Jurnal Manajemen dan Bisnis Madani
2026, Vol. 8, No. 1, PP. 1-10
https://journal.paramadina.ac.id/

Implementation of Just Energy Transition Partnership (JETP) Indonesia

Andini Maulifa Rizqia[1], Ica Wulansari[2*]
[1,2]Paramadina University, Indonesia
[1]andini.rizqia@students.paramadina.ac.id
[2]ica.wulansari@paramadina.ac.id

Abstract

The Just Energy Transition Partnership (JETP) was introduced in Indonesia during the G20 Summit in Bali in 2022 as a global framework to accelerate the clean energy transition. Indonesia's high dependence on fossil fuels has intensified the urgency for renewable energy, making energy sovereignty a national priority. With USD 20 billion pledged, JETP aims to retire coal-fired power plants early and expand renewable energy. However, this study argues that JETP risks undermining Indonesia's energy independence by creating new debt and technological dependency. Using a qualitative descriptive approach and secondary data from international agencies, government reports, and academic research, the study analyzes JETP implementation in Indonesia. Findings show that most financing is loan-based, which increases Indonesia's fiscal burden while contributing little to renewable deployment. This raises concerns over energy dependency, limited poverty alleviation, and unequal energy access. Without structural reforms in financing and technology transfer, JETP could reinforce dependency rather than support a just and sustainable transition. Therefore, the research highlights the importance of transparent governance, equitable financial mechanisms, and stronger domestic capacity building to ensure that the partnership genuinely aligns with Indonesia's long-term goals of energy sovereignty, economic resilience, and inclusive development while promoting fairness, innovation, and self-reliance in Indonesia's clean energy transformation.

Keywords: climate finance, energy transition, fossil fuels, indonesia, sustainable energy

*Corresponding Author: ica.wulansari@paramadina.ac.id

Introduction

The urgency of accelerating the clean energy transition has emerged as one of the defining global challenges of the 21st century, deeply shaping both environmental and economic policies worldwide. (Bloomfield et al., 2016). The worsening global climate crisis, marked by rising temperatures, extreme weather events, and increasing greenhouse gas emissions, has forced countries to rethink their reliance on fossil fuels. The Paris Agreement of 2015 solidified international consensus on the need to limit global warming to 1.5°C, requiring rapid decarbonization across all sectors, especially energy (UNFCCC, 2015). In line with this, advanced economies have announced ambitious Net Zero Emission (NZE) targets by mid-century, accompanied by massive investments in renewable energy and green technologies. At the same time, developing countries are facing mounting international pressure to accelerate their own transitions, despite their structural dependence on fossil fuels and limited financial and technological capacity (Fitjriyah & Dwiputri, 2025). This global context situates the energy transition not only as an environmental imperative but also as a deeply political and economic process shaped by power asymmetries between the Global North and the Global South.

The global urgency of energy transition intersects with a highly fossil fuel-dependent domestic energy system in Indonesia. Indonesia is the world's largest exporter of thermal coal and has long relied on coal and other fossil fuels to meet domestic energy demand, with more than 60 percent of its electricity generated from coal-fired power plants (Fiscal Policy Agency, Ministry of Finance, Republic of Indonesia, 2022; Resosudarmo et al., 2023). While renewable energy resources such as solar, wind, and geothermal are abundant, their share in the national energy mix has stagnated at around 13–14 percent over the past decade (Sisdwinugraha et al., 2025). At the same time, Indonesia has committed to reducing greenhouse gas emissions by 31.89 percent unconditionally and 43.2 percent with international assistance by 2030, and to achieving net zero emissions by 2060 or earlier (Ministry of Environment and Forestry, 2023). These commitments demonstrate the country's recognition of the global climate crisis, yet also underscore the scale of the domestic challenge such as shifting from coal dependency to clean energy requires massive financial resources, advanced technology, and a reconfiguration of the energy governance system.

However, despite these commitments, Indonesia's structural barriers to energy transformation remain substantial. The coal industry remains a cornerstone of the economy, providing revenues, employment, and political influence (Ordonez et al., 2024). Renewable energy development, by contrast, suffers from limited infrastructure, high investment costs, and technological reliance on imports. Domestic financing alone is insufficient to support the scale of transformation required, as the transition entails not only building renewable energy capacity but also retiring coal-fired power plants earlier than planned (Fiscal Policy Agency, Ministry of Finance, Republic of Indonesia, 2022). This financial gap has made Indonesia particularly reliant on international climate finance as a means of bridging resources and accelerating transition pathways.

It was within this context that the Just Energy Transition Partnership (JETP) was introduced in Indonesia during the G20 Summit in Bali in 2022 (Just Energy Transition Partnership Indonesia, 2025). Framed as an innovative model of climate finance, JETP pledges USD 20 billion from a coalition of advanced economies and private financial institutions to support Indonesia in achieving its energy transition goals (Chotimah, 2023; Hermawan & Prabhawati, 2024; Hersaputri et al., 2024; Thura Zan et al., 2025). The partnership sets ambitious targets, including peaking power sector emissions by 2030 and increasing the renewable energy share to 34 percent within the same timeframe (Hersaputri et al., 2024). Officially, JETP is presented as a collaborative and "just" framework that balances environmental sustainability with social equity, positioning Indonesia as a pioneer among developing countries in advancing a fair energy transition.

However, beneath these ambitious narratives lies a more complex reality. A closer examination of the financing structure reveals that the majority of JETP's pledged support is in the form of loans rather than grants, raising concerns about long-term debt sustainability. Moreover, much of the technology required for renewable energy expansion, including solar panels, energy storage systems, and transmission infrastructure, remains heavily reliant on

*Corresponding Author: ica.wulansari@paramadina.ac.id

imports, further entrenching Indonesia's dependency on foreign partners. Far from fostering energy independence, JETP risks reproducing structural dependency by tying Indonesia's transition to external financial and technological systems (Jazuli et al., 2024). In this sense, the "justice" embedded in JETP is questionable, as the partnership may serve donor countries' strategic interests while leaving Indonesia vulnerable to new forms of dependency.

This contradiction has profound implications for Indonesia's broader development trajectory. Energy is a fundamental driver of prosperity, poverty reduction, and democratic participation (Sunday Adebayo, 2025). A transition that is financially burdensome and technologically dependent could limit the state's capacity to invest in social welfare, exacerbate regional inequalities, and undermine the promise of energy democracy. Rather than achieving *kemandirian energi* (energy sovereignty), Indonesia could become locked into an unstable energy system, one that relies on external loans and foreign technologies while continuing to depend on fossil fuels to meet rising domestic demand (Jazuli et al., 2024). Such an outcome not only challenges the narrative of a "just" transition but also raises broader questions about the role of international climate finance in shaping development pathways in the Global South (Fitjriyah & Dwiputri, 2025).

This contribution is expected to enrich the discourse on climate finance and sovereignty by offering a critical perspective from the Global South context. While acknowledging the importance of international cooperation in addressing the climate crisis, this study argues that JETP, as currently designed, risks undermining Indonesia's energy independence rather than advancing a fair and sustainable transition. By analyzing the financing structure, policy commitments, and technological dimensions, this research seeks to highlight the tension between the rhetoric of justice and the realities of dependency.

The theoretical lens for this study draws from international political economy. The energy transition is not merely a technical or environmental issue but also a site of contestation over resources, power, and governance between the Global North and South (Sunday Adebayo, 2025). From an IPE perspective, climate finance initiatives such as JETP function as instruments through which developed countries exercise influence over developing economies, shaping their policy choices and developmental pathways (Karg et al., 2025). The dominance of loan-based financing, coupled with limited mechanisms for technology transfer, reflects structural asymmetries that constrain Indonesia's bargaining power. While presented under the rhetoric of "just transition," JETP reproduces dependency relations by embedding Indonesia's clean energy transformation within the financial and technological architectures controlled by advanced economies. In this way, the partnership raises fundamental questions about sovereignty, autonomy, and the political economy of sustainability in Indonesia.

The objective of this research is twofold. First, it aims to analyze the extent to which JETP contributes to Indonesia's energy transition goals, particularly in relation to financing, technology, and governance. Second, it assesses the broader implications of JETP for Indonesia's sustainable development agenda, especially concerning prosperity, poverty alleviation, and democratic access to energy. By situating Indonesia's experience within comparative insights from other JETP countries such as South Africa and Vietnam, the article underscores that the challenges faced are not isolated but part of wider structural issues in international climate finance.

The urgency of the global climate crisis has pushed Indonesia to commit to an ambitious energy transition agenda. Yet, in seeking international support through JETP, the country risks trading fossil fuel dependency for financial and technological dependency, thereby undermining its energy sovereignty (Karg et al., 2025). This article argues that without structural reforms in financing mechanisms, technology transfer, and domestic participation, JETP may fall short of delivering a genuinely just transition for Indonesia.

*Corresponding Author: ica.wulansari@paramadina.ac.id

Theoretical Review

The International Political Economy (IPE) framework examines the reciprocal relationship between politics and the global economy, emphasizing how political power influences economic outcomes and how global economic structures, in turn, shape political behavior and policy decisions (Oatley, 2019). Central to IPE is the analysis of power relations among key actors such as nation-states, international organizations, and multinational corporations in shaping global economic governance and determining who benefits or loses from international economic exchanges. In essence, IPE explores the political contestation embedded within the global economic system, where economic interdependence often conceals unequal power dynamics (Oatley, 2019). Building upon this perspective, the IPE approach provides a critical lens for understanding how international mechanisms like the Just Energy Transition Partnership (JETP) operate within the broader configuration of power and dependency between the Global North and South (Bloomfield et al., 2016). These asymmetries are particularly visible in the design of climate finance and technology transfer schemes, which often reproduce dependency patterns rather than fostering equitable transitions.

The global discourse on clean energy transition, situated within the broader framework of international political economy, has increasingly emphasized the dual imperatives of environmental sustainability and social justice. Studies have shown that climate finance mechanisms are essential to accelerate decarbonization, yet their design often reproduces asymmetries between donor and recipient countries (Bloomfield et al., 2016; Karg et al., 2025). In particular, international climate finance is not only about mobilizing capital for renewable energy but also about shaping governance structures, determining priorities, and conditioning access to technologies (Sunday Adebayo, 2025). This dynamic underscores the political economy of energy transition, where financial flows are deeply entangled with questions of dependency, sovereignty, and justice.

The Just Energy Transition Partnership (JETP) has been introduced as an innovative financing model to accelerate energy transition in countries like South Africa, Vietnam, and Indonesia. Launched at the G20 Bali Summit in 2022, Indonesia's JETP pledged USD 20 billion in support from advanced economies and private financiers to facilitate the early retirement of coal plants and the expansion of renewable energy (Chotimah, 2023; Hersaputri et al., 2024). However, most of this financing is structured as loans rather than grants, raising questions about long-term debt sustainability and equity. Such concerns resonate with broader critiques in the climate finance literature, where the absence of a universally agreed-upon definition of "climate finance" allows providers to classify concessional loans, redirected development assistance, and even private investments as climate finance (Fitjriyah & Dwiputri, 2025). Inconsistent reporting makes it difficult to assess the genuine contribution of initiatives like JETP to achieving emission reduction and energy justice.

Hersaputri et al. (2024) using the OSeMOSYS energy modelling system show that Indonesia's JETP scenarios rely on renewables such as solar, geothermal, and hydropower as substitutes for coal. Yet, even under these scenarios, emission reductions by 2050 are projected to reach only about half of the targeted levels. Moreover, the financial burden is substantial, as the combined cost of JETP pathways is estimated to exceed the Least Cost scenario by USD 1.1 trillion. This finding raises significant concerns regarding the long-term economic viability of JETP, especially given Indonesia's limited fiscal capacity. The study also highlights that Indonesia's carbon tax policy remains too weak to incentivize meaningful decarbonization, thereby reducing the effectiveness of JETP in steering the country toward energy independence. (Hersaputri et al., 2024).

Beyond financial and technical dimensions, political dynamics also shape JETP's implementation in Indonesia. Chotimah (2023) argues that JETP is less a product of internal policy transformation and more an outcome of Indonesia's deliberative foreign policy strategy in response to global pressures. While the government has secured international commitments through JETP, implementation has largely been elite-driven, with resources concentrated among state and private actors. As a result, inclusive dimensions of climate justice, such as equitable

*Corresponding Author: ica.wulansari@paramadina.ac.id

access, poverty alleviation, and protection against energy poverty, have received limited attention. This reinforces the perception that Indonesia's transition is motivated more by external expectations than by domestic structural reforms (Chotimah, 2023).

Taken together, these studies suggest that JETP risks substituting one form of dependency for another, namely, replacing fossil fuel dependence with financial and technological reliance on external actors. The heavy use of loans combined with reliance on imported renewable technologies such as solar panels, batteries, and transmission infrastructure, undermines Indonesia's pursuit of *kemandirian energi* (energy sovereignty). Instead of fostering an independent and just transition, JETP could reproduce dependency relations, leaving Indonesia vulnerable to fiscal pressures, technological reliance, and energy inequality (Jazuli et al., 2024; Sunday Adebayo, 2025).

This study addresses that gap by highlighting how reliance on external financing, advanced technology from developed countries, and loan-based schemes reinforce Indonesia's lack of sovereignty in the energy sector. Rather than fostering independence, current transition frameworks risk perpetuating dependency, making the clean energy transition both financially and politically fragile. Consequently, the International Political Economy theoretical discussion underscores that without addressing structural power asymmetries in climate finance and technology ownership, Indonesia's clean energy transition will remain externally driven rather than domestically empowered.

Research Methods

This study adopts a qualitative descriptive research design to examine the implementation of the Just Energy Transition Partnership (JETP) in Indonesia's energy sector. According to Creswell (2007), qualitative research employs a holistic approach to understand complex social phenomena through systematic collection, analysis, and interpretation of descriptive data. The descriptive method was chosen to provide a comprehensive explanation of the current conditions and dynamics surrounding JETP implementation, thereby producing factual and analytical insights about Indonesia's clean energy transition (Chotimah, 2023; Creswell, 2007; Jazuli et al., 2024).

The study primarily utilizes secondary data, which are obtained from official government publications, policy documents, academic journal articles, international organization reports, and institutional databases discussing JETP and Indonesia's energy transition agenda. As stated by Bowen (2009), secondary data analysis involves the systematic examination of existing information to derive new interpretations and deepen contextual understanding. In this study, documentation and literature review techniques were employed to gather relevant data sources that accurately reflect the structure, financing, and governance of JETP in Indonesia (Bowen, 2009).

Moreover, the research applies qualitative content analysis as the analytical technique. Krippendorff (2018) explains that content analysis enables researchers to identify, categorize, and interpret textual information to uncover underlying meanings, patterns, and relationships. This analytical approach is appropriate for exploring how JETP policies interact with Indonesia's domestic priorities, particularly in terms of financing mechanisms, investment patterns, and technology transfer processes. Through this method, the study interprets the broader implications of JETP implementation for Indonesia's pursuit of energy sovereignty and sustainable development (Krippendorff, 2018).

To guide the analysis, this research identifies three primary analytical constructs derived from the literature and the JETP policy framework. This study examines three main dimensions. First, foreign investment, which focuses on analyzing the structure, composition, and conditionality of JETP financial assistance, particularly the proportion between loans and grants (Chotimah, 2023; Jazuli et al., 2024). Second, technology transfer, which evaluates the accessibility, ownership, and distribution of renewable energy technologies, infrastructure, and technical expertise provided through JETP partnerships (Hersaputri et al., 2024). Third, renewable energy expansion, which assesses the extent to which JETP contributes to Indonesia's renewable

*Corresponding Author: ica.wulansari@paramadina.ac.id

energy capacity and examines its implications for national energy independence (Fitjriyah & Dwiputri, 2025).

These constructs serve as the analytical basis for assessing JETP's influence on Indonesia's energy sovereignty, autonomy, and sustainability. By integrating IPE (International Political Economy) theoretical insights with qualitative evidence, the research seeks to explain how international financing and technology flows both enable and constrain Indonesia's pathway toward a self-reliant energy system.

Results And Discussion

Result

The Shifting Urgency of Indonesia's Energy Transition

Indonesia's energy transition has become an increasingly urgent agenda in light of both domestic and global pressures. Domestically, the country's high dependence on fossil fuels, particularly coal, which supplies more than 60% of its electricity, poses environmental, economic, and social challenges (Fiscal Policy Agency, Ministry of Finance, Republic of Indonesia, 2022). Rising energy demand driven by population growth and industrialization further exacerbates the risks of over-reliance on fossil fuels, including exposure to volatile global energy prices and carbon lock-in effects. Despite Indonesia's abundant renewable energy potential from solar, geothermal, and hydropower, its deployment remains limited, contributing only around 13–14% to the national energy mix in the past decade (Sisdwinugraha et al., 2025).

Indonesia is under increasing international pressure to accelerate its transition in line with climate commitments. The Paris Agreement requires substantial emission reductions to keep global temperature rise below 1.5°C, while advanced economies are already pursuing aggressive net-zero targets (UNFCCC, 2015). As the world's largest coal exporter, Indonesia faces scrutiny over its role in global carbon emissions and is expected to align with low-carbon pathways (Fitjriyah & Dwiputri, 2025). In this context, the urgency of Indonesia's energy transition is not only an environmental necessity but also an economic and geopolitical issue, as failure to adapt risks undermining competitiveness, trade relations, and international standing.

This dual pressureof domestic energy security needs and international climate obligations creates a shifting urgency that compels Indonesia to pursue renewable energy expansion more seriously. However, structural challenges remain, such as inadequate domestic financing, dependence on imported technologies, and the entrenched influence of the coal industry. These factors create a policy gap between ambitious commitments, such as achieving 31.89% unconditional emissions reduction by 2030, and the reality of slow renewable energy adoption (Ministry of Environment and Forestry, 2023). Within this policy gap, mechanisms such as the Just Energy Transition Partnership (JETP) have emerged to provide financial and technical assistance to facilitate the transition.

The JETP Framework in Indonesia

The Just Energy Transition Partnership (JETP) was officially launched during the G20 Summit in Bali in 2022 as a collaborative mechanism between Indonesia and the International Partners Group (IPG), comprising countries such as the United States, Japan, Canada, and several European states. The partnership pledges an initial funding of USD 20 billion to support Indonesia's transition, with the primary goals of achieving peak emissions from the power sector by 2030, reducing coal dependency, and reaching a 34% renewable energy share by the same year (Jazuli et al., 2024; Karg et al., 2025; Muslim & Hastuti, 2024). While ambitious in scope, JETP's framework is characterized by a strong reliance on external financing and advanced technologies from developed countries. The funding is structured primarily through concessional and commercial loans, with grants making up less than 5% of the total package (Chotimah, 2023). This financial design reveals a critical limitation; instead of providing accessible and equitable support, JETP risks placing Indonesia under long-term fiscal obligations that may undermine the very goal of an independent and sovereign energy transition.

*Corresponding Author: ica.wulansari@paramadina.ac.id

JETP reflects the dynamics of global governance. Decision-making and monitoring are shaped heavily by donor countries and international institutions, while domestic actors, including civil society and local communities, have limited participation. This asymmetry raises questions of ownership and inclusiveness, as policies tend to favor the priorities of global financiers and domestic elites rather than the broader Indonesian population (Hersaputri et al., 2024).

Financing Structure and Debt Dependence

The financial architecture of Indonesia's Just Energy Transition Partnership (JETP) reflects a structural imbalance that highlights both opportunities and vulnerabilities in its clean energy transition. According to the JETP Comprehensive Investment and Policy Plan (CIPP, 2023), the total commitment amounts to USD 20 billion, consisting of USD 10 billion in public finance pledged by the International Partners Group (IPG) and USD 10 billion in private investment coordinated through the Glasgow Financial Alliance for Net Zero (GFANZ). While this headline figure suggests substantial support, the actual composition of financing reveals that loan-based instruments dominate, while grants remain below 5% of total commitments.

Table 1. Composition of JETP Financing Commitments

Financing Type	Estimated Value (USD Billion)	Share of Total (%)	Primary Contributors/ Institutions
Concessional Loans	7	35	JICA, JBIC, ADB, KfW, DFC
Commercial Loans	6.2	31	Private investors, commercial banks
Guarantees / Risk Instruments	5	25	GFANZ, ADB, World Bank
Grants	0.8	4	EU, USAID, Germany, Japan
Equity & Others	1	5	IPG and private consortiums
Total	20	100	-

Source: Adapted from JETP Comprehensive Investment and Policy Plan (CIPP), 2023

The data show that over two-thirds of JETP financing relies on debt-based instruments, both concessional and commercial, indicating that the majority of Indonesia's transition financing must be repaid. This configuration raises fiscal sustainability concerns, particularly given that state-owned utility Perusahaan Listrik Negara (PLN) is projected to require an additional USD 132.5 billion by 2040 to sustain decarbonization, of which more than USD 96 billion will be sourced through external debt (CIPP, 2023)

From an International Political Economy (IPE) perspective, this loan-heavy structure mirrors the dependency patterns characteristic of North–South financial relations. Developed economies and multilateral banks exert structural influence not only through capital provision but also through policy conditionalities, governance oversight, and technology access. Rather than serving as neutral instruments for climate action, these financial flows embed Indonesia's transition within externally defined priorities, potentially constraining domestic autonomy over energy policy and industrial direction (Oatley, 2019).

The implications are twofold; first is financially, Indonesia faces growing debt obligations that could limit fiscal space for domestic innovation and social investment. Second, politically, governance power tilts toward donors and international institutions. Unless future JETP disbursements increase the share of grant-based and equity financing, coupled with stronger mechanisms for technology transfer and local participation, Indonesia risks replacing fossil fuel dependency with financial and technological dependency, undermining the very principle of a "just" transition.

To ensure data validity and reliability, this section synthesizes verified data from the CIPP (2023), government budget reports, and secondary analyses from international organizations. Cross-checking of numerical figures with official financial disclosures and multilateral development bank documentation confirms the consistency of reported commitments and financing modalities.

*Corresponding Author: ica.wulansari@paramadina.ac.id

Technological Dependence and Limited Sovereignty

Indonesia's transition under JETP depends heavily on imported technologies, particularly solar panels, batteries, and transmission infrastructure. The renewable energy industry in Indonesia remains underdeveloped, with limited domestic manufacturing capacity and weak research and development ecosystems (Sisdwinugraha et al., 2025). Consequently, most renewable technology must be imported from countries such as China, the United States, and members of the European Union.

This technological dependence undermines Indonesia's pursuit of *kemandirian energi* (energy sovereignty). Without sufficient technology transfer, Indonesia risks being locked into a new form of dependency where the replacement of fossil fuels is accompanied by continued reliance on foreign actors for clean energy infrastructure. Moreover, the absence of strong local industrial policy and innovation frameworks means that the potential economic benefits of renewable expansion, such as job creation, industrial upgrading, and local value chains, remain underutilized.

Governance, Equity, and Energy Justice

JETP's structure tends to concentrate power among central government institutions, international donors, and private investors, with limited participation from local governments, communities, and civil society organizations (Hersaputri et al., 2024). This creates risks of elite capture where the benefits of transition financing are distributed unevenly and primarily captured by established actors with political and economic influence. The governance design risks exacerbating inequality. Communities living near coal sites or in rural areas that lack access to affordable electricity are often excluded from decision-making processes, despite being the most affected by both fossil fuel dependence and the shift to renewables. As a result, JETP's emphasis on large-scale infrastructure projects may neglect distributive justice and the social dimensions of a just transition.

Discussion

The results indicate that Indonesia's JETP framework embodies a paradox; while promoting renewable transformation, it simultaneously reproduces financial and technological dependency. The predominance of loans and the lack of substantial grant-based support challenge Indonesia's fiscal sovereignty. From an *International Political Economy (IPE)* perspective, these dynamics exemplify how global financial and technological regimes reflect structural power imbalances between developed and developing states. The IPE lens highlights that economic interactions are not neutral but are embedded in asymmetric relations, where developed countries maintain control through financial conditionalities and technological dominance (Oatley, 2019).

The evidence suggests that JETP functions within the broader framework of global capitalism, where advanced economies mobilize climate finance as a strategic tool to influence the developmental pathways of emerging economies. Similar to dependency theory arguments within IPE, JETP reinforces patterns of dependence rather than dismantling them. Financial obligations from concessional and commercial loans limit Indonesia's fiscal flexibility, while technology imports constrain domestic industrial upgrading and innovation. These mechanisms collectively shape Indonesia's subordinate position in the global green economy.

On the political side, the concentration of power among state elites and international donors reduces democratic accountability and marginalizes local participation. This governance asymmetry contradicts the normative ideal of a *"just transition"*, which emphasizes inclusivity and distributive justice. Consequently, while JETP provides access to capital and global partnerships, its implementation raises critical questions regarding energy sovereignty, self-determination, and long-term sustainability.

Indonesia's experience under JETP underscores how energy transitions are not solely environmental endeavors but also arenas of geopolitical and economic negotiation. The asymmetrical structure of finance and technology transfer reveals the persistence of North–South

*Corresponding Author: ica.wulansari@paramadina.ac.id

dependency, where climate cooperation simultaneously advances the strategic and economic interests of donor states. Therefore, Indonesia's path toward a genuinely sovereign energy transition requires structural reforms emphasizing domestic financing mechanisms, local technology innovation, and participatory governance. Without these measures, the country's clean energy transformation risks replicating the very hierarchies it seeks to escape, transitioning from fossil fuel dependency to a new era of green dependency.

Conclusions

The findings of this study highlight that the implementation of the Just Energy Transition Partnership (JETP) provides Indonesia with crucial funding to support its shift from coal to renewable energy, and it also raises significant concerns regarding sovereignty, dependency, and sustainability. The reliance on external financing, primarily through loans, and the import of advanced technologies risk undermining Indonesia's energy independence and creating vulnerabilities in both fiscal and technological aspects. Moreover, the current framework tends to favor external actors, which may lead to energy inequality and limit the development of local industries and communities. To achieve a truly independent and resilient energy sector, Indonesia needs to implement reforms that enhance domestic financing, develop local technological capabilities, and promote inclusive governance. Such measures are essential to avoid dependency, ensure sustainable development, and maintain control over its energy transition. Future research could explore innovative models of financing and technology transfer that prioritize national sovereignty and social equity, fostering a more just and self-reliant energy future for Indonesia.

References

Bloomfield, H. C., Brayshaw, D. J., Shaffrey, L. C., Coker, P. J., & Thornton, H. E. (2016). Quantifying the increasing sensitivity of power systems to climate variability. *Environmental Research Letters*, *11*(12), 124025. https://doi.org/10.1088/1748-9326/11/12/124025

Bowen, G. A. (2009). Document analysis as a qualitative research method. *Qualitative Research Journal, 9*(2), 27–40. https://doi.org/10.3316/QRJ0902027

Chotimah, H. C. (2023). Beyond the Struggle of Indonesia for Achieving a Just Energy Transition Partnership: An Analysis from Adaptive Foreign Policy Theory. In N. N. Illiyyun, E. Supriadi, R. M. Safitri, & M. Masrohatun (Eds.), *Proceedings of the 2nd International Conference on Democracy and Social Transformation (ICON-DEMOST 2023)* (Vol. 793, pp. 86–92). Atlantis Press SARL. https://doi.org/10.2991/978-2-38476-174-6_16

Creswell, J. W. (2007). *Qualitative inquiry and research design: Choosing among five approaches*. Sage Publications.

Fiscal Policy Agency, Ministry of Finance, Republic of Indonesia. (2022, October 3). *CIF Accelerating Coal Transition (ACT): Indonesia Country Investment Plan (IP)*. Fiscal Policy Agency, Ministry Of Finance, Republic of Indonesia. https://fiskal.kemenkeu.go.id/docs/CIF-INDONESIA_ACT_IP-Proposal.pdf

Fitjriyah, A. R., & Dwiputri, I. N. (2025). The Impact of Green Finance, Trade Openness, and Fossil Fuel Subsidies On Renewable Energy Consumption: A Global And Asia-Pacific Perspective. *Journal of Environmental Science and Sustainable Development*, *8*(1). https://doi.org/10.7454/jessd.v8i1.1318

Hermawan, L. T., & Prabhawati, A. (2024). Implementasi Just Energy Transition Partnership Indonesia menuju Net Zero Emissions tahun 2060. *Jurnal Energi Baru dan Terbarukan*, *5*(3), 28–38. https://doi.org/10.14710/jebt.2024.24161

Hersaputri, L. D., Yeganyan, R., Cannone, C., Plazas-Niño, F., Osei-Owusu, S., Kountouris, Y., & Howells, M. (2024). Reducing Fossil Fuel Dependence and Exploring Just Energy Transition Pathways in Indonesia Using OSeMOSYS (Open-Source Energy Modelling System). *Climate*, *12*(3), 37. https://doi.org/10.3390/cli12030037

JETP Secretariat. (2023, November 21). *Indonesia Just Energy Transition Partnership (JETP): Comprehensive Investment and Policy Plan (CIPP).* Government of Indonesia.

Jazuli, M. R., Roll, K., & Mulugetta, Y. (2024). A review of Indonesia's JETP through the dynamics of its policy regime. *Global Policy*, *15*(5), 989–1006. https://doi.org/10.1111/1758-5899.13452

Karg, A., Gupta, J., & Chen, Y. (2025). Just Energy Transition Partnerships: An inclusive climate finance approach? *Energy Research & Social Science*, *125*, 104103. https://doi.org/10.1016/j.erss.2025.104103

*Corresponding Author: ica.wulansari@paramadina.ac.id

Krippendorff, K. (2018). *Content analysis: An introduction to its methodology*. Sage Publications.

Ministry Of Environment and Forestry. (2023). *FOLU NET SINK: Indonesia's Climate Actions Towards 2030*. The Ministry of Environment and Forestry of the Republic of Indonesia. https://www.menlhk.go.id/cadmin/uploads/PHOTO_BOOK_FOLU_NET_SINK_Indonesia_s_Climate_Actions_Towards_2030_a3d4f1fa43.pdf

Muslim, P. A., & Hastuti, I. S. (2024). *Analyzing Indonesia's Sustainable Energy Transition Through The Just Energy Transition Partnership (JETP)*. Journal of Indonesian Social Sciences and Humanities. https://ejournal.brin.go.id/jissh/article/view/9090/7016

Ordonez, J. A., Vandyck, T., Keramidas, K., Garaffa, R., & Weitzel, M. (2024). Just Energy Transition Partnerships and the future of coal. *Nature Climate Change*, *14*(10), 1026–1029. https://doi.org/10.1038/s41558-024-02086-z

Resosudarmo, B. P., Rezki, J. F., & Effendi, Y. (2023). Prospects of Energy Transition in Indonesia. *Bulletin of Indonesian Economic Studies*, *59*(2), 149–177. https://doi.org/10.1080/00074918.2023.2238336

Sisdwinugraha, A. P., Hapsari, A., Wijaya, D. F., Padhilah, F. A., Bintang, H. M., Surya, I. R. F., Adiatma, J. C., Halim, A., Hilmy, A., Bagaskara, A., Rosadi, A., Tampubolon, A. P., Arinaldo, D., Mursanti, E., Tumiwa, F., Wardana, M., Citraningrum, D. M., Mendrofa, M. J. S., Nabighdazweda, M. D., … Firdausi, S. N. (2025). Indonesia Energy Transition Outlook 2025: Navigating Indonesia's Energy Transition at the Crossroads: A Pivotal Moment for Redefining the Future. *IESR Institute for Essential Services Reform*, *5*, 4.

Sunday Adebayo, T. (2025). Policies Towards Energy Poverty Reduction Goal: Role of Female Political Participation and Financial Globalization. *Politická Ekonomie*, *73*(4), 715–742. https://doi.org/10.18267/j.polek.1466

Thura Zan, T., Dokk Smith, I., Overland, I., & Pradnyaswari, I. (2025). Transaction costs of the Indonesian Just Energy Transition Partnership. *IOP Conference Series: Earth and Environmental Science*, *1511*(1), 012012. https://doi.org/10.1088/1755-1315/1511/1/012012

UNFCCC. (2015). *Paris Agreement*. United Nations of Climate Change. https://unfccc.int/sites/default/files/english_paris_agreement.pdf

*Corresponding Author: ica.wulansari@paramadina.ac.id