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# NGHIÊN CỨU CHÍNH SÁCH THU HÚT FDI HƯỚNG ĐẾN TĂNG TRƯỞNG XANH CỦA INDONESIA VÀ NHỮNG KHUYẾN NGHỊ CHO VIỆT NAM

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# Tóm tắt

Hiện nay, tăng trưởng xanh đã trở thành xu thế tất yếu đối với mục tiêu phát triển bền vững toàn cầu. Sau một thời gian nghiên cứu, nhóm tác giả mong muốn phân tích những chính sách thu hút FDI hướng tới tăng trưởng xanh của Indonesia để từ đó đưa ra giải pháp cho Việt Nam về vấn đề này do có sự tương đồng về môi trường đầu tư, tình hình thu hút FDI và tình hình tăng trưởng xanh giữa hai quốc gia. Nghiên cứu sử dụng phương pháp định tính và dựa trên khung phân tích chính sách để phân tích đặc điểm các chính sách thu hút FDI hướng tới tăng trưởng xanh được thực thi tại Indonesia. Để phát huy được một nền tăng trưởng xanh bền vững, một số khuyến nghị cho Việt Nam bao gồm những giải pháp đối với ba nhóm chính sách: chính sách liên quan trực tiếp đến thu hút FDI, nhóm chính sách liên quan gián tiếp đến thu hút FDI, nhóm chính sách liên quan gián tiếp đến thu hút FDI và nhóm chính sách môi trường liên quan đến thu hút FDI.

Từ khóa: chính sách, FDI, Indonesia, tăng trưởng xanh, Việt Nam

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# THE FDI ATTRACTING POLICY OF INDONESIA TOWARDS GREEN GROWTH AND RECOMMENDATIONS FOR VIETNAM

# Abstract

Nowadays, green growth has become an inevitable trend towards global sustainable development goals. After a period of research, the researchers want to analyze Indonesia's FDI attracting policies towards green growth then provide suggestions for Vietnam on this matter based on similarities in investment environment, FDI attraction and green growth situations between the two countries. The study has used qualitative research methods and is based on a policy analysis framework to analyze the characteristics of FDI attraction policies implemented in Indonesia. Therefore, to promote sustainable green growth, some recommendations for Viet Nam include solutions to three sets of policies: direct FDI attracting policies, indirect FDI attracting policies and environmental policies related to attracting FDI.

Keywords: FDI, green growth, Indonesia, policy, Vietnam

# 1. Introduction

It is widely accepted, that the deepening exploitation of natural resources but lacking awareness of sustainability ascends the promotion of economic development of many countries leading to a high growth rate. At the same time, natural resources and the environment have also triggered a series of issues, such as air pollution, water and ocean pollution; land degradation; deforestation; biological layer decline; and increasing emissions of greenhouse gasses such as CO2.

In that context, green growth has become an essential trend for countries to achieve economic growth while maintaining environmental sustainability. In line with this trend, over the years, Indonesia has been actively implementing plans and strategies to promote green growth. Recognizing the progress in Indonesia's green growth objectives through attracting foreign direct investment (FDI), our research group decided to study policies for attracting FDI aimed at green growth in Indonesia. Furthermore, we proposed policy recommendations to attract FDI for green growth in Vietnam.

# 2. Literature review

In the paper "Impact of Foreign Direct Investment on Green Innovation: Evidence from China's Provincial Panel Data" by Chen, Fuxuan, and Huang (2023), the authors use policy environment (PE) and marketization level (ML) as key moderating variables to delve deeper into the impact of FDI on green transition. The research results show that FDI exhibits positive and significant dynamics in terms of gradually decreasing marginal efficiency on green growth. The study provides policy implications for local governments to effectively utilize foreign capital for green innovation activities. According to the research by Weimin, Zhu, and Muhammad (2021), FDI is beneficial for green growth up to the thresholds of 28,571 net FDI inflows (% of GDP) and 33,333 net FDI inflows (% of GDP). Findings suggest that FDI can be effectively managed to reduce CO2 emissions, but this might not hold for trade openness as the corresponding thresholds for trade openness are close to the maximum limit. Based on the results of the study "Effectiveness of energy depletion, green growth, and technological cooperation grants on CO2 emissions in Pakistan's perspective" by Boqiang Lin and Samiullah

(2023), cross-border investments are beneficial for enhancing green innovation capabilities of businesses and promote the effectiveness of green growth through three mechanisms, including cumulative economies of scale efficiency, structured illumination effect, and cumulative resource allocation effect.

In the domestic context, the study "How are FDI and green recovery related in Southeast Asian economies?" by Phung (2022) aimed to investigate the relationship between FDI and green economic growth in Southeast Asian countries and to identify the role of fiscal policies in this relationship by categorizing the sample into two groups based on the level of fiscal policy development, which showed that FDI has a positive impact on economic development in terms of green growth, and this impact is more significant in the group with highly developed fiscal policies. The paper "The FDI attracting policy of Malaysia towards green growth and some suggestions for Vietnam" (2017) by Vu assessed the FDI attraction policies of the Malaysian government with a focus on green growth, which has several characteristics: attracting FDI in high technology sectors, reducing tariffs for investment activities, maintaining economic and social benefits, and encouraging private investment to join in clean energy projects. In Vietnam, the research topic "Attracting Green FDI towards Sustainable Development Goals in Vietnam" by Hoang (2020) studied the framework of green FDI attraction policies, development trends, policy practices in some countries in attracting green FDI, and the current status of attracting green FDI in Vietnam. Depending on that, the research team has developed a policy analysis framework based on the findings of this research topic.

# 3. Research questions and methodology

The research study focuses on addressing the following key questions:

- What policies for attracting FDI toward green growth are implemented in Indonesia in detail and what are the challenges?
- What policies should be established to attract FDI to promote green growth?

This research uses qualitative research methods to understand the current status and effectiveness of policies related to attracting FDI for green growth in Indonesia. Data is collected in the form of secondary data, including reports and statistics from organizations like UNCTAD, OECD, World Bank, academic papers, and online assessments.

## 4. Theoretical framework

*FDI* (*Foreign Direct Investment*) - is a form of international private investment. It involves investors from one country, whether legal entities or individuals, bringing capital or any other form of value to another country to carry out production, business activities, or other operations for profit or to achieve social benefits. *FDI policies* are regulations directly related to FDI with the primary purpose being to ensure legal security for investment activities under investment laws, including provisions on establishment and operations, treatment standards for FDI, market operation mechanisms, and regulations indirectly related to FDI. FDI policies also play a role in achieving various objectives, such as increasing or reducing the amount of FDI received, influencing the allocation of FDI across sectors, and specifying geographic locations. Therefore, *FDI attraction policies* are the set of policies and regulations designed to attract,

regulate, and efficiently utilize FDI. Depending on development level and development goals, countries may modify and adjust the objectives of FDI attraction policies over time to maximize the utilization of this capital flow for the economic and social development goals of the region.

*Green growth*, as defined by the World Bank: "Green growth is the efficient use of natural resources, cleanliness in reducing pollution and environmental impacts, flexibility in adapting to natural hazards, environmental management, and natural capital in disaster prevention" (World Bank, 2018). According to the Organisation for Economic Co-operation and Development (OECD), green growth encompasses "promoting economic growth and development while ensuring that natural assets continue to provide resources and environmental services for our well-being." Therefore, green growth emphasizes promoting economic growth while maintaining a harmonious balance with the ecological environment, specifically by avoiding pressures that disrupt the environmental balance, with the ultimate goal of sustaining economic growth.

Although there is no official definition, based on the above definitions, it can be understood that *FDI attraction policies aiming for green growth* are a set of measures and regulations that a country establishes to attract foreign direct investment to achieve objectives that promote economic growth while maintaining a harmonious balance with the ecological environment.



Figure 1. Proposed policy analysis framework

# Source: Authors

The relationship between the attracting FDI policy and green growth is demonstrated through (i) general attracting FDI policies and (ii) environmental attracting FDI policies. The general ones are found to have both a direct and indirect relationship with attracting FDI.

General policies related to FDI attraction will promote economic efficiency, observed in FDI capital attracted to the energy and environment sectors, thereby promoting sustainable environmental efficiency. Environmental policies related to FDI attraction will ensure a sustainable environment in the country, paving the way for attracting FDI into industries and promoting the economy. Achieving both economic and environmental efficiency will effectively promote the country's green growth.

## 5. Overview of Indonesia

Indonesia, located in Southeast Asia, is an archipelagic country that spans 1.905 million km2 (almost 6 times the size of Vietnam) and strategically connects three continents: East Asia, South Asia, and the Pacific. However, due to its fragmented terrain, transportation and economic development between regions pose a challenge. Nevertheless, the country is rich in natural resources, including extensive tropical rainforests and various minerals such as coal, oil, and palm oil. Indonesia is a relatively young democratic nation with a diverse population of various religions and ethnicities dispersed across the islands. Power struggles and conflicts of interest among different groups and regions often influence elections in Indonesia.

To achieve green growth objectives, the Indonesian government has designed specific policies and recovery programs. For instance, the government has promised to reduce Indonesia's greenhouse gas emissions by 29 to 41% by 2030 through the Low Carbon Development Initiative (LCDI). The LCDI aims to manage natural resources sustainably, reduce carbon emissions, and eradicate poverty while ensuring economic growth. In 2018, Indonesia joined the Partnership for Action on Green Economy, which has helped the country implement LCDI policies in priority areas such as waste management, energy, circular economy, and green industry. Indonesia has made significant efforts to promote green growth, with a focus on reducing greenhouse gas emissions, clean energy, and emerging technologies.

Regarding the FDI attraction situation, Indonesia continues to maintain its position in the list of the top 20 countries in the world for attracting foreign direct investment (FDI), ranking second in the Southeast Asian region, only behind Singapore. Following the COVID-19 pandemic and as countries are in the process of economic recovery, Indonesia has attracted an estimated at around \$45.6 billion FDI in 2022, which was a significant increase of 46.6% compared to 2021, achieved through FDI attraction policies and government incentives. However, despite the increase in investment volume, the number of FDI projects decreased significantly, from 56,726 projects in 2020 to 27,271 projects in 2021, although it rebounded in 2022.

	2018	2019	2020	2021	2022
FDI	\$29.3B	\$21.2B	\$28.6B	\$31.1B	\$45.6B
Projects	21,972	28,808	56,726	27,271	32,681

Table 1. FDI flows and the number of FDI projects in Indonesia from 2018 to 2022

#### Source: BKPM

Asia is the biggest investment partner in Indonesia (accounting for 79.43% of Indonesia's total FDI), followed by the United States (6.64%) and the Netherlands (13.93%). Within the Asian region, Singapore and China are the two countries with the largest sources of FDI in Indonesia.



Figure 2. Key investment partners in Indonesia in 2022

# Source: BKPM

In terms of investment by sectors, the metal industry led in FDI in 2022 with approximately \$10.96 billion (24.03%), followed by the mining sector with a total FDI of around \$5.14 billion (11.28%). The chemical and pharmaceutical sector accounted for 9.88%, and the transportation sector accounted for 9.05%.





# Source: OECD

Although the amount of FDI in clean energy remains low, the flow of FDI into clean energy infrastructure is steadily increasing. Many investors are showing interest in clean energy projects, and a significant number of projects have already been initiated.

# 6. Research results on the Indonesian attracting FDI policy towards green growth

# 6.1. The general policies related to attracting FDI

# • Directly related to attracting FDI

*First*, Indonesia's Positive Investment List allows foreign investors to participate in over 200 different business sectors, including transportation, energy, and telecommunications. In particular, Indonesia has taken steps to improve the attractiveness of its FDI attraction regime for the clean energy sector. According to OECD, the Indonesian Government and PLN (Perusahaan Listrik Negara - Indonesian State Electricity Company) have announced the implementation of the new Electricity Business Plan (RUPTL) with a vision from 2021 to 2030, marking a turning point of electricity generated from renewable energy accounting for an increase of half of the total electricity capacity.

Second, Indonesia has developed special economic zones (SEZs) and green industrial areas. Through the SEZs Policy, Indonesia intends to attract downstream activities in

agriculture and mining. For example, the Sei Mangkei zone offers incentives to investors processing palm oil and rubber; Galang Batang for refining alumina, and the Batam Free Trade Zone for 150 major international maritime companies, becoming an electronics manufacturing hub with the presence of Panasonic, Sanyo, and Siemens. Furthermore, Indonesia has developed the world's largest green industrial park in North Kalimantan (Kaltara) of 12,500 hectares because of the great potential for renewable energy. The industrial park in this area runs on electricity generated by hydroelectric plants (up to 11,000MW). This policy will assist Indonesia in making the transition from fossil fuels to environmentally friendly renewable energy.

*Third*, Indonesia has implemented investment protection policies. Despite not having changed significantly since the first OECD Investment Policy Review, Indonesian law has already provided some key protections for investors in terms of expropriation, non-discrimination, and free transfer of funds (OECD, 2020). These safeguards are generally consistent with similar provisions in regional investment treaties and provide clear rights, which helps to strengthen investor confidence in the regimes. Moreover, the Indonesian government has emphasized in domestic law the principle of non-discriminatory and transparent treatment of foreign and domestic investors through ten main principles.

# • Indirectly related to attracting FDI

*First,* Indonesia's trade policies include tax breaks and reductions, as well as a ban on nickel exports and incentives for the electric vehicle industry. The Job Creation Act also resulted in several tax reforms, including lowering the corporate income tax rate from 25% to 20% by 2023 and eliminating dividend taxes in return for foreign investors reinvesting in the country. Tax holidays and tax subsidies are also two types of tax incentives used primarily by the Indonesian government to attract investors. Concerning the ban on nickel exports, in the current global supply chain, nickel accounts for 70% of the total raw materials used in stainless steel production. The Indonesian government has implemented a nickel conservation policy through an export ban in 2020, helping to attract large FDI capital from big countries such as China and the United States. Regarding incentives for the electric vehicle industry, to increase the attractiveness of investment in the electric vehicle ecosystem, the Indonesian Government has implemented value-added tax (VAT) incentives for electric cars and electric buses (valid from April to December 2023). In addition, Indonesia also applies a lower tax rate for low-emission vehicles and a zero tax rate for electric vehicles.

*Second*, Indonesia's intellectual property law policy is gradually improving. Although Indonesia has a relatively developed legal framework for intellectual property protection, there are still issues with the effectiveness of enforcement measures and poor or inconsistent enforcement of existing laws. Intellectual property rights infringement is a major issue in many ASEAN countries, including Indonesia, as evidenced by Indonesia's international ranking of 51 in this category according to the World Economic Forum's Global Competitiveness Report 2019. The government is launching different initiatives to address these shortcomings, such as the Infringing Website List, which aims to address the issue of online copyright infringement. In addition, the Ministry of Finance has issued regulations clarifying its authority in enforcement against contraband and counterfeit goods.

*Third*, labor policy in Indonesia also affects investment decisions. The Job Creation Act liberalized private investment in the Indonesian economy through regulatory packages

intended to improve micro, small, and medium-sized business access to finance by allowing state-owned banks to write off bad debts. However, the Job Creation Act is still opposed by people because of some concerns related to worker rights. First, the new law only supports leave benefits for 19 months (compared to 30 months under the 2003 Labor Law). Second, the Job Creation Act does not prohibit the use of foreign workers, allowing the outsourcing of workers rather than full-time contracts. However, policymakers believe that this plays an important role in attracting FDI because it allows foreign businesses to have easier access to domestic labor resources, thereby promoting job creation for 7 million unemployed people in Indonesia.

# 6.2. The environmental policies related to attracting FDI

Indonesia has implemented various programs and actions to address climate change, including the Greenhouse Gas Emission Reduction Policy, the Low Carbon Development Initiative (LCDI), and the Clean Development Mechanism (CDM). In 2008, the number of CDM projects in Indonesia accounted for 3% of the total number of CDM projects globally.

Additionally, Indonesia's environmental and energy policies have a significant impact on attracting foreign direct investment (FDI). With *environmental policy*, in 2022, Indonesia officially implemented a carbon emission tax that was tested on 32 industrial activities, including carbon-emitting industries like paper and paper pulp production, cement, coal-fired thermal power, and petrochemicals. However, the country's tax structure is still incomplete, and to achieve the effectiveness of the carbon tax, subsidies for fossil fuel industries must be eliminated. In addition to the carbon tax, Indonesia implemented a carbon emission limit policy through the cap-and-trade system. In 2021, the Indonesian Government applied a carbon price of 30,000/ton CO2 to 32 coal-fired power plants, considered too low compared to the global level (about 508,300/ton CO2). Policymakers suggest that the Government should increase the carbon market's attractiveness and prevent greenwashing behavior by adjusting the carbon prices. However, developing a carbon market in Indonesia is still a positive sign for the country's transition to reduce emissions, creating many green investment opportunities in the forestry and energy sectors.

In terms of *energy policy*, Indonesia also applies Feed-in Tariff (FiT) electricity prices, and in 2012, the country applied FiT to all renewable energy sources, including geothermal, hydropower, solar energy, biomass, and wind. In 2017, the Ministry of Energy and Mineral Resources of Indonesia brought all renewable energy sources into a single regulatory framework, where prices will be balanced with local production costs and the national average according to PLN (Wulandari, 2017). Moreover, Indonesia is striving to shift to renewable energy by investing in it through the *Clean Development Mechanism* (CDM). Indonesia has policies to develop the mineral processing industry, with nickel being the most exploited mineral source in the country. The country aims to become one of the largest electric vehicle production markets globally.

# 6.3. Some FDI attraction results related to green growth in Indonesia

Indonesia's policy of banning nickel exports and providing tax incentives for electric vehicles has attracted large investments from car manufacturers in the world, making the country the center of electric vehicle production in the region. Toyota, for instance, has signed a contract worth \$1.8 billion for electric car production in Indonesia and aims to sell

5.5 million electric cars globally by 2025. Additionally, the two largest electric car battery manufacturers in the world, CATL, and LG Energy Solution, have signed contracts worth \$15 billion in total to work with domestic mining companies in developing a complete production chain from mining to battery manufacturing. In another deal, Contemporary Amperex Technology, a company based in China, has announced that it will be investing \$5.1 billion to construct a factory for manufacturing batteries. Indonesia also focuses on developing green hydrogens through cooperation agreements with global energy corporations. Pertamina and Chevron, for example, have joined hands to research and develop geothermal energy in Indonesia. Meanwhile, Mitsubishi Corporation has signed an agreement with fertilizer company Pupuk and energy company Pertamina to develop the production and distribution of hydrogen and ammonia.

In 2022, Indonesia ranked ninth among developing countries with foreign direct investment in renewable energy. It is also one of four countries that have made significant progress in attracting green FDI, with a total of \$17.3 billion invested. Thanks to tax incentives and reductions (PPA signed for the period 2018 - 2021), renewable energy technologies are now being developed and operated at lower costs than gas, diesel, and coal. It is evident that the FDI attraction policies not only promote the growth of industries that contribute to economic goals but also contribute to environmental goals in Indonesia towards green growth. In October 2023, Indonesia was granted 27.2 million GBP, which is equivalent to approximately 33 million USD, by the United Kingdom for the second stage of the Low Carbon Development Initiative (LCDI). This funding will aid Indonesia in achieving its goal of net zero emissions by 2060 or even earlier.

Aside from that, Indonesia still confronts numerous challenges. First, some essential industries, including coal thermal power, metal smelting, paper, and charcoal, continue to have significantly negative effects on the environment. Although specific sanctions have been imposed on some enterprises, the air pollution situation in Indonesia, particularly in major cities, remains severe. Second, as a result of tax incentives, renewable energy companies have lowered investment costs, achieving competitive costs when compared to investments in domestic coal, diesel, and gas, but these costs remain high in comparison to those in some other countries that have an edge in renewable energy, making hard for Indonesia to compete for capital investments. Third, bribery and domestic corruption in Indonesia also have a negative effect on both domestic and foreign investment. Fourth, the legal system still has shortcomings in regulations on investment protection and dispute resolution, making investment partners wary of investment opportunities. Fifth, while special economic zone policies are effective in attracting FDI to places with geographical advantages, infrastructure, and labor capacity, they have also been shown to be ineffective in less appealing places, making it difficult to improve economic and environmental efficiency equally across the country.

# 7. Policy implications

# 7.1. Comparing the FDI attraction and green growth situation between Vietnam and Indonesia

Vietnam's geographical location in the center of Southeast Asia gives it a strategic advantage in trading with other countries in ASEAN. The country has many natural resources,

but there are still limitations in effectively utilizing them. Politically, Vietnam has a lower risk of land acquisition for production and business and a lower risk of policy instability than some other countries in the region. However, corruption remains a challenge, leading to budget losses for the state. Vietnam's labor force is a significant asset, with over 51.6 million people available for employment. The quality of the labor force is also improving. Compared to Indonesia, Vietnam has a more stable political system, which makes it an attractive destination for foreign investors considering long-term investment opportunities. On the downside, Vietnam's labor force is abundant and relatively inexpensive, but Vietnam is lagging in terms of technological development, and the proportion of skilled workers is still low.

In regard to the FDI attraction situation, Vietnam has witnessed a remarkable surge in FDI in 2022, with the FDI disbursement reaching an all-time high of \$22.4 billion, up by 13.5% compared to the same period in the previous year. Vietnam has attracted FDI in 19 out of 21 sectors, with the processing and manufacturing industry leading with more than \$16.8 billion capital, accounting for 60.6%. Electricity production and distribution, and professional scientific and technological activities have also reached over \$2.26 billion and nearly \$1.29 billion, respectively. In terms of new projects, wholesale and retail, processing and manufacturing, and professional scientific and technological activities are the top three sectors that attract the most, accounting for 30%, 25.1%, and 16.3% of the total, respectively. Singapore is the top investor with a total capital of nearly \$6.46 billion, followed by South Korea, Japan, China, Hong Kong, Taiwan, etc. Over the past five years, Vietnam has witnessed significant FDI inflows in the renewable energy sector, with projects like the Long An I and II LNG Power Plant of Singapore, O Mon II Thermal Power Plant project of Japan, and the development of La Gan offshore wind power by Denmark. Vietnam and Indonesia have both made remarkable breakthroughs in attracting FDI in 2022. Indonesia has an edge in the domestic market and natural resources, whereas Vietnam has a favorable geographical location, and low production cost compared to other countries in the region.

The Prime Minister of Vietnam has taken various measures to implement the green growth goal such as the National Strategy on Green Growth for the period 2011 - 2020 with a vision to 2050, and the Vietnam Urban Green Growth Development Plan to 2030. Additionally, the National Assembly has amended several laws related to green growth, such as the Law on Environmental Protection, the Law on Forest Protection and Development, and the Law on Minerals. According to the Institute of Energy (Ministry of Industry and Trade), the energy saving rate in the country reached 5.65% in the period 2011 - 2015, equivalent to a total energy saving of nearly 11.3 million tons of oil equivalent (TOE). Both Vietnam and Indonesia have made strong commitments to green growth in terms of policy. Vietnam has reduced greenhouse gas emissions by 12.9% from 1990 to 2020, with renewable energy sources increased from 13.5% in 2010 to 39.6% in 2022. According to a report by the Ministry of Natural Resources and Environment of Indonesia, greenhouse gas emissions in Indonesia decreased by 1.4% from 2019 to 2022.

#### 7.2. The attracting FDI policy of Vietnam towards green growth

## • General policies related to attracting FDI in Vietnam

Direct policies related to FDI attraction include: *investment incentives* concentrated on priority sectors and areas such as high technology, advanced technology, environmentally

friendly technology, clean energy, and renewable energy. Other key areas for investment include logistics, high-tech agriculture, smart agriculture, etc. Existing incentive policies are being adjusted to move from a location-based incentive system to one that is sector-based. Incentives are also being tailored based on economic, social, and environmental performance. *Vietnam's FDI attraction policies* have seen various movements, including: (1) Establishing a working group to promote foreign investment cooperation with the task of proactively taking flexible and appropriate measures to approach and negotiate with large, hi-tech corporations... (2) Regulating the preferential forms and investment support to apply for newly established projects, innovative centers, and R&D centers with a total investment capital of 3 trillion VND or more.

Indirect policies related to FDI attraction include: *technology transfer policies that* prioritize the development of high technology, advanced technology, and technological human resources in sync with investment in technological innovation. Next, *foreign exchange policies* eliminate mandatory salary payments in Vietnamese Dong for foreign labor and allow foreign investors to pay foreign employees in foreign currency. Besides, *land policies* provide tax reductions on land and water surface tax for enterprises to engage in agricultural and aquaculture production and salt production. In addition, *the degree of tax reduction* is considered based on the extent of damage due to natural disasters, with up to full tax exemptions for those suffering over 40% loss. Finally, *corporate income tax incentives* apply many incentives to encourage investment such as a two-year tax exemption for newly established production facilities and a 50% reduction for the following two years. Projects investing in specific sectors, industries, and economic regions eligible for investment incentives benefit from lower tax rates compared to other projects.

# • Environmental policies related to attracting FDI in Vietnam

*Renewable energy development policy* aim to transform Vietnam's electricity system so that by 2050, clean electricity will be the primary energy source, with maximum exploitation of renewable energy. There are a number of programs that have been enacted such as mechanisms to encourage the development of Renewable Energy projects, the National Energy Development Strategy to 2030 with a vision to 2045, the Government's Action Programme for implementing Resolution No. 55-NQ/TW, a mechanism to encourage the development of wind power, biomass power, power from solid waste and solar power, etc.

*Carbon tax policy* considers two main options for implementing carbon tax: one plan is to incorporate it into the environmental protection tax. Though it is currently considered most suitable for applying carbon tax, certain elements of the environmental protection tax, however, are incompatible with the design of a carbon pricing tool consistent with the Carbon Border Adjustment Mechanism (CBAM). The second option is to incorporate the carbon tax into the environmental protection fee for emissions because the environmental protection fee and the carbon tax share many of the same features.

*Vietnam's Clean Development Mechanism* is demonstrated through international organization commitments such as signing the Framework Convention, and the Kyoto Protocol, participating in CDM projects, appointing a national focal point agency, and approving the Decree. As a result, the legal foundation for implementing CDM in Vietnam is becoming increasingly complete. Since 2005, the Government has issued directives on implementing the clean development mechanism within the framework of the Kyoto Protocol.

## 7.3. Recommendations for Vietnam

For the group of policies directly related to attracting FDI, it is first necessary to establish a specific and long-term strategy with numerous investment incentives to attract investment in the field of clean energy, increase investment projects aimed at the environment, utilize green technology, etc. Second, prioritize high-quality human resources to cooperate with foreign investors to maintain a quick and effective process, ensuring the progress of investment projects and avoiding the project becoming stalled.

For the group of policies indirectly related to attracting FDI, first, the government should invest in developing high-quality human resources in the fields of energy industry and environmental technology, equipping them with knowledge of environmental issues and environmental treatment technology; enabling them to design, operate, and maintain environmental equipment systems. The majority of companies and manufacturing plants call for environmental engineers to manage production, guarantee technology, monitor processes, and implement product innovations that are green, clean, cost-effective, and environmental treatment system in place, and ultimately the presence of environmental technology engineers. Second, to develop the environmental industry, it is essential to promote scientific research, application, and effective transfer of new technologies and products. Efficiency and advancements in R&D activities will attract FDI capital into the industry, contributing to the promotion of modern technology transfer from foreign businesses.

For environmental policies related to attracting FDI, first, build an initial price mechanism for offshore wind power with widespread consultation, promote the resolution of marine spatial planning issues, and focus on large-scale offshore wind farm projects. Second, tighten discipline and set barriers in areas with a high risk of causing environmental pollution, closely monitor and increase responsibility in project appraisal and supervision to ensure environmental safety standards to avoid serious cases such as the Formosa in Ha Tinh, Miwon Vietnam overpumping waste; etc. Third, on the issue of the carbon tax, it is necessary to consult widely to choose an option to implement carbon tax. The research team finds that the plan of integrating carbon tax into the environmental protection fee for emissions is more compelling due to similarities between the two types of tax and fee. Concurrently, develop a roadmap for effectively, openly, and transparently applying carbon tax, clearly defining the purpose of applying carbon tax and how to use revenue from carbon tax to improve environmental issues, potentially reinvesting in businesses to apply waste treatment technologies.

## 8. Conclusion

In general, this study focuses on analyzing the characteristics of FDI attraction policies aimed at green growth in Indonesia, using qualitative methods to evaluate the policies implemented in the country. Previous research has indicated the impacts of FDI on green development through areas such as green technology innovation and fiscal policies in developed countries or specific regions. Therefore, this study delves deeper into the real context in Indonesia to provide an overall perspective on FDI attraction policies for green growth in the home country. From the analysis of the efforts to attract FDI for green growth, the research evaluates that while many of Indonesia's policies are relatively new, they align with the country's immediate goals, aiming to promote ecological balance and further enhance investment freedom. Furthermore, the study is practical by comparing the real situations between Vietnam and Indonesia through the investment environment, FDI attraction, green growth, and FDI attraction policy frameworks. Based on these current realities, the research group gives some recommendations to further enhance green growth in Vietnam by improving three key policy groups in this country.

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