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ANALYZING INDONESIA'S SUSTAINABLE ENERGY TRANSITION THROUGH THE JUST ENERGY TRANSITION PARTNERSHIP (JETP)

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Abstract

The emergence of environmental problems that are influenced by various instruments, one of which is the increase in carbon emissions, which in Indonesia itself is dominated by the energy sector, especially the use of coal, so that action is needed to overcome this problem, one of Indonesia's efforts is to negotiate at the G20 leader's summit in 2022 with the International Partner Group (IPG) regarding the Just Energy Transition Partnership (JETP) scheme, which is climate funding mobilized by developed countries for developing countries with the main objective of reducing dependence on fossil coal energy use, this is in accordance with the Paris Agreement stated in the Nationally Determined Contribution (NDC) document. However, the process of implementing the JETP scheme needs to be considered more carefully regarding several matters, especially since JETP is one of the climate funds with a fairly large scale and is relatively new, so in this study researchers will focus more on the point of how this JETP scheme can encourage the acceleration of an equitable energy transition in Indonesia by looking at policy regulations related to Indonesia's energy transition and fossil energy consumption and also carbon emissions that Indonesia has produced in recent years using the most relevant concepts, namely the global climate regime and just transition, researchers also see that the JETP scheme has not been able to support the acceleration of the energy transition with many instruments that must be considered such as the emergence of internal and external challenges and obstacles in the JETP Scheme.

Keywords: Climate Finance; Just Transition; Energy Transition; JETP Indonesia

Abstrak

Munculnya masalah lingkungan yang dipengaruhi oleh berbagai instrumen, salah satunya adalah peningkatan emisi karbon, yang di Indonesia sendiri didominasi oleh sektor energi, terutama penggunaan batu bara, sehingga dibutuhkan tindakan untuk mengatasi masalah ini. Salah satu upaya Indonesia adalah melakukan negosiasi pada KTT Pemimpin G20 tahun 2022 dengan International Partner Group (IPG) mengenai skema Just Energy Transition Partnership (JETP), yaitu pendanaan iklim yang dimobilisasi oleh negara maju untuk negara berkembang dengan tujuan utama mengurangi ketergantungan terhadap penggunaan energi fosil berbasis batu bara, sesuai dengan Perjanjian Paris yang tercantum dalam dokumen Nationally Determined Contribution (NDC). Namun, proses implementasi skema JETP perlu dipertimbangkan lebih hati-hati terkait beberapa hal, terutama karena JETP merupakan salah satu dana iklim dengan skala yang cukup besar dan relatif baru. Oleh karena itu, dalam penelitian

ini, peneliti akan lebih fokus pada bagaimana skema JETP dapat mendorong percepatan transisi energi yang adil di Indonesia dengan melihat regulasi kebijakan terkait transisi energi Indonesia, konsumsi energi fosil, serta emisi karbon yang telah dihasilkan oleh Indonesia dalam beberapa tahun terakhir menggunakan konsep-konsep yang paling relevan, yaitu rezim iklim global dan transisi yang adil. Peneliti juga melihat bahwa skema JETP belum dapat mendukung percepatan transisi energi dengan berbagai instrumen yang harus dipertimbangkan, seperti munculnya tantangan dan hambatan internal maupun eksternal dalam skema JETP tersebut.

Kata Kunci: *Pendanaan Iklim; Transisi Berkeadilan; Transisi Energi; JETP Indonesia*

INTRODUCTION

The increase in global temperature exceeding 1.5°C in 2016 and 2020 is due to the rise in carbon emissions and primarily caused by human activities, especially the use of fossil fuels and coal (NASA/GISS, 2023) therefore, efforts to reduce global warming have been undertaken through various collaboration and agreements to ensure that the Earth temperature below 1.5°C. One of these efforts is the 2015 Paris Agreement on climate change, a binding legal agreement where signing and ratifying countries voluntarily propose effort to reduce emissions, known as Nationally Determined Contribution (NDC). (United Nations, 2016) This document demonstrates a country's global stance and commitment to reducing global carbon emissions. For long-term achievement, Article 4 Paragraph 2 of the Paris agreement mandates that the countries who adopting the agreement formulate and submit development strategies related to emissions reduction (UNFCCC, 2020).

Indonesia as one of the countries that ratified the Paris Agreement on October 24, 2016 through the Law of the Republic of Indonesia Number 16 of 2016 with the establishment of this Law, Indonesia has also submitted the Intended Nationally Determined Contribution (INDC) periodically (Wardhani Sari Indra et al., 2022) The First NDC 2016, Update NDC 2021 and Enhanced NDC 2022. Indonesia submitted the Enhanced NDC on September 23, 2022 to the Secretary of the United Nations Framework Convention on Climate Change (UNFCCC) and experienced an increase from the Update NDC 29%, and Enhanced NDC 2022 31.89%. regarding the target of reducing GHG emissions with its own capabilities unconditionally and international support conditionally increased from 41% to 43.20% which is adjusted to the Long-Term Low Carbon and Climate Resilience Strategy (LTS-LCCR) (Republic of Indonesia, 2022).

However since 2022 Indonesia has experienced an Increase in carbon emissions in 2020 Indonesia Produces 2.2 tonnes per person and become 2.6 tonnes per person in 2022 which makes Indonesia included in 10 countries with the largest producer of Greenhouse Gas (GHG) emissions with the energy sector which still dominates with the largest share of electrical energy as much as 66% in 2021 emissions due to this energy are almost 90% of the electricity sector (Ritchie Hannah & Roser Max, 2023). With the magnitude of the energy sector contributing to carbon emissions, action is needed to overcome related problems such as energy transition itself is often defined as a transition from the use of a fuel that is used as the main energy source and switches to using other fuels or switching systems such as production, transportation and energy supply which is done as a form of simplification of the phenomena and complexities that arise from the use of previous fuels (Solovova Yulia, 2021). However, the process of transition energy, there are many things that must be considered, one of which is relatively expensive funding, although overall it will be more resilient to climate change which will affect unexpected developments, especially in fuel price fluctuations, however the overall total systems coast of transitions to renewable energy requires mostly high fund, therefore international efforts and assistance

are needed (Kiss et al., 2019). And according to NDC there are efforts to improve the environment with their own abilities and international assistance, this is in line with article 9 of the Paris Agreement which stipulates that developed countries must provide and to provide financial resources to assist developing countries, regarding mitigations and adaptation as an obligation and follow-up the ratification of the Paris Agreements. In addition to funding developed country parties must submit indicative information about the support that will be implemented in the future (UNFCCC. Secretariat, 2016).

According to the Ministry of Environment and Forestry of the Republic of Indonesia (KLHK) the total funding needs of this environment require a large amount of fund from 2018-2030 to aims the emission reduction target of USD 281 billion or around Rp. 4.002.4 trillion is not comparable to the funds that can be allocated by the State Budget (APBN) allocated to funding related to improving environmental change, therefore it is very important for the government to optimize other funding sources such as loans and grants, cooperation between governments, private involvement, donor agencies and other international assistance (Anggraini et al., 2023). One of the International assistance obtained by Indonesia is schema Just Energy Transition Partnership (JETP). JETP is a new funding by developed countries to help developing countries that are still dependent on the use of fossil energy such as coal to make a sustainable on the use equitable energy transition (Skeretariat JETP, 2023) And Indonesia as a country that receive this funding assistance has own energy target target in 2025 of 23% and Indonesia's own renewable energy mix in 2022 has reached 12,3%. Currently, energy use in Indonesia is still dominated by fossil energy which reaches up to 87%, and in the Enhanced NDC document transforms in 2025 and 2050 the coal primary energy mix in Indonesia reaches at least 30% in 2025 and 25% in 2050 (KESDM, 2020).

The Just Energy Transition Partnership (JETP) schema has the main objective of early coal retirement and has been agreed at the Leader's Summit in Bali 2022 an until now the JETP secretariat has been formed under the Ministry Of Energy and Mineral Resource (ESDM) (Agung Pribadi, 2023). JETP itself will mobilize an initial fund of 20$ billion, 10$ billion concessions from first world countries that are members of the International Partners Group (IPG) which is currently led by the United States and Japan, Denmark, the United Kingdom, Italy, Germany, Canada, Norway, France and the European Union, and another $10bn will come from the private sector coordinated by the Glasgow Financial Alliance for Net Zero (GFANZ) a coalition of financial institutions including Bank of America, Citi, Deutches Bank, HSBC, Macquarie, MUFG, and Standard Charatered (STAFF REPORTER, 2023). The fund is a combination of grants, markate-rate loans, concessional loans, guarantees and privet investments from the government and private sector to decarbonise, capping power sector emissions at 290 MT CO_2 by 2030 is one of the discourses on the implementation of the fund (Sekretariat JETP, 2023). Of the $8.5 billion JETP funding for South Africa, 94% was in the form of loans and only 4% was in the form of grants and such financing was accompanied by a requirement to restructure policies for greater private participation in the energy sector (Fakir, 2023). There is also a gap between JETP policy and implementation in South Africa's national energy transition agenda (MAGID, 2023). However, as this is a new mechanism and the details of the fund are still being developed, it is important to remember that many factors need to be carefully considered in order to see the advantages and disadvantages and to weigh the risks involved (Anissa Suharsana, 2023).

Based on the dynamics above, it is important to analyse and there will be 3 questions in this journal firstly how Indonesia's efforts are progressing in the transition of fossil energy to new renewable energy, secondly what are the potential challenges and obstacles in the Just Energy Transition scheme, and finally how the implementation of the JETP scheme in new renewable energy can affect the equitable energy transition in Indonesia.

This article will discuss how the Just Energy Transition Partnership (JETP) scheme can encourage the acceleration of equitable renewable energy in Indonesia.

THEORETICAL FRAMEWORK

Global Climate Regime

The global climate regime includes norms, regulations, and decision-making procedures with a more collaborative approach in relations between countries for experts and actors in this field (climate change), with a focus on protection from the effects of climate change which in recent decades has undergone many significant changes first the mechanism of the 1992 United Nations Convention on Climate Change (UNFCCC) which was clarified by the 1997 Kyoto Protocol in this protocol annex-1 countries and developing countries are responsible based on their emission history since climate change is a form of shared responsibility in accordance with the capabilities of each country. However, with the rapidly growing in industrialization of the new climate regime, the Paris Agreement 2015 and 2016 are based on the voluntary contribution of countries to reduce emissions (Pattberg & Widerberg, 2017).

In the Paris Agreement countries will continue to pay attention to the powerless. And on the other hand, in this agreement both developed and developing countries are equally obliged to achieve the goals of the Paris Agreement. This agreement is also considered very flexible with a system where there are no demands from other countries but by the countries that ratify this agreement themselves voluntarily by setting emission targets in the Nationally Determined Carbon (NDC) document with a reporting and monitoring system repeated every five years (Fatima, 2021).

There are several things that need to be considered on global climate regime, firstly the regime must be able to target the widest possible participation, secondly the regime applies a conventional framework/protocol approach, thirdly the global climate regime does not only cover environmental protection/carbon emission suppression but includes broad aspects such as economics and sustainable development and fourthly the global climate regime is neutral in policy selection where countries have flexibility in designing strategies related to climate change response (Bodansky, 2005). And this regime also intersects with various parts of the international system with climate change that is transnational in nature where countermeasures will involve movements for greater institutional cooperation to avoid conflict and achieve synergies with the following actions; promoting regulatory coherence, promoting national implementation coherence, supporting implementation through international cooperation, coordination, and exchange of information and experience ("Linkages," 2004).

Just Transition

Just transition is a new concept that has important role on the practice and theory of transitions to ensure a fair and equitable process of moving away from fossil fuels and reconfiguring and reclaiming the natural resources of carbon-intensive global regimes. Just Transition borrows from the same concepts and frameworks as climate justice and environmental justice but since the 2015 Paris Agreement expanded to include labor rights and inequalities in the energy transition process, the concept of just transition is now racing ahead in its ability to encourage critical reflection on the social and environmental implications of transitioning from fossil fuels to renewable and low-carbon industries (Mccauley, 2003). An overview of contemporary history shows that just transition is a concept that has various meanings depending on the context such as; academic debates on environmental, energy and climate justice. Politicians tend to use just transition as a rhetorical tool and in some cases as a policy, and grassroots see it as a means of ecologically and socially just transitions. This vast variation reflects the global consensus of organizations and institutions as well as organizations that stand out for just transition (Gerrard E et al., 2022).

Communities affected by this transition also need to ensure a fair process because in this concept there is also an obligation to treat all communities equally in the development, application, enforcement, and regulation of environmental policies. And a world realisation is needed with a global perspective

because the actions taken will have a global impact (Heffron & McCauley, 2018) . Furthermore, in just transitions, the energy transition must be ensured to prevent injustice in energy production and consumption but must also be reparative and include support for environmentally friendly growth and economic diversification that provides realistic social and economic alternatives to communities that have borne the impacts of climate change (Righetti, 2024) .

DISCUSSION

Indonesia's Environmental Conditions

To analyze about the Just Energy Transition Partnership (JETP) scheme, it is important to look at environmental conditions, especially carbon emissions produced in the last few years, globally carbon emissions in 2022 carbon emissions produced the highest record of 37.4 billion tons but in 2023 decreased by 410 million tons due to the transition of countries in the use of fossil alternatives by 40% which affected the overall increase in emissions (IEA, 2024). Where this phenomenon is also felt by Indonesia is that in 2022 the carbon emissions produced by Indonesia increased 18.3% from 2021 with total carbon emissions of 700 million tons (Cindy Mutia Annur, 2022) of which 691.97 million tons or 90% were generated from energy sector emissions (Nabilah Muhamad, 2022). Based on the National Energy Council (DEN) the energy sector in Indonesia is still dominated by coal with the highest percentage of energy mix in 2023 coal (40%) oil (30.18%), natural gas (16.28%) new renewable energy (13.09%) with a renewable energy target of 17.87% (Agus Cahyono Adi, 2024).

According to data, Indonesia needed the transition to new renewable energy, and one of the efforts made by Indonesia is the JETP scheme which was first introduced at the Conference of The Parties COP 26 meeting, the highest decision of the United Nations Framework Convention on Climate Change UNFCCC. Which is held every year. COP26 was held in Glasglow Scotland from 31 October to 12 November 2021 and discussed Paris Agreement targets such as adapting to climate change, mobilizing finance for mitigation, adaptation and facilitating collaboration (Thuyne Van Gauthier & Spaans Jochem, 2021) Including the JETP Scheme of financing for early retirement of steam power plants (PLTU) in the Comprehensive Investment and Policy Plan (CIPP) document with a plan of 5 focus areas that prioritize infrastructure aspects including:

1) Early retirement of coal-fired power plants, in order to reduce pollution generated from the power sector.

2) Improving the value chain of new renewable energy, by supporting the development of domestic industries.

3) Accelerating the utilization of variable renewable energy, by increasing renewable energy sources that can adapt to environmental/weather conditions.

4) Expansion of transmission and networks, in order to reduce emissions by creating new renewable energy development.

5) Accelerating the implementation of renewable energy base load by developing new plants and expanding existing plants and improving their performance (JETP Indonesia, 2024c).

In addition, JETP Indonesia needs to follow key principles in this process such as: 1) bring a positive contribution to the Indonesian economy and ensure energy affordability, 2) ensure energy security and stability while ensuring an equitable transition, 3) ensure Indonesia's energy sustainability, 4) maintain the financial systems of PLN and its subsidiaries in a sustainable and long-term manner (CIPP JETP Indonesia, 2023). The implementation of the JETP Scheme also means seeing the readiness of renewable energy in Indonesia which has the potential to reach 3,686 GW which consists of solar, water, bioenergy, wind, geothermal and marine sources. Thus, in order to achieve Net Zero Emission (NZE) 2060, the General of New Renewable Energy and Energy Conservation (EBTKE) stated that Indonesia must be more massive in the devel-

opment of renewable energy such as the composition of renewable energy which nanatinya of 421 GW comes from solar power plants (PLTS), 94 GW which comes from wind power plants (PLTB), 72 GW from hydroelectric power plants (PLTindoA), 60 GW from bioenergy power plants (PLTBio), 31 GW from nuclear power plants (PLTN), 22 GW from geothermal power plants (PLTP), 8 GW from ocean current power plants, 4.2 GW is a composition for storage technology consisting of pumped storage (Rachmatika et al., 2022). However, the realisation of Indonesia is not optimal, the renewable energy mix is 13.09%, which is still far from the government's target of 23% renewable energy by 2025 (Adi Ahdiat, 2024).

However, efforts related to the energy transition in regulation and implementation long before the Just Energy Transition Partnership (JETP) scheme will be implemented such as the issuance of Presidential Regulation No. 79 of 2014 which targets new renewable energy to reach at least 23% by 2025. This Presidential Regulation was issued to complement Presidential Regulation No. 5 of 2006, in which the national primary renewable energy mix goal was to reach 23% and increase to 31% by 2050 (Riswantyo Cindy, 2023). Furthermore, in its implementation, Law No.30 of 2007 related to Energy, could not stand alone, so in 2009 a law related to electricity was passed which was used as a general basis listed in Law No.30 of 2009 (Wahyuni & Ardiansyah, 2022). Then in 2016 Indonesia signed the Paris Agreement by enacting Law No. 16 of 2016 as a form of ratification and ratification of the United Nations Framework Convention on Climate Change, UNFCCC with this law formalizing Indonesia to reduce greenhouse gas (GHG) emissions by 29% listed in the business-as-usual (BaU) scenario (Riswantyo Cindy, 2023). Which is continued with the energy transition programs stated in presidential regulation No. 22 of 2017 National General Energy Plan (RUEN) 13 March 2017, and can also be seen with Presidential Regulation No.59 of 2017 related to the implementation of sustainable development goals (Sianturi Posman, 2021). The 2021-2030 Electricity Supply Business Plan (RUPTL) projected Indonesia's total greenhouse gas emissions from the energy sector itself on a Buisiness as Ussual basis of 433 million tonnes of CO_2 from total gas emissions of 335 million tonnes of CO_2 coal being the largest contributor (ESDM, 2022) and the issuance of presidential regulation No. 112 of 2022 related to the acceleration of energy that came into force which is in accordance with national energy policy and also in accordance with the target of reducing greenhouse gas (GHG) emissions, which needs development from renewable energy sources (PERPRES, 2022).

The realization of Indonesia's new renewable energy transition in the form of other funding is the Energy Transition Mechanisms (ETM) 3 November 2021, which is a program issued by the Asian Development Bank (ADB) for the Asia Pacific region with the aim of early retirement of Retiring Coal-Fired Power Plants (CFPP) in conjunction with the COP26 Glasglow agenda. In this CFPP scheme, there will be 3 selection schemes in the energy transition mechanism (ETM), the first focusing on capital to acquire early retirement coal, the second capital in the form of direct investment to CFPP owners and then used to retire their power plants which are classified as synthetic capital, and the third capital in the form of portfolio which is usually in the form of providing funds to third parties. The ETM plan is to implement early retirement for 9 PLTUs before 2030 with the condition that PLTUs that have operated more than 10 are considered not comparable to the development of new renewable energy (Riswantyo Cindy, 2023). In addition to the ETM Moratorium PLTU To achieve the Net Zero Emission target, the urgency of stopping the exploitation and development of coal energy sources will be carried out after 2025, in which year the estimated 35,000 Megawatt MW megaproject and the Fast Track Program (FTP) 2 of 7000 MW will be completed, which this addition will result in a position where Indonesia will continue to operate a very large number of PLTU, which will last until 2060-2065 (Trend Asia, 2021).

Indonesia in following up on the Just Energy Transition Partnership scheme

The Just Energy Transition Partnership

scheme was previously agreed by leaders at the G20 Summit in Bali in 2020. On 17 February 2023, Indonesia established the JETP Secretariat under the leadership of the Ministry of Energy and Mineral Resources (ESDM), which will take on the task of coordinating the cluster team and technical implementation, including projects to be implemented under the JETP scheme and their financing. Head of U.S Department of Treasury Alexia Latourte said that another function of the JETP secretariat is to support the Indonesian government to achieve JETP targets, which include comprehensive investment plans and policies, and ensure support for affected communities, which is the most important element that cannot be ignored. The JETP governance consists of 3 sections that have their own duties (Humas EBTKE, 2023). (1) policy layers Indonesia decarbonization task force and IPG task force or steering or supervisory, (2) JETP Secretariat or which can also be useful as coordination in this scheme will connect projects received from parties involved which require liaison in projects and funding that will be discussed in a meeting to ensure alignment of guidelines and directions in its implementation, (3) project management which refers to the implementation or implementation of the JETP scheme itself (Tojeng R Affran, 2024). In addition, this governance will ensure the continuity of the process of making good decisions to increase JETP funding will be open from various sources in accordance with the focus areas of JETP financing, then the JETP Secretariat will coordinate with the National Energy Transition unit, Steering Committee of the Energy Transitions Mechanism (ETM) platform, and the IPG for support and input, and will continue to connect with members of the Glasgow Finance Alliance For Net Zero (GFANZ) Working Group, and other project developers, stakeholders and financiers in the implementation phase (CIPP JETP Indonesia, 2023).

The launch of the Comprehensive Investment and policy Plan (CIPP) document containing the strategy was agreed in the JETP joint statement and signed on 15 November 2022. This document is one of the outputs of the JETP. It includes a non-binding investment plan to guide the implementation and financing efforts of the JETP. This document is not a loan agreement because this agreement is not a government document because in its preparation the CIPP was prepared by various parties coordinated by the JETP secretariat with many consultations with various stakeholders with consideration of electricity sub-sector planning and formulation of national energy power transition policies because this document itself is strategic enough to be considered (JETP, 2024). The JETP CIPP was developed to ensure a consistent transition pathway in running this JETP scheme such as; (1) Positive contribution to the Indonesian economy and ensuring energy affordability, (2) Ensuring Indonesia's energy security and maintaining grid stability and ensuring an equitable energy transition process, (3) Ensuring the achievement of joint targets and carbon emission targets can be in line with the government's ambitions (JETP Indonesia, 2024a).

The CIPP document is also useful for formulating decarbonization scenarios that formulate common conditional targets such as greenhouse gas emissions for the on-gird power sector of 250 million tonnes of CO_2 which includes a renewable energy share of 44% by 2030. The CIPP document is also a 'living document' that will continue to be updated annually so that it can always adjust so that global economic conditions and domestic action priorities can be included (Putri Adithya, 2023). With this document, Indonesia responded by deciding on priorities that might be different from the countries involved in the JETP International Partnership Group (IPG) scheme as follows; 1) development of transmission networks, 2) early retirement of coal or Steam Power Plants (PLTU), 3) development related to renewable power plants that have baseload such as hydro and geothermal, 4) development for variable/intermittent power plants or the inability of renewable energy power plants to continuously produce energy and 5) development to develop new renewable energy supply chains (Kebijakan et al., 2023). In addition to the CIPP document, JETP is also funding synchronized with Indonesian policies by channeling funds that require incentives and facilities from the Indonesian government based

on the Minister of Finance Regulation No. 103 of 2023 and the decision of the Ministry of Finance (Kemenkeu) in the decision the Ministry of Finance has appointed PT Sarana Multi Infrastructure (SMI) which has previously handled the Energy Transition Mechanism (ETM) programs, namely the Country Platform which is considered as part of JETP financing by IPG countries, therefore financing can be through the ETM Country Platform.(JETP Indonesia, 2024b) In the CIPP document that has been submitted to the United Nations Framework Convection on Climate Change UNFCCC, it is also stated that the JETP funding system in this initial stage, the source of funds to be provided in Indonesia is 60% from Concessional Loans where the funds must be returned with specified interest requirements, then 17% of Multilateral Development Bank MDB guarantees, then 14% will come from Non-Concessional loans or loans that are heavier than concessional loans, 3% of grants and technical assistance funds, 3% of equity, and 3% of other funds/to be determined (Martinus, 2024).

Challenges and Barriers to the JETP Scheme

Challenges and barriers are one of the considerations in the implementation of the JETP scheme. These challenges and barriers can arise from any sector. This is also written in the Center for Strategic and International Studies (CSIS) policy paper regarding the risks and challenges in the Just Energy Transition Partnership (JETP) scheme such as the operating environment of JETP where the paper describes the transition priorities of Indonesia and IPG countries can be different in carrying out the energy transition Indonesia prefers the development of baseload renewable energy which includes hydro and geothermal and this is quite contrary to IPG countries which prioritize using variable renewable energy such as solar and wind.(Kebijakan et al., 2023) In addition, the JETP funding is quite low with grants worth around US$160 million or only 0.8% of the total funding to be provided, which will be used for feasibility studies, training of labor groups and most importantly for vulnerable groups who are usually affected by the many risks of this equitable energy transition program. According to Indonesia's 2023 Comprehensive Investment and Policy Plan for the JETP scheme, it states that 60% or around US$11 billion of the first phase of the JETP scheme funding will be in the form of concessional loans, while grants and engineering funds will only account for around 3% of the total funding. (Martinus, 2024) On the other hand, the availability and publicity are also questioned by IPG countries that are reluctant to lend funds, causing pessimism for the Indonesian side, besides that climate investment funding is currently considered not conducive due to uncompetitive electricity prices, and PTLU early retirement funding is considered unattractive to investors, which is due to banks including early funding of PLTU in the red category. Or even this JETP funding is only a small part of the energy transition because it is estimated that this JETP scheme can reach US $ 150 billion while the planned funds to be provided to Indonesia through this JETP Scheme are only US $ 20 billion which later rose to US $ 21.7 billion.(Kebijakan et al., 2023) Another difficulty is the 70% gap even after the JETP funds have increased. The commercial approach that shows the prioritization of marketability by IPG countries is also another problem as most IPG countries direct their funding more towards power plants rather than the original goal of phasing out coal-fired power plants, in addition to the Multilateral Development Bank (MDB) which still requires state guarantees to ensure lending which will force the government to accept many risks such as volatile currency exchange rates (Martinus, 2024).

In the 2022 Enhanced NDC document, for example, although there is an increase in the target to reduce carbon emissions (GHG) 29% unconditionally in the first NDC and to 32% in the E-NDC which is equivalent to 912 million tonnes of CO_2 by 2022, there is no specific target on reducing coal dependence in primary energy despite conservation and encouragement of renewable energy use, which is the same target mentioned in Presidential Regulation No. 79 of 2014. Furthermore, in the 2021-2030 Electricity Supply Business Plan (RUPTL) document there is no mention of efforts to reduce coal dependence, let alone

mentioning the early retirement of coal, which makes many people think that Indonesia is not serious in tackling climate change (Muhajir Mumu et al., 2023). The ratification of the Presidential Regulation that was launched in 2022, namely Peraturan Pemerintah No.122 This regulation is considered to deviate from its goal of encouraging new renewable energy and reducing Indonesia's dependence on fossil energy, because this regulation actually stalls the transition by giving new space to the use of coal because it actually extends the deadline for the construction of new power plants in the Electricity Supply Business Plan (RUPTL) from 2023 to 2032, which of course in the 2021-2030 RUPTL still plans to increase the electricity quota with the construction of new power plants as much as 13, 8GW which is inversely proportional to the wishes of Indonesia with the plan to retire the coal power plant, furthermore the government still gives permission for the old PLTU to continue operating which has the potential to become one of the failures of efforts to make a new renewable and equitable energy transition (TrendAsia, 2022).

This also raises criticism because after all the JETP scheme is a new type of funding in the process, there are many instruments that must be considered, including criticism and suggestions related to the JETP scheme from various parties, such as the CIPP preparation process which is considered to lack transparency involving the public and the community, which in the preparation of the CIPP document is considered to have the potential to injure aspects of justice in the JETP scheme.(Trand Asia, 2023) And this resulted in the emergence of action from activists from Greenpeace Indonesia who were followed by Trend Asia and Enter Nusantara to carry out theatrical actions and submit documents and public input related to the Comprehensive Investment and Policy Plan (CIPP) document which the movement is incorporated in the #BersihkanIndonesia movement the action was carried out in front of the Japanese embassy in central Jakarta on 20 November 2023. This action was carried out to submit a document of comments and public input Japan itself is one of the leaders of the IPG This document was also sent to other IPG member countries besides that #BersihkanIndoensia saw no public involvement because the Indonesian JETP Secretariat only gave 2 weeks from 1- 14 November 2023 to analyze the CIPP document. 14 November 2023 to analyze the CIPP document, but the draft CIPP document in Indonesian itself was only available or accessible 3 days before the deadline for providing input, namely on 10 November 2023, which contradicts the function of the JETP secretariat which should be at the forefront of ensuring a fair process in the JETP scheme (Greenpeace Indonesia, 2023).

Another criticism came from JATAM as a mining advocacy network which believes that the JETP investment plan for Indonesia will not contribute significantly to reducing carbon emissions generated from Indonesia's energy industry, instead the JETP which includes funds of US $ 20 billion is a new debt that will burden state finances with projects offered by JETP considered not related to crisis recovery or protection of the people's economy (JATAM, 2023). In addition, in the Indonesia Energy Transition Dialogue (IETD) event in September 2023, Chairman of the Indonesia Clean Energy Forum, many parties advised the government that the JETP funding scheme should come mostly from equity financing instead of debt financing, and the dominance of commercial loans why this is the case In the JETP CIPP document, commercial loan funds are much larger Indonesia must bear loans with market interest, which includes private funding initiated by the Glasgow Financial Alliance for Net Zero (GFANZ) worth USD 10 billion, while grant funds only amount to USD 295.4 million (IDR 4.6 trillion). In more detail, this grant consists of USD 141.6 million in technical assistance, almost half of which or USD 68 million is a portion of technical assistance for certain programs such as the early retirement of Steam Power Plants (PLTU). Thus, the JETP funding is not a special arrangement but a debt trap (Hartatik, 2023).

In addition to the criticism that continues to emerge, the carbon that continues to increase is also a concern in the Climate Action Tracker (CAT) report, the carbon emissions produced by Indonesia have increased where

in 2022 Indonesia is in the orange category which means the overall rating is very insufficient Highly Insufficient where actions and policies, The conditionally insufficient NDC target resulted in a temperature rise of <3°C, the conditionally insufficient NDC target resulted in a temperature rise above 4°C+, and the unconditionally insufficient NDC target resulted in a temperature rise above 4°C+ which is contrary to the Paris Agreement principle to keep the earth's temperature below 1.5°C. Worse, as of December 4, 2023, the CAT report shares that Indonesia as a whole is very insufficient and is in the black category of Critically Insufficient, in which category policies and actions are said to be insufficient and result in a temperature increase of 4°C+, conditionally conditional NDC targets are very insufficient to cover 4°C+, and unconditionally unconditionally NDC targets are very insufficient and experience a 4°C+ increase (climateactiontracker, 2024).

CONCLUSION

The emergence of climate change issues globally, including Indonesia, is caused by high carbon emissions, one of which is due to dependence on fossil energy, forcing all countries to adapt to their environment, but countermeasures to this issue are still being pursued, one of which is the energy transition from fossil energy to environmentally friendly energy or new renewable energy, This energy transition process requires a lot of funds, so international assistance with the support of the Paris agreement regime such as the Just Energy Transition Partnership (JETP) scheme is needed, especially by third world countries such as Indonesia, as a country that ratified the Paris Agreement, mitigation and adaptation related to climate change are helped by the climate regime because in the Nationally Determined Carbon (NDC) document that must be submitted by each country that ratifies this agreement, there are targets for reducing carbon emissions (GHG) with their own efforts and with international assistance that refers to concrete actions such as JETP.

With the negotiations with the International Partnership Group (IPG) regarding the JETP scheme, this is a good improvement, but there are also many things that must be considered can the JETP scheme in accelerating this equitable energy transition be implemented properly? In this research, the answer to this is that it has not been well implemented with the many obstacles and challenges that arise both from internal and external to the process as described above, the researcher concludes that JETP has not been able to help accelerate energy in Indonesia, obstacles and challenges in internal factors themselves arise because the Indonesian government still lacks regulations and policies that regulate in detail related to accelerating the energy transition, Furthermore, there are still many parties in the energy transition that then affect the JETP scheme cannot be said to be an equitable energy transition transparency and community participation in the JETP scheme is still in question, this is clearly displayed in the formulation of CIPP documents that are reluctant to involve the community. Another internal factor is the increasing temperature in Indonesia, which can raise questions regarding its seriousness in making an energy transition. Furthermore, the obstacles and challenges from external factors in the JETP scheme that burden Indonesia are that the funds in this scheme are almost 60% in the form of soft loans which are worrying that they can become Indonesia's new debt. Therefore, in the implementation of the JETP towards equitable energy transition, public involvement and greater transparency are needed, then consider the regulations regarding sustainable energy transition regulations in detail so that the regulations can meet Indonesia's carbon emission trajectory.

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