



Beyond the Struggle of Indonesia for Achieving a Just Energy Transition Partnership: An Analysis from Adaptive Foreign Policy Theory

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Abstract — This paper examines the effort of Indonesia to achieve a just energy transition partnership (JETP) by adapting external and internal change. The JETP scheme is manufactured by industrialized countries in order to lessen reliance on fossil energy as a result of the ongoing global crisis and climate change impact. As one of the world's largest producers of fossil fuels, Indonesia must also respond by switching to renewable energy. The findings demonstrate that Indonesia has negotiated for international assistance and made adjustments in the process of the energy transition by utilizing an adaptive policy theory approach to foreign policy. Unfortunately, this financing scheme only covers distributive justice in climate justice offered by developed countries to developing countries by involving elite clients consisting of government officials and the private sector alone.

Keywords — energy transition, G20, adaptive policy, Indonesia, JETP

I. INTRODUCTION

The primary pillar supporting a nation's demands is energy. As a result, all nations are highly dependent on a variety of energy sources, such as fossil fuels and renewable energy, to meet their needs [1]. More energy is consumed globally than there are people on the planet. According to the British Petroleum report, the amount of fuel consumed nearly doubled between 1980 and 2009 (6,630-11,163 Mtoe). By 2030, the fuel consumption is anticipated to increase by 1.5% annually and reach roughly 15,260 Mtoe. IEA stated it has been determined that this expansion is being driven by the development of Asia's developing nations. Despite having 80% of the world's population, developing nations only use 30% of the commercial energy produced globally today. However, as the tendency for energy consumption increases, so does knowledge of the environmental problems associate with fuel and energy use. It is generally accepted that renewable energy helps to maintain a sustainable environment, mitigate the consequences of climate change, and lower overall health costs (due to air pollution) [2].

More than 36% of the energy consumed in Southeast Asia is consumed in Indonesia as the region's largest energy market. Electricity demand will continue to rise as a result of continuous economic and population growth. By 2040, the demand for electricity could double. As a result, Indonesia's energy policy currently puts a high priority on the role that energy planning provides in the country. The National Energy Plan 2019–2038 (NEP 2019–2038), published by

Indonesia's Ministry of Energy and Mineral Resources (MEMR), outlines the nation's long-term electrical ambitions. By 2025 and 2038, Indonesia expects to use up to 23% of its power from renewable sources as part of the NEP 2019–2038. Furthermore, by 2050, Indonesia intends to supply 31% of its electricity from energy that is renewable. Recently, the more ambitious goal of using entirely renewable energy has been brought forward. Additionally, Indonesia's nationally determined contribution (NDC) to the Paris Climate Agreement is commensurate with these renewable energy goals [3].

According to Mascotto, alternative energy and efficient technology can be profitable as long as they contribute to market and economic dynamism [4]. This is in line with Harris' opinion, which states that renewable energy can replace the fossil energy industry and create new, greener markets [5]. Another view from Sweeney states that the development of renewable energy will challenge the capitalist financial system because the system will set high interest rates so that the purchase price for consuming renewable energy is high [6]. In line with Sweeney, Wallis stated that to develop renewable energy, costs related to installation, collection, maintenance, and transmission are quite large [7].

To overcome these challenges, after the Indonesia G20 Presidency event in November 2022, Indonesia managed to get funding of 20 billion US dollars for energy transition through the Just Energy Transition Partnership (JETP) scheme. The financing scheme combines public and private investment to promote an equitable energy transition. In addition, JETP also seeks to promote a green economy and respond to the economic and social needs of the affected communities. Concessional loans, market-based loans, grants, guarantees, and investments from both governmental and private enterprises will be included in the actual JETP Indonesia [8].

The author argues that the JETP that Indonesia received after Indonesia's chairmanship in the 2022 G20 Presidency was a form of adaptation strategy. The assumption behind this study is the issue of energy transfer from fossil fuels to new and renewable energy sources, which is not only related to production and consumption but also to the funding scheme required for this transition process. Therefore, the authors argue that the JETP scheme is one of the schemes used by Indonesia in the energy transition process as a form of

Indonesia's adaptive policy in responding to external pressures related to global commitments to limit the production and use of fossil energy and the existence of global uncertainty regarding the use of coal energy.

Thus, this research will answer the formulation of the problem, namely, how did Indonesia negotiate with IPG countries to obtain the JETP funding scheme? To answer this question, the author will use an adaptive policy theory approach in foreign policy.

Basically, there have been several studies that have been conducted to examine how international relations are related to the energy transition and renewable energy, such as, discusses the link between the energy transition and foreign relations [9], emphasizes energy diplomacy and foreign policy [10], look at energy transitions from a geopolitical perspective [11], [12] and focus on the IPE of energy [13], [14].

Looking at previous studies, the researcher sees that there is still little focus on financing issues adopted by developing countries which are analyzed using an adaptive policy approach, so this paper attempts to fill this gap.

II. THEORETICAL FRAMEWORK

Foreign Policy Concept

Foreign policy occasionally changes, according to Rosenau, in attitude, commitment, and behaviour because of both internal (structure change) and external (change) factors. The state not only reacts to past changes but also anticipates the sequence of future changes. Any foreign policy activity done by the government is called adaptive when it adapts to or causes shifts in the external environment of the society in order to keep the society's basic structures within acceptable boundaries. The interconnected patterns that make up the fundamental aspects of a national society's political, economic, and social being are referred to as essential structures [15].

According to Rosenau, there are four modes of foreign policy depending on the type of changes that occur in the internal and external environments, namely habitual, deliberative, spirited, and convulsive. The habitual foreign policy is used when there are little changes in the internal and external environments. They do not impose the modification of policy and permit the nation's desired policy to continue. The deliberate foreign policy describes a scenario when there have been significant changes to the external environment with only minor ones to the domestic environment. Thus, a realistic approach to the circumstance and to foreign policy is conceivable. The convulsive policy is what happens when there are large changes in both the internal and external contexts, whereas the spirited policy is the consequence of considerable changes in mainly the internal environment [16].

In this study, the authors argue that Indonesian foreign policy is developed using the deliberative foreign policy mode in order to provide a financial solution for the energy transition process.

Climate Justice, Energy Poverty and Energy Justice

Currently, discussions on the climate emergency that society is facing are replete with references to climate justice which was first developed in the United States. It is a response to environmental racism, racialized pollution, and the lack of equal protection for communities of color which have since spread to other parts of the world. The term 'climate justice' is used to explain how climate change has a major impact on various parties, including those who are often not involved in the decision-making process either in terms of climate adaptation or mitigation [17].

In addition, climate justice is also often referred to as 'just transition'. Therefore, this term is closely related to the conception of inequality and injustice, both in relation to human rights and the lives of other living things [18]. In this case, climate injustice occurs because the energy sector is based on a system of capitalism based on 'fossil capital' [17]. The topic of how climate change affects inequality frequently included how it affects poverty [19].

Poverty is highly correlated with both limited access to energy and inaccessibility; hence, the phrase "energy poverty" is used to refer to these ideas collectively [20]. Studies that link various ideas of justice and energy poverty have mostly focused on social group disparities, neglecting geographical forms of disadvantage [21].

Prior studies on energy poverty in less developed nations have focused heavily on the supply side and stressed the need for electrical network development based on lessons learned in wealthier nations. But recently, research and policy focus has switched to the possibility of reducing poverty by funding micro-power and renewable energy as an alternative to top-down grid development. Additionally, in emerging nations, people are becoming more conscious of the cultural and political issues that affect the switch from traditional fuels to contemporary ones for home energy [21].

So, the failure of political and social institutions to develop suitable energy and climate policy is another factor contributing to climate injustice. Prioritizing components of justice, or what is known as energy justice, is important to achieve climate justice in terms of regulating the energy sector. Distributional justice, procedural justice, and recognition justice are the three interwoven components that make up the conceptual framework through which energy justice is understood [22] [23].

Distributive justice is concerned with the equitable and responsible allocation of environmental benefits and liabilities. Procedural justice describes how different stakeholders and energy subjects participate in and influence decision-making as a way of practicing citizenship over changes to important energy infrastructure. Justice as recognition refers to considering the level of inclusion and interconnection of misrepresentations of various aspects of society, especially those that can undermine the rights of individuals and groups to participate, such as those of marginalized groups [24].

III. RESULT AND DISCUSSION

According to Mohapatra, Energy has a role in developing “norms” that govern international relations practices that have an influence on domestic political economy, in addition to influencing inter-state interactions. This happens as a result of a nation's excessive consumption, which depletes its internal economic resources and brings the economy to a standstill [25]. Moreover, the international energy landscape is undergoing a major transformation, and the early years of the 21st century can be considered a time in history when the world realized that the political, economic and environmental costs of 150 years of dependence on coal and oil could not be sustained any longer. carry on. Going forward, it is believed that the only viable option is large-scale conversion to widespread and readily available alternative energy sources, including renewable energy [26].

Southeast Asia's economy is growing rapidly, especially in the energy sector. This condition is expected to boost the region's energy demand growth in 2040, which is expected to increase by 60%. With regard to policies and strategies aimed at maintaining production and supply, this enormous development raises concerns of insufficient energy requirements [26].

The International Energy Agency estimates that US\$2.7 trillion will need to be invested in the energy sector between 2017 and 2040 to meet ASEAN's energy demand. Of this, US\$1.2 trillion will be used to generate electricity (including US\$300 billion for renewable energy) and US\$700 billion will be used for its transmission and distribution. This enormous amount, spread over 23 years, represents an investment of around US\$117 billion annually, or 4.5% of Southeast Asia's annual GDP. As the world's fifth largest economic region, ASEAN and its more than 650 million people face significant energy and environmental concerns and have set attractive goals to meet. For example, through the ASEAN Plan of Action on Energy Cooperation (APAEC), ASEAN plans to support green energy levels in the regional energy mix of up to 23% [26].

Meanwhile, previously in 2020 Indonesia as part of ASEAN members had promised to cut CO₂ emissions by 26% to 41% through the National Council on Climate Change. A Presidential Decree, which was issued in 2010, as material for preparing a National Action Plan to achieve this strategy. In this case, to minimize CO₂ emissions, Indonesia focuses on seven main sectors, namely forestry, agriculture, energy, industry, transportation and waste. Indonesia's action plans and targets are basically aligned with the Paris Agreement. The Paris deal, a worldwide accord approved at the COP21 climate summit, was introduced in December 2015 as the first ever inclusive, enforceable deal on climate change. The accord now has 193 parties (192 nations plus the European Union). The agreement establishes a framework for transparent monitoring and reporting of the Governments' climate objectives and offers a road for wealthy nations to help poor countries in their efforts at climate mitigation and adaptation. With the Paris Agreement, a long-term framework was established to direct the global effort for decades [27].

According to the agreement, governments were supposed to meet five years later to revise their goals. Due to

the covid-19 pandemic, the meeting which was originally intended to be held at the 26th session of the Conference of the Parties, or COP 26, from 9-19 November 2020 in Glasgow, United Kingdom was moved to 31 October – 13 November 2021 which was attended by 120 state and government leaders. All countries present at the Glasgow COP26, including Indonesia, agreed to the Glasgow Climate Agreement on November 13, 2021, namely maintaining the global temperature limit at 1.5 degrees Celsius and completing the remaining provisions of the Paris Agreement. [27].

Indonesia has a high goal of achieving net-zero carbon emissions. The policy made is a form of adjustment to international commitments that have been promised by Indonesia. In this case, the Government of Indonesia formulated a deliberative foreign policy because external environmental changes were greater than internal changes. The deliberate mode of national adaptation is a reaction to the situation where internal transformation is low and external change is high; it is so-called because the absence of new internal demands on government permits the authorities to carefully consider the best plan of action to be followed in addressing the rapidly shifting scene abroad, while at once the high degree of external change involves excessive responsibility for the bureaucracy to handle alone. Due to their involvement and the high levels of uncertainty and change overseas, using current rules and processes won't be sufficient, thus senior officialdom will need to both formally and informally discuss the decisions to be taken [15].

The form of national adaptation set forth in these various energy policies is a reaction to a situation where internal transformations within the Indonesian government and society are insignificant compared to high external changes. The internal situation in Indonesia can be described from the still dominant role of state owned enterprise, namely Perusahaan Listrik Negara (PT PLN) as the only BUMN that dominates energy production in Indonesia.

Indonesia's electrical infrastructure is centralized. This indicates that PT PLN is in responsible of providing a reliable energy network throughout the whole country. Sumatra, Java, Madura, and Bali, Kalimantan, Sulawesi, Maluku, Papua, and Nusa Tenggara are just a few of the operational areas that PT PLN considers when determining the state of the electricity supply, along with the realization of the electricity load, the conclusion of the power plant project, and various other indicators [27].

Indonesia is an archipelagic nation made up of more than 17,000 islands, making it difficult to create and administer a national electrical network. Access to electricity is still extremely restricted in distant and remote places. On the other hand, due to logistical issues, the distance, inadequate infrastructure, and a disconnected distribution network, delivering energy in this area would be highly expensive [28]. In reality, because of the vulnerable energy network, the government frequently shuts off the power. It demonstrates a disparity in the distribution of power services across the country [29]. If this situation continues, Indonesia's energy poverty will be a never-ending plague. Due to this, the Indonesian government has set a lofty goal of achieving universal electrification by 2025 while stepping up its coordinated efforts to end energy poverty.

Unfortunately, current regulations and initiatives solely concentrate on distributive justice models that favor big-picture, quick fixes and restrict funding possibilities for dispersed, small-scale renewable energy projects. As a result, there is still a geographic disparity in access to energy. In addition, the fact that different social groups' energy needs are not being met, the rights of marginalized groups are not being recognized, and there are ineffective procedural mechanisms to ensure their meaningful participation in energy policy decision-making all show that the Indonesian government's current policies have not yet attained procedural justice and recognition [28].

Despite that, the internal conditions regarding the electricity needs of the societies are still dependent on fossil energy. More than 88% of the electricity generated comes from fossil fuels, consisting of about 60% coming from coal, 22% from natural gas, and 6% from oil. Meanwhile, energy production from renewable energy is only around 12%. The large amount of energy produced from coal is due to the fact that coal is considered the cheapest source of electrical energy compared to other fossil fuels or most renewable energies. Thus, there are no significant internal changes regarding the energy transition plan towards clean and renewable energy in the use of electricity, considering the economic value of coal [30].

Different things happen to the external environment, especially energy conditions at the global level. The energy transition is currently taking place in several developing countries. Indonesia's dependence on coal exports will put it at risk from global price fluctuations and demand volatility caused by policy changes in the main coal export destination countries.

These external conditions represent a major change in the global energy policy landscape, from previously depending on fossil energy to shifting the energy transition target towards new and renewable energy. Moreover, the world is currently experiencing an energy crisis caused by an imbalance in the supply of energy from these fossil fuels.

As a result, energy prices such as coal, natural gas, crude oil, and electricity will increase 2-4 times higher in 2022 compared to 2019. This increase in prices causes a shift in demand for energy, especially coal. Indonesia, as one of the largest coal producers in the world, is also experiencing an increase in global coal demand at more attractive prices, one of which is demand from Europe, which will reach an all-time high (i.e., around 4 million tons) in 2022 [31].

Due to their reliance on pipeline supplies of Russian natural gas, countries in the European Union have been among the regions most severely affected by the energy crisis. As a result, several European nations have increased their reliance on coal-fired power plants while hastily deploying renewable energy sources and extending the lifespan of nuclear power plants. Consequently, the use of coal power plants has increased recently in the European Union. The demand for coal in the EU after 2024 is anticipated to decline, but the European Union has stepped up efforts to improve energy efficiency and expand renewable energy [32].

In contrast, the United States (US) will see a 15% decline in the number of coal-fired power plants in 2021. As a result,

the use of renewable energy is increasing, and more than 6 GW of coal-fired power plants are planned for closure in 2021 or conversion, and nearly 13 GW is planned for closure in 2022 [32]. Then, operators intend to retire 15.6 gigawatts (GW) of natural gas (6.2 GW) and coal (8.9 GW)-based power production capacity in the United States in 2023 [33]. To help with this, the US has passed the Inflation Reduction Act, a law that will quicken the switch to clean energy and lower the country's demand for coal. The law includes additional spending on clean energy and expanding energy infrastructure, as well as funding for nearly USD 400 billion in energy and climate change expenditures [32].

Even though Indonesia has around 3% of global coal reserves, in 2021, almost 20% of the total share of national final energy consumption will be electricity, with 47% still dominated by coal [34]. This dominance leads to increased carbon emissions and the vulnerability of future energy supplies. Moreover, developed countries such as the United States and several European Union countries have accelerated the energy transition to renewable energy. Therefore, Indonesia needs to respond to these external conditions which are full of uncertainties with several strategies, both in the long and short term [8].

In addition to developing a Long-Term Strategy for Low Carbon and Climate Resilience through 2050, Indonesia has pledged to achieve carbon neutrality by 2060. The Indonesian government adopted a regulation, Presidential Decree on Renewable Energy, in September 2022, which supports the use of renewable energy and prepares early retirement of some coal facilities [8].

In order to phase out coal-fired power plants over the next 30 years, this strategy would cost US\$600 billion to implement. In light of this, Indonesia may use JETP as a form of financing to quicken the energy transition. At COP26 in Glasgow, JETP was first launched to South Africa [8].

At the 48th G7 Summit at Schloss Elmau, German, plans were made to make Indonesia a JETP candidate after South Africa. Therefore, the negotiation process between the G7 member countries and Indonesia has started since COP 26 in Glasgow. Then, in June 2022, President Joko Widodo said at the G7 Summit that Indonesia needed \$25–30 billion to switch to environmentally friendly energy over the next eight years. Indonesia seeks to use this funding method to advance company prospects, expand employment chances, and stimulate economic growth. Indonesia has established a target of reaching net-zero emissions by 2060 or earlier in order to receive this financing. Additionally, Indonesia has raised its unrestricted carbon reduction goal from 29 to 31.89 percent by 2030 [35].

Indonesia agreed to strive toward a coal phase-out as early as 2040 by signing the Global Coal to Clean Power Transition Statement at COP26, provided it obtains extra international financial and technical help [36]. Besides that, Government of Indonesia collaborated with Asian Development Bank and World Bank to develop the energy transition mechanism (ETM) during COP26. Despite not being fully disclosed to the public, the creation and development of the ETM investment plan aid in the negotiation and application of JETP in Indonesia. Then, large-

scale policy forums actively addressed and focused on ensuring an inclusive and just transition with a specific emphasis on the energy sector prior to the introduction of the Indonesia JETP, with Indonesia serving as the G20's chair in 2022. The G20 presidency of Indonesia encouraged a lot of governmental and non-governmental organizations, as well as the corporate sector, to start new projects and connect their strategic activities and programs with the agenda for the transition [37].

JETP offers a compelling illustration of how developing nations and international partners can cooperate to address global climate challenges. As one of the nations that ratified the agreement, Indonesia then changed its domestic policies to reflect the promises made in the two agreements. In a joint statement, Indonesia and its international allies expressed their commitment to an ambitious and just energy transition that advances the Paris Agreement's objectives and keeps the 1°C global warming limit within reach. They also promised to pay for the transition. In the Joint Statement between the Government of Indonesia and the IPG Countries, this commitment is stated after Indonesia successfully held G20 Presidency in 2022 [8].

The alliance will mobilize \$20 billion over the next three to five years, with IPG members contributing \$10 billion. The GFANZ Working Group members will work closely with the Government of Indonesia and the IPG to mobilize and coordinate at least \$10 billion in private funding in support of a committed transition way and investment plan. Private sector funding will be influenced by stimulating public investment, and with a shared goal on the part of all parties, including increased participation on the part of the multilateral development banks, the sector of public investment has the ability to greatly raise the amount of private support compared to the amount described above [38].

The JETP Investment and Policy Plan, which includes a competitively tendered pipeline of projects, ongoing progress on strengthening the nation's policy and supportive environment, compliance with financial procedures and terms, ability to respond to developments by the Indonesian Government and related stakeholders, and transparent reporting, is what determines whether these resources can be allocated. When timely, emission-free, affordable, and dependable options have been identified, the partnership is expected to continue only if no new coal power capacity is built. This includes developing a strategy to prevent new captive coal and successfully identifying investments in renewable power generation as options for all new en-route initiatives [38].

On the Indonesian JETP, there have been a few achievements. Firstly, the purchase of renewable energy by multinational firms doing business in Indonesia was the main topic of discussion during the meeting's opening session on February 24, 2023. It was noted that around 74.5% of the nation's greenhouse gas emissions are caused by the industrial sector, and that by 2030, energy-related activities will likely be responsible for about 58% of Indonesia's GHG emissions. Secondly, which took place from February 27, 2023, to March 1, 2023, covered the role of the transportation industry in reaching net-zero emissions as well as Indonesia's advancement toward being the greatest center for the supply

chain for electric vehicles in the world. The expense of adopting or converting to electric vehicles was brought up in the conversation, as well as the requirement for government incentives to spur industry expansion [37].

IV. CONCLUSION

Research on new and renewable energy (EBT) is very important, considering that Indonesia is currently committed to making an energy transition from fossil energy to EBT with a huge target. As the world's largest producer of fossil energy (especially coal), Indonesia faces a big challenge in switching to EBT, namely the problem of funding, which is not small.

In facing these challenges, Indonesia has succeeded in obtaining funding through partnerships conducted with countries that are members of the International Partners Group (IPG) through the JETP (just energy transition partnership) scheme after the G20 event in Indonesia. The JETP financing scheme is part of the strategy negotiated by Indonesia with IPG member countries as a response to Indonesia's deliberative foreign policy in response to the big changes in external conditions, particularly regarding the energy transition from fossil energy to renewable energy trend. Meanwhile internal change is insignificant in Indonesia related to energy transition process.

Looking at the achievements on Indonesian JETP, the program implemented has not targeted forms of procedural justice and justice as recognition. This shows that the energy and climate justice offered by developed countries to developing countries only involves client elites consisting of government officials and the private sector without involving groups who are actually vulnerable and affected by the energy transition.

This condition occurs because the policies adopted by the Indonesian government were only aimed at external pressure, which was greater than looking at internal conditions. Moreover, the impact of soaring global energy prices will lead to energy poverty, which will have an impact on the sustainability of a country's development.

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