As'ari, H. (2022). Adaptive Governance Dalam Pengelolaan Objek Wisata Taman Alam Mayang Di Pekanbaru Pada Masa Pandemi Covid-19. *Cross-border*, 5(1), 901-923.
- Alwi, M., Kara, M., Abdullah, M. W., & Fachrurrazy, M. (2022). Konsep Maqasid As Syariah dalam Perbankan Syariah. *Al-Amwal: Journal of Islamic Economic Law*, 7(2), 56-80.
- Armstrong, J. H., & Kamieniecki, S. (2017). Strategic adaptive governance and climate change: Policymaking during extreme political upheaval. *Sustainability (Switzerland)*, 9(7). <https://doi.org/10.3390/su907124>
- Aryani, C. S. (2020). Penerapan Green Banking Pada Kinerja PT Bank Muamalat Indonesia (Studi Pada PT Bank Muamalat) (Doctoral dissertation, UIN Raden Intan Lampung).
- Bonnel, A., & S. S. (2015). Mainstreaming Climate Action within Financial Institutions. *Emerging Practices*.
- Budiantoro, S. (2014). Mengawal Green Banking di Indonesia Dalam Rangka Pembangunan Berkelanjutan. Jakarta: Perkumpulan Prakarsa.
- Fathihani, Randyantini, V., & Saputri, I. P. (2024). The Role of Green Banking Implementation in Sharia Banking Performance from an Islamic Perspective. *International Journal of Management and Business Intelligence*, 2(2), 71-86. <https://doi.org/10.59890/ijmbi.v2i2.1494>
- Folke, C., Hahn, T., Olsson, P., & Norberg, J. (2005). Adaptive governance of social-ecological systems. *Annu. Rev. Environ. Resour.*, 30, 441-473.
- Hakim, M. L., & Dwiranda, I. F. (2022). Implementasi Adaptive Governance Dalam Tata Kelola Pemerintahan Provinsi Jawa Timur Di Era Normal Baru. *Ub Publish*, 1(2), 136-140.
- Haryanti, P., Husen, M. N., Makki, M., Nurachmadi, S., Ulum, M. W., Santoso, H. S. I. B., ... & Toyyibi, A. M. (2024). Transformasi Hukum Ekonomi Syariah Dalam Konteks Ekonomi Global. CV. Duta Sains Indonesia.
- IFSB. (2024). Maintaining Financial Stability in A Challenging Risk Environment. www.ifsb.org
- IPCC. (2021). *Climate Change 2021: The Physical Science Basis*. Cambridge University Press. www.ipcc.ch
- Karatayev, V. A., Vasconcelos, V. V., Lafuite, A. S., Levin, S. A., Bauch, C. T., & Anand, M. (2021). A well-timed shift from local to global agreements accelerates climate change mitigation. *Nature Communications*, 12(2908), 1. <https://doi.org/10.1038/s41467-021-23056-5>
- Lozhkina, A. (2019). Knowledge mobilization: local community engagement, sustainability, and adaptive governance. The University of Regina (Canada).
- Khoiruddin, M. (2023). Analisis Strategi Keberlanjutan Dan Inklusif Dalam Mencapai Profitabilitas: Studi Pada Perbankan Yang Terdaftar Di Bursa Efek Indonesia (Doctoral Dissertation, Universitas Islam Indonesia).
- Marwan, A. M., Adlan, M. A., & Himmati, R. (2023). The Role of Islamic Banking Through Green Investment in Increasing Economic Growth in Indonesia. *Journal of Business Management and Islamic Banking*, 02(3), 211-224. <https://doi.org/10.14421/jbmib>
- Muheramtohad, S. (2017). peran lembaga keuangan syariah dalam pemberdayaan UMKM di Indonesia. *Muqtasid: Jurnal Ekonomi Dan Perbankan Syariah*, 8(1), 65-77.
- Musadir, S. (2022). Analisis Tingkat Kepuasan Nasabah Bank Syariah di Aceh Pasca Penerapan Qanun Nomor 11 Tahun 2018 Tentang Lembaga Keuangan Syariah (Doctoral dissertation, UIN Ar-Raniry-Banda Aceh).
- Nadwi, U. A., Ma'ruf, A., Alam, S., & Azizah, L. (2024). The Role of Islamic Finance in Sustainable and Green Transition. *Suhuf*, 36(2), 118-139. <https://doi.org/10.23917/suhuf.v36i2.6314>
- Nath, V., Nayak, N., & Goel, A. (2014). Green Banking Practices- A Review. 2, 45-62. www.impactjournals.us
- Novita, A. A. (2021). Environmental governance and climate change adaptation in Indonesia. *Jurnal Ilmiah Administrasi Publik*, 7(1), 46-55.
- Putra, A. H., Oktariani, C., & Andriani, C. P. (2020). Adaptive Governance Badan Usaha Milik Desa Karya Mandiri Desa Cibodas Kecamatan Lembang Kabupaten Bandung Barat. *Jurnal Dialektika: Jurnal Ilmu Sosial*, 18(3), 23-33.
- Rayhan, A., Kinzler, R., & Rayhan, R. (n.d.). Climate Change And Global Warming: Studying Impacts, Causes, Mitigation, And Adaptation. <https://doi.org/10.13140/RG.2.2.23746.76489>
- Sobari, W., & Hakim, M. L. (2022). Adaptive, Agile dan Robust Governance untuk Menjaga Ketahanan Daerah dalam Menghadapi Pandemi COVID-19: Studi Dokumen Rencana Kerja Pemerintah Daerah di Jawa Timur Tahun 2020-2022. *Jurnal Transformative*, 8(2), 238-263.
- Steelman, T. (2022). Adaptive governance. In *Handbook on theories of governance* (pp. 580-591). Edward Elgar Publishing.
- Sumanjayadi, S., & Putra, S. J. (2024). Analisis Peran Alokasi Dana Desa Dalam Mendorong Pertumbuhan Ekonomi Lokal. *Ganec Swara*, 18(3), 1789-1796.
- Syakra, F. A. (2023). Penerapan Adaptive Governance dalam perubahan iklim di Kota Bandung (Doctoral dissertation, UIN Sunan Gunung Djati Bandung).
- Syukron, A. (2015). CSR dalam perspektif Islam dan Perbankan Syariah. *Jurnal Ekonomi Dan Hukum Islam*, 5(1), 1-22.
- Tamang, B. (2024). Global Climate Change: Challenges, Opportunities, and Multilateral Strategies for Sustainable Development. *NPRC Journal of Multidisciplinary Research*, 1(4), 65-76. <https://doi.org/10.3126/nprcjmr.v1i4.70947>
- UNFCCC. (2007). *Climate Change: Impacts, Vulnerabilities and Adaptation in Developing Countries*.
- Van Assche, K., Valentinov, V., & Verschraegen, G. (2022). Adaptive governance: learning from what organizations do and managing the role they play. *Kybernetes*, 51(5), 1738-1758. <https://doi.org/10.1108/K-11-2020-0759>
- Zulfahmi, L. N. U. (2021). Eksistensi Qanun Nomor 11 Tahun 2018 tentang Lembaga Keuangan Syariah terhadap Konversi Bank Konvensional menjadi bank syariah. *jurnal hukum ekonomi syariah*, 5(01) 49-63.
- Zulhikam, A., Parmitasari, R. D. A., Abdullah, M. W., & Rofiah, I. (2024). Filosofi Prinsip Keuangan Islam Dan Implikasinya Pada Perbankan Syariah. *Neraca: Jurnal Ekonomi, Manajemen dan Akuntansi*, 2(1), 273-283.