

Carbon Trading in Indonesian Based on Financial Services Authority Regulation Number 14 of 2023 Reviewed from Maqāṣid as-Syarī'ah and Green Economy

Elsa Febiola Aryanti¹, Hidayat², Nurkhalis Muchtar³

¹²³Institut Ilmu Al-Qur'an Jakarta

Email: elsa.febiola@alumni.iiq.ac.id

Keywords: Carbon Trading, Green Economy, Maqāṣid al-Sharī'ah, POJK No. 14 of 2023.

Abstract

Carbon trading is a strategic market instrument designed to reduce greenhouse gas (GHG) emissions in a measurable way. In Indonesia, this mechanism is regulated through Presidential Regulation No. 98 of 2021 and OJK Regulation (POJK) No. 14 of 2023. However, studies integrating ethical-religious aspects through Maqāṣid al-Sharī'ah and the Green Economy paradigm remain limited. This research aims to analyze the integration of these two concepts within Indonesia's carbon trading system and evaluate the conformity of POJK No. 14 of 2023. The method employed is normative legal research with a qualitative content analysis approach. The findings indicate that: (1) carbon trading aligns with Maqāṣid al-Sharī'ah in environmental protection (*ḥifẓ al-bi'ah*) through principles of justice and transparency; (2) carbon trading supports the Green Economy by internalizing environmental externalities into economic activities; and (3) POJK No. 14 of 2023 substantially accommodates Sharia values and sustainability. This integration serves as a vital foundation for a carbon trading system that is legally valid and provides spiritual and social benefits.

INTRODUCTION

Climate change has become the most pressing existential challenge for humanity in the 21st century. This phenomenon is not just a scientific question about the accumulation of greenhouse gases in the atmosphere, but a reflection of the failure of the global economic system to appreciate the ecological limits of the earth. Consumption behavior that often exceeds the limit and massive exploitation of natural resources without considering sustainability has triggered a real ecosystem imbalance (Nasution, 2016). This condition demands a new paradigm that is able to synchronize economic needs and nature conservation.

Islam, as a comprehensive value system, provides fundamental guidance on moderation (*wasatīyyah*) in the use of nature. The Qur'an through Surah al-A'rāf verse 31 reminds mankind to enjoy the sustenance given by Allah but with strict limits not to exaggerate, because Allah does not like behavior that goes beyond the limits. In this theological view, the environment is seen as a trust, and human beings are placed as *khalifah* who bears the moral responsibility to maintain the

balance of the earth as a form of worship (Kamali, 2010). Environmental protection is not just an ethical choice, but a religious obligation inherent in human existence.

Technically, the increase in Greenhouse Gas (GHG) concentrations triggered by industrialization has resulted in global warming with adverse systemic impacts. Based on a report by the Ministry of Environment and Forestry (MoEF), Indonesia's GHG emissions in 2022 reached a significant figure, namely around 1.8 billion tons of CO_2e , the majority of which was contributed by the energy and deforestation sectors (Ardiansyah, et al., 2023). Furthermore, IQAir data (2023) noted that air quality in Jakarta is often at a level that is harmful to health, which shows the urgency of emission mitigation measures at the national level.

The international community has sought to respond to this crisis through transformative global legal instruments, beginning with the Kyoto Protocol of 1997. The protocol introduces an emissions trading mechanism as a market-based solution that provides economic incentives for entities that are able to reduce pollution (Ellerman, et al., 2003). This global commitment is strengthened through *the Paris Agreement* in 2015, where Indonesia is committed to the *Nationally Determined Contributions* (NDC) target to reduce emissions by 29% with its own efforts and up to 41% with international support by 2030 (Ardiansyah, et al., 2023).

Carbon trading is emerging as a key instrument in achieving these targets by providing economic value to carbon dioxide emissions. This mechanism involves buying and selling credits that allow companies or countries to issue a certain amount of emissions (Ellerman, et al., 2003). For Indonesia, which has the world's third-largest wealth of tropical rainforests and peatlands, carbon trading offers enormous economic and ecological potential. Indonesia's forests function as natural carbon sinks that can be converted into high-value carbon credits in the global market (Ministry of Environment and Forestry, 2021).

However, optimizing this potential requires a strong regulatory framework to ensure transparency and accountability. The Government of Indonesia has established Presidential Regulation Number 98 of 2021 concerning the Implementation of Carbon Economic Value (NEK) as a national umbrella rule. As a technical follow-up, the Financial Services Authority (OJK) issued OJK Regulation (POJK) Number 14 of 2023 concerning Carbon Trading Through Carbon Exchanges. This regulation strategically designates carbon units as "Securities", making them a financial commodity that can be legally traded in the capital market (Suci Ariyanti, et al., 2024).

Although the carbon exchange has been opened, the discourse on its conformity with sharia values remains an important point. Some academics question the status of immaterial carbon units, whether they can be categorized as legal assets (*māl*) in fiqh muamalah transactions (Bani

Idris, et al., 2023). This is where *the approach of Maqāṣid as-Syari'ah* becomes relevant to analyze the extent to which this trading system is able to realize benefits (*maṣlahah*) and prevent environmental damage (*ḥifẓ al-bi'ah*) which currently occupies the level of primary needs (*ḍarūriyyāt*) (Yafie, 2006).

In parallel with sharia values, the concept of *Green Economy* offers a development paradigm that emphasizes resource efficiency and social justice (UNEP, 2011). Green economics views carbon trading as a tool for internalizing negative externalities, in which the cost of environmental damage is passed back to the polluter (Pearce, et al., 1989). The integration of ethical-religious values, ecological sustainability, and technological progress is the main foundation for building a carbon trading system that is not only materially beneficial, but also brings real social benefits (Muslimin, et al., 2024).

Successful implementation of the carbon market also requires a smart development strategy, strong digital infrastructure, and active involvement of local communities (Hidayat, 2023). Lessons from the development of other strategic sectors show that data integrity through sensor technology and IoT is crucial to prevent *greenwashing* practices and ensure price transparency (Hidayat, 2023; Muslimin, et al., 2024). This article aims to analyze in depth the implementation of carbon trading in Indonesia based on POJK Number 14 of 2023 through an integrative review of *Maqāṣid as-Syari'ah* and *Green Economy* to provide a comprehensive academic perspective for national policy development.

METHODS

This research is a normative legal *research* with an in-depth qualitative approach. The normative legal method, or doctrinal research, is carried out by examining literature materials or secondary data as the basis for research through the search for laws and regulations and literature that are closely related to the problem (Ariyanti, et al., 2024). The main approach used is *content analysis*, in which researchers conduct systematic interpretations of legal texts, sharia theory, and environmental economic concepts (Akbar, 2024).

The research steps include an inventory of strategic themes related to *Maqāṣid as-Syari'ah*, *Green Economy*, and carbon exchange mechanisms. After the data is collected, a classification is carried out against positive legal rules such as the P2SK Law, the NEK Presidential Regulation, and the Carbon Exchange POJK, as well as contemporary muamalah jurisprudence literature (Bani Idris, et al., 2023). The next stage is to conduct an integrative comparison to assess the synchronization between capital market regulation and the principle of the benefit of the people.

The main data sources in this study are divided into two categories, namely primary and secondary data. Primary data consists of national legal instruments such as Presidential Regulation

No. 98 of 2021 and POJK No. 14 of 2023. Secondary data include fundamental literature on the purpose of sharia (Al-Syatibi, 1997; Ibn 'Ashur, 2001), environmental economic theory (Pearce, et al., 1989), and scientific articles on smart technology-based development strategies (Hidayat, 2023). The availability of these primary and secondary sources ensures a strong and valid research argumentative base.

The data collection technique is carried out through library *research* and intensive documentation studies. The researcher collected official reports from the OJK and the Indonesia Stock Exchange (IDX Carbon) as well as international documents from the UNFCCC to obtain empirical data on transaction volumes and mechanisms (Ariyanti, et al., 2024). In addition, limited observations were made through expert discussions to get a clear picture of the technical obstacles and challenges of regulatory implementation in the field.

To maintain the validity and reliability of the results, a data triangulation method was used by juxtaposing regulatory texts, ulema fatwas, and green economy perspectives (Yusuf, et al., 2022). Data analysis techniques follow the interactive model of Miles and Huberman, which includes data reduction to simplify information, narrative and tabulative presentation of data, and the drawing of analytical conclusions. This process is designed to produce an analysis that is not only descriptive but also sharp and makes a theoretical contribution to sharia economic law in Indonesia.

RESULTS AND DISCUSSION

1. Analysis of Maqāṣid as-Syarī'ah in Environmental Protection

Maqāṣid al-Syarī'ah emphasizes that every provision of Islamic law has a noble purpose to realize the benefits of mankind (Bakri, 1996). In the contemporary context, scholars have expanded the scope of *al-darūriyyāt al-khamsah* by including environmental protection (*ḥifẓ al-bi'ah*) as the sixth pillar or integral part of the existing pillars (Yusuf, et al., 2022). Ecological damage is considered a *fasād* that is explicitly prohibited because it threatens the survival of humans on earth.

Carbon trading is analyzed as an instrument that meets *the criteria of Maqāṣid* because of its definite (*thubūt*) and measurable (*indibāt*) goal of reducing emissions. Based on the view of Al-Ghazali (2005), the protection of life and property is highly dependent on the carrying capacity of nature. In-depth analysis shows that carbon trading touches on the five pillars of sharia systematically:

Table 1: Matrix of Relevance of the Maqāṣid Pillar with Carbon Trading Instruments

Pilar Maqāṣid	Implementation in Carbon	Benefit Analysis
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Hifz ad-Din	The Earth as the Trust of Allah	Preserving nature as a form of servant obedience to the Creator.
Hifz an-Nafs	Climate Disaster Mitigation	Reduce GHG emissions to prevent deaths due to extreme weather and pollution.
Hifz al-'Aql	Green Technology Innovation	Encouraging the use of reason to create an intelligent monitoring system (Hidayat, 2023).
Hifz an-Nasl	Intergenerational Justice	Ensuring the availability of resources and a livable environment for children and grandchildren.
Hifz al-Māl	Economic Value of Carbon	Providing legal protection for environmental assets and preventing <i>gharar</i> (Valentika, 2024).

A sharp analysis of the table above proves that carbon trading is not just a commodification of nature, but a methodology to secure the primary needs of humans through economic incentives. By placing the cost on pollution, this system automatically upholds the principle of *lā ḍarar wa lā ḍirār* (not harming oneself and others), which is a fundamental fiqh rule in safeguarding the public interest (Al-Qaradawi, 2001).

2. Green Economy Paradigm and Carbon Market Mechanism in Indonesia

The *Green Economy* demands a transition from a "take-make-throw" linear economic system to a low-carbon circular system (UNEP, 2011). Carbon trading is the driving force for this transition by applying the principle of internalization of externalities (Pearce, et al., 1989). In Indonesia, this mechanism is implemented through the Carbon Exchange regulated in POJK No. 14 of 2023, which divides trade into two main schemes that complement each other.

Table 2: Comparison of Carbon Trading Mechanisms in Indonesia (Based on Presidential Decree 98/2021)

Features	Cap-and-Trade (Perdagangan Emisi)	Carbon Offset (Pengimbangan Emisi)
Properties	Mandatory for certain sectors.	Voluntary or complementary.

Objects	Emission permit (PTBAE-PU).	Credit from mitigation action projects (SPE-GHG).
Purpose	Limit total emissions in one sector.	Offsetting emissions through restoration/conservation.
Basics	Upper Limit of Emissions set by the Government.	A real reduction in emissions in the field.

Analysis of this scheme shows that there is synchronization with the principle of resource efficiency. In *Cap-and-Trade*, more efficient companies benefit financially from the sale of their quotas, while high-emitters are burdened with additional costs. This creates permanent economic incentives for technological innovation (Ardiansyah, et al., 2023). However, the effectiveness of this market is highly dependent on the determination of a fair domestic carbon price so that there is no capital flight to the international carbon market (Bani Idris, et al., 2023).

3. Integration of Smart Tourism Strategy in Carbon Exchange Infrastructure

The success of carbon exchanges depends heavily on the integrity of their digital infrastructure. Lessons from the halal tourism sector using *the Smart Tourism* approach provide valuable guidance on the importance of digital connectivity and data transparency (Hidayat, 2023). Smart development strategies in carbon markets involve three main components:

- a. **Utilization of Digital Technology and IoT.** Just as a travel guide app provides *real-time data* to travelers (Hidayat, 2023), a carbon exchange system requires an electronic-based monitoring, reporting, and verification (MRV) platform. The integration of sensors and IoT in forest or industrial project sites is crucial to guarantee that one ton of claimed carbon has actually been absorbed or reduced (Muslimin, et al., 2024). Without capable digital audit technology, the carbon market is vulnerable to data manipulation or double counting.
- b. **Local Community Involvement.** In *the halal tourism* strategy, the participation of local communities in maintaining sustainability is key (Hidayat, 2023). Similarly, in *carbon offset* projects, indigenous and local peoples who protect forest areas must receive equitable economic benefits through a benefit-sharing mechanism. If the economic benefits are only enjoyed by large corporations or carbon middlemen, then the principles of justice in *the Green Economy* and *Maqāṣid Syarī'ah* have been harmed (Bani Idris, et al., 2023).
- c. **Strengthening Regulation and Harmonization.** Regulatory inconsistencies between central and regional authorities are often an obstacle to investment (Hidayat, 2023). In the context of carbon, it is necessary to harmonize the authority between the Ministry of Environment and Forestry (as the issuer of carbon units) and the OJK (as the trade

supervisor). The clarity of the legal status of carbon units as "Effects" in POJK 14/2023 is a step forward, but it needs to be supported by uniform operational standards throughout Indonesia to attract global investors (Valentika & Turisno, 2024).

4. Legal and Economic Implications of POJK Number 14 of 2023

The determination of carbon units as an effect carries significant legal implications. This provides protection for investors through well-established capital market supervision mechanisms, thereby minimizing the risk of fraud and wild speculation. Economically, the potential value of Indonesia's carbon market, which reaches thousands of trillions of rupiah, can be a new source of funding to finance sustainability projects without overburdening the state budget (Ardiansyah, et al., 2023).

Table 3: Comprehensive Implications Analysis of POJK 14/2023

Dimensions	Positive Impact	Strategic Challenges
Legal	The certainty of carbon units as a legal object.	Complexity of synchronization of permits across ministries.
Economy	Establishment of a transparent domestic carbon price.	Price fluctuations and the risk of market dominance by speculators.
Sharia	Fulfillment of the pillars <i>of the Ba'i al-Manfa'ah</i> contract through verification.	There is no specific fatwa from DSN-MUI on carbon derivatives.
Technology	Digitization of records through SRN PPI.	Digital infrastructure gap in remote areas/forests.

This integrative analysis proves that the carbon market in Indonesia is on the right track. However, the acuity of the analysis shows that without strengthening the aspects of distribution justice (for local communities) and data integrity (through digital technology), the carbon market risks becoming a mere financial tool without making a real contribution to the sustainability of the earth. The synergy between sharia spiritual values, green economic ethics, and smart technological sophistication is an absolute prerequisite for the success of carbon trading in Indonesia (Hidayat, 2023; Muslimin, et al., 2024).

CONCLUSION

This study concludes that carbon trading in Indonesia based on POJK Number 14 of 2023 is in line with the principles of *Maqāṣid as-Syari'ah* and the *Green Economy paradigm*. This policy is a transformative step in responding to the global climate crisis systematically by providing legal

certainty through the classification of carbon units as an effect. From the sharia side, this mechanism is a real actualization of environmental protection (*ḥifẓ al-bi'ah*) that brings benefits to future generations. The integration of smart development strategies, which emphasizes the strength of digital infrastructure and the inclusivity of local communities, is a key determining factor for Indonesia's carbon exchange to have high integrity and global competitiveness. In order to strengthen an ethical carbon trading ecosystem, it is recommended that: (1) DSN-MUI immediately issue comprehensive sharia guidelines to provide peace of mind for Muslim market players; (2) OJK and MoEF to increase the transparency of the national carbon registry system through IoT-based digital audits to prevent *greenwashing* (Muslimin, et al., 2024); and (3) The Government to develop a benefit-sharing policy that must be on the side of the welfare of indigenous peoples as the frontline of ecosystem guardians.

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