Analysis of Indonesia's Role In Supporting The COP28 Resolution Towards The 2050 Net-Zero Emission Transition

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Abstract. Indonesia faces a significant challenge in supporting the COP28 resolution towards achieving net-zero emissions by 2050, a crucial step in mitigating global climate change. This research aims to analyse Indonesia's strategic role in realizing these commitments using a neoliberal approach, which emphasizes the importance of international cooperation, free markets, and the role of state and non-state actors in environmental policy. The results of the study indicate that Indonesia has integrated green policies into its national development plans, strengthened international cooperation, and promoted green investment through carbon market mechanisms. The discussion revealed that the neoliberal approach allows the use of synergy between domestic policies and the global market in accelerating the clean energy transition in Indonesia. Indonesia's active role not only strengthens the negotiating position at COP28 but also has a significant impact on accelerating the fulfilment of the 2050 net-zero emission target regionally and globally.

Keywords: Indonesia, COP28, net zero emission 2050. neoliberalism and *International Cooperation*

Introduction

Climate change is one of the most critical challenges of our era, necessitating a united international response to lessen its drastic impacts on our environment and society. High-profile events like the 28th Conference of the Parties (COP28) reaffirm our global dedication to achieving net-zero emissions by 2050. As a developing country rich in natural resources but facing considerable carbon emissions, Indonesia is strategically positioned to contribute to this ambitious objective.

Achieving net-zero emissions calls for a major overhaul in the energy, industrial, transportation, and natural resource management sectors. Indonesia is up against some tough challenges, like its ongoing dependence on fossil fuels, the lingering energy subsidies that hinder the shift to clean energy, and the necessity of fostering inclusive and sustainable economic growth. However, these hurdles also open up exciting opportunities: the country is rich in renewable energy resources, including geothermal, solar, and wind power, which could propel its clean energy transition.

Existing studies highlight Indonesia’s progress and readiness in the energy transition. Research from the Indonesia Research Institute for Decarbonization (IRID) underscores the importance of renewable energy development, energy efficiency, and fossil fuel subsidy reform to ensure a just transition(Hermawan & Prabhawati, 2024) . Other studies point to concrete steps already taken, such as the early retirement of coal-fired power plants. The Bandung Institute of Technology (ITB) emphasizes that effective energy governance and multi-stakeholder collaboration are key drivers in accelerating the transition, while initiatives like the Just Energy Transition Partnership (JETP) provide much-needed financial support as a catalyst (JETP Consortium, 2023).

Method

This research adopts a descriptive qualitative approach, primarily using literature review and policy document analysis to examine Indonesia's role in supporting the COP28 resolution and its path toward the 2050 net-zero emission target. The focus is to understand how policies, strategies, challenges, and opportunities intersect in shaping Indonesia's climate and energy transition.

The study draws upon Indonesia's most recent *Nationally Determined Contribution (NDC)*, the national energy transition roadmap, and other key government regulations. Additional data are sourced from reports and studies published by trusted institutions such as the Indonesia Research Institute for Decarbonization (IRID), the Bandung Institute of Technology's Center for Climate Change (PPI ITB), the International Energy Agency (IEA), and the Just Energy Transition Partnership (JETP Consortium). To enrich the analysis, academic articles and international documents related to Indonesia's climate and energy policies were also reviewed. The material selection prioritized the most recent and relevant works, particularly those published between 2020 and 2024.

The data were examined through content analysis, allowing us to systematically sort the information into major themes, including government policies, renewable energy strategies, financing mechanisms, implementation challenges, and socio-economic aspects. We then contextualized our findings within the framework of existing studies and theories on energy transition(Geels, 2014), which helped ensure both empirical accuracy and conceptual relevance. This method offers a detailed insight into Indonesia's readiness for energy transition and the tangible actions it has taken to fulfill its COP28 commitments.

Result and Discussion

Indonesia's Strategic Role in Supporting the COP28 Resolution

Indonesia holds a pivotal role in advancing the global agenda of COP28, particularly in achieving the net-zero emission (NZE) target. The government has pledged to reach net-zero emissions by 2060, or sooner, while committing to reduce greenhouse gas emissions by 29–41% by 2030, as outlined in its latest *Nationally Determined Contribution (NDC)* (UNFCCC, 2023). This target serves as a cornerstone for Indonesia's national policy and aligns with the Paris Agreement's ambition to limit global warming to 1.5°C.

Indonesia's approach to climate diplomacy at COP28 has been notably proactive, highlighting a comprehensive strategy for both mitigation and adaptation. They've made significant headway in the forestry and land-use sectors, with a 65% reduction in primary forest loss since 2015. This achievement is backed by policies like the moratorium on new land permits, efforts to restore peatlands, and effective management of forest fires. These initiatives have not only received international recognition but also financial support, including nearly USD 340 million from Norway for their deforestation mitigation effort(MoEF Indonesia, 2024).

The government views the energy transition as a vital foundation for its journey to net-zero in the energy sector. With over USD 1 trillion earmarked for investment, the goal is to achieve a staggering 96% renewable electricity share by 2060. Major initiatives involve boosting renewable energy plants, electrifying transport systems, adopting clean cooking technologies, and improving energy efficiency. These efforts are all framed within the context of social justice and inclusivity, making sure that every community is included in this transition (Ministry of Energy and Mineral Resources, 2023).

Indonesia has made significant strides in building global partnerships, particularly through trilateral cooperation with Brazil and the Democratic Republic of Congo focused on tropical forest management. During COP28, Indonesia used its platform for soft diplomacy, proudly presenting its advancements in climate governance, such as the rollout of a national carbon trading mechanism. Working alongside scientific organizations and civil society has further enhanced Indonesia's credibility and its ability to negotiate effectively on the global front(JETP Consortium, 2023).

Integration of Green Policies and Renewable Energy Development

Indonesia has integrated green policies into key national planning documents such as the *Electricity Supply Business Plan (RUPTL)* and the *National Energy Policy (RUEN)*. The original target of 23% renewable energy by 2025 has been adjusted to around 17–19% due to financial and technical constraints, though long-term targets remain ambitious at 33% by 2050(Kementerian ESDM, 2024).

A flagship achievement is the Cirata Floating Solar Power Plant in West Java, inaugurated in November 2023. With a capacity of 192 MWp, it is Southeast Asia's largest floating solar project, powering more

than 50,000 households. The project has also been certified for carbon credits, underscoring Indonesia's integration of innovative renewable technologies into the global carbon market (PT PLN, 2023).
Nevertheless, renewable energy integration faces technical challenges, particularly in terms of grid capacity and energy storage technologies. To address these issues, the government and private sector are investing in transmission upgrades and the development of smart grids to stabilize intermittent renewable energy sources(IEA, 2023) .

A Neoliberal Approach through Market Mechanisms and Multi-Actor Collaboration
Indonesia's energy transition strategy reflects a neoliberal approach, combining market mechanisms with multi-actor collaboration. The establishment of the Indonesian Carbon Exchange under the Indonesia Stock Exchange (IDX) enables companies to trade carbon credits transparently, with oversight from the Financial Services Authority(OJK Finance, 2023).
International financial support also plays a crucial role. The *Just Energy Transition Partnership (JETP)* has pledged up to USD 20 billion to accelerate Indonesia's clean energy shift. Beyond infrastructure, JETP ensures inclusivity by involving private actors and civil society, helping create a just and socially responsible transition(JETP Consortium, 2023).
This combination of local regulations, carbon markets, and international partnerships illustrates how neoliberal ideas can connect resource efficiency with environmental and social sustainability. By reforming fossil fuel subsidies, setting ambitious renewable energy targets, and creating transparent carbon trading systems, Indonesia shows how domestic policies can work alongside global market dynamics to speed up the clean energy transition. The involvement of international financing initiatives, like the Just Energy Transition Partnership (JETP), further supports these efforts by providing not just funding but also platforms for collaboration among various stakeholders, including the government, private sector, civil society, and scientific communities. Together, these efforts highlight Indonesia's ability to boost its diplomatic standing, attract green investments, and ensure that its transition is fair, inclusive, and serves as a model for other developing nations facing similar challenges

Challenges and Strategies for Accelerating the Energy Transition
Despite some strides forward, Indonesia is still facing significant challenges. Coal is still king, providing about 60% of the national electricity supply in 2023(Kementerian ESDM, 2024). Reforming fossil fuel subsidies, especially for coal, is a politically sensitive topic, but it's a necessary step to shift economic incentives towards cleaner energy (IRID, 2024).
We also need to consider the social and economic factors to prevent injustice during this transition. Protecting vulnerable groups—such as low-income communities and workers in fossil fuel industries—requires focused social policies. At the same time, investing in human capital and promoting technological innovation are crucial for tapping into the full potential of renewable energy, particularly in geothermal, solar, wind, and biomass. Continued development of energy storage systems and power infrastructure is equally essential(PPI ITB, 2023).
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Synergy of Domestic Policies and Global Market Mechanisms
Indonesia is stepping up its game with domestic reforms, including changes to fossil fuel subsidies, ambitious renewable energy targets, and regulations for carbon markets. These initiatives, paired with

its active role in global markets, are helping the country emerge as a leader in the green economy. Its vast reserves of critical minerals for clean technologies and participation in international carbon markets further enhance its position as a bridge between the developed and developing worlds(World Bank, 2023).

This partnership not only helps Indonesia move forward in its transition but also creates fresh economic opportunities, including the rise of renewable industries, job creation, and lasting improvements in the quality of life. What's more, Indonesia's transition model offers important lessons for other developing countries that are dealing with similar challenges in the worldwide shift towards net-zero emissions.

Indonesia's quest for net-zero emissions illustrates that it's both feasible and crucial to align national priorities with global climate obligations. By leveraging a combination of policy creativity, market solutions, and international collaboration, the country is paving the way for a sustainable energy transition that marries economic development with ecological responsibility. While there are still major challenges ahead, Indonesia's forward-thinking approach at COP28 and beyond demonstrates that developing countries can have a significant impact on the global climate agenda. This not only enhances Indonesia's reputation internationally but also highlights its potential to set a positive example in the journey toward a more equitable and sustainable future.

Conclusion

Indonesia's involvement in backing the COP28 resolution highlights its key role in the global push towards achieving net-zero emissions by 2050. By weaving green policies into its national planning, advancing renewable energy, reforming fossil fuel subsidies, and setting up carbon market mechanisms, the country has shown its dedication to climate responsibility. With a neoliberal approach that taps into market mechanisms, fosters international cooperation, and encourages collaboration among various stakeholders, Indonesia has effectively aligned its domestic policies with global climate goals, enhancing both its transition agenda and diplomatic influence.

However, challenges still loom, especially Indonesia's reliance on coal, infrastructure hurdles, and the socio-economic risks that vulnerable communities face during this transition. Tackling these issues demands bold policy changes, investments in technology and innovation, and inclusive social strategies to ensure that no one is left behind. Ultimately, Indonesia's proactive role at COP28 highlights its potential to serve as a bridge between developed and developing nations, positioning the country as a credible global player and a model for a fair and inclusive energy transition.

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