



Designing a Fatwa on Carbon Trading in Indonesia Based on Maqāshid al-Sharī'ah

Uswatun Hasanah¹, Surya Suktī², Anas Maulana³

¹State Islamic University of Palangka Raya
G. Obos, Menteng, Jekan Raya, Central Kalimantan 73112, Indonesia
Email: Uswatun3492@gmail.com

²State Islamic University of Palangka Raya
G. Obos, Menteng, Jekan Raya, Central Kalimantan 73112, Indonesia
Email: suryasuktī72@gmail.com

³State Islamic University of Palangka Raya
G. Obos, Menteng, Jekan Raya, Central Kalimantan 73112, Indonesia
Email: Anas.maulana@iain-palangkaraya.ac.id



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Abstract: Carbon trading as an instrument for climate change mitigation has been regulated through national policies and international frameworks (the 1997 Kyoto Protocol, the 2015 Paris Agreement, and Presidential Decree No. 98 of 2021), but to date there are no official Islamic jurisprudence guidelines guiding Islamic economic actors in carbon transactions. The absence of a fatwa from the National Sharia Council (DSN-MUI) has created legal uncertainty, with concerns about usury, gharar, and speculation, leading to the underutilization of the potential of Islamic green financing. This article aims to formulate a framework for carbon trading fatwas that aligns with the objectives of the maqashid al-shari'ah (environmental preservation), 'adl (justice), and the prohibition of gharar/usury. The method used is a juridical-normative approach with a literature review of conventional regulations, mu'amalah fiqh fatwas, and classical (al-Shatibi) and contemporary (Yusuf al-Qardhawi, Ali Yafie) thought. The results of this research are a draft fatwa framework governing the contract scheme, Measurement-Reporting-Verification mechanisms, and the roles of regulators and business actors in Sharia-compliant carbon trading. This framework is expected to serve as a reference for the National Sharia Council (DSN-MUI) and policymakers to strengthen legal certainty and encourage green investment in the Islamic economy. Implications of the research include recommendations for fatwa implementation, the development of Sharia-compliant carbon market instruments, and directions for future empirical research.

Keywords: Carbon Trading; Sharia Fatwa; Maqāshid al-Sharī'ah; Hifz al-Bi'ah, Islamic Economics

Introduction

Global warming is currently a major concern for most countries around the world. Human activities produce large amounts of greenhouse gases, especially carbon dioxide (CO₂), which accumulate in the Earth's atmosphere and can cause climate change in individual countries and even across the globe.¹ The various impacts caused by climate change are now being felt and are even considered normal in society, such as droughts, high rainfall, tornadoes, and so on. The intensity of climate-related disasters such as storms, landslides, droughts, and floods is increasing, having a serious impact on the human environment.² The impact of climate change has raised global society awareness of the need to take concrete action to mitigate its effects.³ Based on these issues, the idea of a green economy is now being promoted because it is believed to be a solution for sustainable economic development and to play a role in improving social justice and welfare in society while reducing the risk of environmental damage. One instrument of the green economy is carbon trading. Carbon trading is an instrument for reducing greenhouse gas emissions by placing an economic value on every ton of carbon that is successfully reduced or absorbed.⁴

Carbon trading is a market-based mechanism for reducing greenhouse gas emissions through the buying and selling of carbon units.⁵ The concept of carbon trading is similar to conventional market transactions, but the commodity being traded is not carbon/gas in the form of pollutants in the air, but rather Carbon Units in the form of certificates that contain evidence of efforts to reduce/lower emissions in the

¹ Alikhan Salim and Mahfud Sidiq, "Dampak Pajak Karbon Terhadap Kelangsungan Bisnis," *Remittance: Jurnal Akuntansi Keuangan Dan Perbankan* 3, no. 1 (2022), 77. <https://ejurnal.swadharma.ac.id/index.php/remittance/article/view/223>.

² Renny Candradewi Puspitarini, Runitya Zurisyadai Rompa Batan, and Randy Bion Bramasty, "Peran Organisasi Internasional Dalam Atasi Perubahan Iklim Dalam UNFCCC," *Jurnal Sosial Politik Integratif* 1, no. 1 (2024), 3.

³ Riza Cadizza and Rizanizarli Rizanizarli, "Pengaturan Perdagangan Karbon Dan Manfaat Bagi Indonesia," *Unmuha Law Journal* 1, no. 1 (2024): 1–17, 4. <https://ejurnal.unmuhalawjournal.id/index.php/unmuhalaw/article/view/3>.

⁴ Bani Idris Hidayanto, Muhammad Toha Hasan, and Firdan Fadlan Sidik, "Indonesia 's Carbon Trade Odyssey: An Analysis of Maqashid Sharia in Balancing Environmental and Economic Compromises," *Az-Zarqa': Jurnal Hukum Bisnis Islam* 15, no. 2 (2023), 196. <https://core.ac.uk/download/pdf/599385688.pdf>.

⁵ Wilda Prihatiningtyas et al., "Perspektif Keadilan Dalam Kebijakan Perdagangan Karbon (Carbon Trading) Di Indonesia Sebagai Upaya Mengatasi Perubahan Iklim," *Refleksi Hukum: Jurnal Ilmu Hukum* 7, no. 2 (2023), 166, <https://ejurnal.uksw.edu/refleksihukum/article/view/7171>.

air through projects or activities to reduce certain greenhouse gases.⁶ Carbon emission buyers generally consist of developed countries and large industries, while sellers are certificate holders from developing countries that have vast forests as carbon dioxide sinks. Forests are the main target because of their ability to absorb carbon dioxide. This creates incentives for companies to reduce their carbon emissions and provides flexibility in achieving emission targets.⁷ Carbon credit certificates in Indonesia are issued by the Ministry of Environment and Forestry (KLHK) after undergoing a Measurement, Reporting, Verification (MRV) process. In this context, the state acts as a regulator that ensures that the certificates issued meet the established standards and criteria and are accountable in climate change mitigation efforts. Developed countries and large industries are usually the buyers of carbon certificates, while developing countries with extensive forests as carbon sinks are the sellers. In Indonesia, the Indonesian carbon exchange, known as IDX Carbon, plays a role in facilitating the trading of registered carbon units, including carbon credit certificates.⁸

The carbon trading mechanism was established in the Kyoto Protocol in 1997, which marked the beginning of the recognition of the carbon trading mechanism. This was later reinforced by the Paris Agreement in 2015, which provided a global framework for emissions reduction and environmental sustainability.⁹ Indonesia adopted this mechanism through Presidential Regulation No. 98 of 2021 concerning the Implementation of Carbon Economic Value, which provides the legal basis for the implementation of the carbon trading mechanism. Further technical regulations are outlined in Minister of Environment and Forestry Regulation No. 21 of 2022, which

⁶ Nur Azizi MJ, Akbar Kurnia Putra, and Bernard Sipahutar, "Perdagangan Karbon: Mendorong Mitigasi Perubahan Iklim Diantara Mekanisme Pasar Dan Prosedur Hukum," *Jurnal Selat* 10, no. 2 (2023), 97. <https://doi.org/10.31629/selat.v10i2.4853>.

⁷ Posma Sariguna Johnson Kennedy, "Kajian Mengenai Pemanfaatan Perhutanan Sosial Dalam Perdagangan Karbon Di Indonesia Untuk Menghadapi Perubahan Iklim," *Fundamental Management Journal* 9, no. 1 (2024), 107. <http://repository.uki.ac.id/16028/>.

⁸ Cadizza and Rizanizarli, "Pengaturan Perdagangan Karbon Dan Manfaat Bagi Indonesia.", 4.

⁹ Rossi Margareth Tampubolon, "Perdagangan Karbon: Memahami Konsep Dan Implementasinya," *STANDAR: Better Standard Better Living* 1, no. 3 (2022): 25–29.

regulates the implementation of carbon trading. In the financial sector, the Financial Services Authority issued POJK Number 14 of 2023 concerning Carbon Trading.¹⁰

Although carbon trading has gained legitimacy through various national and international regulations, several critical points raise concerns under Islamic jurisprudence, particularly regarding the *gharar* (uncertainty) and speculation inherent in carbon certificates. *Gharar* arises from uncertainty regarding the validity and quantity of emissions actually reduced before the Measurement-Reporting-Verification (MRV) process is completed, the potential for double counting between jurisdictions, and variations in verification methodologies that can result in differences in the quality of carbon credits. Furthermore, the intangible nature of carbon certificates creates ambiguity regarding the object of the contract if environmental benefits have not yet materialized or are still predictive. Furthermore, the potential for speculation arises when carbon certificates are traded on the secondary market primarily to profit from price fluctuations, rather than to meet actual emission compensation needs. To date, these issues have not been comprehensively addressed within the framework of Islamic jurisprudence (fiqh muamalah) or the fatwa issued by the National Sharia Council (DSN-MUI), creating a research gap regarding how sharia principles can provide clear boundaries for modern carbon trading mechanisms.¹¹

Within the framework of Islamic law, the formulation of regulations and fatwas related to modern economic activities must be based on the objectives of *maqāṣid al-shari‘ah*, the principle of justice ('*adl*), and the prohibition of usury and *gharar*. From a contextual perspective, carbon trading regulations in Indonesia are still in their early stages and have not yet fully integrated Sharia principles into their systems. This contrasts with several Islamic-based economies, such as Malaysia and the United Arab Emirates, which have implemented different approaches to regulating carbon trading. Malaysia, through Bursa Malaysia, launched the Voluntary Carbon Market (VCM) in 2022, which is supervised by the National Shariah Council. The Bursa

¹⁰ Arfiana Maulina Fatimah, "Carbon Trading Dengan Prinsip Syariah Di Malaysia Potensi Dan Implementasi Di Indonesia," *Hasina* 2, no. 2 (2025), 6. <https://ejournal.alqolam.ac.id/index.php/hasina/article/view/1741>.

¹¹ Mohammad Adnan and Badrah Uyuni, "Carbon Trading In Sharia Perspective : Fiqh Analysis And Its Implementation In Indonesia," *Jurnal Pengembangan Masyarakat Islam* 1, no. 1 (2025), 3. <https://diksima.pubmedia.id/index.php/jpmi/article/view/227/206>.

Malaysia VCM's sharia supervisory model serves as an important reference for Indonesia, demonstrating how sharia principles can be institutionally integrated into the carbon market. Through its Shariah Advisory Council (SAC), Malaysia establishes sharia compliance criteria, examines potential *gharar* in certificate quality, and limits speculative transactions in the secondary market. This mechanism is relevant for Indonesia, particularly as the DSN-MUI (Indonesian Council of Ulama Council) has not yet issued a specific fatwa and the sharia supervisory structure within IDCCarbon is still in its infancy. By emulating the basic principles of the SAC—such as sharia audits, involvement of the sharia board in MRV standards, and transparency of certificate values—Indonesia can build a carbon trading system that aligns with positive regulations while providing sharia legal certainty for Islamic economic actors.¹²

The previous research used as a reference in this study is Indonesia's Carbon Trade Odysseys: An Analysis of Maqashid Sharia in Balancing Environmental and Economic Compromises by Bani Idris Hidayanto et al. This study highlights how carbon trading can balance economic interests and environmental protection within the *maqashid* framework. Then there was the study *Pengaruh Pengungkapan Emisi Karbon dan Green Accounting Terhadap Profitabilitas Perusahaan Perspektif Maqashid Syariah* by Fathia Annisa. This research focuses on the relationship between carbon emission disclosure, green accounting, and company profitability from a sharia perspective. Other studies examine regulatory aspects, fairness, and the potential application of sharia principles in carbon market mechanisms, but tend to provide descriptive analysis without offering operational normative guidance. Unlike those studies, this study focuses on formulating a fatwa framework that systematically bridges conventional carbon regulations with the principles of Islamic jurisprudence (fiqh mu'amalah). This research not only assesses the sharia-compliant carbon trading mechanism but also drafts the contract structure, MRV parameters, and the roles of sharia governance actors, which have not been comprehensively discussed in previous literature. Thus, this study fills a research gap regarding the normative and institutional framework that can serve as a basis for the DSN-MUI in

¹² Maulina Fatimah, "Carbon Trading Dengan Prinsip Syariah Di Malaysia Potensi Dan Implementasi Di Indonesia.", 6.

drafting a fatwa on carbon trading that is applicable and in accordance with *maqāṣid al-shari‘ah*.

This research uses a qualitative-normative approach with juridical and conceptual analysis through a literature review of fiqh sources, contemporary fatwas, and national regulations related to the carbon market. The analysis is conducted systematically through: (1) content analysis to extract sharia principles on contracts, *gharar, riba, and usury rights*; (2) comparative analysis of DSN-MUI fatwas, Bursa Malaysia VCM practices, and international MRV standards; and (3) doctrinal interpretation to assess the conformity of Indonesian regulations with the principles of *mu‘āmalah*. The *maqāṣid al-Shari‘ah* framework is operationalized through the derivation of sharia parameters such as clarity of transaction objects, fairness of value, and prevention of speculation. A descriptive-analytical method is used to map existing norms and formulate sharia principles that form the basis for the preparation of the carbon trading fatwa framework.

Analysis of Carbon Trading Regulations and Sharia Principles

Global warming and climate change have become one of the most pressing environmental issues facing the global community today. Efforts to reduce greenhouse gas (GHG) emissions, especially carbon dioxide (CO₂), have become a major focus in mitigating the negative impacts of climate change. One of the instruments introduced to reduce carbon emissions is carbon trading.¹³ Global carbon trading is regulated through international legal frameworks such as the Kyoto Protocol (1997), which marked the beginning of the recognition of carbon market mechanisms by introducing the concepts of Cap and Trade and the Clean Development Mechanism (CDM).¹⁴ Through the CDM, developed countries can fulfill their emission reduction obligations by purchasing emission reduction certificates from developing countries that have successfully implemented green projects. This mechanism was then reinforced by the Paris Agreement (2015), which binds the parties to establish

¹³ Hidayanto, Hasan, and Sidik, “Indonesia’s Carbon Trade Odyssey : An Analysis of Maqashid Sharia in Balancing Environmental and Economic Compromises.”, 96.

¹⁴ “The Kyoto Protocol,” United Nations Climate Change, accessed September 22, 2025, <https://unfccc.int/process-and-meetings/the-kyoto-protocol>.

Nationally Determined Contributions (NDCs) as a joint commitment to reduce greenhouse gas emissions.¹⁵

Indonesia is a country that is currently located in the global ocean conveyor belt (thermohaline circulation) and has a strategic role in addressing climate change. Through its protected forests stretching from Sabang to Merauke, Indonesia has become one of the countries selling active carbon emissions. In 2021, as stated in the Nationally Determined Contribution (NDC) document, Indonesia committed to reducing greenhouse gases by 29% by 2030 through its own efforts and by 41% with international support. This statement is attributed to the forestry and land use sector, which contributes 24.1%, equivalent to 692 metric tons of carbon dioxide equivalent (Mton CO₂e), and the energy sector, which contributes 15.5%, equivalent to 446 Mton CO₂e.¹⁶

One important element that needs to be prepared in carbon trading is a clear transaction mechanism, so that carbon payments through the carbon market can be carried out effectively, efficiently, and fairly. With a clear transaction mechanism, the certainty of the carbon business will increase, resulting in higher carbon trading volumes and greater benefits.¹⁷ In this regard, the government issued Presidential Regulation No. 98 of 2021 concerning the Implementation of Carbon Economic Value for the Achievement of Nationally Determined Contribution Targets and Greenhouse Gas Emission Control in National Development and further regulated through Minister of Environment and Forestry Regulation No. 21 of 2022 concerning the Implementation of Carbon Economic Value. In the financial sector, the Financial Services Authority issued Financial Services Authority Regulation No. 14 of 2023 concerning Carbon Trading.¹⁸ Presidential Regulation No. 98 of 2021 concerning the Implementation of Carbon Economic Value establishes the Measurement, Reporting, Verification (MRV) mechanism, the issuance of carbon credit certificates by the

¹⁵ Ade Bebi Irama, "Perdagangan Karbon Di Indonesia: Kajian Kelembagaan Dan Keuangan Negara," *Info Artha* 4, no. 1 (2020), 88. <https://doi.org/10.31092/jia.v4i1.741>.

¹⁶ Nadia Azhar Samasta, "Pengaruh Perdagangan Karbon Terhadap Kondisi Ekologi Di Indonesia," *Jurnal Pendidikan Biologi* 1, no. 1 (2023), 2. <https://journal.pubmedia.id/index.php/biology/article/view/1899>.

¹⁷ Cadizza and Rizanizarli, "Pengaturan Perdagangan Karbon Dan Manfaat Bagi Indonesia.", 5.

¹⁸ Daniel Fenetiruma and I Made Dedy Priyanto, "Pengaturan Hukum Dan Implementasi Perdagangan Karbon Di Indonesia," *Jurnal Media Akademik* 3, no. 3 (2025), 6. <https://jurnal.mediaakademik.com/index.php/jma/article/view/1653>.

Ministry of Environment and Forestry (KLHK), and the facilitation of carbon trading through the Indonesia Carbon Exchange (IDX Carbon). It also plays an important role in supporting Indonesia's efforts to achieve its 2021 NDC commitment by creating a framework to accelerate GHG emission control measures.¹⁹ The regulation ensures the urgency of collaboration and contribution of each stakeholder in achieving the NDC commitment.²⁰

Carbon trading plays a significant role in Indonesia's carbon reduction efforts. In the conventional system, carbon units are traded like market instruments, allowing companies flexibility in meeting their emission reduction targets. Carbon certificates become legally tradable commodities after undergoing an MRV process that ensures the validity of emission reduction data. Thus, the conventional regulatory framework has provided a clear legal basis and structured technical mechanisms to encourage the participation of countries and businesses in climate change mitigation. However, even though the conventional regulatory framework has provided a strong legal basis, its existence does not necessarily address the need for legal certainty for Islamic economic actors. When analyzed from the perspective of sharia principles, there are a number of fundamental challenges. This is because current carbon trading regulations are still largely oriented towards conventional market mechanisms, which treat carbon certificates as trading commodities like other financial instruments. From the perspective of fiqh mu‘āmalah, this kind of construction raises several fundamental issues.²¹

From an Islamic legal perspective, an economic transaction must comply with the provisions of fiqh mu‘āmalah, be free from prohibited elements (usury, *gharar*, *maysir*), and be oriented towards the principles of *maqāshid al-shari‘ah*. An economic transaction can only be declared valid if it meets the conditions and requirements of the contract as stipulated by sharia law.²² The validity of a contract is determined by the existence of a clear offer and acceptance, made by legally competent parties, and

¹⁹ Peraturan Presiden Nomor 98 Tahun 2021, “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,” Pub. L. No. 98 (2021), <https://peraturan.bpk.go.id/Details/187122/perpres-no-98-tahun-2021>.

²⁰ Prihatiningtyas et al., “Perspektif Keadilan Dalam Kebijakan Perdagangan Karbon (Carbon Trading) Di Indonesia Sebagai Upaya Mengatasi Perubahan Iklim.”, 165.

²¹ Prihatiningtyas et al., 181.

²² Ibnu Rusyd, *Bidayatul Mujtahid* (Mesir: Mustafa Al-Babi al-Halabi, 1960), 269.

related to a transaction object that is lawful and usable.²³ However, the mechanism for buying and selling carbon certificates still follows conventional markets and has not been adjusted to mu'amalah fiqh contracts such as *bai' al-manfa'ah* or *ijārah*. In addition to the validity of the contract, sharia also emphasizes the importance of clarity in the object of the transaction. The object being traded must have clearly defined specifications, quantity, and benefits. Uncertainty regarding the object can lead to *gharar*, which is uncertainty that is prohibited in Sharia.²⁴ In the context of carbon trading, this is relevant because the carbon units being traded are not tangible goods ('ayn), but rather rights of use represented by certificates. Uncertainty regarding the real value of carbon certificates and price fluctuations have the potential to open up room for speculation. Therefore, the validity of carbon certificates must be guaranteed through the Measurement, Reporting, Verification (MRV) mechanism so as not to cause *gharar*.

There are also concerns about usury, especially if carbon transactions are conducted through derivative schemes or futures trading that are not based on clear underlying assets. The element of *maysir* (speculation/gambling) also needs to be anticipated, given that the carbon market can be exploited by certain parties as an arena for financial speculation rather than an instrument for emissions mitigation. Islamic law also emphasizes the principles of justice (*al-'adl*), benefit (*maslahah*), and transparency.²⁵ Currently, small businesses and the sharia-based economic sector still face obstacles in understanding and adopting these regulations. In addition, carbon trading has the potential to create economic inequality between large companies that can afford to purchase carbon credits and small businesses that do not have the same access. The absence of a specific fatwa from the National Sharia Council (DSN-MUI) further reinforces this legal uncertainty. Without explicit sharia guidelines, Muslim businesses face a dilemma between taking advantage of green economic opportunities or avoiding them for fear of violating sharia principles. The

²³ Wahbah Az-Zuhaili, *Fiqih Islam Wa Adillatuhu*, 2nd, Vol. 4 ed. (Beirut: Dār al-Fikr, 1985), 429. [https://ia803106.us.archive.org/22/items/etaoin/Fiqih Islam Wa Adillatuhu 4.pdf](https://ia803106.us.archive.org/22/items/etaoin/Fiqih%20Islam%20Wa%20Adillatuhu%204.pdf).

²⁴ Erni Haryani Bahri, "Green Economy Dalam Perspektif Maqashid Syariah," *Tansiq: Manajemen Dan Bisnis Islam* 5, no. 2 (2022), <https://core.ac.uk/download/pdf/567767689.pdf>.

²⁵ Rusyd, *Bidayatul Mujtahid*, 269.

green economy emphasizes sustainable development while preserving the environment. One of its main instruments is carbon trading.²⁶

An analysis of conventional regulations shows that carbon trading mechanisms have a strong legal basis, both internationally and nationally. However, from a Sharia perspective, there are still a number of loopholes, such as the potential for *gharar*, usury, and speculation, which necessitate clearer fiqh guidelines. The integration of conventional regulations with Sharia principles brings strategic benefits for the development of a green economy. Sharia principles strengthen the moral legitimacy of carbon trading mechanisms, so that Muslim communities are more confident that these transactions are in line with *maqāshid al-sharī'ah*. The combination of the two also prevents exploitative or speculative practices that can undermine justice ('adl) and sustainability goals. Sharia regulations can then encourage the creation of broader sharia green financing instruments, thereby accelerating investment flows to environmentally friendly sectors. Therefore, the next step is to formulate a draft fatwa framework that can bridge conventional regulations with sharia principles in carbon trading transactions. Thus, the harmonization of conventional regulations and sharia principles not only answers the need for legal certainty for Islamic economic actors, but also makes a real contribution to the transition to a sharia-based green economy.

Draft Framework for Carbon Trading Fatwa

The drafting of a framework for a fatwa on carbon trading is a strategic step to address the absence of Islamic law in contemporary green economic practices. Although national regulations such as Presidential Regulation No. 98 of 2021, Minister of Environment and Forestry Regulation No. 21 of 2022, and POJK No. 14 of 2023 have regulated carbon trading governance, the integration of sharia principles has not been adequately accommodated. The absence of a fatwa from the National Sharia Council of the Indonesian Ulema Council (DSN-MUI) has created legal uncertainty, making it important to formulate a fatwa framework that is not only valid in terms of fiqh, but also relevant to the dynamics of global environmental and economic policies.²⁷

²⁶ Kennedy, "Kajian Mengenai Pemanfaatan Perhutanan Sosial Dalam Perdagangan Karbon Di Indonesia Untuk Menghadapi Perubahan Iklim."

²⁷ Sesi Putri Herawati, Nita Triana, and Ainul Yaqin, "PARADIGMA BARU PERDAGANGAN KARBON: MENGKAJI PERATURAN MENTERI LHK NO. 21/2022 DARI PERSPEKTIF TA'WID DAN

1. Contract Akad

From the perspective of fiqh mu'amalah, the validity of a contract is determined by the fulfillment of the pillars and conditions, namely the existence of the contracting parties, a clear object, and a transparent transaction value.²⁸ The practice of carbon trading in Indonesia, as regulated in POJK No. 14/2023, is in line with the Islamic concept of *Ba'l al-Huquq al-Ma'naviyah* (sale and purchase of intangible rights). This form of trading is recognized in fiqh mu'amalah as long as the rights being traded have a clear economic value (*māl*). Carbon credits represent the right to emit a certain amount of greenhouse gases and can be categorized as *haqq al-intifa'* (usufructuary rights). Scholars differ on this issue, but many support it as long as it meets the following principles.²⁹

- a. Certainty (*qath'iyyah*), carbon trading must have clear regulations to avoid *gharar* (uncertainty). The Prophet Muhammad SAW said: "The Prophet forbade buying and selling that contains uncertainty." (HR. Bukhari). Therefore, carbon trading regulations must be transparent and accountable to avoid excessive speculation.
- b. Does not contain elements of usury. In Islam, buying and selling must avoid usury, as Allah SWT says in Surah Al-Baqarah verse 275: "Allah has made buying and selling lawful and has made usury unlawful."³⁰ Carbon trading can be categorized as a legitimate sale and purchase if the price of carbon credits is set transparently and there is no excessive speculation.
- c. Supporting *maqāshid al-sharī'ah*. One of the main objectives of carbon trading is to protect the environment, which is in line with the principle of *hifzul bi'ah* (environmental preservation) in *maqāshid al-sharī'ah*. The Prophet Muhammad SAW said: "Whoever plants a tree and then humans or animals benefit from it, then he will receive the reward of charity." (HR. Ahmad). Therefore, carbon trading that aims to preserve the environment and reduce emissions can contribute to the public interest (*maṣlahah*).

POLLUTER PAYS PRINCIPLE," *El-Uqud: Jurnal Kajian Hukum Ekonomi Syariah* 3, no. 1 (2025), 61. <https://doi.org/10.24090/eluqud.v3i1.14291>.

²⁸ Wahbah Az-Zuhaili, *Fiqh Islam Wa Adillatuhu*.

²⁹ Adnan and Uyuni, "Carbon Trading In Sharia Perspective: Fiqh Analysis And Its Implementation In Indonesia.", 9.

³⁰ Al-Baqarah, 2:275

The validity of the contract requires clarity regarding the object (number of carbon units), the agreed price, and a valid delivery mechanism. The existence of a Sharia fatwa on carbon trading serves to complement the regulatory framework by adding ethical and religious dimensions. While conventional regulations emphasize technical and economic compliance, fatwas emphasize Sharia compliance through clarity of contract, prohibition of *gharar* and usury, and the principle of fairness in benefit sharing. Thus, fatwas provide additional legitimacy for Muslims to participate in the carbon market without doubting the Sharia legal aspects.³¹

2. Mechanism Measurement-Reporting-Verification

The MRV (Measurement-Reporting-Verification) mechanism is an important instrument for ensuring authenticity, transparency, and accountability in carbon trading.³² This principle is in line with *maqāshid al-shari‘ah*, which emphasizes clarity and the prevention of *gharar*. Unclear emissions data has the potential to result in a *fasid* (corrupt) contract due to uncertainty regarding the object. The integration of the principle of justice into the MRV mechanism is very important so that polluters bear proportional consequences. Thus, the fatwa must emphasize that every carbon transaction must go through an independent MRV process that is scientifically and shar‘i accountable.

The first stage is Measurement. At this stage, emissions that have been successfully reduced or absorbed are calculated quantitatively using standard methodologies established by international standards, such as the Intergovernmental Panel on Climate Change (IPCC) Guidelines, as well as by national regulations issued by the Ministry of Environment and Forestry (KLHK). Measurements are carried out in various sectors, such as forestry, renewable energy, agriculture, or waste management. The validity of the measurement results is very important because it forms the basis for the issuance of certified emission reduction units.³³ From an Islamic perspective, certainty of data at this stage is a manifestation of the principle

³¹ Adnan and Uyuni, “Carbon Trading In Sharia Perspective: Fiqh Analysis And Its Implementation In Indonesia.”

³² World Bank, *State and Trends of Carbon Pricing 2023* (Washington DC: World Bank, 2023), <https://doi.org/10.1596/39796>.

³³ Kennedy, “Kajian Mengenai Pemanfaatan Perhutanan Sosial Dalam Perdagangan Karbon Di Indonesia Untuk Menghadapi Perubahan Iklim,” 2024, 159.

of *al-yaqīn lā yuzālu bi al-shakk* (certainty cannot be eliminated by doubt), thereby preventing uncertainty (*gharar*) in transactions.

The second stage is Reporting. The measurement results obtained are then compiled into an official report containing the methodology, basic data, calculation parameters, and scientific justification for the emission reduction claims. This report is prepared in a standardized format so that it can be compared across projects and sectors. Transparent reporting serves to prevent data manipulation and increase public accountability.³⁴ From a Sharia perspective, transparency in reporting is a manifestation of the principle of *tablīgh al-haqq* (conveying the truth) and the prohibition of concealing information that could harm others.

The third stage is Verification. At this stage, the compiled report is verified by an independent institution that has been accredited nationally and internationally. Verification includes data auditing, methodology review, and field inspections to ensure the accuracy of emission reduction claims. Verification institutions must be objective, free from conflicts of interest, and work based on globally recognized standards.³⁵ From an Islamic legal perspective, this verification is a form of *tahqīq al-'adl* (enforcement of justice), as it ensures that the claims made are true, thereby preventing injustice to other parties.

3. The Role of Regulators and Business Actors

In drafting a fatwa on carbon trading, the involvement of regulators and business actors is an aspect that cannot be ignored. State regulations serve as a normative framework that ensures that the fatwa is in line with positive law and sustainable development policies. For example, Presidential Regulation No. 98 of 2021 concerning Carbon Economic Value, Minister of Environment and Forestry Regulation No. 21 of 2022 concerning the Implementation of Carbon Economic Value, and Financial Services Authority Regulation No. 14 of 2023 concerning Carbon Trading through the Carbon Exchange. All of these regulations provide legal and technical instruments related to Measurement, Reporting, Verification (MRV) and

³⁴ Kennedy, 160.

³⁵ Kennedy, 161.

carbon transaction governance, which are very important to ensure that the trading mechanism runs transparently and accountably.³⁶

First, the government acts as the main regulator that sets technical standards, national registry systems, and carbon market oversight. The government, through the Ministry of Environment and Forestry (KLHK), is responsible for managing the National Registry System for Climate Change Control (SRN-PPI) as the official database for all mitigation actions. The government's function is not only administrative but also normative, ensuring that the carbon market operates in line with low-carbon development policies and contributes to the achievement of Nationally Determined Contributions (NDCs). Thus, the government acts as a macro policy director and guarantor of carbon market integrity within the framework of a green economy.

Second, the National Sharia Council–Indonesian Ulema Council (DSN-MUI) functions as a religious authority that sets sharia parameters in carbon trading. The role of DSN-MUI is to ensure that every form of contract in carbon transactions is free from elements of *gharar*, usury, and *maysir*, and is in accordance with *maqāṣid al-shari‘ah*. In addition, the DSN-MUI is also expected to issue fatwas that serve as guidelines for Islamic financial institutions, carbon exchanges, and business actors. The existence of this sharia authority is very important to provide normative legitimacy, so that Muslims have legal certainty to participate in the carbon market.

Third, carbon exchanges serve as providers of trading infrastructure. In the Indonesian context, this role is performed by IDCCarbon, which provides a platform for carbon unit transactions. In the draft fatwa, carbon exchanges are required to adopt the principles of transparency, traceability, and sharia compliance. Therefore, the existence of a Sharia Supervisory Board (SSB) within the exchange structure is a must so that all transactions can be monitored and declared in accordance with Islamic principles. Carbon exchanges also serve as a link between national interests to reduce emissions and the interests of business actors to obtain economic incentives within the framework of a green economy.

³⁶ Adnan and Uyuni, "Carbon Trading In Sharia Perspective: Fiqh Analysis And Its Implementation In Indonesia."

Fourth, independent verification bodies play a crucial role in maintaining the credibility of traded carbon units. They are tasked with auditing emission reduction reports, verifying calculation methodologies, and ensuring data integrity. Independent verification is important not only from a technical perspective, but also from a sharia perspective, as it guarantees honesty and trustworthiness in transactions. In other words, independent verifiers perform the function of modern *isbah* in the carbon market, ensuring that there are no manipulative or invalid emission reduction claims.

Fifth, Islamic financial institutions act as facilitators of green financing. Instruments such as green sukuk, environment-based *ijārah* contracts, or waqf-linked carbon credit schemes can be used to support environmentally friendly projects. With the involvement of Islamic financial institutions, the carbon market not only functions as a trading instrument but also as a mechanism for mobilizing community funds in support of the green economy agenda. This opens up wider participation opportunities for both domestic and global Muslim investors.

Sixth, local communities or indigenous peoples as providers of environmental services play an important role in realizing ecological justice. They are actors who protect forests, peatlands, and ecosystems that are the main sources of carbon sequestration. Therefore, benefit sharing mechanisms must be designed so that local communities receive fair economic benefits from carbon trading. The involvement of local communities reflects the application of *maqāshid 'adl* (justice) and *hifz al-bī'ah* (environmental preservation), and ensures that the carbon market not only benefits corporations, but also provides social welfare.

Thus, the role of actors in the draft fatwa framework is not merely an administrative complement, but an integral structure that guarantees the success of the sharia carbon market. This synergy between actors shows that carbon trading can be managed professionally, be legally valid, be legitimate under sharia, and contribute significantly to low-carbon development within the framework of a green economy. The fatwa framework must also include the role of the state as *wālī al-amr*, which oversees the governance of carbon trading. The state has an obligation to ensure that every carbon transaction does not conflict with sharia principles and is in line with international regulations.

Integration of *Maqāṣid al-Shari‘ah* in Carbon Trading

Conceptual validation is necessary to ensure that carbon trading from a Sharia perspective does not stop at legal-formal aspects, but has a strong theological and philosophical foundation. From an Islamic legal perspective, carbon trading must support *maqāṣid al-shari‘ah*. Among these meanings, *maqāṣid al-shari‘ah* refers to the purpose, target, or end result in the form of true benefit with the establishment of law for humans. Another meaning of *maqāṣid al-shari‘ah* is the ultimate goal and secret, even the value or norm and meaning of the establishment of a law.³⁷ Carbon trading contributes to reducing emissions, tree planting initiatives, and renewable energy projects, which are in line with the principles of public interest (*maṣlahah*) and preventing harm (*mafsadah*).

Al-Syāṭibī, in his book *al-Muwāfaqāt*, asserts that the main objective of Sharia is to realize human welfare in this world and the hereafter. He divides *maqāṣid* into three levels of needs: *darūriyyāt* (primary), *hājiyyāt* (secondary), and *taḥsīniyyāt* (tertiary). In the *darūriyyāt* category, there are five basic things that must be protected: religion (*dīn*), life (*nafs*), reason (*'aql*), offspring (*nashl*), and property (*māl*).³⁸ Contemporary thinkers such as Yūsuf al-Qardāwī then expanded the scope of *maqāṣid* by adding the aspect of *hifz al-bī'ah* (environmental protection), because ecological damage has been proven to threaten human life. In line with this, Ali Yafie, through his ideas on environmental fiqh, emphasizes that caring for the earth is an integral part of the responsibility of *khalifah fil-ard*.³⁹

1. *Hifz al-Dīn* (Religious Protection)

Religion encompasses teachings related to faith, worship, and the laws prescribed by Allah for mankind. All of these are summarized in the pillars of faith and the pillars of Islam. By implementing all of these provisions, humans are considered to be carrying out the will of al-shārī' and preserving religion.⁴⁰ Sharia-based carbon trading provides a way for Muslims to participate in the global carbon market without violating religious principles. The official fatwa of the DSN-MUI will prevent Muslims

³⁷ Abdul Helim, *Maqasid Syariah versus Ushul Fiqh (Konsep Dan Posisinya Dalam Metodologi Hukum Islam)* (Palangka Raya: Pustaka Pelajar, 2019), 9.

³⁸ Helim, 24.

³⁹ Bahri, "Green Economy Dalam Perspektif Maqashid Syariah.", 6.

⁴⁰ Helim, *Maqasid Syariah versus Ushul Fiqh (Konsep Dan Posisinya Dalam Metodologi Hukum Islam)*, 25.

from engaging in transactions that involve *gharar*, usury, and *maysir*. Thus, this economic activity is not only legally valid, but also has the value of mu‘āmalah worship.

2. *Hifz al-Nafs* (Life Protection)

In an effort to preserve the soul (self) and the continuation of human life, Islam requires the fulfillment of the soul, namely the provision of staple foods, drinks, clothing, and shelter. There are also laws regarding *al-qiṣāṣ* (retaliation), *al-diyah* (compensation), and *al-kaf fārah* (ransom) for those who harm the soul. It is forbidden for anyone to direct or use the soul for destruction, and it is obligatory for everyone to protect their soul (self) from harm.⁴¹ Climate change causes ecological disasters that directly impact human safety. An effective carbon trading mechanism means a real contribution to disaster mitigation, public health, and human survival. This is in line with the *maqāshid*, which prioritizes the preservation of life.

3. *Hifz al-Māl* (Property Protection)

This wealth or anything else in this world essentially belongs to Allah, while the wealth in human hands is only a temporary loan that will be accounted for on the Day of Judgment. In order for this wealth to be accounted for, its use must be in accordance with what is stipulated in Islam.⁴² Carbon trading opens up opportunities for productive green investment. However, without Sharia regulations, the carbon market can become a venue for harmful speculation. With the issuance of fatwas, carbon transactions are directed to be transparent and fair, so that wealth is protected and utilized for the common good, not exploitation.

4. *Hifz al-Nasl wa al-‘Aql* (Protection of Offspring and Reason)

Extreme climate change threatens the survival of future generations through ecosystem destruction and food crises. Effective carbon trading can help maintain the quality of life for future generations. In addition, by encouraging environmentally friendly technological innovation, the carbon market also supports the development of science, which is part of the preservation of reason.

⁴¹ Helim, 26.

⁴² Helim, 27.

5. *Hifz al-Bī'ah* (Environmental Protection)

In the study of *maqāṣid al-shari'ah*, environmental protection (*hifz al-bi'ah*) is one of the contemporary *maqāṣid* developed by modern scholars to address the challenges of ecological damage and climate change. While in the classical thinking of asy-Syāṭibī, *maqāṣid* focused more on *hifz al-dīn*, *al-nafs*, *al-'aql*, *al-nasl*, and *al-māl*, in the contemporary era, new *maqāṣid* have emerged, including environmental protection, in order to preserve human life and intergenerational justice. Yusuf Qardhawi emphasizes that Islamic sharia carries the mission of *rahmatan lil 'ālamīn*, which includes mercy not only for humans, but also for nature and all creatures. Yusuf Qardhawi places *hifz al-bi'ah* as an integral part of contemporary Sharia *maqāṣid*, while expanding the scope of Sharia to address global issues.⁴³

Ali Yafie, a scholar and leader of Nahdlatul Ulama, also emphasizes the importance of environmental ethics in Islam. In his work *Merintis Fiqh Lingkungan Hidup* (2006), he develops the framework of *fiqh al-bi'ah* (environmental jurisprudence) as a normative instrument for Muslims to preserve nature. Ali Yafie places *hifz al-bi'ah* as part of *tajdīd al-fiqh* (fiqh renewal), which is relevant to the modern context and can be used as a normative guideline in public policy and environmental regulation.⁴⁴

6. *'Adl* (Justice) and *Maṣlaḥah* (Welfare)

Justice is a fundamental value in *maqāṣid*. In carbon trading, this principle requires that developed countries not exploit carbon market mechanisms to perpetuate high emissions while shifting responsibility to developing countries. From a Sharia perspective, carbon trading must distribute benefits equitably, ensure fair access to economic gains, and prevent unilateral exploitation of natural resources.

Taking the overall analysis into account, the fatwa framework for carbon trading needs to be placed within the context of established national legal governance. Indonesian legal instruments provide the foundation for the operationalization of the carbon market, ranging from Law No. 32/2009, which establishes the precautionary

⁴³ M. Khusnul Khuluq and Asmuni Asmuni, "Hifz Al-Bi'ah as Part of Maqashid Al-Shari'ah and Its Relevance in the Context of Global Climate Change," *Indonesian Journal of Interdisciplinary Islamic Studies* 7, no. 2 (2024), 173. <https://doi.org/10.20885/ijiis.vol7.iss2.art3>.

⁴⁴ Khuluq and Asmuni, 174.

principle, starvation, and polluter responsibility⁴⁵, Law No. 16/2016, which binds Indonesia to the Paris Agreement mechanism, including Article 6 concerning trading of mitigation results⁴⁶, to Presidential Regulation No. 98/2021, which serves as a key pillar for the implementation of the Economic Value of Carbon (NEK) and regulates trading mechanisms, MRV, and a national registry.⁴⁷ This framework is further clarified by Ministerial Regulation No. 21/2022, which regulates carbon unit management, verification procedures, and methodological standards to ensure clarity of transaction objects⁴⁸, and POJK No. 14/2023, which frames carbon trading through an exchange within a transparent and supervised financial system.⁴⁹ From the perspective of Islamic contract law and finance⁵⁰, the Civil Code provides the requirements for valid contracts, while Law No. 21/2008 ensures that all transactions by Islamic financial institutions are subject to the DSN-MUI fatwa.⁵¹ The integration of all these legal instruments confirms that the carbon trading fatwa does not stand alone, but rather serves to complement the positive legal framework with sharia parameters, thereby providing normative certainty, protecting sharia business actors from elements of *gharar*, *usury*, and speculation, and ensuring that the carbon market in Indonesia operates in line with the *maqāṣid al-shari'ah* and sustainable development goals.

Conclusion

This study demonstrates that carbon trading, as a climate change mitigation instrument, is supported by a robust regulatory foundation through the Kyoto Protocol (1997), the Paris Agreement (2015), Presidential Regulation No. 98 of 2021 on the Implementation of Carbon Economic Value, and its derivative regulations such as

⁴⁵ Indonesia, *Undang-Undang Republik Indonesia Nomor 32 Tahun 2009 tentang Perlindungan dan Pengelolaan Lingkungan Hidup* (Lembaran Negara RI Tahun 2009 No. 140), Pasal 2.

⁴⁶ Indonesia, *Undang-Undang Republik Indonesia Nomor 16 Tahun 2016 tentang Pengesahan Paris Agreement to the United Nations Framework Convention on Climate Change* (Lembaran Negara RI Tahun 2016 No. 205), Article 6.

⁴⁷ Indonesia, *Peraturan Presiden Nomor 98 Tahun 2021 tentang Penyelenggaraan Nilai Ekonomi Karbon* (Lembaran Negara RI Tahun 2021 No. 212), Pasal 3, 13.

⁴⁸ Kementerian Lingkungan Hidup dan Kehutanan, *Peraturan Menteri Lingkungan Hidup dan Kehutanan Nomor 21 Tahun 2022 tentang Tata Laksana Penerapan Nilai Ekonomi Karbon*, Pasal 24.

⁴⁹ Otoritas Jasa Keuangan, *Peraturan Otoritas Jasa Keuangan Nomor 14 Tahun 2023 tentang Perdagangan Karbon melalui Bursa*, Pasal 3.

⁵⁰ Indonesia, *Kitab Undang-Undang Hukum Perdata*, Pasal 1320.

⁵¹ Indonesia, *Undang-Undang Republik Indonesia Nomor 21 Tahun 2008 tentang Perbankan Syariah* (Lembaran Negara RI Tahun 2008 No. 94), Pasal 26.

Minister of Environment and Forestry Regulation No. 21 of 2022 and OJK Regulation No. 14 of 2023. Nevertheless, from the perspective of Islamic law, the absence of an official fatwa continues to create legal uncertainty for Sharia-compliant economic actors. Substantive concerns, including potential elements of *gharar*, *riba*, and *maysir* must be addressed to ensure the permissibility of carbon transactions under Sharia. The integration of *maqāṣid al-shari‘ah* within the proposed fatwa framework shows that carbon trading contributes directly to *hifz al-bi‘ah* (environmental preservation), *hifz al-nafs* (protection of life), *hifz al-māl* (protection of property), and the principle of ‘*adl* (justice). The Measurement-Reporting-Verification (MRV) mechanism is essential for ensuring certificate validity and preventing ambiguity. The coordinated roles of regulators, DSN-MUI, carbon exchanges, independent verification bodies, Islamic financial institutions, and local communities form the institutional foundation for establishing a credible Sharia-based carbon market. Accordingly, this study formulates a draft fatwa framework covering contract schemes, MRV mechanisms, and institutional responsibilities, which may serve as a reference for DSN-MUI, policymakers, and industry stakeholders in ensuring Sharia compliance while strengthening Indonesia’s green economy. The study recommends strengthening synergy between regulators and DSN-MUI in fatwa development, enhancing literacy programs for business actors, including MSMEs and advancing Islamic financial instruments such as green sukuk and waqf-linked carbon credits. Future research should include empirical evaluation of fatwa implementation, cross-country comparative studies, and interdisciplinary approaches to reinforce the conceptual and operational foundations of a Sharia-compliant carbon market in Indonesia.

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