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## ẢNH HƯỞNG CỦA CÁC CAM KẾT MÔI TRƯỜNG TRONG HIỆP ĐỊNH THƯƠNG MẠI TỰ DO THẾ HỆ MỚI ĐẾN VIỆT NAM

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### Tóm tắt

Khác với các Hiệp định Thương mại tự do (FTA) truyền thống mà Việt Nam đã ký kết, các FTA thế hệ mới có quy mô lớn hơn, mở rộng nội dung vượt xa cam kết về thuế, thương mại,... bao gồm các quy định pháp lý về các vấn đề phi thương mại liên quan đến môi trường, sở hữu trí tuệ, lao động và thu mua của chính phủ,... Một số cam kết này trở thành các rào cản nghiêm trọng đối với việc quản lý và điều tiết thương mại, đây là một vấn đề hoàn toàn mới mẻ mà Việt Nam phải đối mặt và chưa có kinh nghiệm nhiều trong lĩnh vực này. Bài nghiên cứu này nhằm đánh giá sự ảnh hưởng tiềm năng của các cam kết môi trường trong các FTA thế hệ mới đối với Việt Nam. Nhóm nghiên cứu đã tiến hành thu thập dữ liệu từ năm 2015 đến 2023 về năm vấn đề môi trường chính của các cam kết môi trường và dựa trên phương pháp So sánh Trước-Sau để so sánh và phân tích năm vấn đề này trước và sau khi Việt Nam tham gia các FTA thế hệ mới. Kết quả nghiên cứu cho thấy rằng các FTA thế hệ mới đã có tác động tích cực đối với môi trường, đặc biệt là một số doanh nghiệp và tổ chức đã cải thiện đáng kể việc tuân thủ các cam kết. Cuối cùng, nhóm nghiên cứu phân tích tiềm năng và thách thức của Việt Nam và đưa ra một số đề xuất có giá trị cho ba bên chính, đó là chính phủ, tổ chức phi chính phủ và doanh nghiệp, với hy vọng rằng Việt Nam sẽ có khả năng đuổi kịp tiêu chuẩn toàn cầu về bảo vệ môi trường.

**Từ khoá:** Hiệp định thương mại tự do, Thế hệ mới, Việt Nam, cam kết môi trường

### IMPACTS OF ENVIRONMENTAL COMMITMENTS IN NEW-GENERATION FTAS ON VIETNAM

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## **Abstract**

Unlike the traditional FTAs that Vietnam has signed, the new-generation FTAs have a larger scale, extending the content beyond commitments on tariffs, trade,... like legal provisions for non-commercial issues related to the environment, intellectual property, labor and government procurement,... Some of these obligations become serious barriers to the management and regulation of trade, which is a very new problem Vietnam has faced and had little or no experience in this regard. This paper attempts to assess the potential impacts of Environmental commitments in new-generation FTAs on Vietnam. The research team conducted data collection from 2015 to 2023 of five main environmental issues of Environmental commitments and based on the Before-After method to compare and analyze those five issues before and after Vietnam joined new-generation FTAs. Research results show that new-generation FTAs have a positive impact on the environment, especially some enterprises and organizations improve significantly in complying with the commitments. Finally, the research team analyzes the potentials and challenges of Vietnam and provides some insightful recommendations for three key parties, namely the government, NGOs, and businesses, in the hopes that Vietnam will be better able to catch up to worldwide standards for environmental preservation.

**Keywords:** Free Trade Agreements, New-generation, Vietnam, environment commitment

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## **Acknowledgment**

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## **1. Introduction**

### ***1.1. Overview of Environmental commitments in new-generation FTAs***

The debate about trade and its environmental effects earned formal recognition in 1971 when the GATT Council of Representatives set up the Group on Environmental Measures and International Trade which, since 1995, has subsisted as the WTO Committee on Trade and Environment. In recent years, environmental provisions inside FTAs have been increasing quickly, in accordance with the general trend of FTA development. The substance of the environment or sustainable development mentioned in the New-generation FTA is usually based on the concerns, interests, and economic, political, and social circumstances of the nations taking part in FTAs (Viet Anh, 2020).

Environmental issues are included in FTAs with varying degrees of commitment (Viet Anh, 2020). The objective of environmental or sustainable development rules in some FTAs is to promote collaboration between the member nations in particular environmental-related fields. Whereas, in others, these commitments must meet stricter standards, sometimes applying economic instruments like a dispute resolution process or financial compensation in the event of an environmental-related business issue. In addition, in terms of implementation transparency, new-generation FTAs have more stringent obligations than older FTAs.

## ***1.2. Implementing Environmental commitments in new-generation FTAs in Vietnam***

Of the 15 FTAs that Vietnam currently joins, EVFTA and CPTPP have specific provisions on the terms of environmental issues. These commitments focus on current global challenges such as climate change, biodiversity conservation, sustainable forestry management, etc; standards for the level of environmental protection; and the connection between trade and investment goals. These environmental pledges have a significant impact on many social, economic, and legal elements of Vietnam by hastening its efforts to complete the environmental legislative framework and raising awareness of environmental law enforcement among officials. However, there are also some challenges that environmental commitments in new-generation FTAs bring to Vietnam. Some notable are (1) financial resources and (2) environmental technical standards (Vietnamese Ministry of Natural Resources and Environment, 2019).

In this study, to analyze the impacts of Environmental commitments in new-generation FTAs on Vietnam, the authors use the set of five indicators used by the ECORYS team (2008): (1) the atmosphere, (2) land, (3) biodiversity, (4) environmental quality, and (5) fresh and wastewater.

## ***1.3. Significance of the study***

New-generation FTAs have expanded the scope of the agreement's content, including environmental commitments. It can be seen that very few previous studies focus on detailed analysis of issues, specific content and impacts of environmental commitments in FTAs. Therefore, this research topic will help to have a deeper and more detailed view of environmental commitments in each FTA of Vietnam and the world in general.

In addition, this study summarizes the current regulations and amendments in Vietnam's law to commit to environmental issues in FTAs; and analyzes the impact factors of these commitments on the Vietnamese economy and society in detail. Thereby, assessing the implementation level of businesses and governments.

## ***1.4. Research objective***

*Firstly*, synthesize theories and research bases to determine the influencing factors of environmental commitments in the new-generation FTAs in Vietnam.

*Secondly*, evaluate the implementation of new-generation FTAs in Vietnam and its impact level of each factor of Environmental commitments.

*Thirdly*, analyze the current situation and propose some solutions to help promote the implementation of Environmental commitments in the new-generation FTAs in Vietnam.

## ***1.5. Research object and scope***

- Research object: Five main environmental issues of Environmental commitments in the new-generation FTAs affect Vietnam.

- Research scope: The research focuses on the period from 2015 (when Vietnam signed the VKFTA bilateral agreement with Korea), especially the period from the end of 2019 to now. This is a period when the world experiences many extreme phenomena due to climate change and the outbreak of the COVID-19 pandemic, the more countries focus on the implementation of global environmental commitments.

## ***1.6. Literature view***

Before the FTAs' development potentially created transnational standards about the environmental responsibility of trading Parties, transnational trade was once widely thought to negatively impact the environment (Sikina, 2020) because the provisions of the FTAs also frequently favor economic facilitation over environmental protection. Nagy, Csongor István (2020) also assisted that since the development of the NAFTA Side Agreements, values of environmental protection are undeniably true global ideals, despite the persistent argument that they are motivated by "selfish economic interests". In a similar vein, Cuyvers and Ludo (2014) found that FTAs are one of the best tools for promoting sustainable development and raising welfare. However, Clive George & Shunta Yamaguchi (2018) found no empirical proof that the presence of TSD chapters has resulted in an improvement in environmental or labor standards.

In Vietnam, the study of sustainable development is a popular subject. Thi Bich Ngoc Nguyen, Le Thi Hoai Thu and Phan Quoc Nguyen (2020), cited both favorable and unfavorable effects of EVFTA on Vietnamese sustainable agriculture businesses. Through thematic analyses and four holistic case studies of Gao Ruong Ruoi, Hong Van Cooperative, Sinh Duoc Cooperative and Tam Nguyen Fruit, the authors argued that EVFTA typically encourages sustainable manufacturing, however, the data from the case studies suggest that small enterprises that are passionate about going sustainable do not have access to clear incentives under EVFTA. On the larger side, Hoang Hai Ha (2017) examined the ASEAN nations' perspectives on the EU FTAs' commitments to social and environmental sustainability. Particularly compared to concerns about security or the economy, environmental concerns in ASEAN have developed later and more slowly. They tend to focus on environmental problems that directly impact people's living conditions and health (like access to clean water), rather than more general environmental issues like global climate change and biodiversity (Bøås Morten, 2002). Due to these political, socio-economic and cultural differences, the EU's ambition to lead the global conversation on social and environmental sustainability is challenged by ASEAN countries' resistance to the MEA relationship.

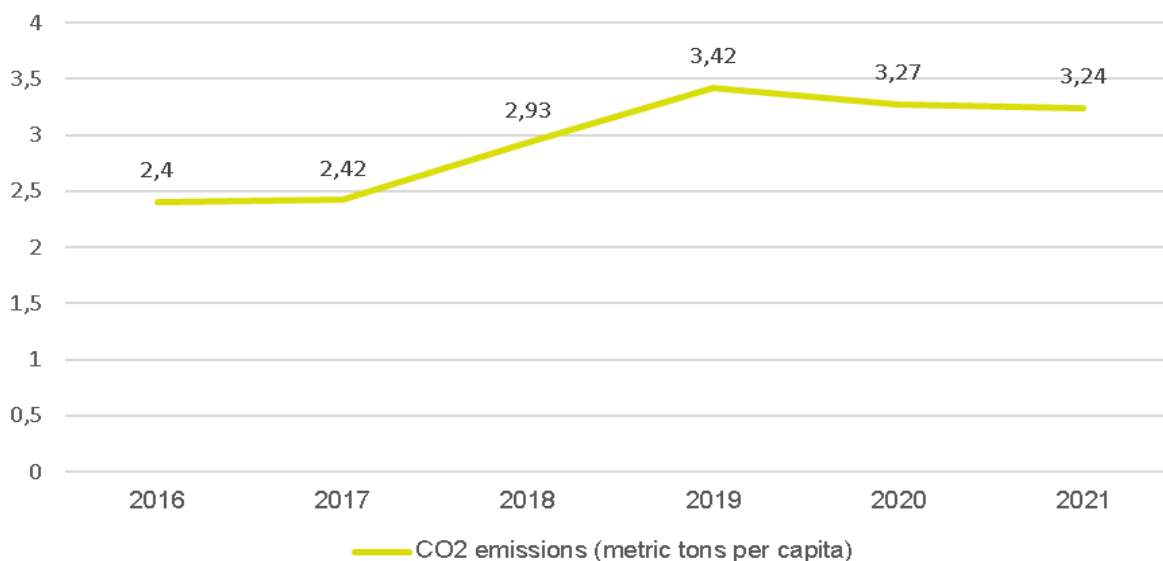
## **2. Impacts of Environmental commitments in new-generation FTAs on Vietnam**

### ***2.1. Atmosphere***

#### ***2.1.1. CO2 emissions***

From 2000 to 2017, the world's total trade nearly tripled, resulting in a rise in CO2 emissions. The top 20 CO2 emitters in 2017 included 16 countries in international trade. The RCEP member countries accounted for 39.1% of global CO2 emissions from fuel combustion in 2018. FTAs offer trade opportunities but also increase emissions for the environment. High-income countries benefit from FTAs, while upper and lower-middle-income countries face negative effects due to lenient environmental standards. New-generation FTAs like EVFTA, RCEP, and CPTPP have implemented

environmental commitments, promoting green and environmentally friendly products. In Vietnam, CO2 emissions increased significantly after FTAs, as enterprises exported to more countries and increased manufacturing activities. Despite environmental commitments, FTAs have not significantly impacted Vietnam's CO2 emissions index.



**Figure 1.** CO2 Emissions in Vietnam from 2016 to 2021

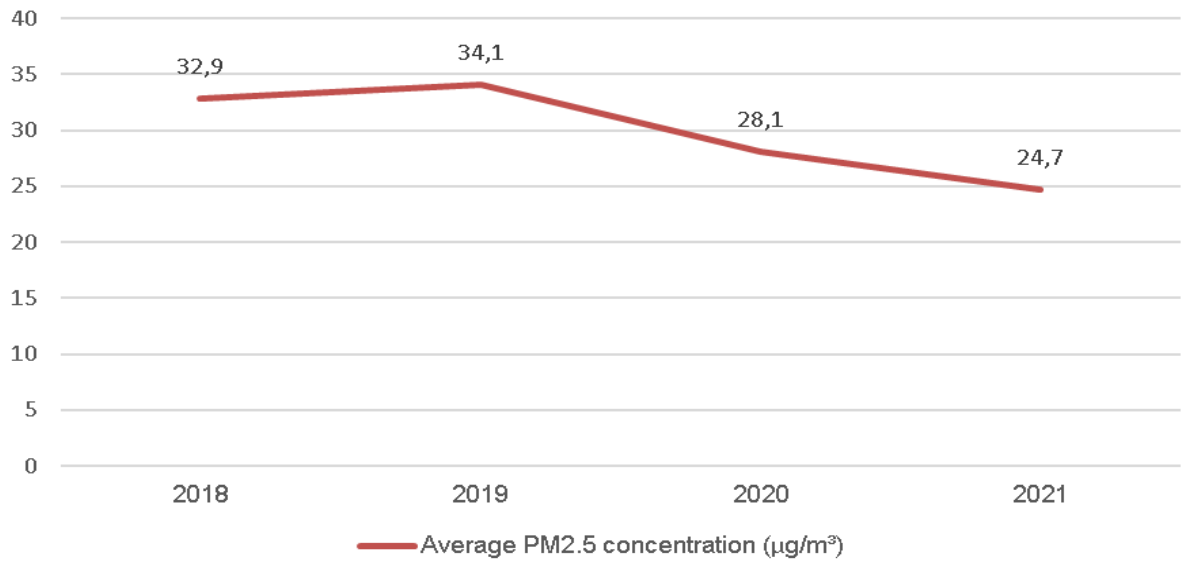
*Source: from Country economy*

Vietnam's regulations on CO2 emissions are not specific and general, making it difficult for governing bodies to fine or warn businesses emitting large amounts. The Law on Environmental Protection 2020 requires greenhouse gas inventories for facilities emitting 3,000 tons of CO2 equivalent or more, thermal power plants, industrial production establishments, road freight transport businesses, commercial buildings, and solid waste treatment facilities. However, the law is not effective due to the continued increase in CO2 emissions since 2016.

### 2.1.2. Air quality

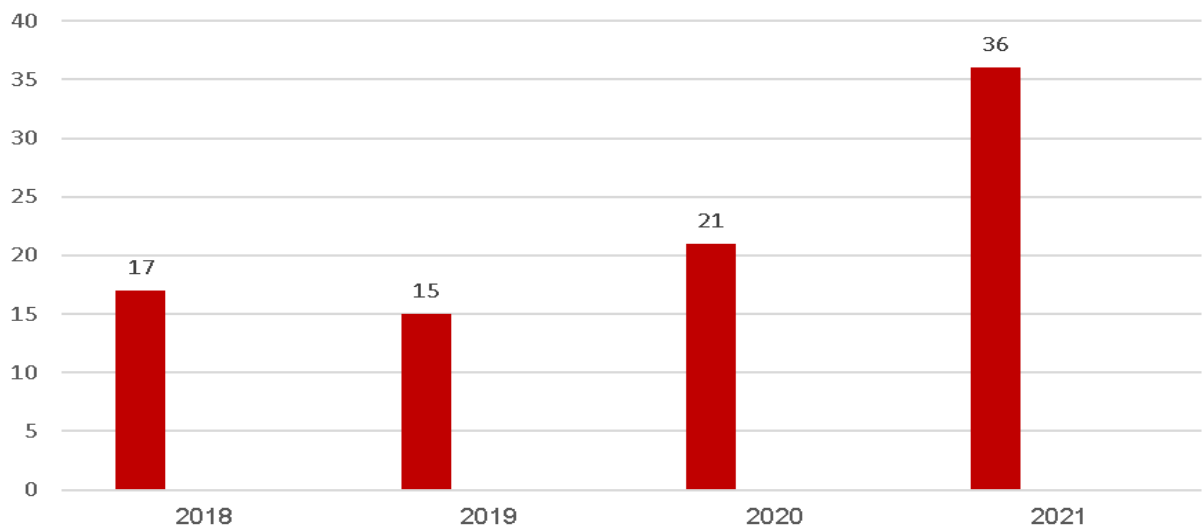
The Law on Environmental Protection 2020 outlines the need to limit greenhouse gas emissions and the production, consumption, and trade of substances that negatively affect the ozone layer. It also includes provisions for promoting the carbon market with an efficient pricing mechanism, administrative measures, and mechanisms for the exchange and clearing of carbon credits. The World Air Quality Report from 2018 to 2021 analyzed PM2.5 data, a common air pollutant with harmful health effects.

Vietnam PM2.5 data ( $\mu\text{g}/\text{m}^3$ ) and ranking among countries in the world throughout the period are illustrated in Figure 2-2 below:



**Figure 2.** Vietnam PM2.5 data from 2018 to 2021

*Source: from IQAir*



**Figure 3.** Vietnam PM2.5 ranking among countries in the world

*Source: from IQAir*

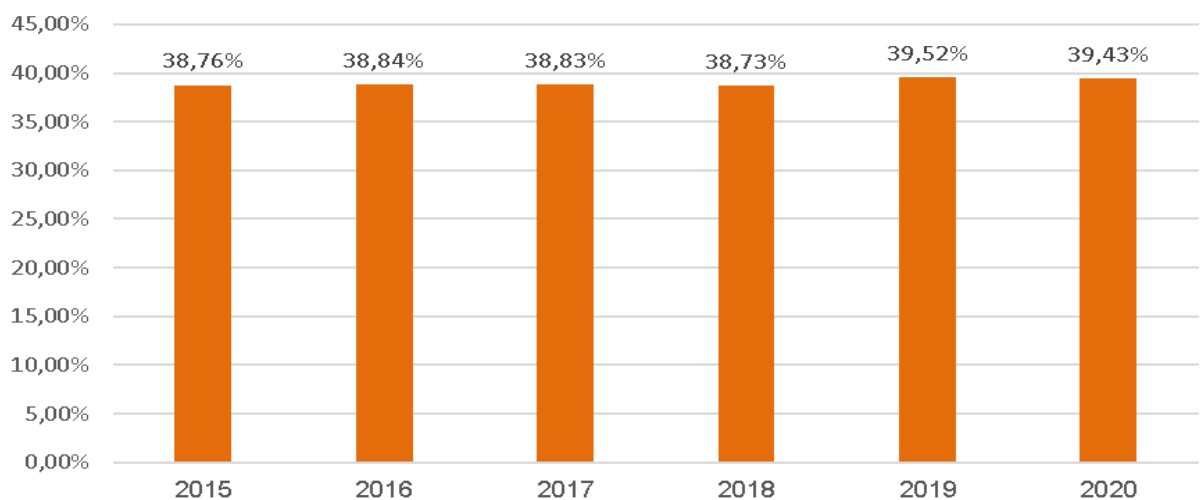
Vietnam's average PM2.5 concentrations have been decreasing since the implementation of new-generation Free Trade Agreements (FTAs) in 2020. However, the country's economy has grown, increasing electricity demand and contributing to air pollution. The country has committed to becoming carbon neutral by 2050, using its largest solar power infrastructure and offshore wind projects. The textile industry, which contributes 15% of Vietnam's export value and receives incentives from FTAs, has significant environmental impacts. The industry uses a large amount of water and energy, affecting water availability and causing increased greenhouse gas emissions. The Vietnam Textile and Apparel Association reports that the industry spends about 3 billion USD on production energy each year, leading to high production costs and weak points in Vietnam's textile products.

## 2.2. Land

Vietnam's agricultural sector saw a large boost in output volume and export value following trade liberalization and agricultural reforms. Since the 1990s, the country has seen the emergence of numerous significant intensive monoculture systems, such as the monoculture of rice in the Mekong Delta and the intensive cultivation of coffee and pepper in the Central Highlands. Many of the agricultural goods produced in the nation were initially intended for home use. For instance, Vietnam produces some of the most paddy rice in the world and has one of the highest global rice consumption rates. Other agricultural goods like coffee, pepper, cashew nuts, and rubber have also developed into important export commodities. Vietnam has consistently ranked behind Brazil as the world's second-largest exporter of coffee in recent years.

From Figure 4., after signing the CPTPP in 2018, the share of agricultural land in Vietnam had slightly increased from 38,73% to 39,52% in 2019 and 29,4% in 2020 which means CPTPP creates opportunities for Vietnam to expand agricultural production to reach the global market. CPTPP will also increase the chance for domestic enterprises to export to Canada, Mexico, Peru and Australia where Vietnam has no bilateral FTA thanks to preferential tariffs.

The technological impediments, however, will be more difficult after the tariff barriers are removed. Since the CPTPP is acknowledged as the agreement with the highest standards, most complete coverage, and most balanced provisions in the agricultural sector, it is necessary to raise agricultural production and products to worldwide standards.



**Figure 4.** Share of agriculture land in total land area in Vietnam 2015 - 2020

*Source: Statista.com*

## 2.3. Biodiversity

Biodiversity conservation achieved positive results through the synchronized implementation of mechanisms and policies; however, biodiversity continued to dwindle, threatening ecological balance. This was demonstrated by a decline in "the quality, size, and diversity of the natural environment," as well as "the risk from invasive alien species and genetically modified organisms". It is worth mentioning that "bushfires and deforestation increased; wildlife habitats shrank or vanished; river, lake, and lagoon ecosystems were overexploited; and mangroves, coral reefs, and seagrasses were degraded." (Ministry of Natural Resources and Environment Portal 2020b).

Biodiversity plays a significant role in Vietnam's economy, particularly in agriculture, fisheries, and tourism. However, ongoing over-extraction, species loss, and damage to natural systems have substantial economic consequences. Vietnam has identified over 61,000 species and collected nearly 89,000 genetic resources/samples. Forest cover has been increasing recently, but there are concerns about the decline in inland wetland ecosystems and biodiversity levels. Natural tidal flats are impacted by aquaculture, coastal lagoons are degrading, seagrass beds are shrinking, and coral reefs are decreasing in size and live coral coverage.

Vietnam has approximately 10 million hectares of natural forests, with only 500,000 hectares of primary forest remaining, mostly in the Central Highlands. Coastal waters sustain 11,000 identified species, crucial for protein in the Vietnamese diet, but overfishing is a growing issue. The government has established 16 marine protected zones, but fishing laws are frequently violated. Freshwater habitats are vast but poorly understood, with declining biodiversity due to extensive hydropower and irrigation reservoir construction, often without proper monitoring or management.

**Table 1.** Environmental Performance Index in category Ecosystem Vitality 2020 and 2022

COMPONENT	Year 2020		Year 2022	
	RANK	EPI SCORE	RANK	EPI SCORE
Ecosystem vitality	176	28.5	171	22.1
Biodiversity & Habitat	150	33.3	149	27.9
Terrestrial biomes (natl)	130	43.9	133	43.9
Terrestrial biomes (global)	148	28	150	28
Marine protected areas	74	3.8	76	3.8
Protected Areas Representativeness Index	107	25	117	25.1
Biodiversity Habitat Index	101	50.8	136	37.2
Species Protection Index	108	66.6	102	40.3
Species Habitat Index	146	39.4	146	39.8

*Source: from Epi.yale.edu*



## ***2.4. Environmental quality***

### ***2.4.1. Waste management***

From 2016 to 2019, the rate of urban solid waste collection and treatment in Vietnam increased by an average of 2% annually. In rural areas, the average collection rate stands at approximately 63%, with landfilling being the primary method of waste treatment, accounting for 70% of the total municipal solid waste (MSW) treated.

Notably, certain urban areas and Grade I cities in Vietnam achieved high collection rates in their inner cities: Da Nang (100%), Hai Phong (98-99%), Hanoi (93-94%), and Ho Chi Minh City (91%). Class II and III cities also made significant improvements, with inner-city collection rates exceeding 80-85%. However, in Grade IV and V urban areas, collection efforts have lagged due to limited resources. Much of the collection work in these areas is carried out by cooperatives or the private sector, which lack the capital to invest in proper equipment.

A recent national report on solid waste management indicates that Vietnam expects a rapid increase in solid waste volume in the coming years, particularly in highly urbanized and industrialized regions like Hanoi and Ho Chi Minh City. Vietnam's ranking in solid waste generation rose from 95th in 2020 to 110th in 2022. Challenges in waste management persist, including insufficient waste sorting facilities and inadequate attention to daily waste reduction. The predominant disposal method remains landfilling, which consumes space and poses environmental risks, with limited recycling efforts in place.

### ***2.4.2. Energy resources***

Vietnam possesses substantial energy resources, including 615 million tons of crude oil, 600 billion cubic meters of natural gas, and 5,883 million tons of coal. It ranks as Southeast Asia's third-largest petroleum exporter, with most production occurring off the southern coast. Territorial disputes with China hinder the development of reserves near the Spratly Islands.

Renewable energy product trade is a significant driver in Vietnam's environmental goods trade. Between 2002 and 2020, exports of renewable energy products surged from US\$3.5 million to US\$5.1 billion, accounting for over 50% of all environmental goods exports. This increase is attributed to the high demand for solar cells in the United States, where the solar panel market was projected to grow by 33% in 2020 due to factors like expiring solar tax credits, expanding utility-scale solar power, and declining solar system prices. Vietnam imported solar cells from China and exported solar modules and panels to the United States, reflecting both the increasing U.S. demand for Vietnamese-made photovoltaic panels and the growth of Vietnam's solar energy industry.

In 2020, Vietnam imported environmental goods worth US\$7.9 billion, constituting over 60% of its total environmental goods imports. The second-largest import group within this category was related to the management of solid and hazardous waste.

## ***2.5. Fresh and waste water***

The water infrastructure market is expected to grow annually by 7% between 2017 and 2026. This market encompasses various aspects, including small-scale wastewater treatment and reuse solutions, septage management, and advanced trenchless technologies, alongside large-scale wastewater treatment plant projects.

Vietnam faces challenges in its water supply, meeting only 70% of the demand, with a significant 30% loss of water. The country has a limited number of centralized wastewater treatment facilities, resulting in approximately 75% of industrial wastewater being discharged untreated into the environment.

The rapid development in Vietnam is leading to increased water pollution and a reduction in available potable water. Wastewater disposal primarily occurs without adequate treatment, and only 12.5% to 15% of urban wastewater is currently collected, with the majority of municipal wastewater being released untreated into the environment.

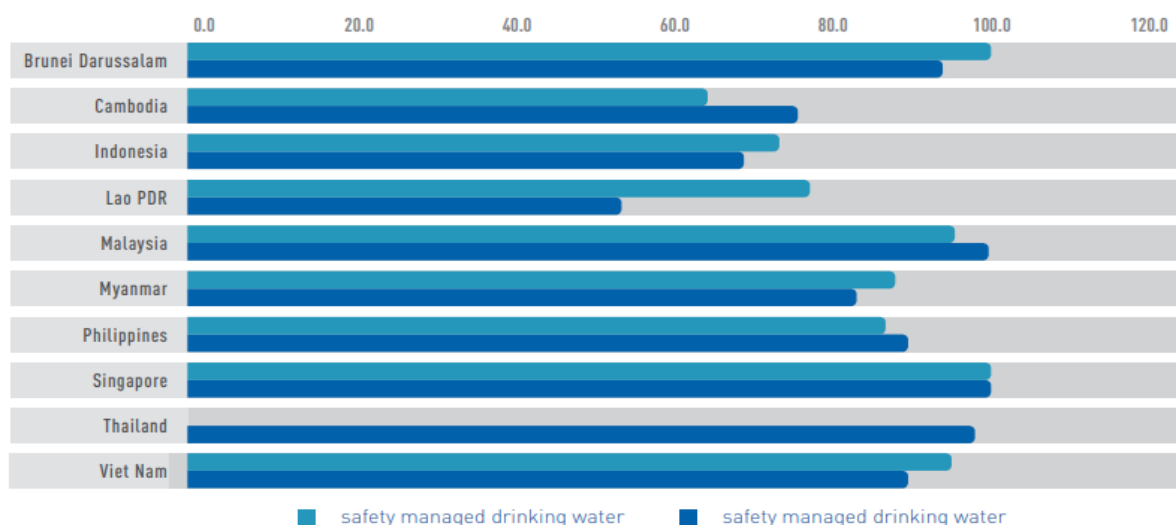
**Table 2.** Environmental Performance Index in category Sanitation Drinking Water 2020 and 2022

COMPONENT	Year 2020		Year 2022	
	RANK	EPI SCORE	RANK	EPI SCORE
Sanitation Drinking Water	74	52.7	74	52.8
Sanitation	76	55.7	76	55.7
Drinking water	64	50.7	64	50.9

*Source: from Epi.yale.edu*

In 2020 and 2022, Vietnam remained in the same position standing at 74th in the sanitation & drinking water category measuring the sanitation and drinking water. In general, the EPI score of each element of the Sanitation Drinking Water kept unchanged in 2020 and 2022. This is possible because of the lack of physical infrastructure and financial capacity which means much wastewater wouldn't be treated and this situation will continue in the future.

According to the Environmental Performance Index (EPI) report. Vietnam's Sanitation Drinking Water was worse than that of many other Southeast Asian countries like Brunei, Malaysia, Singapore, and Thailand.



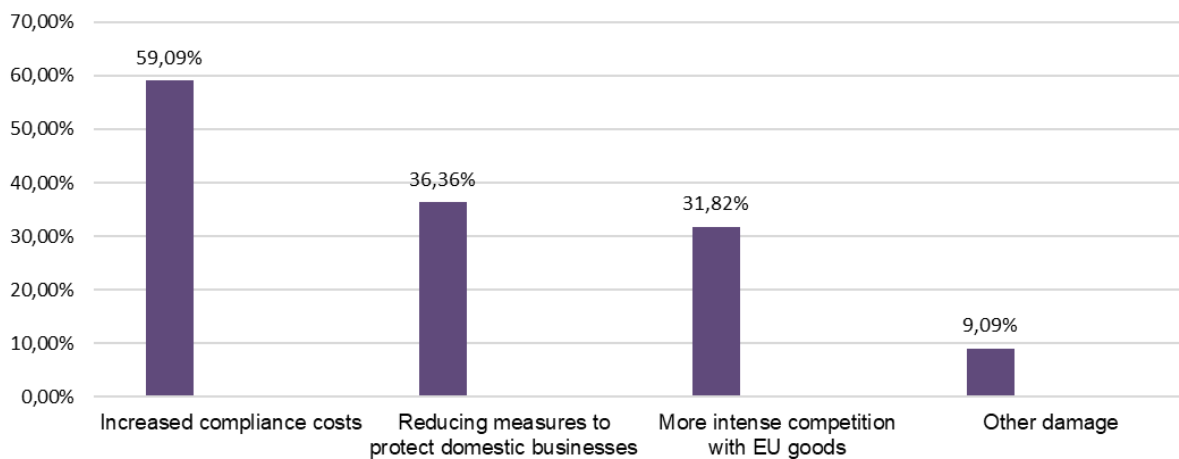
**Figure 5.** Percentage of people with access to safe drinking water and safety-managed sanitation

*Source: ASEAN Stats (2020)*

At first glance, the average coverage of 88% for safe water and 84% for improved sanitation seems a good record. However, if this coverage is weighted by population, it shows that over 100 million people are without safe water and over 150 million people live without improved sanitation. This is a significant policy challenge, especially in the Philippines, Vietnam and Indonesia.

### 3. Assessment of the implementing process and impacts of Environmental commitments in new-generation FTAs on Vietnam

The EVFTA, a new-generation FTA, is expected to bring significant economic benefits, including GDP, employment, and worker income. However, adverse effects may be inevitable in specific industries and enterprises. Approximately 41% of enterprises have benefited, but 4.2% have suffered damages. The VCCI Survey in 2022 reveals that businesses currently suffer from compliance costs and additional costs to prepare for high standards.



**Figure 6.** Damages that businesses suffer from EVFTA in the first 2 years of implementation

*Source: VCCI survey in 2022*

In terms of enterprise understanding of the CPTPP, 69% of firms have heard of or have preliminary knowledge of the Agreement, which is greater than the degree of knowledge of all other FTAs; 25% of enterprises have specific knowledge of the Agreement. However, just one out of every twenty enterprises is aware of CPTPP commitments relating to their economic activity.

The CPTPP is one of the top three Free Trade Agreements (FTAs) valued by businesses, with 51% stating that it has had a very or very favorable influence on their company activities in the past. However, only one out of every four enterprises has ever reaped the benefits of this Agreement, particularly in emerging markets like Canada and Mexico. ISO 26000 is considered the most comprehensive set of standards on CSR, but the International Organization for Standardization does not prescribe certification for ISO 26000.

Vietnam's enterprises have a low level of understanding and environmental regulations, with only 31.8% of private enterprises in the country saying they understood environmental regulations well. Additionally, 68% of businesses reported being negatively affected by climate change, and 44% of

domestic enterprises and 38% of FDI enterprises admitted to not fully complying with environmental regulations. The level of participation in local environmental protection programs is limited (37%).

FTAs have the potential to create new opportunities for green commerce, especially greening traditional exports. Vietnam should make use of FTAs and global value-chain involvement opportunities to further strengthen its environmental standards across the board. This will provide its exports a head start in marketing and help to identify their goods as environmentally friendly in important developed markets.

The textile, garment, and footwear industry could soon have a chance to lower its carbon and environmental footprint, as Vietnam could benefit from technological transfer and institutional transformation thanks to environmental pledges. The food and beverage sector in ASEAN countries has the highest energy intensity, and maximizing resource use and waste management may save between 30% and 40% on energy.

Despite being facilitated, state-owned enterprises have not been able to highlight their key position in technical advancement, economic reform, and innovation, while the private sector has grown but is still modest in size and financial capabilities.

## **4. Prospects and implications**

### ***4.1. Potentials and challenges for Vietnam***

#### ***4.1.1. Potentials***

*Firstly*, Vietnam benefits from FTAs by enhancing trade relations, attracting foreign capital for environmental development, and gaining access to advanced technology for environmental protection. Additionally, recent improvements in legislative regulations and enforcement monitoring have allowed Vietnam to execute environmental commitments within FTAs, which is crucial as the country actively participates in global sustainable development efforts, such as achieving net-zero emissions by COP26.

*Secondly*, Vietnam leverages its extensive international ties and active participation in international agreements to receive international support for improving environmental quality and promoting sustainable development. These commitments stress the importance of reciprocal trade and environmental practices among member states, ensuring that environmental protection aligns with trade and investment activities. Vietnam also has the flexibility to implement tailored policies in line with its specific needs and circumstances.

*Thirdly*, Vietnam gains a stronger foundation for environmental improvement through the environmental commitments in new-generation FTAs and international obligations. These commitments provide essential bases, legal frameworks, and implementation techniques that can be adapted to local conditions while adhering to global environmental standards. Particularly beneficial for developing nations like Vietnam, this approach, including acquiring, applying, and upgrading facilities from developed nations, helps bridge the development gap, conserve resources, and benefit not only Vietnam but also other member countries and the global environment.

#### 4.1.2. Challenges

In Vietnam, despite numerous environmental programs and laws, there is still a significant gap in the legal framework necessary to meet international climate change commitments. The implementation of international agreements is hindered, and environmental regulations are inconsistently enforced. One key issue is that government materials primarily focus on policy making rather than practical implementation of climate change rules.

Several factors contribute to this situation: (1) Low environmental awareness among government officials, businesses, and the general public. (2) Ongoing economic barriers that limit environmental protection efforts. (3) Insufficient capacity among staff to handle environmental issues in international trade. (4) Limited financial resources allocated for environmental protection activities, leading to challenges in investing in advanced technologies and other environmental initiatives.

Regulatory agencies at all levels face challenges in fulfilling the environmental commitments of newly signed FTAs due to several factors. The evolving environmental policy and regulatory landscape creates difficulties in managing and upholding international obligations. While environmental laws and regulations exist, enforcement falls short, with ongoing violations. Staff proficiency in handling global environmental trade issues is inadequate. Vietnam continues to import goods and technology that do not meet international environmental standards, potentially leading to subpar products and outdated machinery. Local governments prioritize attracting foreign direct investment (FDI) with incentives but often overlook environmental preservation and sustainable development.

#### 4.2. Recommendations for Vietnam

For the government, to ensure compliance with Vietnam's obligations as a nation, Vietnam must update its environmental protection laws in the future years with an emphasis on the following tasks.

*Firstly*, a shift towards a "mandatory" approach, rather than a "voluntary" one, in combating climate change is crucial. This includes international oversight and defined goals in Vietnam's Nationally Determined Contribution (NDC) to reduce greenhouse gas (GHG) emissions.

*Secondly*, research and regulations should focus on various aspects, including genetic resource access, biodiversity conservation, and carbon market principles. Clear rules for database system disclosure and transparency are essential. Administrative sanctions for those not disclosing GHG emissions and support policies for emission reduction should also be developed.

*Thirdly*, improvements are needed in providing environmental information, especially for businesses with GHG inventory responsibilities and HFC (hydrofluorocarbon) product producers. State agencies should ensure the accuracy, transparency, and usefulness of this information.

*Fourthly*, Vietnam should leverage FTAs to promote environmentally friendly goods and services, fostering sustainable green growth across export products. This will enhance competitiveness in environmental trade, attract foreign direct investment, transfer new technology to Vietnamese businesses, and integrate into regional and global value chains.

Non-government organizations are actively involved in aiding businesses with legal aspects, global integration, and practical guidance for navigating international trade and legal barriers. They

also promote trade and investment by organizing activities tailored to specific markets and industries. Moreover, these organizations play a vital role as intermediaries between businesses and government agencies, facilitating communication, knowledge sharing on foreign laws like intellectual property and quality management, and supporting brand development for member enterprises in the marketplace.

For enterprises, in order to remain competitive in developed country markets, they must prioritize environmental responsibility, adhere to high environmental standards, and invest in management strategies and technological innovations. Strengthening relationships with other businesses, expanding production and product quality, and reducing reliance on foreign suppliers for raw materials are essential. Businesses should also focus on innovation in corporate governance, information technology, product quality, and branding while ensuring compliance with rules of origin for tariff preferences. Investment in human resources, particularly skilled workers, is crucial for maintaining a competitive edge. Additionally, reevaluating compensation systems based on labor productivity and efficiency can motivate employees to enhance their professional skills. Adaptation and transformation strategies should be in place to navigate potential changes in tariff barriers as well.

## **5. Conclusion**

This research has systemized extant literature on environmental commitments in new-generation FTAs and their impact on Vietnam's sustainable legislative and economic development. And based on the results gathered in the previous chapters, the authors could make the following conclusions:

*Firstly*, the study analyzed environmental indicators from 2015 to 2023 and found that new-generation FTAs have generally had a positive impact on various sectors in Vietnam. However, the growth within these sectors has been somewhat inconsistent and only mildly accelerated during this time frame.

*Secondly*, there is a growing global interest in FTAs that incorporate both economic and non-commercial elements, including stricter environmental rules and sustainable development chapters. Vietnam has opportunities to establish itself as a trustworthy international partner by actively researching, implementing new environmental legislation, and adapting to this changing landscape.

*Thirdly*, despite recent improvements in Vietnam's legal framework to meet environmental obligations under new-generation FTAs, implementation challenges persist. These challenges may stem from resource limitations, a lack of skilled management teams, and limited public awareness. Ambiguities in guidelines also make it difficult to monitor and verify whether corporations are fulfilling their environmental commitments effectively.

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