

Carbon Trading as A Green Investment Opportunity: A Business Law Review Based on the Implementation of the Paris Convention

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Abstract. Carbon trading is a promising investment opportunity in the environmental sector and has emerged as a strategic tool to support the shift to a sustainable green economy. Through a market-based incentive program, this mechanism helps both public and private entities meet targets for reducing greenhouse gas (GHG) emissions. This article uses the Paris Agreement, which promotes Nationally Determined Contributions (NDCs) in lowering GHG emissions and stresses the idea of common but differentiated responsibilities, to analyze carbon trading as a green investment opportunity from a business law standpoint. Furthermore, this study compares the legal systems and carbon trading implementations in China and Indonesia, where China has lately instituted the National Emission Trading Scheme (ETS), a national emission trading system. Although Indonesia still has difficulties with legal certainty, regulatory harmonization, emission verification systems (MRV), as well as fiscal and non-fiscal incentives, the study reveals that Indonesia has great potential in developing her carbon market, especially in the forestry and energy sectors. Though it still faces criticism on emissions data transparency, China has evolved a more established system with robust digital infrastructure and cross-sectoral control. China's success in integrating legal, technological, and fiscal policy aspects serves as an important reference for Indonesia in formulating adaptive and responsive business law policies in response to the dynamics of the global carbon market.

Keywords: carbon trading, green investment, business law, Paris Agreement, sustainability

I. Introduction

Indonesia's national objectives per the Prelude to the Republic of Indonesia's Structure are to secure the complete Indonesian individuals and the nation, to promote common well-being, to light life within the nation, and to participate towards figuring it out a world arrange based upon freedom, changeless peace, and social equity. Because it looks for these objectives, the state is bound to secure its citizens and accomplish the riches and maintainability of the nation's life. However, international problems such as climate change through rising global temperatures jeopardize not only the environment but also social, economic, and human rights aspects. Concrete actions and improved international cooperation are needed in order to offset the impacts of climate change to maintain ecosystem balance and achieve Indonesia's national ambitions.

Climate change has become one of the most urgent global issues of the 21st century. The continuous rise in greenhouse gas (GHG) emissions has led to global warming, directly affecting the environment, economy, and

social life. Tackling climate change requires actions that take into account each country's conditions and capacity or "national circumstances" and sovereignty. Every country has the obligation to ensure the welfare of their people while considering social and environmental protection. Raising awareness of the threats posed by the adverse impacts of climate change has become a necessity. The dedication of a nation to lower greenhouse gas emissions should not be seen as a demand, coercion, or pressure from outside sources. Commonly referred to as the principle of "common but differentiated responsibilities," all the activities a country undertakes must be based on voluntary participation, fit for its capacity, and grounded in a shared sense of responsibility. [1]

Many nations have responded to this crisis pledging to lower carbon emissions using a variety of policy tools. One such tool meant to support efforts at mitigating climate change is carbon trading (perdagangan karbon). Apart from environmental policy tool, carbon trading creates chances for green investment (investasi hijau). By means of market-based systems that can boost innovation and efficiency in the corporate sector, this mechanism helps nations and businesses to reach their emission reduction targets.

Under efforts to lower carbon emissions by means of climate change mitigation activities, carbon trading—also known as perdagangan karbon—is the buying and selling of emission certificates between nations.[Two] Under the Carbon Economic Value (CEV) framework, a market-based tool meant to lower greenhouse gas (GHG) emissions by means of carbon buying and selling, carbon trading is one of the mechanisms underlined.[3] [Carbon trading is the trade of carbon credits as the commodity, much as traditional buying and selling of products. Participating as buyers or sellers of these credits both governments and businesses can do. Carbon trading is an environmentally-based business instrument, where entities or countries that exceed their emission reduction targets can sell their excess carbon credits to those that have not yet met theirs.[4] The benefits of carbon trading include supporting public policy goals, improving air quality, supporting innovation and low-carbon technology, opening new economic opportunities for developing countries dan monitoring emissions levels of a country. [5]

To combat global warming, there must be regulation of the emission or release of greenhouse gases into the atmosphere. There have been declarations of several nations to limit greenhouse gas emissions. This is seen in the Kyoto Protocol, which was adopted in 1997 and entered into force starting 2005. A total of 192 countries committed to this protocol, each setting their own emission reduction targets. Consequently, these countries must begin to define strategies and methods to meet the established emission reduction target. Among the strategies and schemes are the Clean Development Mechanism (CDM), Joint Implementation (JI), emission trading.

Carbon trading is an application of the Clean Development Mechanism (CDM), which is one of the mechanisms outlined in Article 12 of the Kyoto Protocol. The concept of carbon trading is an intriguing subject because it integrates two opposing interests: environmental protection and economic interests. The carbon trading scheme to reduce greenhouse gas (GHG) emissions can be divided into two types: voluntary emission reduction (VER) and certified emission reduction (CER).[6]

After the expiration of the previous schemes, another mechanism called Joint Implementation (JI) emerged. This mechanism allows developed countries (Annex I) to invest in emission reduction projects in other Annex I countries. This cooperation is conducted bilaterally, with the aim of meeting carbon emission reduction targets. The result of this mechanism is known as the Emission Reduction Unit (ERU), which can also be traded, similar to the Certified Emission Reduction (CER) in the CDM mechanism.[7]

The other scheme implemented is Emission Trading, regulated by the Minister of Environment and Forestry Regulation No. 7/2023. Emission trading is a system of a transaction between firms whose emissions exceed the established limit. The mechanism is more popularly known as cap and trade system. In this system, businesses are instructed to follow a cap on the amount of emissions they are allowed to release within the bounds of the PTBAE. They are later assigned a specific quota of emissions that they are permitted to disperse into the atmosphere. Each business at the end of the timeframe allocated is mandated to disclose the amount of emissions they claim to have prudently managed to emit.

International controls regarding the trade of carbon is regulated under the Paris Agreement in 2015 which is a multi-country treaty aimed at fighting climate change. The Agreement strengthens the concept of: 'common but differentiated responsibilities' (CBDR) and supports market-oriented policies that treat carbon as a good subject to trade. Article 6 of the Paris Agreement expresses the right of parties to engage in international carbon trade,

which may help in achieving emission reductions in target goals set by countries, build a mechanism which will properly govern finances, and construct new extremely vigorous market frameworks to internationally plug the gaps to combat climate change. This encourages international cooperation as countries set international standards for supplying and acquiring emissions reduction credits which help build the carbon market.

In Indonesia, a number of government regulations have been enacted to govern the carbon trading scheme, including the following:[9] 1) Government Regulation No. 98/2021, this regulation describes the principles, mechanisms, and implementation guidelines for the Carbon Economic Value (CEV). CEV is the economic value awarded to companies or communities as an incentive for their activities in decreasing or absorbing greenhouse gas (GHG) emissions; 2) Law No. 7/2021, this law introduces a carbon tax as a policy tool to reduce GHG emissions. The carbon tax is imposed on companies or individuals for the use of fuels that produce GHG emissions. It is set to take effect in 2024 with an initial rate of IDR 75,000 per ton of CO₂.

Law can serve as a balancing point in addressing environmental issues. However, the role of law goes beyond merely producing regulations as it also requires effective law enforcement and implementation. The aforementioned regulations need to be effectively implemented through business legal policies that are adaptive and accommodating to innovations in the green ecosystem.[10]

China has developed its National ETS (Emissions Trading Scheme) since 2021 and has now become the largest carbon market in the world, while Indonesia is still in the early stages. Through a robust system supported by digital technology, China has successfully integrated legal, market, and monitoring aspects to strengthen carbon trading as both a climate change mitigation instrument and an opportunity for green investment. A comparative analysis between Indonesia and China can enrich understanding of the economic and environmental impacts of carbon trading, as well as how each country's legal policies address emerging challenges and opportunities.

Based on the background presented above, there is an urgent need to examine how international legal principles under the Paris Agreement are implemented in global carbon trading mechanisms, and how national business law policies can optimize their effectiveness. Moreover, it is important to assess the comparative impacts on the economy and environment—especially by looking at best practices from countries such as China.

Indonesia's carbon trading market—while exceptionally promising, especially within the forestry sector—continues to suffer from profound legal and institutional uncertainties that impede its maturation.[1] First, the absence of a consistent, nationwide Measurement, Reporting, and Verification (MRV) framework, coupled with unclear transaction procedures, pricing mechanisms, and ownership validation of carbon credits, undermines market confidence and invites greenwashing practices, whereby firms may register credits without effecting genuine emission reductions. [2]Second, these regulatory gaps are exacerbated by frequent policy shifts and a fragmented spatial policy landscape that has yet to integrate local-level environmental justice considerations with national trading rules.[3]

By contrast, China's National Emissions Trading Scheme (ETS)—the world's largest by covered emissions—benefits from centralized digital infrastructure, a clear legal foundation elevated to State Council oversight, and well-defined allowance allocation methodologies based on intensity benchmarks.[4] Such structure has already contributed to measurable reductions in CO₂ intensity among pilot firms and strengthened corporate engagement in clean-technology innovation.[5] Finally, any proposal to mobilize Indonesia's private sector must address persistent infrastructure deficits—particularly limited access to reliable monitoring technologies in remote regions and low technical capacity among small and medium-sized enterprises—which significantly constrain responses to both fiscal and non-fiscal incentives.[6] Integrating targeted capacity-building programs, improving broadband connectivity for real-time data reporting, and enacting clear legal safeguards against credit double-counting will be essential to unlocking meaningful private investment and ensuring the integrity of Indonesia's emerging carbon market.

Unlike previous studies, namely: 1) Comparison Of Carbon Trading In Asean Countries: An Explanation From A Policy Perspective[11] which focused on the comparative regulation of carbon trading among ASEAN countries, particularly on procedural aspects such as licensing and oversight, without exploring the principles of the Paris Agreement or addressing the business opportunities in green investment; and 2) China's National ETS:

Global And Local Lessons[12] which emphasized a technocratic evaluation of policy and market performance of China's carbon market, without considering global business law aspects or making comparisons with other developing countries. This study highlights the legal dimension, green investment opportunities, and a comparative analysis of the carbon trading systems in Indonesia and China. It seeks to fill the normative gap by examining the legal principles in the Paris Agreement as a legal foundation for carbon trading instruments, with the aim of strengthening the carbon market in Indonesia. This study is expected to address the following questions; 1) how do the legal principles outlined in the Paris Agreement serve as the foundation for carbon trading mechanisms as a global business instrument?, 2) how can business law policies enhance the effectiveness of carbon trading as a green investment opportunity?, 3) what are the economic and environmental impacts of carbon trading, based on a comparative analysis between Indonesia and China?

Carbon trading is no longer merely an environmental instrument but has evolved into a global business tool that offers promising green investment opportunities. The need to formulate business legal policies that support the effectiveness of carbon trading has become increasingly urgent, especially when compared to China, which has developed an integrated carbon trading system. A legal study is therefore required to highlight the business law implications of carbon trading as a green investment opportunity and to comprehensively examine its impact on both the economy and the environment.

II. Metode

This is normative juridical research with concept and statutory framework. Adopted statutory framework utilized is legislation only carbon trading-exclusive. This is premised upon a series of superior regulations. These incorporate the 1945 Structure of the Republic of Indonesia, Law No. 17/2004 Confirmation of the Kyoto Convention, Law No. 32/2009 on Natural Assurance and Administration, the Paris Tradition; and Law No. 16/2016 on Paris Assention Approval. Additionally, Government Control No. 46/2017 concerning Natural Financial Rebellious and Presidential Control No. 98/2021 concerning Usage of Carbon Financial Esteem towards Accomplishment of Broadly Decided Commitments and Nursery Gas Emanations Control in National Advancement are in a spearheading position. Furthermore, Law No. 7/2021 concerning Taxation Harmonization Regulates supports the financial framework of environmental management.

In addition, secondary and tertiary legal materials such as journals, dictionaries, or encyclopaedias are also used. The data collection method in this study is library research, which involves collecting data not directly from the research object but from other sources. The secondary data explored, examined, and analysed in this research consists of primary legal materials, secondary legal materials, and tertiary legal materials. The literature studied is obtained from various sources. The analysis method used is descriptive qualitative analysis, which presents an examination of the data obtained from the research object. The legal materials gathered are elaborated and interconnected in such a way that they are presented in a more systematic writing format to answer the problems formulated.

III. Results and Discussion

3.1 The principles of law in the Paris Agreement serve as a foundational framework for global carbon trading

The Paris Agreement is an historic global agreement to fight climate change. Country commitments are stated in their Nationally Determined Contributions (NDC) for the period 2020-2030, and in pre-2020 actions. High-emitters such as the US, China, the EU, Russia, Japan, and India also pledged to sign the Paris Agreement.[13] The three key components in the Paris Agreement with regard to obligations are all countries will aim for nationally determined, quantifiable, and dynamic climate alter adjustment and moderation activities, activities should be propelled by changes in fund streams and innovation exchange, capacity building, instruction, and other participation exercises, and law requirement is looked for through straightforwardness and announcing, strict audit, inventorying at interims, open mindfulness, and compliance components.

Article 2 of the Paris accord calls for the adoption of the accord to securitize equality and the concept of Common but Diverse and Respective Capabilities (CBDRC) under varied national contexts. Legal commitments of developing countries will vary to securitize their past, economic, and social circumstances fairly in relation to other countries. Developed countries are obligated to supply finances, technology, and capacity building, though.

Article 3 of the Paris Agreement also reiterates that all the Parties will submit their efforts at a higher level and notify it as stipulated in Articles 4, 7, 9, 10, 11, and 13 of the Paris Agreement, to meet the objectives of the agreement through Nationally Determined Contributions (NDCs) with regard to the global climate change. In doing so, it is recognized that the advancement of all Parties will be gradual in the long term, and developing country Parties must be supported in order to effectively implement the agreement. The Paris Agreement is binding under international law (legally binding) and universal, in the sense that it is binding on all countries under international law and applies to all countries.

In summary, the Paris Agreement contains the following key provisions, 1) all countries have a duty to submit Nationally Determined Contributions (NDCs). The contribution to reducing emissions will increase progressively and developing countries will be supported to raise their efforts. This is under Article 3 of the Paris Agreement; 2) The Parties commit to peaking their greenhouse gas emissions as early as possible and make every effort to strengthen reduction in emissions through mitigation actions. This is provided in Article 4 of the Paris Agreement; 3) Policy actions and incentives for reducing emissions from deforestation, forest degradation, and forest management, conservation, and forest carbon stock enhancement, including results-based payments.

This is offered under Article 5 of the Paris Agreement; 1) voluntary cooperation between countries to strengthen emissions reduction ambition, including through market and non-market measures and the market-based mechanism architecture, including Internationally Transferred Mitigation Outcomes (ITMO), through which countries can trade emission reductions credits with other countries. This gives the legal basis for cross-border carbon trading (carbon offset) and market-based measures (market instruments). Typically empowered beneath Article 6 of the Paris Understanding. 2) the foundation of worldwide adjustment objectives to make strides versatile capacity, improve strength, and diminish defenselessness to climate change, and referencing that adjustment may be a worldwide challenge requiring worldwide participation and help, particularly to creating nations. Usually enunciated in Article 7 of the Paris Assentment; 3) acknowledgment of the noteworthiness of moderation and managing with misfortune and harm related with the negative effects of climate alter. Usually recorded in Article 8 of the Paris Understanding; 4) the obligation of developed nations to supply money related implies in an endeavor to back creating countries in adjusting and taking relief actions. Other teach can too deliberately make this commitment This can be inserted in Article 9 of the Paris Assentment; 5) upgrading agreeable activity by all nations for innovation improvement and exchange. Typically incorporated beneath Article 10 of the Paris Understanding; 6) the centrality of collaboration by the Parties to upgrade the capacity of creating nations for execution of the Paris Understanding, and the created nations' commitment to back the improvement of the capacity-building of creating nations. This is often commanded by Article 11 of the Paris Assentment; 7) participation among Parties to facilitate back for instruction, preparing, open mindfulness, open cooperation, and open get to to data on climate alter. This is often ordered by Article 12 of the Paris Agreement; 8) creation and working of a straightforwardness system to construct shared trust and increment the adequacy of execution, counting activity and bolster, with approach space for developing nations. This structure is established within the current structure of the convention. Typically accessible beneath Article 13 of the Paris Agreement; 9) occasional reports beneath the Paris Understanding to degree collective progress towards the Paris Understanding targets through the Worldwide Stocktake, beginning in 2023 and every five a long time from that point. This is often apparent in Article 14 of the Paris Understanding; 10) establishment of a instrument to encourage execution and encourage compliance with the Paris Understanding. Usually apparent in Article 15 of the Paris Understanding.

Based on the explanation above, the principles embedded in the Paris Agreement result in several key outcomes; 1) transparency and accountability in the implementation of climate change mitigation efforts, particularly in carbon trading. This principle is operationalized through a system known as MRV (Measurement, Reporting, and Verification), a robust and reliable mechanism for measuring, reporting, and verifying emissions reductions. The MRV system ensures that each carbon credit traded genuinely reflects real and verified emission reductions, not just unilateral claims or data manipulation. This principle not only serves as a technical foundation but also represents an international legal requirement to build trust between countries and among business actors within the carbon market. A credible MRV system prevents the risk of double counting, where a single carbon unit is claimed by two parties simultaneously.[14]; 2) the establishment of legal infrastructure, such as national

carbon registries, MRV systems, and cross-border oversight, to ensure the legal and operational integrity of carbon markets; 3) growing recognition of carbon as a legal commodity across various jurisdictions, solidifying its status within the global economic and legal framework.

3.2. Business Law Policy and the Effectiveness of Carbon Trading as Green Investment

Carbon trading is no longer seen merely as an instrument to control climate change, but has evolved into a green investment opportunity with high economic value. To realize this potential, strong legal certainty, well-targeted economic incentives, and active private sector involvement are essential. In the context of business law, various regulatory instruments and policies play a central role in creating a sustainable and financially attractive carbon market ecosystem.

The Indonesian government has lawfully prioritized climate change as one of its National Priorities in Presidential Regulation No. 18 of 2020 concerning the National Medium-Term Development Plan titled Rencana Pembangunan Jangka Menengah Nasional (RPJMN) 2020-2024. Indonesia's dedication to climate change mitigation through international involvement was seen with the accession into and subsequent ratification into Law No. 16 of 2016, namely the Paris Agreement. Parties of the Paris Agreement are duty-bound to deliver Nationally Determined Contributions (NDCs) that embrace specific targets to minimize greenhouse gas (GHG) emissions in accordance with plans that must be undertaken by the parties by the year 2030. Through government action during the year 2022, the Indonesian government reported an Enhanced Nationally Determined Contribution. In the ENDC, Indonesia committed to increasing its unconditional GHG emissions reduction target from 29% to 31.89%, and its conditional target with international support from 41% to 43.2% by 2030. This serves as an indicator to measure the performance of national climate change mitigation efforts.[15]

There are five sectors addressed by the NDC that reduce GHG emissions: energy, waste, industrial processes and product use (IPPU), agriculture, and forestry. Trading in carbon may be either domestic and/or international, and/or direct or through the carbon market via the Carbon Exchange. Carbon trading is a form of government intervention.[16]

Among the benefits of carbon trading is that it helps the country achieve its carbon emission targets under the Paris Agreement on climate change. Through carbon credit trading, countries or companies that emit carbon can buy credits from those that have succeeded in reducing emissions. Conversely, those who have managed to reduce their emissions can sell their carbon credits to other entities needing emission reductions.[17] By implementing a carbon tax, not only does this create additional revenue for the state, but it also reduces carbon emissions, particularly from the energy sector, which is one of the biggest sources of carbon emissions in Indonesia.[18]

One of the main attractions of carbon-based green investment is the availability of fiscal and non-fiscal incentives for businesses engaging in carbon offsetting. These incentives may include; 1) tax exemptions or reductions for investments in carbon projects such as reforestation, renewable energy, or waste management; 2) Simplified environmental licensing (green license) for companies contributing to emission reductions; 3) Clean the energy subsidy schemes that promote energy transition in the industrial and manufacturing sectors.

Government Regulation No. 46 of 2017 on Environmental Economic Instruments opens up opportunities for imposing or reducing tariffs on environmentally friendly economic activities. However, the implementation of such incentives still faces challenges, such as lack of coordination among ministries and institutions, as well as limited understanding among business actors regarding the benefits and procedures of carbon offsetting.[19] Regulatory harmonization and institutional capacity-building are required to support the effectiveness of these incentives.

The success of carbon trading greatly depends on legal certainty in transactions between involved parties. Instruments such as Carbon Purchase Agreements (CPA) and Green Bonds serve as legal foundations for investors to invest in emission reduction projects. A solid and transparent legal framework can enhance investor confidence and encourage private sector participation in the carbon market. In Indonesia, although regulations like Presidential Regulation No. 98/2021 have been issued, more detailed implementing rules are still needed to govern contractual aspects and investor protection in carbon trading.[20]

The banking and financial sectors play a strategic role in supporting carbon trading through the financing of green projects. In Indonesia, Financial Services Authority Regulation (POJK) No. 51/POJK.03/2017 on Sustainable Finance encourages financial institutions to integrate environmental aspects into their business operations. The Indonesian Green Taxonomy 2022 also provides guidelines for the financial sector to channel funding toward sustainable projects, including those related to carbon trading. The implementation of these policies is expected to increase investment flows into the green sector and strengthen the domestic carbon market infrastructure. However, challenges such as green investment risk assessment and lack of adequate data still need to be addressed to enhance the effectiveness of these policies.

Blockchain technology offers solutions to improve transparency and efficiency in carbon trading. Due to its decentralized and unchangeable characteristics, blockchain guarantees data accuracy, avoids double counting, and enables instant monitoring of carbon credits. Utilizing blockchain in the carbon market can improve trust and engagement from stakeholders. In Indonesia, the use of this technology is still at a nascent phase, and a conducive regulatory environment along with enhanced technological capabilities are essential for successful implementation.[21]

The application of these principles has demonstrated a rise in the efficiency of carbon trading and the acknowledgment of carbon as a recognized commodity. Indonesia has made important progress via Presidential Regulation No. 98/2021 and other associated regulations. Nonetheless, obstacles like insufficient law enforcement, absence of cross-sector integration, and the necessity for proper technological infrastructure still need to be tackled to realize an efficient and sustainable carbon market.

3.3. The Impact of Carbon Waste Trading on the Economy and Environment: A Comparative Study of Indonesia - China

Carbon trading is an economic instrument designed to reduce greenhouse gas emissions through market-based mechanisms. Its implementation and impact vary across countries depending on policies, infrastructure, and stakeholder participation.

Indonesia has significant potential in carbon trading, particularly in the forestry sector. With vast tropical forests, Indonesia can generate carbon credits through programs such as REDD+ (Reducing Emissions from Deforestation and Forest Degradation). The government has developed a roadmap for carbon trading in the forestry sector to support its Nationally Determined Contributions (NDC) and achieve emission reduction targets.[22] Carbon trading encourages green economic initiatives at the community and Micro, Small, and Medium Enterprises (MSME) levels. For example, mangrove conservation projects involving local communities not only contribute to carbon sequestration but also improve economic welfare through ecotourism and sustainable fisheries. [23]

The Indonesian government has issued various regulations related to carbon trading; however, field implementation still faces challenges. The private sector tends to wait for further clarity on mechanisms and incentives before engaging actively. [24] Moreover, there is a risk that companies may purchase carbon credits merely to fulfil obligations without making real efforts to reduce their own emissions—a practice known as greenwashing. This undermines the primary objective of carbon trading, which is to achieve substantial emission reductions.

China, on the other hand, launched its national Emissions Trading Scheme (ETS) in 2021, making it the largest carbon market in the world. The system initially encompasses the power generation industry, featuring more than 2,000 firms that together represent about 45% of China's overall CO₂ emissions. Following the introduction of the ETS, carbon prices in China have risen, creating significant motivation for major industries to enhance energy efficiency and implement low-carbon technologies.

Even with its advancements, the Chinese ETS has encountered scrutiny concerning the transparency of data and the precision of emission reports provided by businesses. This brings up worries regarding the system's ability

to attain real emission reductions. Moreover, the market is predominantly controlled by state-owned firms, which could constrain market dynamics and diminish motivations for private companies to engage actively.

| Aspects | Indonesia | China |
|------------------------------|--|---|
| Implementation Stage | The initial stage involves the preparation of regulations (Presidential Regulation No. 98/2021, Minister of Environment and Forestry Regulation No. 21/2022).. | The advanced stage features an active national ETS system since 2021, covering the power generation sector. |
| Private Sector Participation | Still low, limited to certain sectors and voluntary carbon market pilot programs. | High, with over 2,000 energy sector companies participating in the national ETS. |
| Revenue from Carbon | Potential, but not yet significantly realized; main contribution comes from the forestry sector. | Already realized with a market value exceeding USD 1 billion per year. |
| MRV Transparency | The MRV system is still in the process of development and has not been fully integrated. | The MRV system is operational but has been criticized for lacking sufficient transparency and independence. |

Table 1

Carbon trading holds significant potential for facilitating sustainable economic growth and climate change mitigation in Indonesia and China. China has made significant strides with the introduction of a national Emissions Trading Scheme (ETS) on key energy sectors, although it continues to face challenges of transparency and market dynamics. On the contrary, Indonesia is in its infant stages and requires more robust regulatory systems, higher private sector engagement, and an evident Monitoring, Reporting, and Verification (MRV) process to ensure effectiveness and credibility for its domestic carbon market.

IV. Conclusion

This study reaffirms that carbon trading has the potential to become a strategic green investment instrument if supported by strong legal foundations in business law and the implementation of key principles of the Paris Agreement, namely transparency, accountability, and international cooperation. Indonesia has begun to move through policies such as Presidential Regulation No. 98/2021, but its performance is still limited by less-than-ideal private sector engagement and a lack of cross-sectoral integration. On the contrary, China has made more advanced progress in implementing a national ETS, which has successfully stimulated energy efficiency and generated state revenue.

Moving forward, Indonesia needs to improve regulations that offer legal certainty for carbon investment, expand fiscal and non-fiscal incentives for the corporate sector, and introduce legal technologies offering assurance for transaction integrity. Carbon trading is not only about emissions reduction, but about capturing economic opportunities in the green economy, which requires synergy between environmental law and sustainable business policy.

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