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Internalization of the Paris Agreement in Indonesia's First Nationally Determined Contributions (NDCs) (2015–2022)

Dewi Nurngaini
Universitas Islam Indonesia
E-mail: 20323183@alumni.uii.ac.id

Masitoh Nur Rohma
Universitas Islam Indonesia
E-mail: masitoh.rohma@uii.ac.id

Abstract

Climate change is a global challenge that affects various sectors and serves as the foundation for the establishment of the international Paris Agreement, which was adopted through the Conference of Parties (COP) under the United Nations Framework Convention on Climate Change (UNFCCC). This agreement was strongly advocated by Ban Ki-Moon, Secretary-General of the United Nations from 2007 to 2016. As one of the countries vulnerable to the impacts of climate change, Indonesia has decided to ratify the Paris Agreement and has made serious efforts to achieve its Nationally Determined Contributions (NDC) target, aiming to reduce greenhouse gas (GHG) emissions. These efforts have yielded positive results, with Indonesia gradually surpassing its emission reduction targets as reported by the Ministry of Environment and Forestry (MoEF) in 2022. This study examines the development of the Paris Agreement as a new international norm that influences Indonesia's policies in addressing climate change impacts through the norm life cycle framework. This framework consists of three stages: norm emergence, norm cascade, and internalization. In this context, the Paris Agreement is viewed as an international norm initiated by the norm entrepreneur Ban Ki-Moon, who successfully encouraged Indonesia to ratify and implement it at the national level. This success is reflected in the internalization of the Paris Agreement into legal instruments that strengthen Indonesia's commitment to achieving its NDC targets. This research applies a qualitative analytical method, drawing on secondary sources such as official government and organizational reports, journal articles, books, and other relevant references.

Keywords*: Indonesia's carbon emissions, international regime, norm life cycle, Paris Agreement*

Abstrak

Perubahan iklim merupakan tantangan global yang memengaruhi berbagai sektor dan menjadi landasan lahirnya kesepakatan internasional Paris Agreement, yang disepakati melalui Conference of Parties (COP) di bawah naungan United Nations Framework Convention on Climate Change (UNFCCC). Kesepakatan ini mendapat dorongan kuat dari Sekretaris Jenderal Perserikatan Bangsa-Bangsa periode 2007–2016, Ban Ki-Moon. Sebagai salah satu negara yang rentan terhadap dampak perubahan iklim, Indonesia memutuskan untuk meratifikasi Paris Agreement dan berupaya secara serius mencapai target *Nationally Determined Contributions* (NDC) dalam menurunkan emisi gas rumah kaca (GRK). Upaya ini menunjukkan hasil positif, di mana Indonesia secara bertahap mampu melampaui target penurunan emisi sebagaimana dilaporkan Kementerian Lingkungan Hidup dan Kehutanan (KLHK) pada 2022. Penelitian ini menganalisis perkembangan Paris Agreement sebagai norma baru di tataran internasional yang memengaruhi kebijakan Indonesia dalam mengendalikan dampak perubahan iklim melalui kerangka *norm life cycle*. Kerangka ini mencakup tiga tahap, yakni *norm emergence, norm cascade,* dan *internalization*. Dalam konteks ini, Paris Agreement dipandang sebagai norma internasional yang digagas oleh *norm entrepreneur* Ban Ki-Moon, yang berhasil mendorong Indonesia untuk meratifikasi dan mengimplementasikannya di tingkat nasional. Keberhasilan tersebut tercermin dari proses internalisasi Paris Agreement ke dalam instrumen hukum yang memperkuat komitmen Indonesia dalam mencapai target NDC. Penelitian ini menggunakan metode analisis kualitatif dengan sumber data dari laporan resmi pemerintah atau organisasi, artikel jurnal, buku, maupun sumber sekunder lain yang relevan.

INTRODUCTION

Climate change is attributed mainly to an increase in greenhouse gas (GHG) emissions resulting from human activities, including the burning of fossil fuels, deforestation, and unsustainable consumption patterns. To address climate change, Ban Ki-Moon, as a key coordinator of global climate action through the UNFCCC (United Nations Framework Convention on Climate Change), adopted the Paris Agreement at COP-21 held in Paris, France, in 2015. On April 22, 2016, President Joko Widodo, represented by Minister of Environment and Forestry Dr. Siti Nurbaya, signed the Paris Agreement, which aims to reduce GHG emissions, limit the rise in the global average temperature to below 2 degrees Celsius, and pursue efforts to restrict the temperature increase to 1.5 degrees Celsius above pre-industrial levels. As the most populous country in Southeast Asia with significant emission potential, Indonesia faces high-intensity climate disaster risks that directly affect farmers, fishers, coastal communities, and urban populations. Indonesia's policies and actions will have an impact at both the regional and global levels (Diogenes, 2020).

As part of the ratification of the Paris Agreement COP-21, Indonesia's initial step was to enact the Law on the Ratification of the Paris Agreement to the United Nations Framework Convention on Climate Change, passed by the Indonesian House of Representatives (DPR RI) on October 19, 2016. This decision was based on the awareness of Indonesia's vulnerability as an archipelagic nation to significant climate change impacts, along with projections of an average temperature increase of 0.5–3.92 degrees Celsius by 2100. The condition aligns with the need to internalize commitments into development plans across various sectors, such as the energy sector, the gradual phase-out of fossil fuels, the promotion of renewable energy, and halting land expansion activities that cause deforestation and forest fires (Biro Humas Kementerian Lingkungan Hidup dan Kehutanan, 2016).

In addition to its commitment to the international agreement, Indonesia also had a noteworthy case compared to other developing countries that have adopted the Paris Agreement. Data shows that Indonesia ranked 17th out of 139 countries in terms of its natural resource competitiveness. According to the Ministry of Environment and Forestry (KLHK) in 2021, Indonesia has the third-largest tropical rainforest after Brazil and the Democratic Republic of the Congo. Approximately 59 percent of Indonesia's land area is covered by tropical forests, accounting for 10 percent of the world's total forests (PPID, 2021). These forests contribute significantly as a food source for 48.8 million people living in or around forested areas, such as villages spread across the archipelago. However, the risk of deforestation remains high. For example, in 2018–2019, Indonesia's deforestation rate reached 462.46 thousand hectares.

Based on the above explanation, this research will explore how Indonesia has internalized the Paris Agreement within the framework of its 1st Nationally Determined Contributions (NDCs) for the period 2015–2022. The selection of this timeframe aims to map the achievements of Indonesia's internalization of international norms in the initial phase since the ratification of the Paris Agreement. In 2022, Indonesia updated its commitment through the Enhanced Nationally Determined Contributions

(ENDC), which included different targets, making this period a crucial point for assessing the development of national climate strategies and policies.

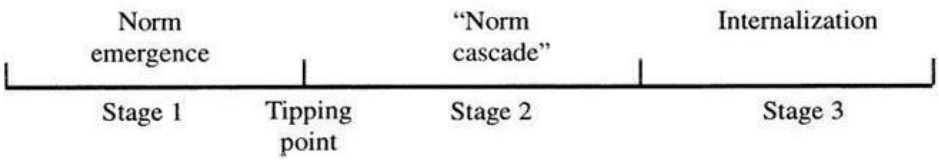
Previous studies have examined various aspects of the Paris Agreement's implementation in Indonesia, ranging from government commitments to energy transition strategies. Ali (2018) discussed government policies and obligations resulting from COP-21, while Lauranti and Djamhari (2017) highlighted renewable energy transition strategies tailored to Indonesia's socio-political context. In comparison, Arisca (2018) focused on the ratification through Law No. 16 of 2016 and the socio-political factors influencing it. The study "Catatan Kritis Memperingati 5 Tahun Berlakunya Paris Agreement" and the works of Aldy, Deasy, and Dina examined strategies for implementing NDCs in the forestry, energy, and agricultural sectors, as well as evaluated Indonesia's commitments five years post-adoption, including critiques from NGOs such as Greenpeace.

Although these studies make significant contributions, they generally have limitations in their scope or period of analysis. Most discuss policies in general or only cover the early years after ratification, without examining in depth the policies during President Joko Widodo's administration up to 2022. This research seeks to fill that gap by analyzing Indonesia's strategies, policies, and programs for implementing its commitments, including renewable energy, energy efficiency, deforestation reduction, and climate adaptation, while also assessing the government's level of ambition in responding to both domestic and international pressures.

The authors use the norm entrepreneur model "Norm Life Cycle," a branch of constructivist theory developed by Martha Finnemore and Kathryn Sikkink. According to Finnemore and Sikkink (1998), norms emerge from one place and spread to others through the efforts of actors who advocate for, build, and strengthen international norms (Finnemore and Sikkink, 1998).

The norm entrepreneur concept aims to understand how international norms develop and are maintained through the actions of actors known as norm entrepreneurs. These actors play a vital role in changing existing norms or promoting new ones by mobilizing support, influencing public opinion, and leveraging diplomatic networks. There are three stages in the "Life Cycle" of norm diffusion, through which norms or values can be applied in a particular country.

Figure 1. Stages of the Norm Life Cycle



Source: Finnemore and Sikkink (1998)

Stage 1: Norm Emergence

The emergence of a norm refers to the process through which a new norm arises and gains acceptance in the international system. There are two key elements in the formation of a new norm, namely norm entrepreneurs and organizational platforms. The presence of

a norm does not occur suddenly but is actively shaped by agents with strong ideas. To convince the public, these actors require support platforms such as IGOs (Intergovernmental Organizations) or NGOs (Non-Governmental Organizations), which serve as organizational platforms. When a norm reaches its tipping point, the peak stage of a norm, states that have not yet ratified it will be encouraged to adopt the new norm. There is no final definition of tipping point because it can depend on the context. However, the tipping point generally occurs only after about one-third of the states in the system—each carrying different levels of influence—have adopted the norm.

Stage 2: Norm Cascade

The condition previously explained refers to the process by which a new norm is widely accepted by various actors in the international system through promotion and active socialization by agents aiming to turn norm violators into norm followers. Success is marked when the cumulative effect of states in a region adopting new norms occurs. This situation can be described as "peer pressure," which encourages both domestic and international communities to follow the norm.

There are three primary motivations for states to respond to this "peer pressure": legitimacy, conformity, and self-esteem. Legitimacy is essential for states because it shapes their behavior. For example, international organizations serve as guardians of international approval and disapproval, ensuring compliance with international norms. In addition, states are motivated by the label of self-esteem. Not following a new norm can result in being perceived as a "rogue state." Conversely, adhering to relevant norms can foster pride and enhance a state's self-esteem.

Stage 3: Internalization

Internalization occurs when a new norm becomes deeply rooted and understood by the international community, becoming part of their identity and behavior. At this stage, the new norm is not merely followed due to external pressure or formal compliance but is embraced as a value that is genuinely believed in and adopted internally. This stage can be observed when a global norm is incorporated into domestic regulations and eventually becomes a habitual practice within society.

Figure 2. Stages of Norm Life Cycle

	Stage 1 *Norm emergence*	*Stage 2* *Norm cascade*	*Stage 3* *Internalization*
Actors	Norm entrepreneurs with organizational platforms	States, international organizations, networks	Law, professions, bureaucracy
Motives	Altruism, empathy, ideational, commitment	Legitimacy, reputation, esteem	Conformity
Dominant mechanisms	Persuasion	Socialization, institutionalization, demonstration	Habit, institutionalization

Source: Finnemore and Sikkink (1998)

The authors employ a qualitative research method with a more descriptive, analysis-based approach. The data sources came from secondary data such as journals, books, official reports, news articles, and other relevant references.

This research also utilizes the assistance of the artificial intelligence tool ChatGPT to support the translation process.

RESULTS AND DISCUSSION

First Nationally Determined Contribution (NDC) of Indonesia

Indonesia officially joined the Paris Agreement on April 22, 2016, by signing the Paris Agreement to the United Nations Framework Convention on Climate Change in New York, United States. The Paris Agreement document outlines three main objectives. First, to limit the global temperature increase to below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the rise to 1.5°C. Second, to enhance adaptation and resilience to climate change while promoting low-GHG-emission development to safeguard food production. Third, to regulate financial flows for climate-resilient development, particularly from developed countries.

The ratification of the Paris Agreement was subsequently implemented through Law No. 16 of 2016 and the formulation of the NDC in the same year. Indonesia's first NDC was submitted in November 2016. Indonesia will develop and implement the RAN-API (National Action Plan for Climate Change Adaptation), which contains an adaptation framework for national development planning. Indonesia's NDC targets a 29% reduction in GHG emissions through national efforts and 41% with international support. Five sectors will play a decisive role in achieving the GHG emission reduction target: energy (11%), waste (0.38%), industrial processes (0.10%), agriculture (0.32%), and forestry (17.2%).

Figure 3. Roadmap for the Nationally Determined Contribution on Climate Change Adaptation

Source: Climate Change in Indonesia's Development Plan

In the 2020–2024 National Medium-Term Development Plan (RPJMN), climate change is listed as National Development Priority No. 6, with the target of reducing GDP losses from the impacts of climate change-related disasters by 0.35% by 2024. In addition, the priority of Sustainable Development Goal (SDG) No. 13: Climate Action is to respond to climate change. Therefore, the RAN-API document was updated as a strategic action to prepare development initiatives that address climate change (Directorate General of Climate Change Control, Ministry of Environment and Forestry, 2021).

Norm Emergence: The Emergence of the Paris Agreement Norm

The global norm in focus here is the

Paris Agreement, an international treaty under the United Nations Framework Convention on Climate Change (UNFCCC), adopted at the 21st Conference of the Parties (COP) in Paris in 2015. This treaty sets a collective goal to keep the rise in global temperature well below 2°C above pre-industrial levels, with an aspiration to limit it to 1.5°C. The success of the Paris Agreement's emergence cannot be separated from the role of norm entrepreneurs, as described by Finnemore and Sikkink (1998), namely actors who actively initiate, frame, and promote new norms at the international level. In this case, the primary norm entrepreneur was Ban Ki-moon, the eighth Secretary-General of the United Nations (2007–2016) from South Korea, who consistently prioritized climate change as a top global concern.

Ban Ki-Moon used his position in the UN to mobilize international political support, framing climate change as both a global threat and an opportunity for sustainable development. Early in his tenure, he initiated the Climate Change Summit in 2007 as a diplomatic step to put climate change at the forefront of the international agenda (Nations, n.d.). At COP-13 in Bali in 2007, Ban played a critical role in pushing forward post-Kyoto negotiations. Although COP-15 in Copenhagen in 2009 failed to deliver a binding agreement, Ban maintained the principle of common but differentiated responsibilities and used the moment to steer the agenda toward a new climate accord. In an interview with *The Guardian*, he set a six-month target to strengthen the legal foundation of international climate law, while acknowledging that major developing countries like China, India, Brazil, and Indonesia would be future key emitters (Goldenberg et al., 2009).

Ban consistently delivered messages linking climate change to human well-being. In his Earth Hour speech on March 28, 2015, he stated: "Climate change is a people problem. People cause climate change and people suffer from climate change. People can also solve climate change," emphasizing a moral framework and the urgency of climate action (Nations, n.d.-a). His dominant mechanism was persuasion—shaping the perspectives of other actors through normative arguments, issue framing, and network mobilization. Through this strategy, Ban rallied not only UN member states but also non-state actors, including NGOs, the private sector, and religious leaders.

Within the norm emergence stage, organizational platforms are crucial for norm entrepreneurs to promote their ideas (Finnemore & Sikkink, 1998). The UNFCCC served as Ban's primary platform for advancing the Paris Agreement norm. The organization's mandate is to stabilize greenhouse gas (GHG) concentrations and prevent dangerous anthropogenic interference with the climate system. Since its adoption in 1992 and entry into force in 1994, the UNFCCC has convened a series of COPs that produced major agreements, including the 1997 Kyoto Protocol. However, Kyoto's weaknesses—such as Canada, Japan, and Russia withdrawing, and the United States refusing to ratify—offered essential lessons for designing the subsequent climate treaty.

Ahead of COP-21, the UNFCCC expanded its action agenda beyond national emission reductions into a global movement through the Lima-Paris Action Agenda at COP-20 in Peru. The agenda included fossil fuel divestment campaigns and commitments by institutions like the World Bank to halt financing for coal-fired

power plants. Additional coordination platforms, such as the 2014 Climate Initiatives Platform, which tracked 184 climate initiatives involving 20,000 participants, further strengthened the action network (Kuyper et al., 2018). Strategic support also came from appointing Christiana Figueres as UNFCCC Executive Secretary (2010–2016), whose extensive negotiation experience was pivotal in working with Ban to ensure diplomatic success in Paris (Nations, n.d.-b).

Ban Ki-Moon's motivation to promote the Paris Agreement can be viewed through three dimensions in the norm life cycle. First, altruism, the commitment to act for the benefit of others even at personal or political risk (Finnemore & Sikkink, 1998). Ban saw climate action as a moral duty to protect future generations, advocating a shift from Kyoto's rigid legalism to a more inclusive system of voluntary national contributions, known as Nationally Determined Contributions (NDCs) (Kuyper et al., 2018). Second, empathy, demonstrated by his framing of the Paris Agreement as "a victory for all of humanity" that unites diverse sectors in combating poverty, maintaining peace, and protecting the planet (Gach, 2019). Third, ideational commitment, reflecting his belief in the values embedded in the norm, including ambitious targets to limit global warming below 2°C and peak carbon emissions as soon as possible.

The tipping point for the Paris Agreement occurred when its entry-into-force condition was met—ratification by at least 55 countries representing 55% of total global GHG emissions (Legarda & Guerrero, 2016). Although the emission threshold had not yet been fully reached in early October 2016 (only 51.89%), the ratification count had already reached 62 countries, enabling the agreement to enter into force on November 4, 2016 (IESR, 2016). Rather than a rigidly quantified concept, the tipping point varies across regimes and is commonly understood as the point at which roughly one-third of members have adopted it. Seen from this perspective, the Paris Agreement's threshold of 55% of global emissions can be interpreted as exceeding that critical mass, thus aligning with Finnemore and Sikkink's (1998) account of the transition from norm emergence to norm cascade, where adoption accelerates through imitation, social pressure, and adaptation to international standards.

Table 1. Five Countries Representing the World's Carbon Emissions

Negara yang telah meratifikasi Kesepakatan Paris	Emisi yang diwakilkan oleh Negara tersebut
Amerika Serikat	17.89%
Brazil	2.48%
China	20.09%
India	4.10%
Meksiko	1.70%

Source: Institute for Essential Services Reform (n.d.)

Norm Cascade: The Paris Agreement as Legitimacy for Carbon Emission Reduction in Indonesia

After the Paris Agreement passed the tipping point in the norm emergence stage, the process moved to the second stage, norm cascade. At this stage, norms begin to be widely adopted by states, even without significant domestic upheaval. Finnemore and Sikkink (1998) explain that once the tipping point is reached, international and transnational influences often outweigh domestic politics in driving state behavior change. It can happen because the global or regional demonstration effect accelerates adoption, encouraging other states to follow the path of early ratifiers.

The central actor at this stage is the UNFCCC, which functions as a driver of socialization, a facilitator of negotiations, and a coordinator of global action. The UNFCCC not only maintains the institutional framework of the Paris Agreement but also actively promotes it through multiple international mechanisms. Its diplomatic agenda includes forums such as the Global Climate Action Agenda (GCAA), launched under the Marrakesh Partnership in 2016, engaging states, cities, businesses, and NGOs to broaden the base of support.

Transnational climate governance networks also play a significant role, particularly through organizations like ICLEI (International Council for Local Environmental Initiatives), which, since 1990, has coordinated local governments and related organizations in climate mitigation and adaptation efforts. The UNFCCC recognizes the importance of subnational governance and integrates it into its outreach strategy, ensuring that climate action is driven not only by national governments but also by local authorities and communities.

Additionally, the UNFCCC facilitates technical discussions, such as those related to carbon accounting. Debates over whether carbon should be counted at the production or consumption stage have been streamlined through these forums, with an emphasis on fair allocation of emissions responsibilities.

Within the norm cascade framework, the UNFCCC applies three main mechanisms: socialization, institutionalization, and demonstration. Socialization is the dominant mechanism, encompassing the promotion of norms, information exchange, and consensus-building through bilateral and multilateral meetings. This process is often reinforced with diplomatic praise or criticism, along with material incentives and sanctions to strengthen member states' commitments.

Institutionalization is achieved through the Paris Agreement itself, which serves as a legally binding international instrument. Demonstration, on the other hand, is realized through the dissemination of best practices at regional and global levels, using the successes of early adopters to influence others to join. Engagement with non-state actors is also a crucial part of this process. By involving the private sector, local governments, and civil society organizations, transaction costs for implementation and monitoring can be reduced, as responsibilities are shared across multiple layers of actors, including non-UNFCCC member states.

Although the Paris Agreement was initially scheduled to enter into force in 2020, with a minimum requirement of 55 ratifying countries representing 55% of global emissions, the process advanced much faster. By October 4, 2016, 62

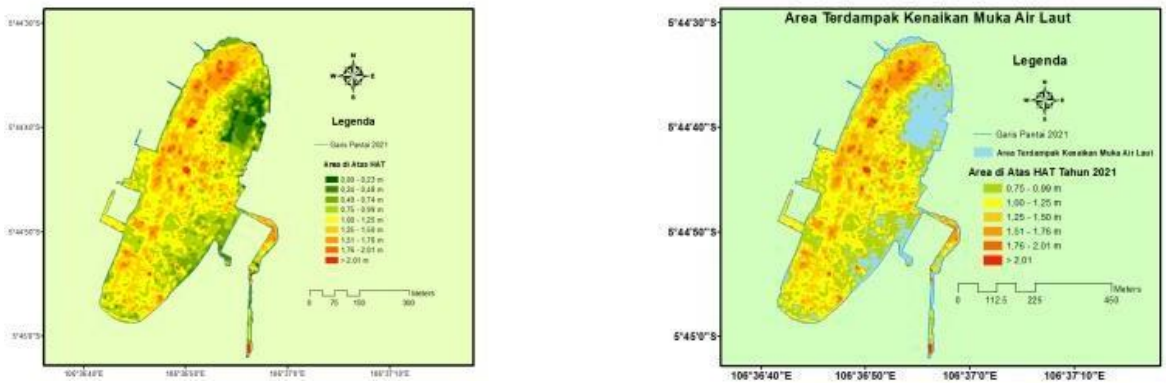
countries had ratified, covering 51.89% of emissions, and the agreement officially entered into force on November 4, 2016. This acceleration demonstrated the effectiveness of the UNFCCC's strategy in leveraging demonstration effects and global diplomatic networks.

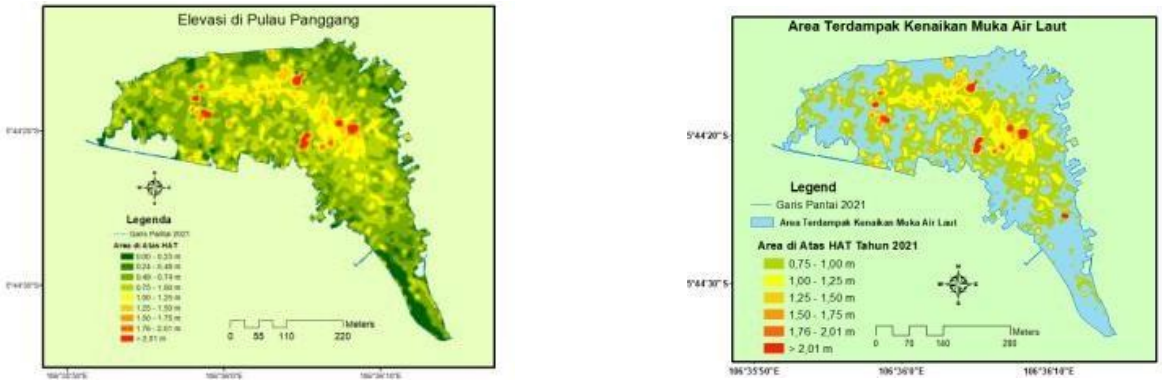
Major emitters such as the United States and China played a decisive role. In September 2016, both countries, which together accounted for 40% of global emissions, formally joined. US President Barack Obama emphasized that their participation alongside China dispelled skepticism over the deal's viability. He also highlighted the Paris Agreement as a flexible framework that allows countries to set increasingly ambitious targets as technology advances, while helping to avoid the worst impacts of climate change.

Finnemore and Sikkink (1998) emphasize that states' compliance with international norms is often driven by three key factors: reputation, legitimacy, and esteem. In the case of the Paris Agreement, international reputation is a key stake—non-compliance or rejection of the norm risks damaging a state's credibility in the global arena. International legitimacy also influences domestic legitimacy, prompting leaders to position themselves as norm supporters to maintain political support at home. Esteem is another driver, as leaders seek to project a positive image globally by demonstrating adherence to international norms. Some states view the adoption of the Paris Agreement as an opportunity to assert leadership in environmental and sustainable development issues.

Indonesia ratified the Paris Agreement based on strategic considerations outlined in the submission letter for the Bill of Ratification sent by Minister of Environment and Forestry Siti Nurbaya to the DPR RI (Nurbaya, 2016). First, Indonesia recognizes that climate change is progressing rapidly and its impacts are already tangible, especially given its geographic conditions. Projections indicate that by 2100, the average temperature in Indonesia could rise between 0.5 °C and 3.92°C, while coastal areas are expected to face a sea-level rise of 35–40 cm by 2050. These impacts are already evident in areas such as Muara Baru, North Jakarta, and small islands like Pulau Pramuka and Pulau Panggang (Barus et al., 2022).

Figure 4. Comparative Illustration of Pramuka Island and Panggang Island





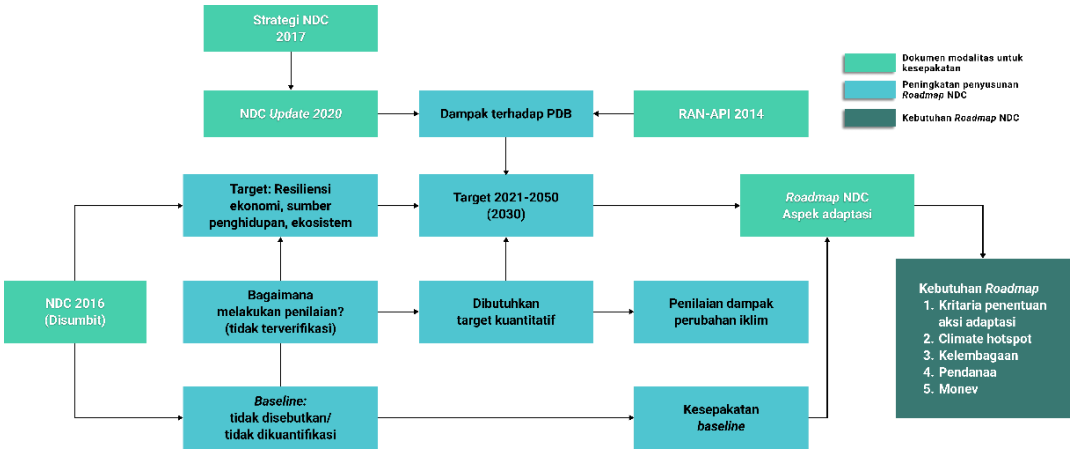
Source: Barus et al., (2022)

Second, Indonesia linked the ratification of the Paris Agreement to the mandate of Article 28H of the 1945 Constitution, which guarantees the right to a healthy environment. The government viewed the ratification as offering several benefits, including: enhancing protection from the impacts of climate change through mitigation and adaptation, strengthening the recognition of national commitments to emissions reduction, securing voting rights in decision-making processes related to the Paris Agreement, and gaining access to international climate finance. The implementation of this commitment in Indonesia is directed through national contributions encompassing the forestry, energy, transportation, industrial waste, and agricultural sectors, with a focus on sustainable development.

Internalization of the Paris Agreement Norm into Indonesia's National Norms

At the internalization stage, national law and bureaucracy are involved. After the Government of Indonesia ratified the Paris Agreement through Law No. 6 of 2016, Indonesia submitted its NDC document to the UNFCCC. To ensure the effective implementation of the NDC, the 2020–2024 National Medium-Term Development Plan (RPJMN) designates climate change as a sustainable development priority under National Priority No. 6, with a target of reducing the impact of climate disasters on GDP by 0.35 percent by 2024. The NDC targets were formulated by considering all aspects stipulated in Law No. 16 of 2016, including food, energy, and the right to a healthy environment. Figure 9 presents the NDC roadmap based on the 2010 baseline toward the 2030 target. In accordance with climate analysis standards, the 2010 baseline refers to data from 1991–2020, while the 2021–2050 projection addresses the 2050 target.

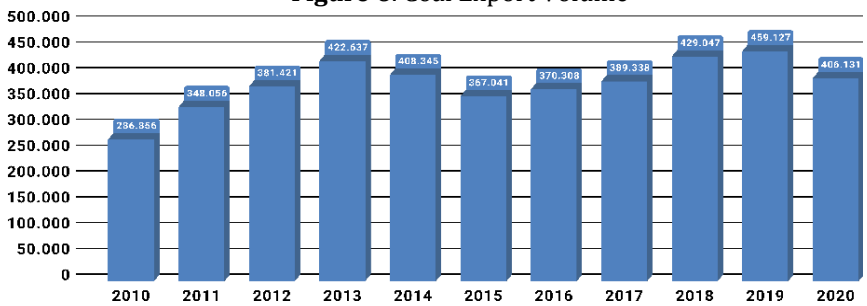
Figure 5. NDC Roadmap



Source: Icleiseas.org (n.d)

By ratifying the Paris Agreement and committing to reducing GHG emissions, Indonesia is obliged to control or reduce the major causes of climate change, one of which is the use of coal as a fossil energy source. Based on Figure 10, the highest coal export volumes occurred after the ratification period, specifically in 2018, 2019, and 2021. This indicates that policy implementation is not aligned with the commitments made. The most logical reason why coal export volumes are difficult to reduce is that doing so would negatively impact the national economy, particularly given Indonesia's position as the fourth-largest coal producer in the world.

Figure 6. Coal Export Volume



Source: Puspita and Hervino (2023)

When discussing the funding needs and realization for controlling the impacts of climate change, the Indonesian government requires a total of IDR 3,461 trillion from 2021 to 2030, with an annual allocation of approximately IDR 266.2 trillion to achieve a 29% reduction in carbon emissions. However, the regional budget (APBD) allocated for climate change mitigation is only around IDR 86.7 trillion, representing just 4.1% of GDP, which is still far below the required amount. Looking back, between 2018 and 2020, Indonesia allocated IDR 307.84

trillion for climate change mitigation, with an average budget absorption rate of 93.5%. The low budget allocation in later years was influenced by the Covid-19 pandemic, which shifted state budget priorities toward pandemic response (Puspita and Hervino, 2023).

Acknowledging the bureaucratic weaknesses at the early stage of ratification, as well as implementation and budget constraints, the Indonesian government, in 2021, introduced Presidential Regulation No. 98 on the establishment of a carbon pricing mechanism (Nilai Ekonomi Karbon), which includes carbon trading and carbon levies, as part of its voluntary participation in climate action. In addition, the government began implementing a carbon tax as mandated by Law No. 7 of 2021 on the Harmonization of Tax Regulations, which took effect on April 1, 2022.

The implementation of the carbon tax within carbon trading is expected to help create a sustainable carbon market, as the revenue can be allocated for green development and investment in environmentally friendly technologies. This regulation also involves community participation, as it can serve as a social program by providing compensation for environmental impacts (Puspita and Hervino, 2023). Furthermore, to enhance investment and accelerate the achievement of renewable energy targets in line with the national energy policy for reducing GHG emissions, the government issued Presidential Regulation No. 112 of 2022 on the acceleration of renewable energy development for electricity generation.

Minister Siti Nurbaya has reaffirmed Indonesia's commitment since 2015, maintaining consistent efforts to reduce GHG emissions over nine years by submitting various mandatory documents to the UNFCCC, including the Third National Communication, the 2nd and 3rd Biennial Update Reports, the 1st NDC, the Updated NDC, and the Long-Term Strategy for Low Carbon Development (KLHK, 2023). Parties were also urged to strengthen the 2030 NDC target by the end of 2022, and on September 23, 2022, Indonesia submitted its Enhanced NDC (ENDC) to the UNFCCC, increasing its unconditional GHG reduction target from 29% to 31.89% and its conditional target with international assistance from 41% to 43.20%.

Based on GHG inventory records, Indonesia achieved a GHG emission reduction of 47.28% in 2020 and 43.82% in 2021, with projections for 2022 expected to be better due to a decline in forest and land fires. The reduction in 2020 largely came from the forestry and land use (FOLU) sector, which decreased from 900 million tons of CO2 equivalent emissions in 2019 to 182 million tons in 2020.

In the agriculture, forestry, and land use sectors, Indonesia has undertaken numerous efforts to achieve sustainable development in line with the Paris Agreement. Government Regulation No. 46/2016 on Strategic Environmental Assessment (KLHS) adopts a landscape approach to ensure national food security. Additionally, Government Regulation No. 46/2017 on Environmental Economic Instruments introduced sustainable financing models for conservation and jurisdictional programs, along with the establishment of the Environmental Fund Management Agency (BPDLH).

Indonesia's ratification of the Paris Agreement has also provided an

opportunity for the country to improve public welfare. Under Minister of Energy and Mineral Resources Regulation No. 14 of 2021, the government set Minimum Energy Performance Standards (SKEM) as a means of reducing energy consumption, accompanied by labeling requirements for energy-efficient appliances such as air conditioners. The Ministry has also advanced energy efficiency through electric vehicles (EVs) or battery-based electric motor vehicles (KBLBB).

According to the Grand National Energy Strategy (GSEN), by 2030 the government targets the adoption of 2 million two-wheeled EVs, 13 million four-wheeled EVs, and the establishment of 30,000 EV charging units. Subsidies of IDR 7 million will be provided for the purchase of 200,000 electric motorcycles and 50,000 two-wheeled EVs. Additional incentives are offered for domestic EV manufacturing, with the condition that the local content requirement (TKDN) reaches at least 40%. This policy came into effect in March 2023.

GHG reduction progress between 2019 and 2022 has been promising. In 2019, emissions reductions reached 54.8% of the target of 51 million tons. In 2020, actual reductions totaled 64.4 million tons, surpassing the 58 million ton target. In 2021, the reduction reached 70 million tons against a target of 67 million tons. In 2022, actual reductions were 91.5 million tons compared to the 91 million ton target. Consequently, Indonesia's energy intensity reached 0.335 tons per capita, still below the target of 0.5 tons per capita, but the government remains committed to campaigning for public awareness and achieving the NDC targets submitted to the UNFCCC. The use of low-carbon fuels has also produced environmental benefits. Beyond transportation, the transition from fossil fuels has extended to the household sector through the development of household gas networks (Jargas), which are more environmentally friendly. From 2014 to 2022, over 800,000 household connections have been established, with continuous expansion planned.

From 2020 to 2022, the government has also engaged in international cooperation projects to support the Net Zero Emission (NZE) target. One example is the Solar Ice Maker initiative in collaboration with the German government through the Directorate General of New Renewable Energy and Energy Conservation (EBTKE), designed to supply electricity to off-grid coastal areas via rooftop solar PV, enabling the preservation of fish catches. The first installation took place in 2020 in a local company in Sulamu Village, Kupang, East Nusa Tenggara, and became operational in May 2022.

Another example is the United Nations Development Programme (UNDP)'s Accelerating Clean Energy Access to Reduce Inequality (ACCESS) project in 2020, funded by the Korea International Cooperation Agency (KOICA) with USD 18.5 million. The project has benefited more than 2,000 households by improving access to clean water and electricity through the installation of solar energy systems in off-grid areas such as East Nusa Tenggara and Central Kalimantan.

CONCLUSION

This study has found evidence that the Indonesian government has internalized the norms of the Paris Agreement through the formulation of

national regulations. The ratification of the Paris Agreement by the Indonesian government through the legislative body, the DPR, resulted in Law No. 16 of 2016, thereby establishing a strong legal foundation as a form of commitment to reducing carbon emissions.

Table 2. Internalization of Paris Agreement in Indonesia

Stage 1. Norm Emergence		
Actors	Norm entrepreneurs with organizational platforms	Ban Ki-Moon, the 8th Secretary-General of the United Nations from South Korea, held strong ambitions and ideas to address climate change caused by human actions, working in collaboration with the UNFCCC since 2007, his first year in office.
Motives	Altruism, empathy, ideational commitment	• Altruism: each country is expected to contribute according to its capacity. • Empathy: actors are concerned about the well-being of people either for their own interests or even when it has no impact on them. • Idealistic commitment: aspirations and values are embodied in the norms expressed in the "global ambition."
Dominant Mechanisms	Persuasion	Ban Ki-moon used his speeches to persuade audiences at key climate events, including the 2007 Climate Change Summit, COP-13 in Bali (2007), COP-15 in Copenhagen (2009), and most notably during Earth Hour in March 2015, which most directly referenced the Paris Agreement.
Stage 2. Norm Cascade		
Actors	States and international organizations	Ban Ki-moon's socialization and diplomacy efforts through the UNFCCC led to the ratification of the COP-21 Paris Agreement by Indonesia under Law No. 16 of 2016.
Motives	Legitimacy	Indonesia's legitimacy in ratifying the Paris Agreement was driven by "peer pressure."
Dominant Mechanisms	Socialization	The initial socialization process for the Paris Agreement took place during the Global Climate Action Agenda (GCAA) in 2016, along with discussions on carbon accounting, and was supported by the United States in terms of promotion and financial assistance after joining the Paris Agreement in August 2016.
Stage 3. Internalization		
Actors	Law, professions, and bureaucracy	The laws enacted after Law No. 6 of 2016, supported by strong bureaucratic structures such as the Ministry of Environment and Forestry (KLHK), brought other institutions into the fold, including the Ministry of

		Energy and Mineral Resources (ESDM), the Directorate General of New, Renewable Energy, and Energy Conservation (Ditjen EBTKE), local communities, and international cooperation partners from Germany to South Korea.
Motives	Conformity	Efforts were adjusted to accelerate the achievement of the 2020–2030 NDC targets following the submission of Indonesia's NDC in 2020.
Dominant Mechanisms	Habit, Instituionnalization	The expansion of regulations and the formulation of specific provisions include: • Presidential Regulation No. 98 of 2021, which establishes a carbon economic value policy to facilitate international cooperation • Law No. 7 of 2021 on the Harmonization of Tax Regulations • Presidential Regulation No. 112 of 2022 on the acceleration of renewable energy development for electricity • Government Regulation No. 46 of 2017 on Environmental Economic Instruments and the establishment of the Environmental Fund Management Agency • Minister of Energy and Mineral Resources Regulation No. 14 of 2021 on the establishment of Minimum Energy Performance Standards • Government Regulation No. 46 of 2016 on strategic environmental assessments (KLHS).

Source: processed by the authors

In the first stage, Ban Ki-Moon, as a norm entrepreneur, positioned the UNFCCC as the organizational platform through which climate agenda conventions such as COP would operate. The journey toward a climate agreement was a long process following the failure of the Kyoto Protocol under Ban's leadership. His efforts did not cease; instead, he maximized the UNFCCC's performance by appointing Christiana Figueres, a well-known and active climate advocate, as Executive Secretary of the UNFCCC from 2010 to 2016.

Three key motivations influenced this stage. First, altruism, which reflects voluntary actions taken to benefit others. The UNFCCC evolved toward a more flexible approach, as seen in the Paris Agreement norm, where countries' contributions were determined nationally through their NDCs rather than relying solely on Annex I commitments. Second, empathy, which was reflected in the recognition that climate change is a "common concern of humankind," leading to the understanding that every sector and country bears a level of responsibility, according to its capacity, for the planet and future generations. Third, ideational commitment, where ideals and values were embodied in the "global ambition" to

limit the rise in global average temperature to well below 2 degrees Celsius above pre-industrial levels. Ban consistently promoted climate action in his speeches, with his most significant effort being the call for all countries to join the Paris Agreement — a persuasive move characteristic of a norm entrepreneur.

In the second stage, the norm cascade, the new norm gained acceptance in Indonesia through ratification. Under Ban's leadership, the UNFCCC engaged in outreach and technical discussions following the conclusion of the Paris Conference. Once the Paris Agreement reached its tipping point ahead of schedule, the UNFCCC intensified efforts to broaden adoption beyond the initial 55 countries, extending it to all UNFCCC members. The first outreach activity was the Global Climate Action Agenda (GCAA) under the Marrakesh platform in 2016, followed by strong promotion from the United States and China — two highly influential actors whose participation opened pathways for developing countries to contribute. Indonesia, having ratified the Paris Agreement in April 2016, proceeded to formalize legitimacy through ratification law, establishing a foundation to pursue its NDC targets.

Finally, in the third stage, Indonesia established a robust legal framework as a manifestation of its commitment to reducing carbon emissions. A retrospective analysis of Indonesia's climate mitigation and adaptation policies shows that post-ratification, the government advanced more ambitious initiatives. These included the updated National Action Plan for Climate Change Adaptation (RAN-API) for 2020–2030, the issuance of a financial model for conservation and sustainable jurisdictions under Government Regulation No. 46 of 2017 on Environmental Economic Instruments and the creation of the Environmental Fund Management Agency, and Government Regulation No. 46 of 2016 on Strategic Environmental Assessments (KLHS) aimed at ensuring food security.

Indonesia also increased funding mechanisms through Presidential Regulation No. 98 of 2021 on carbon pricing, Law No. 7 of 2021 on the Harmonization of Tax Regulations, Minister of Energy and Mineral Resources Regulation No. 14 of 2021 on Minimum Energy Performance Standards (SKEM) to reduce energy consumption via appliance labeling, and Presidential Regulation No. 112 of 2022 on the acceleration of renewable energy development for electricity. Collaborations with international partners further strengthened these efforts. Remarkably, emission reduction achievements exceeded targets between 2019 and 2022.

Nonetheless, the internalization of the Paris Agreement faces challenges. One key issue is the policy gap between economic priorities, particularly coal usage, and environmental commitments, which this research has identified as a central focus. The government must align its economic policies with environmental obligations. Additionally, insufficient funding from regional budgets and the fiscal strain caused by the COVID-19 pandemic highlight the urgent need for alternative financing sources and more efficient budget allocation.

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