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Shariah-Based Carbon Credit Transactions: A Regulatory Analysis Within Islamic Economic Law In Indonesia

[1]Arianti Wulan Savitri, [2]Amir Tajrid
[1,2] Islamic Economic Law, Faculty of Sharia and Law, Walisongo State Islamic University, Semarang, Indonesia
E-mail: wulansavitria@gmail.com , amir@walisongo.ac.id

Abstract

Purpose *– The carbon market's development for net-zero emissions needs a regulatory framework that guarantees environmental integrity, legal certainty, and market accountability. Indonesia established in carbon market governance with the Economic Value of Carbon (NEK) policy and operates carbon trading through IDXCarbon. Currently, there are no regulations governing Sharia-based carbon credit transactions. This gap is increasingly relevant due to the growth of Sharia economic practices, including trading carbon units from waqf forests managed by the Indonesian Waqf Board (BWI), the Digital Carbon Tracking service from Bank Syariah Indonesia (BSI), and opportunities for Sharia financial institutions in carbon trading.*

Method *– This study employs a normative-doctrinal legal approach, utilizing regulatory mapping, regulatory gap analysis, and Sharia compliance assessment to examine carbon market regulations and the principles of Sharia economic law.*

Result *– Research shows that carbon market regulations in Indonesia have established technical and institutional governance frameworks but have not yet accommodated the needs of Sharia-compliant transactions. Regulatory gaps include the legal status of carbon units as objects of contracts, Sharia screening, Sharia governance, the integrity of Measurement, Reporting, and Verification (MRV), information disclosure, and institutional coordination, which could potentially lead to legal uncertainty and Sharia compliance risks.*

Implication *– This study proposes Minimum Regulatory Standards (MRS) along with an institutional implementation roadmap as a regulatory blueprint through coordination among the Ministry of Environment and Forestry (KLHK), the Financial Services Authority (OJK), the Sharia Council of Indonesia (DSN-MUI), the Indonesian Sharia Board (BWI), and IDXCarbon to establish an integrated Sharia regulatory layer within the national carbon market governance framework.*

Keywords : Carbon Credits; Islamic Economic Law; Carbon Market Governance; Sharia Compliance; Regulatory Framework.

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INTRODUCTION

Climate change has shifted environmental policy from a regulatory approach to economic instruments using market mechanisms.(Carbon Markets 15 Years after Kyoto: Lessons Learned, New Challenges, 2021) Incentive credits for reducing greenhouse gas emissions are given by assigning an economic value to each metric ton of emissions avoided or absorbed.(State and Trends of Carbon Pricing 2022, 2022) Countries are setting up carbon market governance systems to achieve net-zero emissions, emphasizing economic efficiency, environmental integrity, legal certainty, and accountability for emissions reductions.(Bodansky, Daniel, Jutta Brunnée, 2024)

The European Green Deal, European Climate Law (Regulation (EU) 2021/1119), and EU ETS upgrade have established carbon market regulation in the EU.(European Parliament and Council of the European Union, 2021) This framework legalizes carbon market instruments with a 2050 climate neutrality aim and a 55% net emission reduction by 2030. The European Union's experience shows that carbon credits' credibility depends on trading mechanisms, regulatory clarity, measuring, reporting, and verification (MRV) systems, and robust institutional control.(A. Denny Ellerman,Christian Marcantonini, 2016)

Indonesia is using market-based economic strategies to reduce greenhouse gas emissions. In order to reach net-zero emissions by 2060 or sooner, the Nationally Determined Contribution (NDC) and the Enhanced NDC set a target of 31.89 percent on its own and 43.20 percent with international support by 2030.(Badan Riset dan Inovasi Nasional., 2023) Thus, carbon markets are one policy tool for integrating the climate change mitigation agenda with economic mechanisms that encourage emission reduction.(United Nations Framework Convention on Climate Change (UNFCCC), 2022)

This commitment was incorporated into the national legal framework via Presidential Regulation No. 98 of 2021 on Carbon Economic Value (NEK).(Peraturan Presiden Nomor 98 Tahun 2021 Tentang Penyelenggaraan Nilai Ekonomi Karbon Untuk Pencapaian Target Kontribusi Yang Ditetapkan Secara Nasional Dan Pengendalian Emisi Gas Rumah Kaca Dalam Pembangunan Nasional, 2021) Presidential Regulation No. 98 of 2021 on Carbon Economic Value for National Contribution Targets and Greenhouse Gas Emissions Control was repealed and replaced by Presidential Regulation No. 110 of 2025.(Peraturan Presiden Republik Indonesia Nomor 110 Tahun 2025 Tentang Penyelenggaraan Instrumen Nilai Ekonomi Karbon Dan Pengendalian Emisi Gas Rumah Kaca Nasional ., 2025)

These latest restrictions focus on carbon market governance and do not specifically regulate Sharia-based carbon credit trading methods. In addition, the Indonesia Carbon Exchange (IDXCarbon) and Financial Services Authority Regulation No. 14 of 2023 on Carbon Trading Through Carbon Exchanges have strengthened institutional infrastructure by incorporating carbon trading into the financial services sector's oversight system.(Peraturan Otoritas Jasa Keuangan Nomor 14 Tahun 2023 Tentang Perdagangan Karbon Melalui Bursa Karbon, 2023)

The NEK regulatory system serves as the legal framework for Indonesia's carbon credit market, providing a foundation for carbon credits. However, its regulations are neutral and do not differentiate transaction characteristics based on specific legal systems. This situation is relevant when carbon credits intersect with economic systems that have specific normative principles, including Islamic economic law.(Ayub, 2022)

Indonesian carbon credits are backed by a basic policy framework and institutional infrastructure for carbon unit trades. Indonesia Carbon Exchange (IDXCarbon), an integrated carbon trading platform with the national capital market system, is a milestone. The carbon exchange shows the government's effort to institutionalize carbon credit trading within an organized, transparent, and regulated market framework, so carbon units are no longer seen as temporary policy instruments but as market transactions with clear market mechanisms.(Indonesia Stock Exchange., 2023)

Financial Services Authority restrictions on carbon trading through exchanges reinforce institutionalization. Financial Services Authority Regulation No. 14 of 2023 on Carbon Trading through Carbon Exchanges incorporates the carbon credit market mechanism into financial services regulation.(Peraturan OJK Nomor 14 Tahun 2023 Tentang Perdagangan Karbon Melalui Bursa Karbon., 2023) This rule governs trading technicalities and establishes carbon credits as instruments subject to market order, participant protection, and institutional oversight.(World Bank, 2024) Thus, Indonesia's carbon credit market has institutionalized.

Indonesia has unique characteristics due to Islamic economic ecosystem practices during regulatory system and carbon credit market infrastructure construction. An Indonesian Waqf Council effort links waqf forest management to carbon credit calculation and use. Emission reductions from environmental waqf asset management can be monetized through business-to-business transaction schemes at specific levels.(Badan Wakaf Indonesia., 2023)

Islamic banks are also developing emissions measuring and reporting services for the carbon ecosystem. Bank Syariah Indonesia uses Digital Carbon Tracking to measure, manage, and report its operational carbon footprint.(Bank Syariah Indonesia., 2023) This service doesn't directly represent carbon credit trading, but it shows that the Islamic financial ecosystem is ready to deal with carbon mechanisms. These facts show that carbon credits have infiltrated the Islamic economy, even though they function under a general regulatory framework not created for Sharia-based transactions.

The relationship between the carbon market and Islamic economic law in Indonesia is still being studied and divided into numerous areas. Some studies examine the normative legality of carbon trading from an Islamic law perspective, while others focus on green finance mechanisms or national regulatory carbon market regulation.(Muhammad Fauzan Fahlevi dan Wirdyaningsih, 2024) These characteristics suggest that Indonesia's Sharia carbon market discourse is still developing a legal foundation.

Uswatun Hasanah, Surya Sukti, and Anas Maulana studied carbon trading from an Islamic legal perspective. The study found that Islamic law allows carbon trading if it follows public interest, fairness, transparency, and avoids gharar and maysir. The report also notes that the National Sharia Council-Indonesian Ulema Council (DSN-MUI) has not issued a fatwa regulating carbon trading mechanisms, leaving sharia economic operators in the dark. However, the study has only examined the normative legality of carbon transactions and has not addressed the regulatory framework or institutional design needed to conduct Sharia-based carbon credit transactions. (Uswatun Hasanah, Surya Sukti, 2026)

Further research by Muhamad Wildan Fawa'id, M. Nur Rianto Al Arif, and their team studied carbon trading as a tool for a sustainable Islamic economy. Carbon trading offers a new opportunity for green economic development and Muslim economic empowerment, according to the study. The discussion remains focused on economic potential and sustainable development, so it does not yet address the legal status of carbon units as objects of contracts, the transaction structures at each stage of the carbon cycle, or the Sharia governance mechanisms required in carbon trading practices.(Muhamad Wildan Fawa'id, Aula Nurul Ma'rifah, 2025)

In Islamic finance, Fauziyah Adzimatinur, Rahmat Olii, and Dea Fajria Tatarizqa Japal research green sukuk as a financing tool for sustainable projects in Indonesia. The study reveals that Islamic financial instruments can finance ecologically beneficial projects, supporting sustainable development.

Although the study focuses on green financing, it has not yet included carbon credits as the subject of the transaction *(maʻqūd ʻalayh)*, which requires regulations on contract structure, Sharia governance, and oversight mechanisms in the national carbon market system.(auziyah Adzimatinur, Rahmat Olii, 2024)

Conceptual, moral, and institutional regulatory gaps exist. There is no standard contract template that aligns with Sharia principles throughout issuance, trading, and cancellation, so riba, gharar, and maysir risks cannot be mitigated. Further research is needed on the legal status of carbon units as contract subjects, contract structures throughout the lifecycle, and the integration of Sharia governance principles into the national carbon market mechanism. The carbon market ecosystem has not yet integrated Sharia governance features like the DSN/SSB, Sharia audit systems, and compliance criteria. Legal protections and dispute resolution for Sharia-labeled carbon credit transactions are also lacking.(Frank E. Vogel and Samuel L. Hayes III, 2023)

This study studies Sharia-compliant carbon credit transactions and creates a Sharia-Based Carbon Credit Transaction Framework in Indonesia. This framework was developed by mapping national regulations, identifying regulatory gaps at each stage of the carbon unit cycle, and formulating Minimum Regulatory Standards (MRS) as a normative reference for Shariah-based carbon credit transaction mechanisms that are integrated with Carbon Economic Value (NEK) regulations.

METHOD

This study employs a normative-doctrinal legal research method with a prescriptive orientation. This method was chosen because the study focuses on law as a system of norms, rather than on the empirical examination of the behavior of legal subjects.(Terry Hutchinson, 2023) Therefore, the analysis focuses on legislation, legal principles, legal doctrines, fatwas, and academic literature relevant to the conduct of Sharia-based carbon credit transactions in Indonesia.(Soekanto, S., & Mamudji, 2019) The research uses a prescriptive method to establish the legal framework and create a framework of minimum regulatory standards (MRS) for a Sharia-compliant carbon market.(Hutchinson, T., & Duncan, 2012)

The approaches used include a legislative approach, a conceptual approach, and an analytical-doctrinal approach.(Marzuki, 2021) The hierarchy of norms governing the Carbon Economic Value (NEK) instrument, the measurement, reporting, and verification (MRV) system, the National Climate Change Control Registry System (SRN PPI), greenhouse gas emission reduction certificates, carbon unit trading through carbon exchanges, and competent authority oversight is examined using a legal framework approach.

The conceptual approach is used to examine carbon units as transaction objects from the perspective of Islamic economic law, including contract validity, rights ownership or control, benefit value, certainty, and *maqashid al-shariah's* prohibitions on *riba*, *gharar*, and *maysir*. (Kamali, 2008) Meanwhile, an analytical-doctrinal approach is used to link positive law norms with the principles of fiqh muamalah in order to arrive at regulatory formulations that are coherent and normatively justifiable. (McCrudden, 2006)

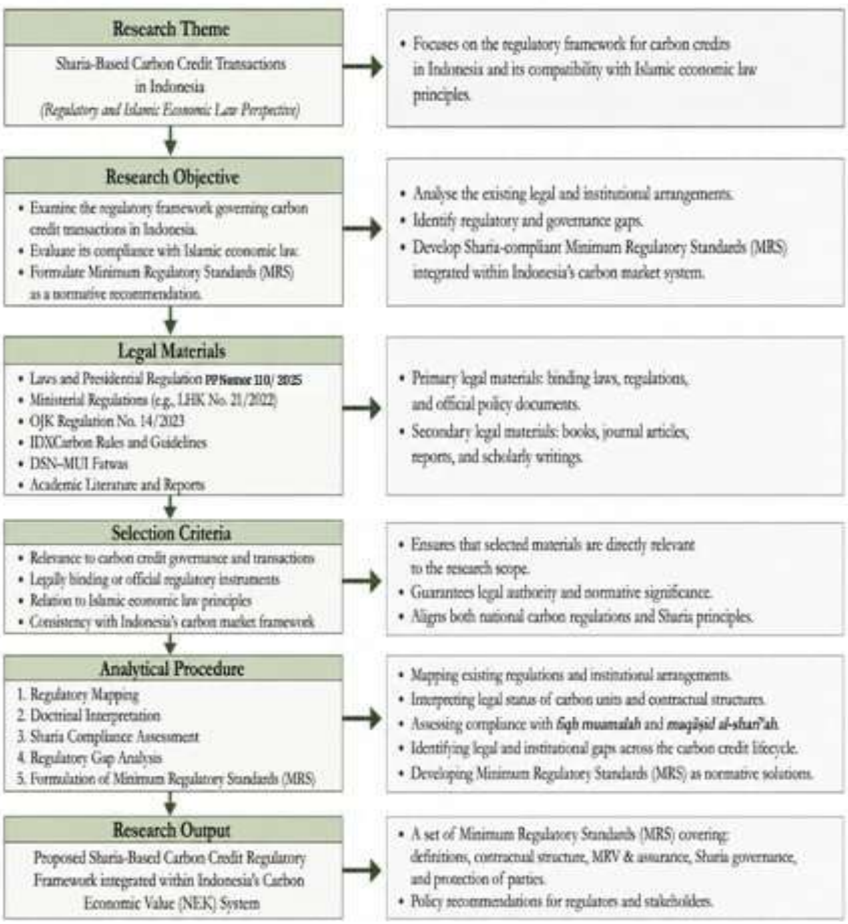
The legal materials in this study consist of primary, secondary, and tertiary sources. (Ibrahim, 2006) Primary legal materials include Presidential Regulation No. 110 of 2025 and Presidential Regulation No. 98 of 2021, which has been revoked, Ministry of Environment and Forestry Regulation No. 21 of 2022, relevant sectoral regulations, OJK Regulation No. 14 of 2023, IDXCarbon regulations, and DSN-MUI fatwas relevant to muamalah and carbon unit trading. Secondary legal sources include books, journal articles, institutional reports, and academic studies on environmental law, carbon markets, Islamic economic law, and legal research technique.(Peter Mahmud Marzuki, 2023) Tertiary legal sources are used as needed to clarify terms, concepts, or definitions used in the research.

Inclusion and exclusion criteria determine legal material selection. Inclusion criteria include (1) legal materials governing carbon unit formation, issuance, registration, trading, supervision, or dispute resolution; (2) legally binding or official guidelines for the national carbon market; and/or (3) Islamic economic law principles, particularly contract subject matter, Sharia governance, party protection, and d. Popular texts without academic or institutional legitimacy, unverifiable sources, and repealed regulations are excluded unless utilized to track historical trends and policy shifts.

Document examination of official rules, institutional documents, fatwas, books, journal articles, and scholarly publications yielded legal materials. This study used PRISMA as a visual aid to improve legal material identification and selection transparency. This study used the PRISMA framework just as a visual tool to improve transparency in identifying, screening, eligibility, and determining legal documents, not as a systematic literature review approach.(Matthew J. Page et al., 2021) This approach allows readers to systematically trace the legal materials selection process that forms the basis for this study's normative analysis.

Legal materials analysis is 5-step. First; map Indonesia's carbon market law, institutions, and inter-regulatory linkages. Second; carbon unit transaction status and contract formation doctrine. Third; a Sharia compliance evaluation to verify the carbon credit mechanism's fiqh muamalah and maqasid al-shariah compliance. Fourth; A regulatory gap assessment on conceptual, institutional, supervisory, and stakeholder protection. Fifth, a normative synthesis to set minimum MRS standards for carbon unit status, contract structure, MRV and registration, sharia governance, party protection, and dispute resolution.

Three main principles guided the MRS: compliance with Indonesian carbon market regulations, alignment with Islamic jurisprudence (fiqh muamalah) and maqashid al-shariah, and application across the carbon unit lifecycle, including formation, verification, registration, trading, transfer, and dispute resolution. The MRS aims to enhance legal clarity, sharia governance, transparency, and party protection in Sharia-based carbon credit transactions, not to establish a separate legal regime outside the NEK system.(Hans Kelsen, 1967)



Source: Author's own adaptation.

Figure 1. PRISMA inspired flow diagram for the identification and screening of carbon credit regulations in Indonesia.

RESULT AND DISCUSSION

Indonesia's Carbon Market Regulation Framework and Carbon Unit Life Cycle

The title is adjusted to the editorial/description of the problem formulation in question. This section contains research results and discussion related to the formulation of the first problem. In the research results, first describe the research results that have been obtained without including a description of the results of the author's thinking or literature review. The discussion section contains an explanation of the research results in relation to the formulation of the problem in the research, interpretation of the research results, and comparing or linking the research results with the theory referred to.

Table 1. Table Title

Regulatory Instrument	**Regulatory Focus**	**Institution Responsible**	**Main Regulatory Scope**	**Implications for Sharia-Based Carbon Transactions**
Presidential Regulation No. 110 of 2025 on the Implementation of Carbon Economic Value Instruments and National Greenhouse Gas Emission Control	National Carbon Economic Value (NEK), carbon allocation, emissions control, transparency framework	President and relevant ministries/agencies	Establishes the national framework for carbon economic instruments, emissions control, monitoring, evaluation, funding, and institutional coordination	Establishes the national carbon governance framework but does not provide a specific regulatory pathway for Sharia-compliant carbon credit transactions, Sharia governance, or contract structures
Minister of Environment Regulation No. 21 of 2022 on the Implementation of Carbon	MRV, National Registry (SRN), issuance of carbon units	Ministry of Environment	Regulates measurement, reporting, verification (MRV), registration, and	Focuses on technical integrity and environmental verification without incorporating Sharia

Economic Value			issuance of carbon units	compliance requirements
Financial Services Authority Regulation No. 14 of 2023 on Carbon Trading through Carbon Exchanges	Carbon trading governance	Financial Services Authority (OJK)	Regulates carbon trading, market participants, disclosure, and supervision through carbon exchanges	Applies conventional market governance without Sharia screening, Sharia governance, or Islamic contractual arrangements
IDXCarbon Rules	Carbon exchange operations	Indonesia Stock Exchange (IDX)	Trading, clearing, settlement, and registry integration	Does not classify Sharia-compliant carbon products or provide a separate trading mechanism for Sharia transactions
Law No. 7 of 2021 on Harmonisation of Tax Regulations (Carbon Tax Provisions)	Fiscal instruments	Central Government	Carbon tax and fiscal incentives for emission control	Designed as a fiscal instrument without integration into Sharia-compliant carbon market mechanisms

Source: Processed data

By the following table 1 Indonesia has a comprehensive carbon market regulation system using environmental, financial, and fiscal law. These policies establish the economic value of carbon, measure emissions reductions using MRV and SRN, enable carbon trading through exchanges, and impose fiscal mechanisms like a carbon tax. Indonesia has a legal framework for practically all stages of the carbon unit cycle, according to their findings.

Nevertheless, this regulatory mapping also reveals that all applicable legal instruments are still framed within a regulatory paradigm that is value-neutral that is, neutral toward any specific legal system.(J. B. Ruhl and James Salzman, 2023) Without separating transaction features in Islamic economic law, the laws emphasize environmental integrity, administrative transparency, market efficiency, and institutional control. Carbon units are treated as technical instruments under regulations on economic value, MRV, trading, and fiscal provisions, rather than considering maʻqūd ʻalayh status, contract structures, and Sharia monitoring. Current regulations establish carbon market governance but not Sharia carbon governance.

This situation has major legal implications. Islamic economic law assesses transaction validity based on more than just administrative requirements in carbon market regulations. It also considers the clarity of the contract's subject matter, the permissibility of the underlying activities, the contract structure, and the presence of Sharia governance mechanisms ensuring compliance from project initiation to emission reduction claims.(Usmani, 2021) The current national carbon market regulations do not provide a sufficient legal basis for Sharia-based carbon credit transactions. This article aims to create a carbon market system with an integrated Sharia regulatory layer within the existing Carbon Economic Value framework, ensuring legal certainty, market integrity, and Sharia compliance.

Along with an institutional legal framework, these regulations provide a carbon unit lifetime that underpins the national carbon market. According to regulatory mapping, this cycle begins with emission reduction project development, followed by MVR, carbon unit issuance, SRN-PPI registration, carbon exchange trading, retirement, and emission reduction claims based on carbon units. Environmental, financial, and carbon exchange authorities oversee each stage, creating an integrated governance system. As part of its carbon market governance structure, Indonesia regulates the full carbon unit lifetime from upstream to downstream.

However, the carbon unit cycle mapping illustrates that each stage is designed primarily to ensure environmental integrity and carbon market efficiency. The technical validity of emission reductions, carbon unit traceability, and trading system regularity are the only legal requirements at each level. No single stage requires a Sharia compliance evaluation for emission-source projects, carbon unit contracts (maʻqūd ʻalayh), carbon trading contracts, or environmental claims oversight procedures. Thus, while the carbon unit cycle is entirely governed by positive law, it works within a normal regulatory framework. The major finding is that Sharia economic law ideas are not integrated throughout this cycle. Indonesia has created carbon market governance but not Sharia carbon governance. When Sharia economic institutions join the national carbon market, different concerns arise, as detailed below.

Evidence of Practices Related to Sharia Economics

Table 2. Sharia Practices Related to Carbon in Indonesia and Their Role in the Carbon Unit Cycle

Practice	Actor	Lifecycle Node	Type of Transaction / Service	Potential Legal Issues	Indicative Shariah Issues
Carbon trading through IDXCarbon	Bursa Efek Indonesia (IDXCarbon), Project Developers, Corporate Buyers	Trading	Secondary trading of carbon units	No classification between conventional and Sharia-compliant carbon units	Carbon units from non-Sharia projects may be traded to Islamic financial institutions or Sharia-compliant companies without Sharia screening
Waqf based forest management with carbon potential	Indonesian Waqf Board (BWI)	Project origination / MRV	Management of waqf assets with potential carbon value	Legal status of carbon units derived from waqf assets	Ownership of the object; clarity of benefits and distribution
Potential sale of carbon credits from waqf forests	BWI and partners	Issuance / Trading	Business to business carbon transactions	Legal basis for transactions and authorisation	Contractual structure; potential gharar
Digital carbon tracking systems	Bank Syariah Indonesia (BSI)	MRV / Disclosure	Emissions measurement, reporting, and	Standards for claims and disclosure governance	Principles of amanah (trust) and transparency

			transparency services		
Potential involvement of Islamic banks in carbon markets	Bank Syariah Indonesia (BSI)	Trading / Claims	Carbon related financial services	Market conduct and consumer protection	End to end Shariah compliance

Table 2 illustrates that Sharia institutions and economic players have begun to create practices throughout numerous stages of the carbon unit cycle in Indonesia, even though there are no Sharia-based carbon credit legislation. Environmental asset management, emissions measurement, carbon trading, and carbon-related financial services all follow these approaches. These data show that the Sharia economic ecosystem's carbon market involvement is now institutionalized.

The carbon market structure is still conventional, although these practices are changing. IDXCarbon, the single national carbon market, exchanges all technical-compliant carbon credits without regard to corporate origin, project characteristics, or Sharia compliance. Thus, conventional carbon credits can be exchanged to Sharia-compliant financial institutions or companies operating on Sharia principles without Sharia screening. Sharia-compliant carbon units from waqf forests can also be traded to non-Sharia-compliant firms. This suggests that the main issue is the lack of Sharia-compliant processes in the carbon transaction chain, not the carbon market itself.

According to *fiqh al-muʿāmalāt*, this position creates legal concerns. The status of carbon credits as contract subject matter *(maʿqūd ʿalayh)* is unclear when they come from religious social assets like waqf or non-Sharia-compliant business activity. No mechanism exists to guarantee that parties involved in carbon unit transactions conform to the principle of permissibility *(ḥalāl)* and don't engage in gharar, maysir, or Sharia-prohibited activities. Third, no Sharia governance system ensures continuous compliance with amanah, honesty *(ṣidq)*, and fairness *(ʿadl)* principles throughout carbon credit transactions, from issue to use. Sharia compliance must be understood throughout the carbon transaction cycle, not just institutionally.(IFSB (Islamic Financial Services Board), 2020)

These findings suggest that practices are developing faster than regulations. The Indonesian Waqf Board, Bank Syariah Indonesia, and Sharia financial institutions' potential participation in the carbon market show that Sharia-based carbon credit transaction mechanisms are needed. Regulating carbon trading requires a governance framework that integrates *fiqh al-mu'āmalāt* principles into the national carbon market system, not just normative legitimacy. These findings inform regulatory gap analysis and Minimum Regulatory Standards in the following section.

Analysis of Regulatory Gaps in the National Carbon Market Architecture and the Development of Minimum Regulatory Standards (MRS) for Sharia-Based Carbon Credit Mechanisms

Table 3. Integrated Regulatory Gap Analysis and Proposed Minimum Regulatory Standards (MRS) across the Lifecycle of Sharia-Based Carbon Credit Transactions

Lifecycle Stage	**Existing Regulatory Gap**	**Integrity / Legal Risk**	**Sharia Issue**	**Legal Implication**	**Proposed Minimum Regulatory Standard (MRS)**	**Responsible Institution**	**Regulatory Instrument**	**Institutional Coordination**
Project Origination	No criteria for Sharia compliant carbon projects	Baseline bias	Maqāṣid and lawful benefit	Uncertainty regarding the legitimacy of project objectives	Sharia eligibility criteria for carbon projects	KLHK & DSN-MUI	Revision of Perpres 110/2025 or Ministerial Regulation	KLHK, DSN-MUI, Project Developers
MRV	MRV focuses only on technical integrity	Additionality uncertainty	Amanah and transparency	Weak credibility of environmental claims	Sharia-integrated MRV standards and assurance	KLHK	Ministerial Regulation / MRV Technical Guideline	KLHK, Independent Verifiers, DSN-MUI

Issuance & Registration	No legal qualification of carbon units as Sharia contract objects	Over issuance	Status of *ma'qūd 'alayh*	Uncertainty regarding ownership and contract validity	Legal definition of Sharia-compliant carbon units	KLHK & DSN-MUI	Revision of Perpres 110/2025 & DSN-MUI Fatwa	KLHK, DSN-MUI
Carbon Trading	No Sharia screening, classification, segregation, or contractual framework for carbon units traded through IDXCarbon	Information asymmetry; commingling of Sharia and non-Sharia carbon units; speculation	Gharar, maysir, and uncertainty regarding the permissibility of underlying projects	Legal uncertainty regarding the Sharia validity of transactions involving carbon units originating from non-Sharia projects	Establish Sharia screening criteria, certification and labeling of Sharia-compliant carbon units, segregated trading mechanism, standardized Sharia contracts, and mandatory disclosure of underlying project characteristics	OJK, IDXCarbon, KLHK, DSN-MUI	POJK on Sharia Carbon Trading, IDXCarbon Rules, DSN-MUI Fatwa	OJK, IDXCarbon, KLHK. DSN-MUI
Retirement & Claims	No Sharia standards governing retireme	Reuse risk; overclaiming	Ṣidq and amanah	Greenwashing; misleading environ	Claim verification standards and post-retirem	KLHK & OJK	Ministerial Regulation & POJK	KLHK, OJK, IDXCarbon

	nt and environ mental claims			mental claims	ent legal status			
Retire ment & Claims	No Sharia standar ds governi ng retireme nt and environ mental claims	Reuse risk; overcla iming	Ṣidq and amana h	Greenwa shing; misleadi ng environ mental claims	Claim verifica tion standar ds and post-retirem ent legal status	KLHK & OJK	Minist erial Regul ation & POJK	KLHK, OJK, IDXCar bon

Source data

Table 3 presents a systematic analytical matrix linking the various stages of a carbon unit's life cycle to integrity risks, key Sharia-related issues, and minimum normative requirements. This table directly serves as the basis for the formulation of regulatory standards in the following section and does not constitute a normative fatwa or a fatwa based on *fiqh*.

An analysis of the regulatory framework, the carbon unit cycle, and emerging practices in the Islamic economic ecosystem shows that the main obstacle to implementing Sharia-based carbon credits in Indonesia is the lack of a Sharia regulatory layer integrated into the national carbon market architecture. All applicable rules have created a carbon market governance framework that ensures environmental integrity, market efficiency, and administrative certainty.(World Bank, 2024) However, these regulations have not yet accommodated the need for transactions based on the principles of Sharia economic law.

Almost every step of the carbon unit cycle has structural regulatory weaknesses. Sharia-compliant carbon project criteria are not yet regulated. For Sharia compliance, MRV verification requirements solely examine environmental integrity, not amanah or transparency. Carbon units are not considered contract topics during issue and registration (maʻqūd ʻalayh). There is no Sharia screening, classification of Sharia-compliant carbon units, trade segregation, or contractual criteria to ensure Sharia-compliant objects and parties during trading. Currently, environmental claims rules lack clarity on applying honesty (ṣidq) and amanah principles to Sharia-based carbon claims.

These data suggest that institutional design and norm substance contribute to the regulatory vacuum. The Ministry of Environment, the Financial Services Authority (OJK), the Indonesia Stock Exchange (IDX) through IDXCarbon, and other technical ministries regulate the carbon market. On the other hand, the DSN-MUI and Sharia economic institutions oversee Sharia conformity. No coordination mechanism exists between these regulatory regimes. Environmental integrity is institutionally guaranteed, but Sharia integrity is not.

These findings suggest using Minimum Regulatory Standards (MRS) as a layered regulatory framework to integrate Sharia economic law into the national carbon market system without creating a regime. The proposed MRS regulates Sharia-compliant carbon projects, Sharia-based MRV standards, carbon unit qualifying as contract objects, Sharia-compliant carbon trading mechanisms, Sharia governance, and party protections to complement the Carbon Economic Value framework. MRS connects national carbon market governance to fiqh al-muʻāmalāt principles as a regulatory layer.

This study offers an MRS that defines competent authorities at each implementation level, unlike previous normative recommendations. The Ministry of Environment regulates carbon projects and MRVs, whereas OJK and IDXCarbon manage carbon trading. For Sharia compliance, Sharia financial institutions and market players use DSN-MUI fatwas and recommendations. The Ministry of Environment and Forestry (KLHK), Financial Services Authority (OJK), IDXCarbon, DSN-MUI, BWI, and other relevant organizations must collaborate to implement the MRS to ensure environmental integrity and Sharia compliance in a single national carbon market system.

Legal Risks of Sharia-Based Carbon Credit Transactions in the Absence of a Normative Framework

Sharia-based carbon credit systems lack regulatory rules, creating a regulatory vacuum and legal dangers that threaten transaction certainty, market integrity, and Sharia economic actors. The lack of legal norms that integrate Sharia principles into the whole carbon unit lifecycle causes these concerns, not because carbon credit instruments violate Sharia. Thus, Sharia compliance assessments still depend on market players' views rather than legal parameters. This could erode legal certainty, a critical requirement for modern economic activity.

Initial legal risk is carbon unit uncertainty in Sharia transactions. Technical criteria like MRV and National Registry System registration make carbon units legal commercial instruments under existing law. Regulators have not stated whether carbon units require a Sharia economic law contract, the correct contract form, or milk ownership for traded units. Business participants, Sharia financial institutions, and law enforcement may interpret uncertainty differently in Sharia-based carbon credit transaction conflicts.

Sharia compliance risk is the second problem since the national carbon trading system lacks Sharia screening. Each carbon unit that fulfills current technical standards is traded through the same mechanism, regardless of project or commercial activity. Sharia-compliant financial institutions or corporations could exchange carbon units from non-Sharia-compliant economic activities. Carbon units from Sharia-based programs like waqf forest management may be transferred to Sharia-violating corporations. This raises doubts about transaction objects and diminishes public trust in Sharia-compliant financial products and services.

The third risk is a decline in the integrity of the Sharia-based carbon market due to the absence of Sharia governance standards regulating the use of "Sharia" labels or claims in carbon transactions. Without Sharia certification, oversight, or audit mechanisms, any market participant could potentially claim that a transaction or traded carbon unit complies with Sharia principles even if it has never undergone verification by the relevant authorities. This situation creates opportunities for "Sharia greenwashing" the use of Sharia attributes as a marketing strategy without being supported by verifiable compliance standards. In the long term, such practices could undermine the credibility of the Sharia carbon market while eroding investor and public trust in the Sharia economic ecosystem.

Another issue is institutional fragmentation. The Ministry of Environment, the Financial Services Authority (OJK), and IDXCarbon regulate carbon markets, while the National Sharia Council–Indonesian Ulema Council (DSN-MUI) oversees Sharia compliance. No coordination mechanism unites these entities under one government. Thus, it is unclear who can assess, manage, or resolve a carbon credit transaction's Sharia compliance problem. This fragmentation may hinder Sharia-based carbon credit supervision by overlapping jurisdictions.

If waqf forest management carbon credits are exchanged without beneficiary limits, waqf assets may not meet social aims. Businesses that contravene Sharia standards could use waqf asset economic benefits without law classifying or vetting carbon credit buyers. The validity of transactions may conflict with the purpose of waqf (maqṣad al-waqf), which aims to achieve public welfare in conformity with Sharia principles.

Having no normative framework to give legal certainty concerning transaction purposes, contract procedures, Sharia compliance, institutional governance, and party protection is the biggest danger in Sharia-based carbon credit mechanisms, according to this study. Thus, Minimum Regulatory Standards (MRS) are needed to enhance carbon market rules and assure environmental integrity, legal certainty, and Sharia compliance in a unified national carbon market governance framework.

Normative References for Sharia-Based Carbon Credit Regulations from the Perspectives of *Fiqh al-Muʿāmalāt* and *Maqāṣid al-Sharīʿah*

1) Ḥifẓ al-Bī'ah as the Basis for the Legitimacy of Carbon Market Regulation

Climate change threatens human lives, ecosystems, and socioeconomic equilibrium, demanding legal mechanisms to reduce emissions. Maqāṣid al-sharīʿah considers environmental conservation (ḥifẓ al-bī'ah) integral to achieving public interest (maṣlaḥah) and preventing harm (mafsadah), although not being specifically mentioned in the five primary objectives (al-kulliyyāt al-khams).(Mohammad Hashim Kamali, 2021) Contemporary Islamic legal theory relates environmental conservation to life, property, and sustainability through maqāṣid tabiʿiyyah. If they benefit the public and the environment, greenhouse gas emission reduction programs, including carbon markets, are Sharia-compliant.

However, environmental goals do not legitimize all transactional strategies utilized to attain them. This study found that Indonesian carbon market regulations have succeeded in protecting the environment through the Economic Value of Carbon system, Measurement, Reporting, and Verification (MRV), a national registry, and carbon trading, but they have not yet integrated Sharia economic law into transaction governance.(Fauziyah Adzimatinur, Rahmat Olii, 2024) To achieve ḥifẓ al-bī'ah as a policy objective, assurance is needed on the transaction's validity, contract mechanism, Sharia governance, and party protection. Thus, transactional legitimacy must accompany environmental legitimacy to protect the environment and comply with Sharia law in a single regulatory framework.

2) The Policy of Honesty (al-ṣidq) and the Prohibition on Falsifying Claims

Honesty is a fundamental principle in muʿāmalāt, especially when the subject of a transaction is intangible and depends on claims of benefit. The Qur'an emphasizes the obligation of honesty and the prohibition against falsifying the truth: "O you who believe, fear Allah and stand with those who are truthful" (Quran 9:119). In fiqh literature, this verse is understood as the normative foundation that claims forming the basis of value exchange must be true and accountable.

In the context of carbon credits, claims of emission reductions or removals constitute the core value being traded. Any form of distortion of these claims whether through exaggeration, duplication, or misleading presentation contradicts the principle of al-ṣidq. The Prophet ﷺ emphasized: "Whoever deceives is not part of my community" (Ṣaḥīḥ Muslim). Therefore, Sharia transaction regulations must ensure that carbon claims are subject to verification mechanisms that prevent ghishsh (fraud) and tadlīs (concealment of material facts), so that honesty is not merely an ethical value but a legal obligation.(Muslim, 2007)

3) Clarity *(al-wuḍūḥ)* and the Avoidance o*f Gharar*

Islamic law requires clarity as a prerequisite for the validity of a transaction. The Qur'an commands that transactions be written down and clearly explained: "If you enter into a transaction involving a loan for a specified term, write it down" (Quran 2:282). This verse is understood by the fuqaha' as the basis for the obligation of clarity regarding the subject matter, rights, and obligations in complex transactions.

The prohibition against gharar precludes excessive uncertainty in muʿāmalāt. The Prophet ﷺ prohibited sales involving gharar (Ṣaḥīḥ Muslim), According to al-Nawawī, these transactions involve significant uncertainty about the topic matter, advantages, or legal implications. Gharar may occur in carbon credits if the units' status, claims' scope, or end-use (retirement) are unclear. For Sharia norms to avoid gharar fāḥish, carbon units, transfer procedures, and legal ramifications must be clearly defined.(Al-Nawawī, 1991)

4) Validity of the Subject Matter of a Sale *(Ma'qūd 'Alayh)* and Asset Value

Sharia does not limit the subject matter of a contract to tangible objects alone. The Qur'an recognizes the existence of rights and benefits as protected values: "And do not consume one another's wealth unjustly" (Quran 4:29). This verse serves as the basis for the principle that any value recognized by law and utilized lawfully may serve as the subject matter of muʿāmalāt, provided it does not involve deception.

Scholars in fiqh state that contracts can include rewards (manfaʿah) and rights (ḥaqq) with clear worth. According to Al-Kāsānī, defined and legally transferable benefits are considered property. Wahbah al-Zuḥaylī categorized legal non-physical rights as māl ḥukmī. Carbon units as regulatory rights over emissions claims can be the subject of a contract if regulations clarify ownership, transfer, and termination.(Wahbah Al-Zuḥaylī, 2011)

5) **Trust** ***and Responsibility for the Consequences of Claims***

Trust demands accountability for the consequences of the claims made. The Qur'an emphasizes: "Indeed, Allah commands you to entrust the trust to those entitled to receive it" (Quran 4:58). In transactions based on environmental claims, trust includes the obligation to ensure that such claims do not exceed the facts and do not cause harm to others. A hadith of the Prophet ﷺ emphasizes responsibility for promises and commitments: "There are three signs of a hypocrite: when he speaks, he lies; when he makes a promise, he breaks it..." *(Ṣaḥīḥ al-Bukhārī)*. Therefore, Sharia transaction regulations must establish accountability for the presentation of misleading information, including mechanisms for correction and sanctions, so that reliability becomes an enforceable principle.(Al-Bukhārī, 2002)

6) **Justice (al-ʿAdl)** ***and the Prevention of Harm***

Sharia establishes justice as the goal of transactions. The Qur'an commands: "Be just, for justice is closer to piety" (QS. al-Māʾidah [5]: 8). This concept mandates that transaction structure not hurt either party due to information asymmetry or false claims. According to the fiqh rule *"lā ḍarar wa lā ḍirār"* (no harm and no mutual injury), rules are necessary to prevent behaviors that produce systemic harm Invalid claims or bundling transactions that hide Sharia status can hurt carbon credits. Thus, Sharia-compliant transaction regulations must protect parties, provide complaint procedures, and resolve disputes fairly.(Kamali, 2008b)

Operationalisation of Minimum Regulatory Standards (MRS) in Indonesia's Carbon Governance Framework

MRS requires institutional change to incorporate Sharia principles into national carbon market governance, not legal adjustments. The best short-term solution is a Sharia Regulatory Layer using DSN-MUI fatwas, OJK laws, KLHK technology suggestions, and IDXCarbon operating requirements, according to this analysis. This method explains carbon units, contract processes, Sharia screening, and Sharia-compliant governance.

The DSN-MUI fatwas include carbon units as contract objects, Sharia screening, contract kinds, and carbon transaction Sharia compliance. These fatwas help the Ministry of Environment and Forestry (KLHK) develop technical requirements for Sharia-based carbon projects and integrate Sharia into MRV and the Financial Services Authority (OJK) to regulate Sharia carbon trading. IDXCarbon allows Sharia labeling, project transparency, and traded carbon unit screening. For Sharia-compliant carbon use, the Indonesian Waqf Board (BWI) should set waqf-based carbon regulations.

In the short term, this integrated plan is most likely, but our analysis suggests a Sharia Carbon Market Platform as a specialized part of the national carbon trading ecosystem for institutional growth. Indonesia's Sharia capital market has unique trading platforms, compliance criteria, and Sharia government, not stock exchanges. From here, the model can change. A Sharia Supervisory Committee, carbon register, screening, and Sharia-based conflict resolution are possible. Once market demand, Sharia financial institution involvement, and transaction volume are sufficient, Indonesia's Sharia carbon market will transition from regulatory harmonization to self-sustained trading.

CLOSING

According to this research, Indonesia has NKE, MRV, IDXCarbon, and fiscal tools for emissions management. Technical governance and environmental integrity are prioritized without Islamic economic law in the carbon unit lifespan. The regulatory vacuum is the lack of a normative framework governing carbon units as contract objects, Sharia screening methods, Sharia governance, and institutional coordination for Sharia-based carbon credit transactions, not carbon market laws.

Harnessing waqf forests' carbon potential, Bank Syariah Indonesia's Digital Carbon Tracking services, and IDXCarbon's carbon trading opportunities for Sharia financial institutions demonstrate that Sharia regulation is now a practical necessity. These methods could cause legal uncertainty, Sharia compliance issues, institutional fragmentation, and the demise of Sharia-based carbon trades without normative rules.

This study develops Minimum Regulatory Standards (MRS) for sharia-based carbon credit transactions and creates the Sharia Regulatory Layer and an institutional roadmap. This framework assigns regulation, Sharia screening, transaction oversight, and governance to the Ministry of Environment and Forestry (KLHK), Financial Services Authority (OJK), National Sharia Council–Indonesian Ulema Council (DSN-MUI), Indonesian

Waqf Board (BWI), and IDXCarbon. As market demand, transaction volume, and Sharia financial institution participation rise, this research proposes a Sharia Carbon Market Platform for institutional evolution.

This study has limitations because it employs a normative-doctrinal legal approach focused on regulatory analysis without empirically testing the implementation of the MRS. Therefore, future research could examine institutional readiness, the effectiveness of Sharia screening implementation, coordination models among regulators, and the feasibility of establishing a Sharia Carbon Market Platform through empirical approaches or cross-country comparative studies.

Declaration of Conflict Interest

The authors affirm no conflict of interest. The funders had no involvement in the study's design, data collection, analysis, manuscript writing, or the decision to publish the results.

Author Contributions (CrediT Taxonomy)

Arianti Wulan Savitri: Conceptualization.; methodology; validation; formal analysis; investigation; resources; data curation; writing original draft preparation; writing review and editing; visualization; supervision;project administration.

Amir Tajrid: Conceptualization; validation; writing review and editing; supervision

All authors have read and agreed to the published version of the manuscript."

Generative AI Statement

During the preparation of this manuscript, the authors used AI as a language-support tool to assist with grammar refinement, language editing, sentence clarity, and manuscript organization. The AI tool was not used to generate research data, conduct legal analysis, formulate research findings, or draw conclusions. All substantive arguments, interpretations, legal analyses, and conclusions presented in this article are the sole responsibility of the authors. The authors carefully reviewed, revised, and verified all AI-assisted content to ensure its accuracy, originality, and compliance with academic standards.

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