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Just Energy Transition Partnerships and the Republic of Korea✢

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|ABSTRACT|

Climate change has been causing far-reaching negative impacts across the globe, but it is often developing countries that suffer more from such impacts despite being relatively less responsible for global greenhouse gas (GHG) emissions. Some advanced countries have thus taken measures to assist with climate actions for developing countries, such as facilitating the green energy transitions of the latter. This study examines Just Energy Transition Partnerships (JETPs) as one example of such programs. Adopted by several European countries, the United States and Japan, JETPs aim to ensure that the developing world's transition from carbon intensive economies to green and sustainable ones is a just and equitable process, minimizing various socioeconomic risks and other harmful effects. Korea has not yet joined JETPs, but questions and discussions regarding such a possibility have been emerging in light of Korea's external vision to be a global pivotal state. This paper explores where Korea stands with regard to the idea of just energy transitions by discussing relevant policies at home and abroad. By doing so, this study aims to inform relevant policy discussions as well as provide insights and implications regarding Korea's participation in JETPs.

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Ⅰ. Introduction

1. Just Energy Transition Partnerships and Korea

Climate change has been causing negative impacts around the globe, affecting both developed and developing countries alike with accelerating speed, despite ongoing efforts to mitigate it. Given the ever-growing urgency to address this pressing global issue, governments need to decarbonize their economies, particularly their energy sectors. However, not all developing countries are endowed with the resources and capacities to tackle this transition task. Green energy transitions away from carbon intensive energy systems, therefore, remain a challenge for many developing countries.

Just Energy Transition Partnerships have been introduced by advanced countries as multilateral funding agreements to promote just energy transitions in developing countries. Funded by the International Partners Group (IPG), JETPs are a plurilateral and long-term approach to supporting climate action in carbon-intensive developing countries at risk of carbon lock-in. IPG membership now consists of advanced economies including France, Germany, the United Kingdom, the US, the European Union, Italy, Canada, Japan, Norway, and Denmark. Through JETPs, IPG countries provide financial packages to support power sector decarbonization strategies that reflect enhanced climate ambition and related national development priorities, including expanding energy access and developing low-carbon energy value chains.

Under the JETP arrangement, developing countries can embark on domestic energy system transitions so that they can expand public access to stable and affordable energy sources while decarbonizing their existing fossil fuel-based energy systems, in line with their nationally

determined contributions (NDCs) under the Paris Agreement. The financial packages from JETPs are disbursed through various mechanisms including grants, concessional and non-concessional loans, investments, and guarantees.

South Africa became the first JETP recipient, when the initial five members (France, Germany, the UK, the US, the EU) of the IPG pledged US $8.5 billion in 2021 at COP26 held in Glasgow to help this largest greenhouse gas emitting country in Africa to make a transition to a green economy and build climate resilience. Indonesia was the second partner country for the JETP, receiving US $20 billion in November 2022, which was decided at the G20 Bali Summit.[1] In November 2023, Indonesia's JETP Comprehensive Investment and Policy Plan (CIPP) was launched officially, providing detailed plans and pathways for an energy transition in the country. Under the CIPP, Indonesia aims to achieve a 44% share of its energy production as renewable energy by 2030, reducing emissions from its on-grid systems.[2]

In December 2022, Vietnam was chosen by the IPG as the third JETP partner country to receive US $15.5 billion over the next three to five years. Vietnam plans to decarbonize its power sector, peaking energy-related carbon emissions by 2030, and to accelerate the deployment of renewable energy so that it can achieve about 47% of electricity generation from renewables by 2030.[3] The Vietnam JETP is composed

1) Annika Seiler, Hannah Brown, and Samuel Matthews, "Just Energy Transition Partnerships: Early Successes and Challenges in Indonesia and South Africa," *Center for Global Development*, Policy Paper 302, July 25, 2023, https://www.cgdev.org/publication/just-energy-transition-partnerships-early-successes-and-challenges-indonesia-and-south (Accessed December 5, 2023).

2) Embassy of the Federal Republic of Germany, Jakarta, "Joint Statement: Indonesia Just Energy Transition Comprehensive Investment and Policy Plan Launched," https://jakarta.diplo.de/id-en/joint-statement/2632552 (Accessed February 20, 2024).

3) Edelman Global Advisory, "Five Facts to Know: Just Energy Transition Partnerships," https://www.edelmanglobaladvisory.com/insights/five-facts-know-just-energy-transition-partnerships (Accessed March 20, 2024).

of US $7.75 billion in pledges from IPG member countries, the Asian Development Bank and the International Finance Corporation, with a matching US $7.75 billion to come from private financial institutions. The latter will be coordinated by the Glasgow Financial Alliance for Net Zero (GFANZ), which includes major global banks such as Bank of America, Citi, Deutsche Bank, HSBC, Shinhan Financial Group and so on.[4] Countries such as Senegal, the Philippines, and India have also expressed interest in receiving just energy transition funds.

JETP financing can be secured through grants, loans, or investments, suggesting that in addition to governmental, intergovernmental development funds, and investment banks, private financial entities, such as banks, can participate in the project. Moreover, it is integral that JETPs mobilize support from the civil society actors of participating developing countries in order to ensure that the notions of justice and equity are well incorporated into the program details and executed well. Thus, one can say that JETPs exemplify multinational, multi-sector and multi-stakeholder collaborations that have been unfolding to promote the just energy transition of developing countries in order to tackle climate change.[5]

Korea is not a member of the IPG, even though it has been making various efforts to expand its role in global green leadership by adopting more ambitious climate change goals (i.e. emission reductions of 40% from the 2018 level) as well as expanding its green development assistance for developing countries. South Africa, Indonesia and Vietnam, which have been selected for JETPs, are all important trade partners for Korea.

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4) Ministry of Foreign Affairs of Japan, "International Agreement to support Viet Nam's Ambitious Climate and Energy Goals," 2022, https://www.mofa.go.jp/files/100434380.pdf (Accessed February 20, 2024).

5) Nazalea Kusuma, "What is Just Energy Transition Partnerships?" *Green Network*, March 2, 2023, https://greennetwork.asia/news/what-is-just-energy-transition-partnerships/ (Accessed January 3, 2024).

Sasol, South Africa's petrochemical company, for instance, wants to collaborate with Korea in the fields of mobility and transportation as well as green hydrogen.[6] Korea, thus, can expect to strengthen its bilateral ties with these countries by joining the JETP initiative.

Moreover, these countries are one of the biggest sources of global GHG emissions among emerging economies. By assisting these developing countries' mitigation efforts, Korea can obtain international carbon credits under Article 6 of the Paris Agreement, which talks about market-oriented carbon reduction mechanisms among countries through voluntary cooperation. According to the NDC updated under the Yoon Suk Yeol administration in March 2023, the GHG emission reduction target remained the same with the target introduced in October 2021 under the Moon Jae-in administration: a 40% reduction from 2018 levels (reduction of 436 million tons by 2030, down from 727 million tons in 2018). However, the Yoon administration increased the overseas GHG emission reduction target by 11.9% compared to the corresponding target under the Moon administration. At the same time, the updated NDC under the Yoon administration also changed the emission reduction ambition of industry from 14.5% set in 2021 to 11.4% from the 2018 levels. This adjustment, however, met criticism that Korea has been backsliding on its domestic emission reduction efforts, while betting on uncertain international carbon markets.[7] Against this backdrop, the Korean government and society have ample reasons to pay more attention to its assistance for the mitigation efforts and just

6) Daeun Choi, "ESG Trends in South Africa: JET IP," *Kotra Overseas Market News*, July 6, 2023, https://dream.kotra.or.kr/kotranews/cms/news/actionKotraBoardDetail.do?SITE_NO=3&MENU_ID=70&CONTENTS_NO=1&bbsGbn=00&bbsSn=322&pNttSn=203869 (Accessed March 4, 2024).

7) Daehee Lee, "Yoon Administration, Backsliding on the Emission Reduction Target of the Industrial Sector Compared to the Moon Administration," *Pressian*, March 21, 2023, https://www.pressian.com/pages/articles/2023032115010365541 (Accessed March 30, 2023).

transition in developing countries. Especially if Korea wants its collaborative efforts with emerging economies in the climate change realm not to be seen as solely driven by the narrow interest of obtaining international carbon credits to make up for its sluggish domestic mitigation efforts, it might as well pay increasing attention to the just transition issues in developing economies. By incorporating just transition dimensions into its international climate cooperation efforts, Korea not only can obtain carbon credits as substantive benefits but also can avert potential international criticism for its greenwashing-like behavior, demonstrating its commitment to global GHG emission reduction.

In addition, there have been increasing expectations for Korea to play more active and assertive roles in climate financing and leadership sectors of the climate diplomacy scene over the years.[8] As advanced economies, including the US and Japan, have carried out JETP projects, there has been discussion about Korea's future plans or its intention to join the IPG to sponsor just energy transitions in developing countries. Thus, the Korean government and policy community should pay more attention to this matter if Korea is to remain committed to its global leadership and partnership roles in the climate change arena.

Against this backdrop, this paper aims to facilitate further discussion on the topic by dealing with how just energy transition discussions have been unfolding in Korea at the domestic level and how Korea has been working for goals similar to JETP's objectives while not being part of

8) Wonseop Yoon, "Implications of COP27: Advanced Countries Strongly Call for the Expansion of Donor Countries in the Field of Climate Change…Korea is a Number 1 Target," *Greenium,* November 25, 2022, https://greenium.kr/cop27%EC%8B%9C%EC%82%AC%EC%A0%90%E2%91%A0-%ED%83%84%EB%85%B9%EC%9C%84-%EC%99%B8%EA%B5%90%EB%B6%80-%EC%84%B8%EB%AF%B8%EB%82%98-%ED%95%9C%EA%B5%AD-%EA%B3%B5%EC%97%AC%EA%B5%AD-%EC%84%A0%EC%A7%84%EA%B5%AD/ (Accessed December 2, 2023).

the IPG at the international level. More specifically, this paper advances the question of whether Korea should be part of JETPs and what should be taken into considerations for creating conducive conditions for it. This paper approaches the question in the following two steps.

First, one can explore what kind of discussion has been unfolding with regard to just energy transition in the Korean domestic setting. This is because South Korea's JETP-related actions at the international level are more likely to be supported and reinforced if there are corresponding actions and efforts unfolding at a domestic level. Most of the countries participating in the IPG have introduced corresponding or similar domestic just energy transition plans and are known as leading nations in the realm of global climate change politics and diplomacy. Therefore, one can assume that countries having just energy transition institutions or policies at home are more likely to support the just energy transitions of other countries through initiatives such as JETPs, showing a high level of congruence and synchronization between domestic and international policy.

Then, as the second step, this paper will be examining how the Korean government's and corporations' energy-related involvement in, and engagement with, developing countries, particularly in Southeast Asia, can be evaluated in light of just energy transition goals. This discussion will help illuminate where Korea currently stands in terms of promoting the just energy transition of developing countries.

The discussion, through the above-mentioned two steps, will generate insights into what Korea should consider doing, if it is to join the JETPs in the foreseeable future. This policy-informing paper is necessary and valuable given that academic research dealing with the topic of Korea and JETP remains scant.

The rest of the paper is structured into the following sections. In the next section, a discussion about climate change and just energy

transition will be provided in order to supply the broad background of this research. Then in Section II, the paper discusses the relationship between JETP and Korea in the two steps explained earlier. Section III concludes with some policy-relevant insights and implications.

2. Climate Change and Just Energy Transition

Climate change has been intensifying, generating catastrophic impacts, not just on developing countries but also on developed countries. The Paris Agreement adopted by 196 parties at the United Nations (UN) Climate Change Conference held in Paris (COP21) in December 2015 stipulates that the parties would be pursuing the goal of holding the increase in the global average temperature to well below an increase of 2°C from pre-industrial levels and to seek efforts to limit the temperature increase to 1.5°C from pre-industrial levels. However, limiting global warming to 1.5°C by the end of this century has become an ever-more daunting task as the evidence of the negative impact of climate change has accumulated at an accelerating speed and scale. To achieve this global goal, greenhouse gas (GHG) emissions must peak by 2025 at the latest and decline 43% by 2030.[9] A more recent study published in *Nature Climate Change* argues that carbon neutrality should be achieved by 2034, not 2050, in order to achieve the 1.5°C target.[10] While there has been a growing imperative for drastic GHG emission reduction, the actions of states and non-state actors have

9) UNFCCC, "What is the Paris Agreement?" https://unfccc.int/process-and-meetings/the-paris-agreement?gclid=Cj0KCQjw-pyqBhDmARIsAKd9XIMrywJYfChExufSXgF-GmHf-wPjngwSqF4Kiy2O0cjdmbyI1t07YXIaAjdSEALw_wcB (Accessed December 2, 2023).

10) Michael Le Page, "We Can Now Only Stay Under 1.5°C Target if We Achieve Net Zero by 2034," *NewScientist*, October 30, 2023, https://www.newscientist.com/article/2400140-we-can-now-only-stay-under-1-5c-target-if-we-achieve-net-zero-by-2034/ (Accessed January 6, 2024).

remained quite inadequate.

In the meantime, the various negative impacts of climate change have not been evenly distributed, with far more of the devastating impacts falling upon developing and least-developed nations.[11] The most vulnerable to climate change, however, are generally the least responsible for it,[12] and often lack the resources and capacity to cope with its risks and negative consequences. The international community has, thus, been paying attention to the imperative to provide the most vulnerable countries and societies with various forms of assistance in such areas as finance, technology, and capacity building.

The decarbonization of the energy sector is one of the most critical priorities when it comes to global climate change mitigation.[13] Since the Industrial Revolution, the world has recorded economic growth based on an energy system in which fossil fuels, such as coal, oil, and natural gas, have constituted the primary energy sources. The combustion of these fuels during the process of modern economic development has resulted in the GHG accumulation, contributing to global warming and climate change. Since the energy sector accounts for around three quarters of global GHG emissions today, an energy transition to low-carbon or carbon free sources and the overall decarbonization of economies and societies constitute one of the core elements in climate change responses. In order to meet the common climate goals under the Paris Agreement, a phase-out of coal, in

11) Richard Tol, Thomas E. Downing, Onno J. Kuik, and Joel B. Smith, "Distributional Aspects of Climate Change Impacts," *Global Environmental Change*, Vol. 14, No. 3 (2004).

12) Hans-Martin Füssel, "How Inequitable is the Global Distribution of Responsibility, Capability, and Vulnerability to Climate Change: A Comprehensive Indicator-based Assessment," *Global Environmental Change*, Vol. 20, No. 4 (2010).

13) C2ES, "Global Emissions," 2020, https://www.c2es.org/content/international- emissions/#::text=Globally%2C%20the%20primary%20sources%20of,72%20percent%20of%20all%20emissions (Accessed March 3, 2024).

particular, needs to take place no later than 2030 in the Organization for Economic Cooperation and Development (OECD) and the EU and no later than by 2040 in the rest of the world.[14)]

Governments around the world have recognized the urgency of the situation and the necessity for action. They have introduced decarbonization plans for their energy sectors at home and joined various global efforts to facilitate the shift away from fossil fuel at an international level. For instance, over 50 national governments, together with about 117 sub-national governments, businesses and non-governmental organizations, have joined the Powering Past Coal Alliance (PPCA), an initiative launched by the UK and Canada at COP23 in 2017. Members of this alliance have committed themselves to accelerating the transition from coal to clean energy, as stated in the objectives of the PPCA Declaration. In Asia, as of November 2023, only Singapore has joined this alliance. Another example occurred more recently at COP28 in Dubai in the United Arab Emirates as 118 governments made a pledge to triple the world's renewable energy capacity. The pledge also called for an end to the financing of new coal-fired power plants and doubling the global rate of energy efficiency by 2030.[15)]

However, the energy transition away from fossil fuels, such as moving from coal to alternatives such as renewable energies, requires the adoption of new technologies, the development of human capacities, and infrastructure, which can only be realized through massive financial injections and investment. While an energy transition has emerged as an urgent priority in order to tackle the climate crisis, the energy

14) Powering Past Coal Alliance, "Declaration," https://poweringpastcoal.org/strands-of-work/just-transition/ (Accessed December 5, 2023).

15) Kate Abnett, Valerie Volcovici, and David Stanway, "Countries Promise Clean Energy Boost at COP28 to Push Out Fossil Fuels," *Reuters*, December 2, 2023, https://www.reuters.com/sustainability/climate-energy/over-110-countries-set-join-cop28-deal-triple-renewable-energy-2023-12-02/ (Accessed December 18, 2023).

transition process poses multiple challenges due to tremendous capital requirements, the competition among various energy sectors for decarbonization options, inconsistent environmental policies, and the public acceptance of changes in the energy use.[16] Moreover, the energy transition does not merely involve replacing old energy systems with new ones but also entails socioeconomic changes, such as structural and systemic changes in the economy, regional revitalization, and industrial transformation.[17] The energy transition processes also generate winners and losers from a socioeconomic point of view. Those companies and workers in the field of traditionally carbon intensive energy sectors are likely to lose their jobs and investments, thus bearing a higher likelihood of becoming losers in the energy transition process.[18] Such a consequence can even open up the possibility for the losers to forego their support for governments and even undermine societal harmony.[19]

Thus, one can see that an energy transition entails not just technological transformation but also incorporates various risks that are socioeconomic and political in nature. Not all countries and societies can afford to deal with the challenges associated with an energy transition effectively. As discussed earlier, developing countries and the most vulnerable nations in the global South are not as well equipped as advanced nations to face green energy transitions, facing more

16) Elisa Papadis and George Tsatsaronis, "Challenges in the Decarbonization of the Energy Sector," *Energy*, Vol. 205 (2020).

17) Frank W. Geels, Benjamin K. Sovacool, Tim Schwanen, and Steve Sorrell, "Sociotechnical Transitions for Deep Decarbonization Accelerating Innovation is as Important as Climate Policy," *Science*, Vol. 357, Issue 6357 (2017).

18) Brian Blankenship, Michael Aklin, Johannes Urpelainen, and Vagisha Nandan, "Jobs for a Just Transition: Evidence on Coal Job Preferences from India," *Energy Policy*, Vol. 165 (2022); Adrien Thomas, "Framing the Just Transition: How International Trade Unions Engage with UN Climate Negotiations," *Global Environmental Change*, Vol. 70 (2021).

19) Zhonggen Sun, Furong Zhang, Yifei Wang, and Ziting Shao, "Literature Review and Analysis of the Social Impact of a Just Energy Transition," *Frontiers in Sustainable Food Systems*, Vol. 7 (2023).

challenges.[20]

Against this backdrop, the notion of just transitions has thus been gaining traction as a solution, reflecting on these negative consequences and risks associated with energy transition. Just transition, according to PPCA, means "a framework developed by the trade union movement to encompass a range of social interventions needed to secure workers' rights and livelihoods when economies are shifting to sustainable production, primarily combating climate change and protecting biodiversity."[21] The concept, which originated from the US labor movements of the 1980s, aims to protect workers' rights and employment in the face of tightened environmental regulations. For instance, the Oil, Chemical and Atomic Workers Union (OCAW) called for the creation of the superfund to help workers in environmentally toxic industries such as the chemical industry.

The idea was later espoused by international labor organizations, such as the International Trade Union Confederation (ITUC), which urged the agreement of COP15, held in Copenhagen in 2009, to insert the just transition concept. Since then, the term diffused globally through the International Labour Organization (ILO)[22] and has been applied to climate change and energy transition.[23] The Paris Agreement became the first international treaty referring to the "imperatives of a just

20) Anthony Afful-Dadzie, Alexandra Mallett, and Eric Afful-Dadzie, "The Challenge of Energy Transition in the Global South: The Case of Electricity Generation Planning in Ghana," *Renewable and Sustainable Energy Reviews*, Vol. 126 (2020).

21) Powering Past Coal Alliance, "Just Transition," https://poweringpastcoal.org/strands-of-work/just-transition/ (Accessed January 3, 2024).

22) See for instance, International Labour Organization, "Guidelines for a just transition towards environmentally sustainable economies and societies for all," https://www.ilo.org/wcmsp5/groups/public/@ed_emp/@emp_ent/documents/publication/wcms_432859.pdf (Accessed February 20, 2024), to see how this organization defines a just transition.

23) Woochan Chang, "Transition Towards a Zero-Carbon Society and the Issue of Labor Law," *Labor Law Studies*, Vol. 84 (2022).

transition of the workforce and the creation of decent work and quality jobs in accordance with nationally defined development priorities" alongside references to human rights, gender equality, intergenerational equity, and procedural justice.[24] Thus, there has been a growing recognition that the shift from extractive brown industries to sustainable green ones needs to be just and equitable.[25]

McCauley and Heffron defined the just energy transition concept as a framework that emphasizes the need to move away from fossil fuels while simultaneously accelerating social justice processes and outcomes for all involved stakeholders.[26] According to them, justice can be seen as having multiple dimensions, including distributional, procedural and restorative ones. Distributional justice refers to the identification of geographical implications arising from the energy transition with a focus on discerning the multi-dimensional impacts of this shift. Procedural justice emphasizes the assessment of crucial democratic elements within the energy transition process, placing human rights and the rule of law at its core. Restorative justice reflects the trade union origins of the just transition concept, aiming to restore any negative employment impacts resulting from an energy transition.[27] Other scholars also note the recognitional justice dimension, which aims to ensure that the needs and concerns of all groups within society, including indigenous populations, migrant workers, women and so on, are reflected in the energy transition processes.[28]

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24) UNFCCC, "The Paris Agreement," Paris (2016), p. 2.

25) Anthony Stark, Fred Gale, and Hannah Murphy-Gregory, "Just Transitions' Meanings: A Systematic Review," *Society & Natural Resources*, Vol. 36, No. 10 (2023).

26) Darren McCauley and Raphael Heffron, "Just Transition: Integrating Climate, Energy and Environmental Justice," *Energy Policy*, Vol. 119 (2018).

27) Darren McCauley and Kerry Pettigrew, "Building a Just Transition in Asia-Pacific: Four Strategies for Reducing Fossil Fuel Dependence and Investing in Clean Energy," *Energy Policy*, Vol. 183 (2023), pp. 2-3.

28) Benjamin Brown and Samuel J. Spiegel, "Coal, Climate Justice, and the Cultural Politics

Based on this idea of a just transition, governments around the globe have been trying to minimize various risks associated with their energy transition. For instance, in the US, the Appalachian Transition has proposed four measures to build resilient communities, create sustainable jobs, engage affected workers and communities in collaboration, as well as secure long-term investment from various sources, in addition to protecting children's rights and developing educational programs.[29] In Australia, a regulatory framework was established for a just transition, including the three criteria of financial support, green jobs for workers, union and community participation, and increased exploration of better management practices to improve the likelihood of just outcomes.[30] Scotland established an independent Just Transition Commission in 2018 to advise the government on how to achieve a carbon neutral economy as well as looking at how to maximize opportunities for decarbonization in terms of fair work and tackling inequalities, while delivering a sustainable and inclusive labor market.[31]

Conversely, various negative consequences associated with an energy transition can take place at an international level as well, generating the necessity to discuss the concept's application at the international level. Developing countries, that cannot afford a smooth transition to

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of Energy Transition," *Global Environmental Politics*, Vol. 19, No. 2 (2019); Jessica A. Crowe and Ruopu Li, "Is the Just Transition Socially Accepted? Energy History, Place, and Support for Coal and Solar in Illinois, Texas, and Vermont," *Energy Research & Social Science*, Vol. 59 (2020).

29) Brian F. Snyder, "Vulnerability to Decarbonization in Hydrocarbon-Intensive Counties in the United States: A Just Transition to Avoid Postindustrial Decay," *Energy Research & Social Science*, Vol. 42 (2018).

30) George Goddard and Megan A. Farrelly, "Just Transition Management: Balancing Just Outcomes with Just Processes in Australian Renewable Energy Transitions," *Applied Energy,* Vol. 225 (2018).

31) Simone Abram, Ed Atkins, Alix Dietzel, Kristen Jenkins, Lorna Kiamba, Joshua Kirshner, Julia Kreienkamp, Karen Parkhill, Tom Pegram, and Lara M. Santos Ayllón, "Just Transition: A Whole-Systems Approach to Decarbonisation," *Climate Policy*, Vol. 22, No. 8 (2022).

a low-carbon or carbon-free energy future, are likely to lag behind the advanced nations in terms of a green transition and sustainable development. This gap can result in the further expansion of existing inequality, deepening growth chasms between developed and developing countries. Developing countries and economies are often much more dependent on carbon-intensive energy sources and industries to meet their basic energy needs as well as for economic growth, which suggests that decarbonizing their energy sector would be highly costly and challenging for them.[32)]

A green energy transition by a developing nation might mean foregoing opportunities to achieve fast economic growth as the country can no longer utilize its relatively abundant conventional fossil fuel resources in the face of growing international pressure to transition to a low-carbon and sustainable economy. As a matter of fact, many developing countries have expressed concerns regarding such international pressures to decarbonize their energy sectors, seeing them as unfair and unjust as advanced countries' historical responsibilities for climate change are much bigger than theirs.[33)] It is also developing countries that remain most vulnerable to losses and damage inflicted by climate change. These consequences suggest that the international community needs to take the justice and equity dimensions into considerations when discussing and implementing various energy transition programs to mitigate climate change.

Recognizing the above-mentioned justice concerns that are inherent in any energy transition discussion as well as the enormous burden and

32) Sun et al. (2023).

33) Rahul Tongia, "It is Unfair to Push Poor Countries to Reach Zero Carbon Emissions Too Early," *Brookings*, October 26, 2022, https://www.brookings.edu/articles/it-is-unfair-to-push-poor-countries-to-reach-zero-carbon-emissions-too-early/ (Accessed December 23, 2023).

cost placed upon developing countries, governments from the global North have been advancing various programs and initiatives designed to help developing countries make a successful energy transition to clean, low-carbon systems. At the same time, such programs aim to promote energy justice, trying to establish a global energy system that distributes the benefits and costs of energy services more equitably. A just energy transition, then, is a condition in which energy justice is achieved by making sure all groups have access to affordable, safe and sustainable energy as well as having them participate in the energy decision making process.[34]

Ⅱ. Just Energy Transition and Korea

1. Just Energy Transition in Korea

Just transition is a relatively new concept in the Korean context. However, the term has made its way into various legal and policy documents over the past several years as the energy transition has been accelerating in Korea. This section examines what policy documents and laws have incorporated the idea of a just transition in Korea to see the level of maturity and institutionalization of the discussion surrounding the just energy transition concept.

The just transition idea was incorporated into the K-New Deal adopted in October 2020, in the aftermath of COVID-19. The K-New Deal was designed to revitalize the economy mainly through massive public investment in the two pillars of green and digital transitions. The Moon Jae-in administration, then in power, believed that such a

34) Morgan Bazilian, Smita Nakhooda, and Thijs Van de Graaf, "Energy Governance and Poverty," *Energy Research & Social Science*, Vol. 1 (2014).

large-scale socioeconomic transition would render certain groups in society (e.g. unskilled, part-time labor workers, and women) vulnerable and marginalized, which explains why the social safety net elements were incorporated as part of the K-New Deal. Thus, the K-New Deal reflected the just transition idea that those who might be excluded from the fruits of rapid socioeconomic transformation need to be protected from the potential harms and given the opportunities to enjoy the benefits of the change.

The Carbon Neutrality Act (the Framework Act on Carbon Neutrality and Green Growth to Respond to the Climate Crisis) also incorporated the idea of a just transition. The act enacted in September 2021 enshrined the Korean government's climate goal of achieving carbon neutrality by 2050. In addition to specifying some of the major measures for achieving carbon neutrality, this legal document also included the just transition idea as one of the pillars for the implementation of carbon neutrality (along with emission mitigation, climate adaptation, and green growth). Article 2 of the act specifies a just transition as policy responses to share the cost incurred during the transition and to minimize the damage done to vulnerable classes by protecting labor workers, farmers, and employees in the small to mid-size firms in the regions and industries that can be influenced directly and indirectly by the transition. Chapter 7 of this legal act lists some of the specific measures for promoting a just transition: social safety nets, minimization of the loss inflicted by structural unemployment, creation of just transition special zones, assistance for business transition for small and mid-sized firms, reduction of asset loss risks, public participation, facilitation of cooperatives, and the establishment of service centers for a just transition, to name a few.[35)]

35) Jun-seo Lee, "Legal Challenges for Carbon Neutrality and Just Transition," *Hanyang Law*

Thus, the Carbon Neutrality Act suggests that the transition to a carbon neutral society, and economy would produce inevitable losses and create risks for certain groups in society, and acknowledges the need to protect those groups. However, the Carbon Neutrality Act falls short of specifying concrete and detailed measures to promote a just transition and explaining how those measures would be implemented in the actual policy implementation.

In Korea, just like in many other advanced countries, there has been increasing attention paid to the concept of a just transition particularly with regards to energy transition. Korea has been on a gradual decarbonization path in the energy sector, although its pace has been much slower than in many other advanced nations in the OECD.

The Basic Plan for Long-term Electricity Supply and Demand (called *jeonkibon* in Korean) is a governmental policy document showing how the country's energy trajectory will be evolving in the next 15 years or so. It is a plan suggesting how the energy mix in Korea will be changing. Recent *jeonkibons* suggest the Korean government's increasing attention to this energy transition. The 8th *jeonkibon* (2018-2032) and 9th *jeonkibon* (2020-2034) indicated that Korea would be transitioning from an energy system in which coal and nuclear constituted the main energy source to an energy system where their gradual reduction is made up for by an increase in renewable energy. The 9th *jeonkibon* contained plans to shut down 30 coal-fired power plants between 2020 and 2034, with 24 being turned into Liquefied Natural Gas (LNG). The 10th *jeonkibon* (2022-2036) envisions the decrease of coal generation from 38.1GW in 2022 to 27.1GW by 2036 while renewable energy would be increased from 29.2GW to 108.3GW by 2036.[36] This includes a plan for phasing-out

Review, Vol. 33, No. 2 (2022).

36) Ministry of Trade, Industry and Energy, "The 10th Basic Plan for Long-term Electricity Supply and Demand," https://www.kier.re.kr/resources/download/tpp/policy_230113_

old coal-fired power plants by 2036.[37] This way, the proportion of coal in the overall electricity provision in Korea will be reduced from 32.5% of 2022 to 14.4% by 2036. This transition plan reflects the Korean government's energy transition policy, which is in line with its GHG emission reduction target (40% reduction from the 2018 level) as part of its NDC under the Paris Agreement.

The Korean government is aware that this energy transition through a coal phaseout can generate economic losses within certain groups in society. In particular, it is inevitable that some jobs, associated with the fossil fuel, particularly, are likely to be lost during the green energy transition. For instance, conventional coal-fired power plants will gradually disappear under the Korean energy transition policy, affecting the workers and regions that used to host the plants. The Ministry of Trade, Industry and Energy (MOTIE) predicts an estimated 25,000 jobs will be lost during the transition, and 32% of them will be in Chungnam, which hosts 29 of the 58 existing coal power plants in Korea. While the government estimates that the number of employees associated with the coal power plants is about 15,000 (6,000 working at the power plants and 9,000 in partner companies), there are many more stakeholders related to the industry, including those in subsidiaries and partner companies. The shutdown of coal power plants based on the Korean energy policy transition can thus lead to an exodus of people from those regions, affecting the local economic indicators, including employment and local government revenue streams in the target regions.[38]

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data.pdf (Accessed January 14, 2024).

37) Korean coal-fired power plants are located along coastal lines and are concentrated in a handful of locations: 29 plants in Chungnam, 14 in Gyeongnam, 7 in Gangwon, 6 in Incheon, and 2 in Jeonnam.

38) *Kukmin Ilbo*, "Disappearing Coal Fire Power Plants… What to Do About the 15,000 Jobs?" October 7, 2023, https://news.kmib.co.kr/article/view.asp?arcid=0924323559&code=11131700&cp=nv (Accessed December 20, 2023).

As energy transitions from fossil fuels, including a move from coal to renewable sources, often accompany socioeconomic problems such as unemployment, the government has been trying to introduce measures in line with the idea of a just transition. The Carbon Neutrality Act passed in 2021, for instance, includes an article stating that classes and regions affected during the green transition should be protected, but there has been no specific policy formed based on the act, as mentioned earlier. The National Assembly has been reviewing legislation that calls for the establishment of a fund for the regions affected by the coal phaseout.[39)]

The 10th *jeonkibon* briefly touches upon the necessity to transfer workers from coal to LNG and renewables and utilize the existing coal power plant infrastructure. But it does not provide any detailed policy programs, either. The plan also states that the government will consider maintaining coal facilities to prevent coal plants from becoming stranded assets but also in case of an energy emergency.[40)]

The coal-related industrial ecosystem has also tried to help protect the sector as well as the people and communities within the sector during the time of rapid transition. For instance, Korea Mine Rehabilitation and Mineral Resources Corporation (KOMIR) as a public corporation representing coal mine communities has been introducing various measures to revitalize the local economies affected by the green transition. It has been working with the local governments in the affected mine areas to attract new investment and provide various community services and welfare programs through city and community renewal programs. Rather than resisting change, KOMIR has been assisting affected coal mine areas so that they can adapt during the energy

39) *Kyunghyang Shinmun*, "Need to Revitalize the Coal Phase Out Regions…Submitted by 35 Lawmakers," June 20, 2023, https://www.khan.co.kr/economy/industry-trade/article/202306200928001 (Accessed December 2, 2023).

40) Ministry of Trade, Industry and Energy (2023).

transition. For example, KOMIR helps those mine communities and villages to be turned into green energy villages through the installation of solar panels.

Korea Coal Corporation, another public corporation representing the coal sector, has been concerned with the negative impact of the energy transition such as the job loss and unemployment problems, particularly of mine workers. It has been trying to work with various stakeholders, including local governments, employees in the coal sector, and relevant governmental institutions including KOMIR, to facilitate a smooth and just energy transition.[41)]

Those concerned with the energy transition and its impact on the coal power sector have been suggesting various measures to facilitate just and smooth energy transition. The ideas include utilizing coal facilities and plants as LNG, hydrogen, or renewable energy facilities. There have also been voices calling for increased financial compensation for the affected areas and workers as well as urging the introduction of relevant legislation regarding compensation for workers and rehabilitation of affected local economies.[42)] Others have suggested ideas to turn the sites of coal fired power plants and the villages surrounding them into some cultural venues for tourism and so on as part of city renewal projects.

The cities where coal used to constitute the primary industry of the region (such as Boryeong, Ongjin, Taean, Samcheok, Donghae, Hadong, Goseong) and thus the main source of local revenue have formed a

41) Korea Coal Corporation, "KOCOAL Signs an MOU to Support Reemployment of the Retirees from the Coal Mines," August 24, 2023, https://www.kocoal.or.kr/board/board_view.php?view_id=1088&board_name=news&page=1&search_category=%EB%B3%B4%EB%8F%84%EC%9E%90%EB%A3%8C (Accessed December 21, 2023).

42) *Daejonilbo*, "75 Trillion Economic Loss Due to the Closure of Coal Fired Power Plants… Need Compensation for the Sacrifice for Electricity Supply," August 17, 2023, https://www.daejonilbo.com/news/articleView.html?idxno=2080190 (Accessed March 23, 2024).

coalition to share their concerns and push their agenda for a just transition. Together, these local governments have been calling for the introduction of a special law for the regions whose coal facilities are to be shut down due to the energy transition policy. Given the estimate that the economic losses related to the phase out of 28 coal fired power plants can reach 75 trillion won, those cities and regions have collectively called for the introduction of the special fund to help revitalize their economies through investment and financial support.[43)]

However, overall, the idea of a just transition has not been translated into concrete policy programs and action plans yet, so follow-up measures should be taken.[44)] There is no comprehensive roadmap guiding how to address the various impacts of an energy transition upon different sectors and providing measures to respond to the impacts based on systematic research on the impact and its scope. In addition, the government needs to establish a just transition fund as only some affected local governments, such as Chungnam, have introduced such a fund. Finally, the government needs to create more green jobs as well as support jobs and skills training such as upskilling and reskilling in green technology.

Moreover, there needs to be a decision-making or a governance system in which various stakeholders can participate and discuss how they define a just energy transition and what they expect the government to deliver to facilitate it. Looking through the policy documents introduced, one can see that they have addressed distributional and restorative justice dimensions, focusing more on the question of how

43) *Monthly Electrical Journal*, "Need Special Law to Support the Phaseout of the Coal Fired Power Plants?" October 20, 2023, http://www.keaj.kr/news/articleView.html?idxno=5168 (Accessed December 17, 2023).

44) Woohyun Kwon, "Phaseout of Coal Fired Power Plants and the Major Challenges in Job Transition," *KEIS Local Industry and Employment Policy*, Vol. 8 (2023), pp. 10-22.

those negatively-affected regions and societal groups can be given fair compensation. Thus, procedural justice dimensions need to be incorporated as well. Although the National Carbon Neutrality and Green Growth Basic Plan adopted in March 2023 included the establishment of a social foundation for sustainable transition as the first priority task under the just transition category, various stakeholders, including labor workers, need to be a part of the social dialogues regarding a just transition.

In sum, the Korean government has been gradually acknowledging the necessity to introduce policies and institutions designed to protect those negatively affected by the green energy transition. However, Korean laws, institutions, and policies to promote a just transition remain too broad, lacking concrete policy programs and measures to materialize the idea through implementation. Moreover, there is a tendency to focus more on distributional and restorative justice dimensions than on procedural justice, calling for a more comprehensive approach.

2. Korea and Just Energy Transition Abroad

Just transition is likely to be promoted as an international agenda if individual countries have already espoused the concept and have been practicing it at a domestic level. As discussed earlier, it has not been long since Korea began to incorporate the just transition idea into its energy transition policy. Thus, one cannot expect Korea to have become an active advocate or voice for a just transition at the international level. This section explores how Korea's engagement with developing countries in the energy sector can be seen from the just transition framework and whether there have been any efforts made by Korea to help other countries make a just energy transition.

As noted earlier, Korea has not joined the JETP initiative, but it has been paying growing attention to the sustainable development and green transition of developing countries in recent years. As a country having the unique historical experience of transitioning from an aid recipient to a donor within a relatively short span of time, Korea has aimed to expand its assistance for developing countries so that they emulate or replicate Korea's rapid socioeconomic development experience. As global environmental challenges, including climate change, have deepened, Korea has been making efforts to increase its development aid in the arena of environmental sustainability.

Moreover, it has been trying to expand its green leadership as a middle power state, specifically in the field of climate change. Korea hosted the Green Climate Fund (GCF) and established the Global Green Growth Institute (GGGI) during the Lee Myung-bak administration, in an effort to expand its green leadership profile and soft power in the global environmental politics.[45] GCF, headquartered in Songdo, Incheon, is a climate fund designed to support developing countries to raise and realize their NDCs towards low-emissions and climate-resilient pathways. GGGI was established in 2012 with a vision to promote a low-carbon, resilient world of strong, inclusive, and sustainable growth through its main mission of supporting developing and emerging economies to make a successful transformation into a green growth economic model.

Moreover, since the decision allowing Korea to join the OECD Development Assistance Committee (DAC) was made in 2009, Korea has continued to increase its development assistance in green and sustainable development. The proportion of sustainable development

45) Heejin Han, "Korea's Pursuit of Low-carbon Green Growth: A Middle-power State's Dream of Becoming a Green Pioneer," *The Pacific Review*, Vol. 28, No. 5 (2015).

green official development assistance (ODA) out of the total ODA increased from 6.4% between 2000-2009 to 15.7% between 2010-2019, suggesting how Korea has paid growing attention to green transition in developing countries.[46] Korea has provided US $1.3 billion in concessional loans and US $0.4 billion in grants for climate mitigation and adaptation projects since 2016, for instance.[47]

During the Moon Jae-in administration, the Korean government followed, and built upon, the footsteps of the preceding administration when it comes to green diplomacy as well as contributions to the sustainable development of the developing world as an international agenda. For instance, at the Leaders Summit on Climate in April 2021, President Moon announced that Korea would end all public financing for new overseas coal-fired power plants. In the announcement of the 2050 carbon neutrality goal on 15 August 2021, the administration reaffirmed its commitment to assisting the energy transition of developing countries that are dependent on coal-power generation. The administration also hosted the Seoul Summit of the Partnering for Green Growth and the Global Goals 2030 (P4G) in late May 2021, which resulted in the adoption of the Seoul Declaration. In this declaration, governments, including Korea, pledged to accelerate energy transition through a coal phaseout. The Moon administration announced that Korea will contribute an additional US $4 million in grants for the P4G initiative to support green growth projects in developing countries.

Moreover, starting in January 2021, the Korean government worked on the adoption of the Third Strategy for International Development

46) Sung Jin Kang, "Sustainable Development ODA and Green ODA Trends for DAC and Korea," *Journal of International Development Cooperation*, Vol. 17, No. 1 (2022).

47) OECD, "Integrating Environmental and Climate Action into Development Co-operation: Reporting on DAC Members' High-Level Meeting Commitments," *OECD Publishing*, Paris, 2021, https://doi.org/10.1787/285905b2-en (Accessed December 22, 2023).

Cooperation for the years 2021-2025, which includes mid-term policy and strategy goals for Korea's green ODA. Based on this strategy, Korea formulated a number of development cooperation strategies and policy documents to integrate environmental and climate objectives into the development cooperation.[48] Korea has also made efforts to introduce environmental and social safeguards when it comes to the discharge of development assistance to ensure that it feeds into the sustainable and green transitions of developing countries and their societies. The Ministry of Environment's budget allotted to the category of carbon neutrality and green ODA has increased by 1.3 times to 30.1 billion won compared to 2023 and is to be used to assist developing countries' climate adaptation and GHG mitigation.[49]

Thus, one can see that as Korea has turned into an advanced economy, it has been taking actions to play more active international roles by assisting developing countries in their sustainable and green transitions. However, Korea's green ODA does not explicitly espouse the idea of a just transition. While acknowledging that Korea's engagement with developing countries through aid and assistance should incorporate climate objectives and sustainable development principles, Korea has not applied the just transition idea to its international aid in the energy transition field.

Rather, despite increasing green ODA and pledges of more contributions to the green transition of developing countries, Korea has been criticized by those concerned with its continuous overseas investment in coal power capacities. While the Korean government under the Moon administration pledged not to support any more international coal-fired power plants, it has continued to assist some

48) OECD (2021).

49) The Korean Association for Public Administration, "Research Regarding Measures to Strengthen International Environmental Cooperation (Final Report)," January, 2024, p. 28.

controversial projects such as the coal power plant construction in Vung Ang, Vietnam, and Jawa 9 and 10 in Indonesia.

Korea Electric Power Corporation (KEPCO) and Doosan, for instance, have been involved in the Jawa projects in Indonesia and Korean public banks such as the Korea Development Bank (KDB) and the Export-Import Bank of Korea (Korea Eximbank) financed the projects. Korea, thus, remains one of the only two OECD member states that spend public budget on overseas coal fired power plants, together with Japan. While KEPCO has been trying to sell off some of its coal fired power plants, the buyout has not been easy given the global trend toward coal phase-out.[50)]

The Green Korea United (*noksaekyeonhab*), an environmental NGO in Korea, released an analysis in November 2022, saying that Korea had spent US $1.5 billion on financial support for global climate change response while US $76.7 billion were poured into overseas fossil fuels.[51)] Korean firms and public banks' continued investment and involvement in overseas coal infrastructure construction has raised the question of whether Korea's commitment to tackle climate change through its aid for developing countries' green transition is genuine or borders climate hypocrisy.[52)]

Korea has been asked whether it is interested in joining the JETP, but government officials have remained ambivalent about such a possibility. At COP27 held in Egypt, the Minister of Environment said that Korea agrees on the idea that the international community needs to support developing countries' just energy transitions. However, when asked

50) *Kyunghyang Shinmun,* "KEPCO's Investment in Overseas Coal Fired Power Plants in the Age of Climate Crisis?" December 5, 2022, https://www.khan.co.kr/economy/economy-general/article/202212051521001 (Accessed January 5, 2024).

51) *Kyunghyang Shinmun* (2022).

52) Heejin Han, "Climate Hypocrisy? A Case of Korea's Involvement in Coal Capacity Expansion in Southeast Asia," *The Korean Journal of International Studies*, Vol. 20, No. 2 (2022).

about the possibility of Korea joining the JETP, the environmental minister answered that the Korean government would need to have internal discussions among relevant agencies and with the industry.[53] At the COP27, Korea committed US $3.6 billion for three years to help with developing countries' climate adaptation but did not make any other commitments. Korea also did not join the agreement dealing with the loss and damage issue while acknowledging the necessity to assist developing countries in the climate adaptation realm.

Korea participated in the G20 Summit held in Bali on November 15-16, 2022, and energy constituted one of the major agendas for this summit. During this summit, G20 leaders agreed to work together to reduce the gap in energy access and eradicate energy poverty in order to ensure the fulfillment of SDG7 (affordable, reliable, sustainable and modern energy for all).[54] Korea also took part in the Bali Compact where G20 countries' energy ministers agreed to accelerate energy transition. Based on this compact and the Bali energy transition roadmap, the G20 members will be working jointly to phase out fossil fuels and expand renewable energy. Countries also highlighted the importance of collaboration on the transfer of knowledge and technological innovation. The Indonesian JETP came about as a result of this summit. However, the meeting has not led the Korean government to adopt or join similar just energy transition programs for developing countries.

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53) *The Hankyoreh,* "Minister of Environment, Assistance for Developing Countries' Climate Crisis Loss?" November 17, 2022, https://www.hani.co.kr/arti/society/environment/1067779.html (Accessed December 20, 2023).

54) *The Jakarta Post,* "G20 Ministers Envision Joint Commitment on Energy Transition Acceleration at Bali Summit," November 17, 2022, https://www.thejakartapost.com/adv/2022/11/11/g20-ministers-envision-joint-commitment-on-energy-transition-acceleration-at-bali-summit.html (Accessed December 25, 2023).

Ⅲ. Conclusion

As climate change is intensifying, fossil fuels have been named as the main culprit. Thus, there have been growing voices calling for an energy transition to less carbon intensive or carbon free energy sources. According to the Production Gap Report 2023 released by UNEP in November 2023, 20 major fossil fuel countries have been increasing their production rather than decreasing it, making the 1.5°C goal under the Paris Agreement even more remote. UNEP, therefore, underscores the necessity to ramp up renewables, phase out fossil fuels and boost energy efficiency based on the norms of a just, equitable transition.[55)]

Given that not all countries can easily afford such a transition, however, international partnerships have been forged between advanced countries and developing ones in order to assist the latter in making a smooth transition and entering a sustainable development path. Just Energy Transition Partnerships are an example of such global North-South collaborative efforts. While Korea has not joined the JETP initiative, academia and policy circles have been toying with the idea.

This policy-oriented paper aimed to examine where Korea stands with regard to the just energy transition idea by examining various actions and policies taken by Korea on the domestic front and at the international level.

At the domestic level, just energy transition is a relatively new concept in Korea. The idea was incorporated into the K-New Deal adopted in 2020 as one of its pillars along with climate mitigation, climate adaptation and green growth. Then the Carbon Neutrality Act introduced in 2021 defined a just transition and listed some of the policy measures to promote it. However, the government needs to address the question of

55) UNEP, "Production Gap Report 2023," November 8, 2023, https://www.unep.org/resources/production-gap-report-2023 (Accessed December 22, 2023).

what each of those measures mean and how the government will execute them in concrete programs. The just transition idea has also been reflected in the Basic Plan for Long-term Electricity Supply and Demand. As the basic plan envisions a gradual coal phase-out as part of Korea's energy transition strategy, a just energy transition has become a concern for those in the affected coal industry and the economic sectors and groups associated with the industry. While local government and firm-level just transition measures have been introduced and implemented, the Korean government needs to adopt a more comprehensive roadmap and concrete action plans for a just energy transition as a national agenda. Moreover, not only distributional and restorative dimensions but also procedural dimensions need to be incorporated into just energy transition policy and its governance.

At the international level, Korea has not adopted policies explicitly for the just energy transition of developing countries. Korea has not joined the IPG in leading and funding the JETPs. However, Korea has made various efforts to facilitate green growth and the low-carbon transition of developing countries. For instance, it became a host country for the GCF and GGGI, two international organizations designed to support the low-carbon, climate resilient pathways of the global South. Moreover, Korea has expanded green ODA spending. However, Korea has also been criticized internationally for its continued investment and involvement in the building of coal capacity in countries like Indonesia and Vietnam, raising the question of whether Korea is committed to coal phaseout and a just energy transition in developing countries as part of the global efforts to respond to climate change.

Based on this overview and discussion on the current state of Korea in terms of its efforts to promote a just transition at home and internationally, this paper generates several policy relevant implications and insights. First, Korea should consider joining the IPG to carry out

JETPs as a North-South cooperation initiative to assist developing countries in their green energy transition. Such a project will provide resources, including financial ones, for developing countries so that they can embark on building green energy infrastructure as well as building the necessary skills and capacity to manage new energy systems. While the global South has been calling for rapid expansion of such aid, advanced countries have failed to deliver on their pledges. Thus, Korea's participation in the JETPs will certainly contribute to the collective efforts to assist developing countries' green energy transition. In addition to serving such global efforts as a member of G20, Korea can expect positive gains in terms of soft power and good reputation on the global diplomatic scene related to climate change. Korea can also mitigate the criticism regarding the misalignment or incongruence between its domestic and international climate actions, particularly when it comes to the fossil fuel phaseout.

Second, the Korean government should consider adopting a whole government approach when considering and participating in the JETP initiative. Not only the Ministry of Environment, Ministry of Foreign Affairs, MOTIE, as well as Ministry of Economy and Finance but also various governmental agencies dealing with the green energy transition and just energy transition can participate in the decision-making and governance regarding the initiative, given that multiple institutional stakeholders address climate change and energy transition.[56] The Korean government should also engage various public and private financial institutions to develop comprehensive financing mechanisms and strategies and ensure the financial sustainability of JETP projects and other relevant green energy transition programs undertaken in developing countries.

56) Korean Public Administration Association (2024).

Third, the Korean government should continue establishing relevant institutions and policies to promote justice in a green energy transition. Those institutions and policies developed through Korea's just energy transition experiences can provide valuable insights and reference points for the just energy transition processes in developing countries. Lessons learned and knowledge accumulated from the just energy transition processes and practices in Korea can be shared with developing countries in order to facilitate the just transition pathways of the latter.

Finally, just energy transition initiatives like the JETPs tend to focus on increased financial investments in clean energy production and reduction of the dependence on fossil fuels or simple technological adjustments, with the equity and justice aspects receiving little attention.[57] Thus, Korea should try to move beyond the simple technological and economic approach to JETPs. That is, Korea should aim at promoting not only distributional and restorative but also procedural and recognitional justice practices under the JETP flag as the latter dimensions have been neglected compared to the former aspects.[58] Doing so would entail not just investing in the clean energy capacity of developing countries but also making equity and justice considerations a priority by engaging affected communities and vulnerable social groups while integrating local knowledge into the concrete JETP project designs. Korea's participation in JETPs can result in not merely an increase of one more IPG member but an upgrade and improvement of the existing JETPs and their practice by responding to a call for an integrated, whole-system perspective on a just energy transition.[59]

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57) Noel Healy and John Barry, "Politicizing Energy Justice and Energy System Transitions: Fossil Fuel Divestment and a 'Just Transition'," *Energy Policy*, Vol. 108 (2017); Darren McCauley and Kerry Pettigrew, "Building a Just Transition in Asia-Pacific: Four Strategies for Reducing Fossil Fuel Dependence and Investing in Clean Energy," *Energy Policy*, Vol. 183 (2023).

58) Stark et al. (2023).

59) Abram et al. (2022).

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[국문초록]

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한희진 | 국립부경대학교 글로벌자율전공학부 교수

기후변화가 미치는 부정적 영향은 전 지구적으로 확산하고 있으나, 그 영향으로부터 더 큰 고통을 겪는 것은 종종 온실가스 배출에 대한 책임이 상대적으로 적은 개도국들이다. 이에 선진국들은 개도국의 녹색 에너지 전환 지원과 같은 기후변화 조치를 촉진하기 위한 노력을 기울여 왔다. 본 연구는 그러한 지원 프로그램의 사례로 정의로운 에너지 전환 파트너십(Just Energy Transition Partnerships)을 분석한다. 유럽 몇몇 국가들과 미국, 일본이 도입한 본 재정지원 프로그램은 개도국들의 탄소집약적 경제로부터 녹색의 지속가능한 경제로의 전환을 지원하며 정의, 공평과 같은 가치의 반영을 통해 전환 과정과 연계된 각종 부정적 리스크와 폐해를 최소화하는 데 목적이 있다. 한국은 아직 이러한 이니셔티브에 참여하지 않고 있으나 글로벌 중추국으로의 도약이라는 대외 비전을 가진 중견국으로 한국이 JETPs에 참여해야 하는가에 대한 논의와 물음이 막 제기된 상태다. 본 정책 연구는 정의로운 에너지 전환과 관련하여 한국의 대내외 정책을 살펴봄으로써 해당 주제와 관련해 한국이 과연 어디에 서 있는가를 논의하였다. 이러한 논의와 분석을 통해 한국의 JETPs 참여와 관련하여 정책적 통찰과 함의를 제공하고자 한다.

주제어: 기후변화, 정의로운 에너지 전환 파트너십, 한국, 에너지 전환

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