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Indonesia's Climate Policy: Lost in Translation?

Dependency, Governance, and Communication in Climate Policy

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- › Indonesia, with 90 million hectares of forest covering about half its land, is the third-largest tropical forest area globally. However, rapid urbanisation, population growth and agricultural expansion, particularly for palm oil, are causing deforestation and increased greenhouse gas emissions, making the country highly vulnerable to climate-induced disasters, especially in coastal regions. Effective strategies and international support are needed to balance economic benefits with environmental protection.
- › Despite being the world's largest coal exporter and relying on coal for nearly 70% of its electricity generation, Indonesia plans to phase out coal power by 2039. However, with 40 new coal-fired power plants currently under construction and only a few units set for early retirement, progress is slow, primarily due to political and financial challenges.
- › Indonesia has established a robust framework for climate change at the national level, but there is a significant gap in policy implementation at the subnational levels.
- › Given its strategic geographical location at a crucial maritime crossroads and as the largest economy in the Association of Southeast Asian Nations (ASEAN), Indonesia should enhance its role in climate initiatives, shape collective policies, and encourage cooperation on sustainable development among member states. By collaborating with ASEAN, Indonesia can leverage a collective approach to negotiations, aligning its policies with a more comprehensive energy transition plan that adheres to global climate principles and mitigates potential negative impacts.
- › Indonesia aims to amplify climate action by fostering commitment from both state and non-state actors, developing a robust implementation framework, and creating an enabling environment through supportive policies and regulations. This includes creating supportive policies and regulations, building institutional capacity, implementing a unified greenhouse gas data policy, and continuously reviewing and adjusting its NDC.

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Background

The Republic of Indonesia is the largest archipelagic state in the world, comprising of five major islands and about thirty smaller groups of islands. In total, Indonesia consists of around 17,508 islands,¹ covering about 3.1 million km² of sea (62% of the total area) and 2 million km² of land area (38% of the total area), with a shoreline stretching 81.000 km.² Indonesia is the largest economy in Southeast Asia and has charted impressive economic growth since overcoming the Asian financial crisis of the late 1990s.³ With a population of about 280 million, Indonesia is the fourth most populous country in the world. Its forested land supports extremely high levels of biodiversity, which in turn sustains a wide range of livelihoods and ecosystem services. The country reportedly has over 90 million hectares of forest cover, representing around half its land area, making it the country with the third-largest area of tropical forest, after Brazil and the Democratic Republic of Congo.⁴ However, rapid urbanisation and population growth exert significant pressure on natural resources, leading to deforestation, land degradation, and increased greenhouse gas (GHG) emissions. The high population density in coastal regions further exacerbates Indonesia's vulnerability to climate-induced disasters, highlighting the urgent need for effective climate adaptation and mitigation strategies.

The Government of Indonesia (GoI) has established various policies and regulations⁵ aimed at mitigating and managing the effect of climate change, ensuring energy availability, and transitioning towards renewable energy (RE) sources while preserving the environment. One

significant measure is the Presidential Regulation No. 22 of 2017 which establishes the National Energy Master Plan (Rencana Umum Energi Nasional/RUEN). RUEN focuses on climate change and environmental protection, treating energy sources as vital assets for national development. It aims to secure the national energy supply, optimise sustainable energy management, ensure affordable energy access for all Indonesians, support energy-focused industries and services, and create new jobs. Additionally, the GoI has enacted several legal frameworks and policies prioritising decarbonisation efforts, such as the National Action Plan for Greenhouse Gas Emission Reduction (RAN-GRK) and the Carbon Pricing Framework.⁶ However, there are numerous challenges in putting these rules and policies into practice. This policy paper examines Indonesia's climate change policy and its challenges at both national and subnational levels. Specific attention is given to the subnational levels, as it is within these levels that climate change policies will be implemented.

Indonesian Climate Policy at the National Level

Indonesia signed the Paris Agreement on 22 April 2016, followed by its ratification on 31 October 2016. Under the Paris Agreement, Indonesia submitted its Intended Nationally Determined Contributions (INDC) in September 2015, which evolved into the First Nationally Determined Contribution (NDC) in 2016. Initially, Indonesia had pledged to reduce GHG emissions by 29% by 2030. This target has since been updated to 31.89%, and with international support, the target increases to 43.2%.⁷⁸ In support of the implementation of the NDC, Indonesia has established nine key strategies at the national level, with various regulations to execute these strategies. The NDC implementation strategies include the following programs:

1. Fostering ownership and commitment from state and non-state actors
2. Developing an implementation framework and communication network to enhance coordination, build synergy, strengthen institutions, and engage non-state actors
3. Creating an enabling environment through policies, regulations, and related planning initiatives
4. Building human resources and institutional capacity
5. Implementing a unified one data policy on greenhouse gases
6. Developing policy planning and programs
7. Creating guidance for NDC implementation
8. Executing NDC implementation
9. Reviewing and adjusting the NDC

To achieve the GHG emissions reduction targets set in the NDC, the government of Indonesia has implemented a carbon tax and established a carbon economic value.⁹ These measures are in addition to other existing regulations and policies¹⁰ and climate change information systems to monitor and report GHG emissions, such as the National Greenhouse Gases Inventory System and the National Registry System on Climate Change Control. The GoI has also enacted specific regulations and policies for sectors such as energy, industrial processes and product use, agriculture, forestry, and waste management to address climate issues comprehensively.

Indonesia does not have a single, overarching climate change law, it rather relies on its environmental laws as the primary framework to help mitigate climate change.¹¹ With these laws and strategies for NDC implementation, Indonesia has set a good example of national-level climate action. However, there is still a need for more detailed stipulations at the regional and local levels.

Indonesian Climate Policy at the Subnational Level

Indonesia's subnational government is divided into provinces (Level I Local Government), which comprise of municipalities and cities (Level II Local Government).¹² These local governments have the authority to manage their own affairs and establish regional regulations to implement autonomy and delegate tasks, except for matters that are reserved for the central government, such as foreign policy, defence, security, justice, monetary and fiscal policy, and religion.¹³

Today, many cities in Indonesia, primarily those with over a million residents, are increasingly focusing on climate change issues.¹⁴ Jakarta, the nation's capital and largest city with approximately ten million inhabitants, aims to reduce GHG emissions by 30% from 2005 levels by 2030.¹⁵ The city is also a member of the C40 Cities for Climate Leadership and ICLEI, the Local Governments for Sustainability Network.¹⁶ So far, thirteen other Indonesian cities have specific emission reduction programs that are also supported by the ICLEI. Additionally, 18 cities have signed the Global Covenant of Mayors for Climate & Energy which aims to promote climate action.¹⁷

Indonesia's subnational governments encompass over 500 municipalities across the country. According to Sulistiawati et.al.,¹⁸ from 2014 to 2022, there have been 191 policies and regulations addressing climate change. About two third of these regulations are from prominent provinces in western and central Indonesia, such as Sumatra, Java, and Bali,¹⁹ while only about one-third are from Eastern Indonesia.²⁰ Of these subnational regulations, most cover provincial and local levels (municipalities/cities).²¹ Government regulations require approval from local parliaments, whereas regulations from local leaders (e.g., Governor Regulations, Head of District/Mayor Regulations) do not.²² Formulating government-level regulations is more complex and time-consuming compared to municipality/city-level regulations. Heads of municipalities or city governments can use this to their advantage to create specific climate change provisions. However, these local regulations often have a shorter lifespan due to changes in leadership, leading to the discontinuation of previous climate policies with each election cycle.²³

Dependency Challenges

In addition to the pressures from a growing population, rapid urbanisation, and increasing demand for resources, Indonesia faces three main challenges in its pursuit of net zero: dependency on coal, deforestation, and geopolitical and international issues.

Coal

Indonesia is the world's largest coal exporter,²⁴ with coal exports valued at USD 3 billion per month.²⁵ With fossil fuels accounting for 80% of national electricity production, the country is heavily dependent on them for its energy needs. Nearly 70% of the country's electricity is currently generated from coal.²⁶ Being both a major coal producer and consumer, Indonesia operates more than 250 coal-fired power plants, totalling 51.56 gigawatts (GW).²⁷ An additional 40 plants are under construction, with five in the pre-permit stage. Despite the recently updated goal of achieving net zero emissions by 2050 and phasing out coal-fired power plants by 2039,²⁸ only a few coal-fired units are set for early retirement so far due to the lack of political will, stringent criteria, and insufficient financial backing from financial institutions and donors.²⁹

Phasing out coal power is regarded as a gradual process. Former Indonesian President Joko 'Jokowi' Widodo and his administration devised a strategic plan for this transition. However, achieving a smooth shift to a decarbonised economy requires strict measures to limit the introduction of new coal-powered units.³⁰ Indonesia has set a carbon tax at USD 2 per ton of CO₂ emissions, which is 40 times less than the amount recommended by institutions like the IMF.³¹ This rather modest effort is complemented by the country's diluted Global Coal to Clean Power Transition Statement which the country has presented at several UNFCCC COPs already. Researchers have emphasised the strong connections between political elites and the coal supply sector, potentially hindering progress.³² Moreover, the energy sector is a significant employer in the country, with approximately 1.3 million people, or 1% of Indonesia's workforce, currently employed in the energy sector, including fuel delivery, electricity generation, car manufacturing, and energy efficiency for houses and industries.³³

However, the energy sector also accounts for 35% of Indonesia's total GHG emissions.³⁴ To meet their NDC targets and decrease dependency on coal and other fossil fuels, the Gol has adopted two main strategies: energy diversification and conservation. These strategies include programs on reducing coal in the energy mix, developing methanol, fertiliser, and syngas, and promoting synergies between coal mines and smelters.³⁵ The National Electricity Plan (Rencana Umum Kelistrikan Nasional/RUKN) sets targets for the expansion of renewable energy and serves as the primary reference document for power sector development planning, designed to be implemented by PT PLN (State Electricity Company) and private business area holders. However, the implementation of the RUKN faces challenges. The RUKN lacks comprehensive and credible rules for RE expansion, an issue that needs to be addressed in the New and Renewable Energy Bill, whose timeline of ratification remains unclear, posing challenges for the effective implementation of RE policies. Additionally, PT PLN is facing resource constraints, such as a shortage of capital and experienced personnel, delaying the deployment of RE projects. Therefore, it is crucial for the government to provide sufficient technical, financial, and regulatory support to favour RE development.³⁶

At COP29 in Baku, the Indonesian representative stated that Indonesia plans to implement 100GW of new energy over the next 15 years, including 75GW from renewable sources. These plans include projects in solar, hydro, geothermal, and potentially nuclear power. Currently, Indonesia has no nuclear plants due to the high risk of earthquakes in the region. Despite the country's great potential for RE, progress has remained slow. Only 15% of Indonesia's total installed power capacity currently comes from renewable sources, which is significantly lower than their NDC target of 23% by 2025. One reason for this is the subsidies for coal which are making RE tariffs less attractive to investors.³⁷

The newly inaugurated Indonesian President, Prabowo Subianto, has put his administration's focus on maintaining existing policies while emphasising initiatives to create a green economy and achieve energy independence. President Subianto also plans to revise all regulations that hinder new investments in RE (Energi Baru dan Terbarukan/EBT).³⁸ There is much work to be done, but the hope is that this administration will continue to strengthen Indonesia's commitments to decarbonisation and combating climate change.

Deforestation

The second major challenge is deforestation. Indonesia is showing low commitment to stopping deforestation, despite the country's vast forest area where stricter regulations could have a significant impact on the climate. In fact, effective deforestation management could reduce Indonesia's emissions by 60%.³⁹ So far, the Ministry of Environment and Forestry reported an 82%

reduction in forest fires by 2022, but the drought of 2023 saw a resurgence in the number of fires. International pressure has not resulted in a stronger commitment either. This lack of commitment is driven by financial, social, and technical concerns, such as the significant contributions of the coal and palm oil industries to national income and employment. Managing these industries carefully is deemed essential to avoid domestic disturbances.

Indonesia is the world's largest producer of palm oil, a crucial agricultural product for the country. The palm oil industry significantly benefits the Indonesian economy, as it is a labour-intensive industry that contributes substantially to Indonesia's GDP and national income through taxes.⁴⁰ Therefore, finding the right strategy to address deforestation is essential for the GoI. Former President Joko Widodo implemented a palm oil ban in 2018 to reduce deforestation caused by plantation expansion.⁴¹ The policy prohibits the issuance of new permits for palm oil plantations on both state and peatlands. The strategy is part of Indonesia's broader efforts to manage its natural resources more sustainably and address environmental issues related to palm oil production, such as deforestation, biodiversity loss, and greenhouse gas emissions.⁴²

In addition, the government has initiated peatland restoration efforts. These involve a comprehensive approach integrating regulatory policies, agency involvement, and specific project areas. The GoI has implemented strict policies and regulations to protect and manage peatlands, including stricter controls on their use. In 2016, the Peatland Restoration Agency (BRG) was established to coordinate and facilitate peatland restoration through strategic planning and execution.⁴³

However, these efforts are not guaranteed to succeed. In 2022, the local conservation group Auriga Nusantara estimated that around 2.4 million hectares of rainforests were allocated for developing palm oil estates.⁴⁴ With changes in administration, there is concern that the current government might not honour the moratorium, as it was not drafted into law.⁴⁵

Geopolitics and International Situation

Indonesia plays a crucial role in international climate diplomacy as a member of the G20 and the Association of Southeast Asian Nations (ASEAN). As a signatory to the Paris Agreement, Indonesia is committed to reducing greenhouse gas emissions and enhancing climate resilience. However, despite its significant role as a member of G20, Indonesia has not officially announced its commitment to net zero emissions in a specific law or regulation. Instead, the GoI has expressed its commitment through its involvement in various international agreements and national policies aimed at reducing GHG emissions and combating climate change.

International cooperation is vital for Indonesia, as it can provide financial support, mobilise collective action, and strengthen international trust by reassuring nations that they are not alone in facing these challenges.⁴⁶ Despite financial difficulties, Indonesia, as a major coal economy and ASEAN member, continues to support and promote decarbonisation and the ASEAN initiative to foster sustainable economic growth and environmental protection across member states. By collaborating with ASEAN, Indonesia can leverage a collective approach to negotiations, aligning its policies with a more comprehensive energy transition plan that adheres to global climate principles and mitigates potential negative impacts. For example, Indonesia and ASEAN can negotiate with the EU on the terms of the Carbon Border Adjustment Mechanism (CBAM) to reach mutual agreements while complying with global climate principles. Given its strategic geographical location at a crucial maritime crossroads and as the largest economy in ASEAN, Indonesia should enhance its role in climate initiatives, shape collective policies, and encourage cooperation on sustainable development among member states.

While Vietnam currently leads in renewable energy among ASEAN countries, Indonesia, with its abundant solar, wind, and geothermal resources, could easily match Vietnam with the right political will and regional support. Indonesia also holds a key position in the Australian-Asian power grid, which is crucial for increasing energy efficiency and security in the region.⁴⁷ Due to its geographical location, any energy link or grid between Australia and Southeast Asia will likely pass through Indonesia. Additionally, Indonesia might strengthen its relationship with China around hydropower, starting with Sino-related ASEAN countries like Laos and Myanmar.⁴⁸

Implementation Challenges

The Missing Narratives to Internalise the Climate Change Issue at the Grassroots Level

Article 31 of the Indonesian Constitution mandates that the central government create a copy of every international agreement in Bahasa Indonesia. To effectively implement international norms, principles, and duties, the central government must translate these rules and provide guidance for their application at the domestic level, down to local communities. This ensures that transnational issues, such as environmental challenges addressed in international agreements, are fully understood by local stakeholders who may not be familiar with the concept of climate change. However, many ratified international agreements lack a translation in Bahasa Indonesia, a practice criticized by legal scholars.

In the context of NDC implementation, translating technical terms involves more than just converting English text to Bahasa Indonesia. It requires formulating language that is understandable, precise, and familiar to local governments and community groups. Despite this, Indonesian law often considers a literal translation sufficient.⁴⁹ This approach creates problems, as Indonesia follows a legislative ad hoc incorporation approach, requiring a formal transformative process for international treaties to be accepted into national law.⁵⁰

The ratification of the Paris Agreement through Law No. 16/2016 includes only four articles and an attachment of the Paris Agreement in both English and Bahasa Indonesia. This process of 'internalisation' neglects the necessary standards, yet the central government expects local governments, which are not involved in international policymaking, to comply with and implement these agreements, including allocating funds for coordination and assistance. This creates a gap between the central government's commitment in combating climate change and the local governments' needs. Local governments do not have the authority to participate in the ratification process. Their role is limited to implementing regulations and policies at the regional level, monitoring compliance, and enforcing laws. This is despite their greater familiarity with the potential and characteristics of local communities compared to the central government.

This issue is particularly important given Indonesia's ratification of the Paris Agreement and its strategy of the Forest and Other Land Use (FOLU) Net Sink 2030 which aims to turn forests into a net carbon sink by 2030. The Social Forestry program as part of the FOLU Net Sink 2030 strategy aims to empower local communities both socially and economically by granting them the privilege to manage forests sustainably. However, sidelining the crucial role of local governments slows down the issuance of social forestry status for the benefits community groups, impacting the national contribution to NDC implementation.⁵¹ According to Indonesia's Ministry of Environment and Forestry Regulation No. 83 of 2016, social forestry is defined as a sustainable forest management system in state or non-state forest areas carried out by local or indigenous communities to improve their welfare, environmental outcomes, and socio-cultural dynamics. The lack of appropriate national approaches tailored to various local conditions leads to passive

reactions from local authorities, as evidenced by the limited local regulations addressing climate change.

Research has shown⁵² that NDC policies and regulations at the subnational level do not reflect the high ambitions of the national NDCs. The root causes of this issue include:

- › Superficial introduction of policies
- › Slow trickle-down from national to subnational levels
- › Project-oriented approaches
- › Climate not being a priority issue (except when paired with disaster risk reduction)
- › A lack of understanding and awareness of climate change impacts at the local level

Consequently, without prioritising climate change, subnational authorities struggle to formulate comprehensive arrangements.

The Language of Climate Change in the Nationale Education System

The national education system is a crucial channel for spreading awareness about the importance of climate change. Currently, the Ministry of Education and Culture (*Kemendikbud*) does not have a specific curriculum dedicated to climate change education. Instead, basic environmental education, including topics on living ecosystems and the dangers of pollution, is taught through the Natural Science Education Course (*Kelas Ilmu Pendidikan Alam*) for elementary and secondary school students. Generally, climate change issues are often incorporated into the Local Content Course (*Kelas Muatan Lokal*), which is determined by local governments for public schools alongside mandatory courses. In March 2020, the head of the Climate Change Control Advisory Council emphasised the importance of integrating climate change education into the national curriculum. In the absence of a dedicated climate change curriculum at the national level, local governments have improvised various types of environmental education based on their regional characteristics and capabilities. While this can be seen as a positive step towards raising awareness about climate change, it also highlights the lack of synchronised priorities and views between national and local governments. Consequently, the national commitment to implementing NDCs remains a bureaucratic product that does not effectively translate into the current national education system to foster awareness of climate change issues among future generations.

The Existing Local Wisdom Practices and Conflict of Interest on Regional Level

Conflicts of interest between local governments and community groups often hinder the handling of environmental issues. Ideally, to formulate effective NDC implementation instruments, the central government must consolidate best practices with local governments and the community groups, particularly indigenous communities. As guardians of natural resources and original inhabitants of the land, indigenous communities have developed practices known as "local wisdom" (*kearifan lokal*) to manage their environment sustainably for centuries. These practices, inherited from their ancestors, are highly adaptive in responding to environmental and climate changes. For example, traditional customs have helped farmers avoid erosion while boosting harvest production on the slopes of Mount Sumbing and Sindoro. In Bali, traditional water management practices mitigate water shortages, and in South Sulawesi, local wisdom helps protect the sea from pollution and over-exploitation.

The Ministry of Environment and Forestry formally acknowledges the existence of local wisdom practices through a ministerial regulation.⁵³ However, while this regulation accommodates local wisdom for environmental protection, it does not integrate traditional environmental management into the broader national climate change control strategy. So far, there has been no effort from national or local governments to incorporate indigenous practices into the Paris Agreement implementation. Discussions about climate change and NDCs often remain elitist, failing to reach grassroots communities, especially those actively practicing local wisdom. Indigenous communities continue to face challenges due to ineffective law implementation and poor communication strategies by local governments. This situation puts indigenous communities at odds with local governments, which are supposed to represent their rights as regulated by the national constitution.

Given these circumstances, local governments, as "the most community-based form of governance," must directly address environmental issues at the domestic level and engage with community groups that currently lack proper practical guidance in combating climate change. To fulfil their duty, the national government must equip local governments with practical guidance for implementing the Paris Agreement and NDCs. This guidance should outline necessary measures for environmental protection at the domestic level, using relatable and understandable terms for community groups.

The Importance of International Support

One of the GoI's strategies for combating climate change is through innovative financing. The GoI has implemented several policies to diversify financial sources from public and private, national and international avenues. Opportunities to maximise state budgets are explored at the national level, including intergovernmental fiscal transfer mechanisms, green bonds or sukuk,⁵⁴ and other income sources. Indonesia also continues to mobilise international financial support through bilateral, regional, and multilateral channels, including result-based payments for Reducing Emissions from Deforestation and Forest Degradation in Developing Countries (REDD+) under the Paris Agreement, grants, and other potential sources.⁵⁵

A significant portion of Indonesia's NDC relies on international support, which has been inconsistent. There has been some international support in the energy sector to boost GHG emissions reduction. For instance, the Asian Development Bank (ADB) launched the Energy Transition Mechanism in 2022, setting up funds to purchase coal power plants and accelerate their retirement, replacing them with cleaner alternatives. The Energy Transition Mechanism Partnership Trust Fund (ETMPTF) was designed to mobilise resources to catalyse public and private capital. Another initiative is the Just Energy Transition Partnership (JETP), announced at COP26 in Glasgow. Led by the G7 and the International Partners Group (IPG), the JETP aims to promote Indonesia's energy transition through collaborations to ensure fairness and sustainability in the transition process. The IPG includes governments from Japan and the United States, both co-leaders of the partnership, as well as Canada, Denmark, Germany, France, Norway, Italy, the United Kingdom, and the European Union (EU). Indonesia receives a financial commitment of USD 20 billion over three to five years from the JETP, with USD 10 billion from public finance and another USD 10 billion from private finance mobilised by the Glasgow Financial Alliance for Net Zero (GFANZ).⁵⁶ Compared to South Africa's USD 12.5 billion and Vietnam's USD 15.5 billion, JETP Indonesia marks the largest energy transition financing package globally to date.

However, this support pales in comparison to the actual export income from coal in the energy sector alone. In 2023, Indonesia accounted for 44% of global power-generating coal exports,

highlighting its dominance in the market.⁵⁷ In 2023, Indonesia's coal exports were valued at USD 42.7 billion, underscoring the challenge of transitioning away from coal.⁵⁸

Indonesia also faces several other challenges, including the country's external debt exceeding USD 400 billion as of September 2024, complicated bureaucracies, limited technical capacities, and lack of proper planning, which have caused delays in program implementation and limited investment in renewable energy. The investment realisation for RE is much smaller than projected by the Ministry of Energy and Mineral Resources.^{59,60} To meet its climate change commitments, Indonesia needs to address these internal issues and improve its performance.

In addition to internal improvements, Indonesia requires substantial international support to fully transition from coal (and/or oil and gas) to RE sources and to completely halt deforestation. Beyond financial resources, Indonesia also needs advanced technology development and transfer for RE and sustainable agriculture, technical assistance and training programs to enhance local expertise, partnerships for research and development in RE, and promotion of international markets for sustainably sourced products, such as certified palm oil.

Conclusion: The Way Forward

At the national level, Indonesia's framework for climate change policy and regulations is quite comprehensive. Although there is no specific 'climate law,' climate-related regulations and policies are embedded in various laws, bylaws, national plans, strategic plans, and action plans. However, at the subnational level, climate regulations and policies are somewhat scarce. The national government needs to ensure that its climate frameworks are effectively translated and implemented at the subnational levels.

One of the main implementation issues is the lack of regulations and policies at the subnational level, which can lead to inefficient policy implementation. The root cause of these challenges is often the subnational governments' lack of understanding of climate change. To address this, the national government must enhance oversight of subnational actions. This study suggests establishing a framework to ensure strong commitment and clear communication from the central government in supporting subnational governments. Additionally, the terminology used to describe NDCs and climate change impacts should be understandable to all levels of government and communities, including farmers, smallholders, village governments, and indigenous groups. A comprehensive understanding of climate change and NDCs among all actors may enable them to advocate for necessary regulations and demand accountability. Expanding subnational and non-state actor engagement could help accelerate stronger emissions reductions. Non-state actors in Indonesia have significantly contributed to climate action. For example, the Climate Change Sectoral Roadmap (ICCSR) has recorded the participation of several NGOs in adaptation measures since its issuance in 2010, increasing resilience in Indonesia.⁶¹ However, since non-state actors conduct climate action voluntarily and independently, not all sectors have been adequately addressed.⁶² Few subnational policies clearly acknowledge the role of non-state actors or establish a framework for their integration into climate action. Therefore, subnational policies and regulations should coordinate non-state actor climate action to create a holistic outcome. Otherwise, their potential will be underutilised. This approach would also demonstrate political will to include all stakeholders in the global commitment to combat climate change and, more locally, in implementing Indonesia's NDCs.

Ultimately, the primary challenge Indonesia must address to achieve its climate goals is its heavy reliance on coal. Despite being a signatory of the Paris Agreement, Indonesia's coal capacity has more than doubled in the years since.⁶³ Efforts to expand renewable energy and increase

agricultural products (other than palm oil) could significantly help reduce dependency. Diversifying Indonesia's business trades with other countries will also be crucial, while strategic collaboration and networking with partner countries can boost Indonesia's efforts towards net zero emissions. However, as long as coal remains more financially attractive than renewable energy, significant progress will be difficult to attain.

Internally, Indonesia needs to streamline bureaucracies and establish integrated planning and legal frameworks for decarbonisation and deforestation. The implementation of certain policies enacted by the GoI has been challenging due to a lack of coordination among institutions. Moreover, corruption significantly undermines the effectiveness of climate policy by facilitating the unchecked exploitation of resources such as coal and forests, which exacerbates environmental degradation and hampers the transition to renewable energy.⁶⁴ Indonesia must tackle this corruption and protect the environment in a sustainable manner. At the same time, the country must also be able to strengthen its economy and meet the needs of its steadily growing population. Achieving its NDCs and achieving net zero may be possible through a combination of national efforts and international cooperation.

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- ¹ The World Bank (2018), The World Bank in Indonesia, <https://www.worldbank.org/en/country/indonesia> (last accessed on 30 October 2024).
 - ² Britannica (2024), Indonesia, <https://www.britannica.com/place/Indonesia> (last accessed on 30 October 2024); Embassy of Indonesia, 'Basic Facts', <https://www.embassyofindonesia.org/basic-facts/> (last accessed on 30 October 2024).
 - ³ The World Bank (2018), n. 1.
 - ⁴ Interfaith Rainforest Initiative, www.interfaithrainforest.org/indonesia/ (last accessed on 30 October 2024).
 - ⁵ For the purpose of this study, the definitions of regulation and policy are as follows: a regulation is a rule or order issued by an executive authority or regulatory agency of a government and having the force of law; and policy is a set of ideas, guidelines, or plans that have been agreed on by (in this case) governments.
 - ⁶ The RAN-GRK and the Carbon Pricing Framework are regulated on Presidential Regulation No. 61 of 2011 and Ministry of Energy and Mineral Resources (MEMR) No. 16 of 2022 respectively.
 - ⁷ United Nations Climate Change (2021), Updated Nationally Determined Contributions, Republic of Indonesia, <https://unfccc.int/sites/default/files/NDC/2022-06/Updated%20NDC%20Indonesia%202021%20-%20corrected%20version.pdf> (last accessed on 30 October 2024).
 - ⁸ Ministry of Environment and Forestry Indonesia (2022), DG Climate Change, <https://ppid.menlhk.go.id/berita/siaran-pers/6836/enhanced-ndc-komitmen-indonesia-untuk-makin-berkontribusi-dalam-menjaga-suhu-global> (last accessed on 30 October 2024).
 - ⁹ These measures are governed by Law No. 7 of 2021 regarding Harmonized Tax (the Harmonized Tax Law) and Presidential Regulation No. 98 of 2021 regarding Carbon Economic Value (the Carbon Valuation Regulation) respectively.
 - ¹⁰ e.g. Presidential Regulation 61/2011, Presidential Regulation 71/2011.
 - ¹¹ Laws related to the environment are Law No. 41 of 1999 (Forestry Law), Law No. 32 of 2009 (Environmental Protection and Management Law), and Law No.1 of 2023 (Indonesian Penal Code). Other regulations in relation to climate change cases, among others, include Law No. 39 of 1999 (Human Rights Law), Law No. 4 of 2009 (Mineral and Coal Mining Act), Law No. 18

- of 2013 (Avoidance of Deforestation and Forest Degradation Act), Law No.39 of 2014 (Farming Law), etc.
- ¹² Article 18 paragraph (1), 1945 Constitution (IDN); Maria Farida Indrati, Ilmu Perundang-Undangan 1, (Kanisius, 2007) 137, 146.
- ¹³ Article 18 paragraph (2) of 1945 Constitution (IDN); Article 10 paragraph (1) of Law No. 23/2014 on Local Governance (IDN).
- ¹⁴ New Climate Institute (2019), Assessment of Subnational and Non-State Climate action - Indonesia, https://newclimate.org/sites/default/files/2019/09/19-9117_Factsheet_Indonesia_Country.pdf (last accessed on 19 November 2024).
- ¹⁵ Ibid.
- ¹⁶ Ibid.
- ¹⁷ Global Covenant of Mayors for Climate & Energy, <https://www.globalcovenantofmayors.org/> (last accessed on 19 November 2024).
- ¹⁸ Sulistiawati, L. Y., Rembeth, I. A. (2023), NDCs in ASEAN Countries: Dreams or Reality? Assessing Case Studies from Indonesia and the Philippines, NUS Law Working Paper No 2023/022 / NUS Asia-Pacific Centre for Environment Law Working Paper 23/04, https://law.nus.edu.sg/wp-content/uploads/2023/08/APCEL_WPS-2304.pdf (last accessed on 19 November 2024).
- ¹⁹ Ibid.
- ²⁰ Ibid.
- ²¹ Ibid.
- ²² Law No. 13 of 2019 replacing Law No. 17 of 2014 on People's Consultative Assembly, The House of Representatives, Regional Representative Council, and Regional House of Representatives.
- ²³ Sulistiawati, Rembeth (2023), n. 18.
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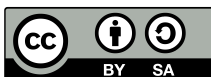
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