

HO CHI MINH NATIONAL ACADEMY OF POLITICS

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**INSTITUTIONAL FRAMEWORK FOR
PROMOTING GREEN INDUSTRY
DEVELOPMENT IN HUNG YEN PROVINCE**

SUMMARY OF DOCTORAL DISSERTATION

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INTRODUCTION

1. The urgency of the topic

Any positive transformation from a traditional model to a modern model requires a process and the existence of a leading institution (JP Morgan, 2020). The success of developed countries has a great contribution from institutions because the more specific the institution, the more likely it is that the direction and framework for the development of a field or industry will be successful (Hung. V. Đ, 2018). Citing evidence from a specific country, Yvo de Boer (2016) said that: specific institutions in the industrial sector have contributed to the greening of this industry in Korea since 2009. The great success in passing institutional regulations has restructured Korea's core industries in a green direction; forcing businesses to integrate environmental standards into the production process, especially in Korea's key sectors such as electronics, automobiles, and chemicals. Brown. J (2021) argues that: when testing the values of green industry as a modern development model, the greatest contribution of the EU community government is its boldness and optimism in establishing specific development institutions that include strict requirements on environmental protection, integrated into national and community target programs. It can be seen that institutions promoting green industry play an important role in making green industry a key development direction of developed countries in the world.

In recent times, the industrial development process in Hung Yen province has achieved quite positive values when by 2023, Hung Yen owns 17 industrial zones, including 9 along the Hanoi-Hai Phong Expressway, covers an area of approximately 4,395 hectares (including 11 industrial zones that have been approved for investment and are currently operating with 437 projects totaling 9 billion USD). In 2022, these projects generated estimated revenues of 5,5 billion USD, exports valued at approximately 3,1 billion USD, and contributed about 2,700 billion VND in domestic tax revenue, making a significant contribution to the local socio-economic development. In addition to the positive impacts, industrial development in Hung Yen province is also posing pressing issues that need to be focused on solving. The implementation of industrial development in the traditional way, using old and outdated technologies and equipment in various fields, especially power generation, steel, cement and chemical production, etc., creates large sources of emissions, causing serious environmental pollution and degradation. According to the

report of the People's Committee of Hung Yen province (2022) [74], the amount of emissions from industrial parks tends to increase rapidly in the period 2015-2020, in which total dust, SO₂, NO_x and CO are causing major consequences for production activities as well as people's lives around industrial parks. There are currently 3,589 sources of waste discharged into the Bac Hung Hai irrigation system. This situation poses an urgent need to change the way of economic development in general, and industrial development in particular in Hung Yen province, and one of the trends that humanity has known and is trying to apply is green transformation and green industrial development.

Reality shows that ensuring a high economic growth rate along with environmental conditions is always of deep concern to the Party and State. The State has made significant efforts to institutionalize the Party's views on this field through the promulgation of the Environmental Protection Law (in 1993, 2005, and 2014) with many guiding documents, especially the National Environmental Protection Strategy to 2010 and Orientation to 2020; Vietnam's Sustainable Development Strategy for the 2011–2020 period; the National Climate Change Strategy; the National Environmental Protection Strategy to 2020, with a vision to 2030; the National Green Growth Strategy; the National Biodiversity Strategy to 2020, with a vision to 2030; and the National Green Growth Strategy for the 2021–2030 period, with a vision to 2050... Recognizing the important position and role in promoting green industrial development, the People's Committee and the People's Council of Hung Yen province have issued policies to help the industrial sector in Hung Yen truly "transition" to green in the near future.

However, green industrial development in the province has been slow and faces many difficulties and barriers, especially regarding institutional frameworks. To ensure that the industry continues to play a role in driving economic growth while minimizing environmental pollution, there is a need for fundamental research on institutions to promote green industrial development, particularly at the provincial level, from a political economy perspective. This will help to concretize and implement institutional frameworks that not only align with the country's general orientation but also fit the local characteristics, thereby creating a strong impetus for green industrial development in the province. Therefore, the researcher chose the topic: ***"Institutional Framework for Promoting***

Green Industry Development in Hung Yen Province" as the subject of their doctoral dissertation in political economy.

2. Research objective and topic

2.1. Research objective

To clarify the theoretical basis for evaluating the current status of institutions that promote green industrial development in Hung Yen province and to propose directions and solutions for improvement in the future. Proposing directions and providing solutions to better improve existing institutions in promoting green industry development in Hung Yen province.

2.2. Research topic

The dissertation will undertake the following tasks:

- First, systematize, supplement, and complete the scientific basis for institutions that promote green industrial development.

- Second, analyze and evaluate the current status of institutions promoting green industrial development in Hung Yen province during the 2017-2022 period; identify the achievements, limitations, and causes of limitations in the institutional framework for promoting green industrial development in Hung Yen province.

- Third, determine the direction and propose solutions to improve the institutional framework for promoting green industrial development in Hung Yen province by 2030, with a vision to 2050.

3. Research focus and scope

3.1. Research focus

The research focus of the dissertation is the institutional framework for promoting green industrial development at the provincial level, specifically in Hung Yen.

3.2. Research scope

- Content scope: The dissertation approaches institutions from the perspective of "formal institutions" through the system of official documents, i.e., rules and regulations issued by competent state agencies such as the Constitution, Laws, Decrees, etc. "Informal institutions," although having certain impacts on promoting green industrial development, are not included within the scope of this dissertation.

- Spatial scope: Industrial zones in Hung Yen province.

- Time scope: From 2016 to 2023, with proposed solutions extending to 2030, and a vision to 2050.

4. Research approach and method

4.1. Research approach

The dissertation is based on the theoretical foundation of Marxist-Leninist Political Economy; the viewpoints, guidelines, and policies on socio-economic development of the Party and State, and some other economic theories related to the dissertation topic. The practical basis of the dissertation includes the reality of institutions promoting green industrial development in some localities and countries, and the current situation of institutions promoting green industrial development in Hung Yen province during the 2017-2022 period. The dissertation mainly uses a combination of the political economy approach and the systems approach in research to clarify the socio-economic relationships that govern and relate to each other.

4.2. Research method

Based on the research methodology of dialectical materialism and historical materialism, the dissertation uses several specific research methods as follows:

Scientific abstraction method.

Analytical and synthetic method.

Statistical methods, data collection, induction and interpretation

Logical and historical method

Expert method

Forecasting method

5. Scientific contribution and value of the dissertation

First, the dissertation systematizes the works on institutions promoting green industrial development from the perspective of Marxist-Leninist Political Economy, identifying the scientific gaps that need further research.

Second, the dissertation develops the concept of "institutions promoting green industrial development".

Third, the dissertation analyzes and evaluates the current status of institutions promoting green industrial development in Hung Yen province during the 2016-2023 period.

Fourth, the dissertation proposes directions and solutions for improving the institutional framework for promoting green industrial development in Hung Yen province by 2030, with a vision to 2050.

6. Scientific significance of the dissertation

- Contributing to deepening the category of institutions promoting green industrial development; the significance of green industrial development for a nation's sustainable green development.

- Forming method and approach to surveying and evaluating the institutional framework for promoting a particular field at the provincial level.

- The dissertation can be used as a reference material to help research agencies and relevant sectors in policy formulation and implementation to improve the institutional framework for promoting green industrial development in the economic development of Hung Yen province, in particular, and in the development of a socialist-oriented market economy in Vietnam, in general.

7. Structure of the dissertation

The dissertation consists of four chapters:

Chapter 1: Overview of related research on the institutional framework for promoting green industrial development in Hung Yen province.

Chapter 2: Theoretical and practical basis for the institutional framework for promoting green industrial development at the provincial level.

Chapter 3: The current status of the institutional framework for promoting green industrial development in Hung Yen province.

Chapter 4: Directions and solutions for improving the institutional framework for promoting green industrial development in Hung Yen province by 2030, with a vision to 2050.

Chapter 1

OVERVIEW OF RESEARCH

RELATED TO THE DISSERTATION TOPIC

1.1. RESEARCH ON GREEN INDUSTRY AND GREEN INDUSTRIAL DEVELOPMENT

The dissertation reviews groups of domestic and international research related to the theoretical issues of institutional frameworks promoting green industrial development. The groups include scientific projects, monographs, doctoral dissertations, and scientific articles related to the dissertation topic that contribute significantly to scientific knowledge.

1.1.1. International research related to green industry and green industrial development

UNIDO (2011), *Green Industry Policies for supporting green Industry*;

World bank (2012), *Inclusive Green Growth: The Pathway to Sustainable Development*;

Zongwei Luo (2012), *Advanced Analytics for Green and Sustainable Economic Development: Supply Chain Models and Financial Technologies*;

UNIDO (2012), *Towards Green Growth Through Green Industry Development in Viet Nam*;

D.A. Vazquez-Brust and J. Sarkis (2012), *Green Growth: Managing the Transition to a Sustainable Economy*;

M Dittrich, S Giljum, S Lutter, C Polzin UNIDO, (2012), *Towards Green Growth Through Green Industry Development in Viet Nam - First published in Viet Nam, Austria*;

Park et al. (2015), *A review of the National Eco Industrial Park Development Program in Korea: progress and achievements in the first phase, 2005 – 2010*;

Altenburg. T et al. (2017), *Green Industrial Policy. Concept, Policies, Country Experiences*;

Kevin P. Gallagher and Lyuba Zarsky (2019), *Green Industrial Development? “The Performance of Mexico’s FDI-led Integration Strategy”*;

D. Gibbs và P. Deutz (2020), *“Implementing industrial ecology? Planning for eco-industrial in the USA”*.

1.1.2. Domestic research related to green industry and green industrial development

Green growth model: Analytical framework and policy choices for Vietnam by Nguyen Trong Hoai (2012)

Industrial development towards green growth: A case study of the Mekong Delta by Nguyen Trong Hoai and Le Hoang Long (2014)

Green growth policies in some ASEAN countries in the context of economic restructuring and climate change response by Nguyen Huy Hoang (2015).

Scientific and practical basis for building industrial development goals serving Vietnam's industrial strategy to 2030 with a vision to 2045 by Le Nguyen Thanh (2020),

Criteria associated with green growth: The manufacturing and processing industry sector in Handbook for small and medium enterprises (2020).

Barriers to the development of renewable energy in Vietnam by Luu Duc Hai, Nguyen Thi Hoang Lien, Cu Thi San, Nguyen Quang Khai (2021).

Green industrial development towards green growth in Bac Giang povincem by Dam Duc Quang(2022).

1.2. RESERCH ON INSTITUTIONS PROMOTING GREEN INDUSTRIAL DEVELOPMENT

Institutional frameworks, particularly those promoting green industrial development, have garnered significant attention from both domestic and international researchers. Each study and scientific publication approaches and examines institutions from different perspectives, with varied objectives and outcomes.

1.2.1. International research related to institutions promoting green industrial development

“Douglass C. North (1990), *The formal and informal constraints of institution, Institutional Change and Economic Performance*;

Jack Knight (1992), *Institution and Social Conflict*;

Ashford, N. (1993) “Understanding Technological Responses of Industrial Firms to Environmental Problems: Implications for Government Policy”;

Masahiko Aoki, (2001), *Toward s Comparative Institutional Analysis*;

Lin và Ho (2011) “Determinants of Green Practice Adoption for Logistics Companies in China”;

Acemoglu and Robinson (2012), *Why Nations Fail: The Origins of Power, Prosperity and poverty*;

World Bank (2012), *Inclusive Green Growth: The Pathway to Sustainable Development*;

Yu et al. (2013), “Process analysis of eco-industrial park development: the case of Tianjin, China”;

Pegels A. (2014), *Green industrial policy in emerging countries*;

Lütkenhorst Wilfried, Altenburg Tilman, Pegels Anna, Vidican Georgeta (2014). *Green Industrial Policy: Managing Transformation Under Uncertainty*;

Altenburg T., Assmann C. (Eds.). (2017), *Green Industrial Policy. Concept, Policies, Country*;

Tao Song, Erdan Wang, Xu Lu, Hao Chen, & Jiangxue Zhang (2020), “Research on the Calculation and Influencing Factors of the Green Development of Regional Industry in China”.

1.2.2. Domestic research related to institutions promoting green industrial development

Nguyễn Đăng Dung và Bùi Ngọc Sơn (2004), *Thể chế chính trị* (Political institutions);

GS.TS Kenichi Ohno và GS.TS Nguyễn Văn Thường, (2005), *Hoàn thiện thể chế phát triển công nghiệp Việt Nam* (Improving the industrial development institutions in Vietnam);

Phạm Thị Túy (2014), “Thể chế” (Institution);

NCIF (2016). *Vai trò của Nhà nước trong Đầu tư và Cung cấp Dịch vụ công. Nền tảng về Vai trò của Nhà nước trong Phát triển các khu công nghiệp ở Việt Nam* (The Role of the State in Investment and Public Service Provision: The Role of the State in Industrial Development in Vietnam);

Chu Thị Mai Phương (2017), *Ảnh hưởng của thể chế đến quyết định đầu tư và kết quả hoạt động của các doanh nghiệp ở Việt Nam* (The impact of institutions on investment decisions and performance of enterprises in Vietnam);

Trần Quốc Toàn, Phùng Hữu Phú, Tạ Ngọc Tấn (2019), *Thể chế phát triển nhanh - bền vững. Kinh nghiệm quốc tế và những vấn đề đặt ra đối với Việt Nam trong giai đoạn mới* (Institutions for fast and sustainable development: International experience and issues for Vietnam in the new era);

Ngô Tuấn Nghĩa (2019), “Thể chế phát triển công nghiệp rút ngắn - kinh nghiệm của Nhật Bản và Hàn Quốc” (Institutions for accelerated industrial development - lessons from Japan and South Korea);

Ngô Tuấn Nghĩa (2019), “Hoàn thiện thể chế thúc đẩy phát triển kinh tế dựa trên đổi mới sáng tạo ở Việt Nam” (Improving institutions to promote economic development based on innovation in Vietnam);

Nguyễn Hoàng Quy & Lê Thị Ánh Tuyết (2020), “Chính sách công nghiệp xanh – kinh nghiệm quốc tế và bài học cho Việt Nam” (Green industrial policy - international experience and lessons for Vietnam);

Phùng Thị Quỳnh Trang, Nguyễn Thị Thu Hà (2021), “Kinh nghiệm phát triển chính sách công nghiệp xanh ở một số quốc gia và bài học cho

Việt Nam” (Experiences in developing green industrial policies in some countries and lessons for Vietnam);

Nguyễn Chiến Thắng, Trần Văn Hoàng (2022), “Thể chế hỗ trợ đổi mới công nghệ cho doanh nghiệp nhỏ và vừa Việt Nam trong bối cảnh mới” (Institutions supporting technological innovation for small and medium-sized enterprises in Vietnam in the new context);

Trần Thị Ngọc Minh (2022), *Vận dụng quan điểm của C. Mác về thể chế để hoàn thiện thể chế kinh tế thị trường định hướng XHCN ở Việt Nam* [47] (Applying Marx's views on institutions to improve the socialist-oriented market economy institutions in Vietnam).

1.3. OVERVIEW OF RESEARCH RESULTS ON INSTITUTIONS PROMOTING GREEN INDUSTRIAL DEVELOPMENT, SCIENTIFIC GAPS, AND KEY RESEARCH ISSUES OF THE DISSERTATION

1.3.1. Overview of research results on institutions promoting green industrial development and expected inheritance

The studies, both domestic and international, allow the researcher to inherit:

First, the concept of institutions and institutions promoting development. The studies clearly distinguish between institutions and mechanisms, and between institutions and laws. They emphasize the need for institutional science as a "blend" of mechanisms with laws, policies, and the human resources that implement those laws and policies.

Second, the concept of green industry from the perspectives of environmental science and chemistry, as well as from an economic viewpoint. Traditionally, industry refers to production processes that use machinery powered by fossil fuels and emit environmental pollutants. In contrast, green industry refers to industrial production that is environmentally friendly, with minimal or no waste impact on the surrounding environment.

Third, the studies clarify institutions promoting development in general and institutions promoting green industrial development in particular.

Fourth, inheritance of factors affecting the development of institutions in general and green industrial institutions in particular, such as (1) the awareness level of enterprises; (2) compliance with environmental requirements; (3) the scientific validity and effectiveness of legal norms;

(4) the level of international integration; (5) the local industrial base. These are important aspects that the dissertation inherits to delve deeper into the academic side.

- The studies are relatively consistent in evaluating institutions promoting green industrial development from 3 perspectives: (1) environment; (2) economy; and (3) society.

- Research on the experience of institutions promoting green industrial development provides lessons from the practices of some countries (China, South Korea, Japan) and some provinces in Vietnam.

- Some studies share experiences in establishing development institutions in certain countries (China, South Korea, Japan) and some provinces in Vietnam (Bac Giang, Binh Duong). These lessons will guide the dissertation in finding compatibility with the industrial development status in Hung Yen and proposing suitable solutions.

1.3.2. Research gaps to be focused on by the dissertation

First, the quantity and quality of legal documents issued by competent authorities related to green environment and the subjects affected by institutions in the process of transitioning from traditional industries (old industry, emitting environmental pollution) to green industrial development.

Second, there are not many institutions promoting green industrial development at the provincial level.

Third, there are not many solutions for improving institutions promoting green industrial development in Hung Yen province, approached from the Marxist-Leninist political economy perspective.

1.3.3. Key research issues for the dissertation on institutions promoting green industrial development in Hung Yen province

“From the issues not yet clarified from the political economy research perspective, the dissertation will focus on the following:

- First, based on the concepts of institutions and institutions promoting green industrial development, clarify the concept of institutions promoting green industrial development at the provincial level.

- Second, analyze and clarify the common characteristics of institutions promoting green industrial development in Vietnam and at the provincial level, especially in Hung Yen province; the criteria for evaluation and the factors affecting institutions promoting green industrial

development, learning from international and domestic experiences, and drawing reference values for Hung Yen province.

Third, through the analysis of natural conditions and socio-economic characteristics of Hung Yen province in recent years, focus on clarifying the current status of institutions promoting green industrial development during the 2016-2023 period, analyze the current state of institutions promoting green industrial development, identify achievements, weaknesses, and the causes of those achievements and limitations.

Fourth, forecast the upcoming context for green industrial development in Hung Yen province to propose directions and solutions for improving institutions promoting green industrial development in the province by 2030, with a vision to 2045.”

Chapter 2

THEORETICAL BASIS AND PRACTICAL EXPERIENCE IN INSTITUTIONS PROMOTING GREEN INDUSTRY DEVELOPMENT AT THE PROVINCIAL LEVEL

2.1. THEORETICAL BASIS FOR INSTITUTIONS PROMOTING GREEN INDUSTRY DEVELOPMENT AT THE PROVINCIAL LEVEL

2.1.1. Some basic concepts

- Concept of institution

An institution refers to the rules, laws, management apparatus, and operating mechanisms that regulate the behavior of members and organizations within a society.

Concept of economic institution

An economic institution is a system of regulations established by authoritative entities, along with the organizational and human resources to implement these regulations, aiming to realize economic goals and tasks.

Concept of developmental institution

A developmental institution is one that creates motivation, a path for continuous progress, and harmonizes the interest relationships between entities to promote large-scale developments, improving quality, and diversifying structures. Development is an inevitable trend; therefore, all factors that foster development, such as creating motivation, outlining trends, and specifying steps,... are considered institutions that promote development.

Concept of green industry

Green industry is an industry in which the production process is based on scientific and technological advances, low emissions, and environmentally friendly.

Concept of institutions promoting green industry development

Institutions promoting green industry development are the collective regulations established by authoritative entities, along with the organizational system and personnel that enforce these regulations, and the mutually binding sanctions in developing the green industry sector to progressively improve the environment.

2.1.2. Characteristics of institutions promoting green industry development at the provincial level

General characteristics

First, the most general characteristic of institutions promoting green industry development is their dependence on laws enacted by central and local state agencies.

Second, as an economic institution, the province's efforts to promote green industry development are influenced by the organizational apparatus and personnel executing provincial public duties.

Third, the institutions promoting green industry development at the provincial level involve not only the state economic sector but also other economic sectors (collective, private, household economy, and foreign direct investment (FDI)).

Specific characteristics

First, institutions promoting green industry development differ from those promoting traditional industry (which relies on fossil fuels, high emissions, pollution, and ecological destruction).

Second, provincial-level institutions promoting green industry development are characterized by a high degree of "localization," creativity, and flexibility.

Third, the entities involved in institutions promoting green industry development.

2.1.3. The role of institutions promoting green industry development

- Contributing to sustainable economic growth and green economic development.

- Enhancing industrialization, modernization, and urbanization in a green, clean, and beautiful direction.

- Demonstrating the decisive actions of the Government and local authorities in implementing COP26, responding to climate change, and protecting the environment.

- Green industry gradually becoming a "integration" criterion in the international economic arena.

- Green industry contributes to promoting and improving the effectiveness of international integration, especially international economic integration in the new context.

2.2. CONTENT, CRITERIA, AND FACTORS AFFECTING INSTITUTIONS PROMOTING GREEN INDUSTRY DEVELOPMENT AT THE PROVINCIAL LEVEL

2.2.1. Content of institutions promoting green industry development

Based on the level of the issuing entity, institutions promoting green industry development include two groups: Central-issued institutions and locally-issued institutions.

2.2.1.1. Central-issued institutions

To ensure that an institution can be effectively implemented at the national or local level, the presence of establishing and implementing entities is essential. In our country, the Party leads, and the State manages, so to develop green industry, the first requirement is the Party's direction, reflected through its platforms and strategies. Additionally, the National Assembly, as the highest representative body of the people, plays a role in enacting the Constitution and laws directly or indirectly related to green industry. The Government, as the executive body, directly issues decrees and resolutions on green industry development. This thesis focuses on studying the legal documents directly or indirectly related to green industry issued by the central government.

Legal documents issued by the central government

- + *The Party's views on promoting green industry development*

- + *The State's policies on promoting green industry development*

2.2.1.2. Locally-issued institutions

To ensure that institutions become embedded in the socio-economic life, it is necessary to have a management and implementation apparatus, including: The People's Council, which decides local matters as prescribed by law, supervises the observance of the Constitution and laws in the locality, and oversees the implementation of resolutions of the People's Council on industrial

development in general and green industry in particular. The People's Committee organizes the execution of the Constitution and laws in the locality and implements the resolutions of the People's Council on industrial development in general and green industry in particular. Additionally, departments and agencies directly or indirectly impact green industry development, such as the Department of Industry and Trade, the Department of Planning and Investment, and the Department of Natural Resources and Environment...

2.2.2. Criteria for evaluating institutions promoting green industry development at the provincial level

2.2.2.1. The number and quality of legal documents on green industry

The number of legal documents over time is crucial for perfecting institutions that promote green industry development. The more documents are issued, the more formal the guidelines become in establishing development directions and clarifying methods for green industry development.

The quality of legal documents is a crucial aspect of the institution. The institution promoting green industry development at the provincial level is composed of key legal sources.

2.2.2.2. The proportion of green enterprises to the total number of industrial production facilities in the province

- (1). The number of enterprises adhering to environmental commitments
- (2). The number of enterprises with decreasing emissions levels
- (3). The number of enterprises changing technology in waste treatment
- (4). The proportion of "green" enterprises to the total number of active enterprises

2.2.2.3. The proportion of production facilities based on green technology

- (1) Technology in recycling
- (2) Technology in environmental management (green technology)

2.2.2.4. The number of industrial production facilities achieving emission standards to the total number of industrial production facilities

The goal of environmental protection is to foster green and friendly production; therefore, environmental cleanliness and greenness are the benchmarks for evaluating the quality of the institution.

For businesses operating in the industrial sector that produce wastewater during the production process, investing in wastewater

treatment systems is mandatory. The purpose is to ensure compliance with local discharge regulations and the law.

2.2.3. Factors affecting institutions promoting green industry development at the provincial level

2.2.3.1. Subjective factors

First, the level of completeness and consistency of the legal system and policies of the central and local governments .

Second, community awareness regarding the promotion of green industry development.

Third, the readiness and financial potential of business owners to meet the requirements of green industry development.

Fourth, the readiness and financial capacity of business owners to meet the demands of green industry development.

Fifth, the organizational model and operation of the management boards of industrial zones within the province.

2.2.3.2. Objective factors

Natural and socio-economic conditions of the province.

2.3. INTERNATIONAL AND DOMESTIC EXPERIENCE IN INSTITUTIONS PROMOTING GREEN INDUSTRY DEVELOPMENT

2.3.1. International experience in institutions promoting green industry development

2.3.1.1. Experience in Daegu province, South Korea

First, developing strategies and supporting key industries that align with the local comparative advantages and potential.

Second, creating reasonable mechanisms and policies to allocate resources that promote key industries.

Third, strengthening research, application, and technology transfer to increase the proportion of high-tech, environmentally friendly industries.

2.3.1.2. Experience in Penang province, Malaysia

First, attracting strategic investors to high-tech, environmentally friendly industries to increase the proportion of high-tech industries.

Second, focusing on training and attracting high-quality labor to meet the workforce needs for green industry development.

Third, establishing a dedicated investment promotion agency (Invest Penang).

Fourth, developing an industry cluster model to reorganize the industrial territorial space in Penang province.

2.3.2. Domestic experience in institutions promoting green industry development

2.3.2.1. Experience in Bac Ninh province

The action plan to implement Bac Ninh province's green growth strategy until 2030, with an orientation toward 2050, issued by the Provincial People's Committee, continues to emphasize that green growth is a new opportunity for attracting investment, restructuring the economy associated with innovation, enhancing competitiveness, and adapting to investment trends and international green trade. Along with this, the orientation is to develop the industry in a green and sustainable direction with the specific goal of attracting investment, widely applying advanced technologies in production to contribute to reducing greenhouse gas emissions, improving the environment, linking the greening of production with the greening of lifestyle, and promoting sustainable consumption, improving the quality of life by building green infrastructure...

2.3.2.2. Experience in Hai Duong province

Project for the development of high-tech industry and supporting industries for the 2021-2025 period, with orientation towards 2030, Hải Dương province. With the objective of focusing on the development of high-tech industries, advanced technology industries, new technology industries, clean technology industries, and supporting industries to help ensure that by 2025, Hải Dương becomes a fundamentally modern industrial province. The priority is to attract high-tech, advanced technology, new technology, and clean technology enterprises, as well as large assembly enterprises, to lead the development of supporting industrial products, laying the groundwork for initial participation in the fourth industrial revolution.

2.3.3. Reference values for Hưng Yên province

Through studying the experiences of institutions promoting green industrial development in some localities abroad and domestically, several reference values can be drawn for Hưng Yên province as follows:

First, revise and supplement regulations on promoting green industrial development

Second, lessons on the organization of the machinery directly involved in green industrial development

Third, green human resources

Fourth, capital for promoting green industrial development

Chapter 3

CURRENT INSTITUTIONAL STATUS FOR PROMOTING GREEN INDUSTRY DEVELOPMENT IN HUNG YEN PROVINCE

3.1. NATURAL, SOCIO-ECONOMIC CONDITIONS AFFECTING THE INSTITUTIONAL FRAMEWORK FOR PROMOTING GREEN INDUSTRY DEVELOPMENT IN HUNG YEN PROVINCE

3.1.1. Natural conditions in Hung Yen province

Hung Yen is located in the Red River Delta, situated on the left bank of the Red River, within the northern key economic region and the Hanoi - Hai Phong - Quang Ninh economic triangle, serving as the eastern gateway to Hanoi. It borders Bac Ninh province to the north, Hanoi to the northwest, Thai Binh province to the south, Ha Nam province to the southwest, and Hai Duong province to the east.

Hung Yen has many rivers, with rivers surrounding the province on three sides: the Red River to the west, the Luoc River to the south, and the Cuu An River to the east. The province's main mineral resource is black sand, which is abundant and primarily found along the Red River and Luoc River, potentially meeting the construction needs of the province and neighboring areas.

3.1.2. Socio-Economic conditions in Hung Yen province

3.1.2.1. Economic conditions

(1) Economic growth; (2) Economic restructuring; (3) Industry.

3.1.2.2. Social conditions in Hung Yen

Chuyển dịch cơ cấu kinh tế theo hướng tăng tỷ trọng ngành công nghiệp đã tác động tích cực đến chuyển dịch cơ cấu lao động. The rapid development of industrial production facilities has positively contributed to employment for workers. In 2021, the province had 203.792 workers employed in the industrial sector. Each year, businesses and individual households have attracted and created new jobs for about 8,000 people, equivalent to an annual rate of 8 - 9%. Economic restructuring towards increasing the proportion of the industrial sector has positively impacted labor restructuring.

3.2. INSTITUTIONAL FRAMEWORK FOR PROMOTING GREEN INDUSTRY DEVELOPMENT IN HUNG YEN PROVINCE FROM 2016 TO 2023

3.2.1. Institutional framework for promoting green industry development in Hung Yen province

3.2.1.1. Institutions issued by the Central Government

First, the orientation for green industrial development by the Party

Second, the laws and regulations issued by the State

3.2.1.3. Institutions issued by Hung Yen

The Provincial People's Council, People's Committee, Provincial Party Committee, and various departments and agencies have issued numerous plans, resolutions, and action programs regarding the implementation of institutions promoting green industry development.

In recent years, to promote green industry development, environmental protection efforts across the province have been actively implemented by all levels of government, industries, and the general population.

3.2.2. Evaluation of the institutional framework for promoting green industry development in industrial zones in Hung Yen province

3.2.2.1. Regarding the number of legal documents promoting green industry development in industrial zones in Hung Yen province

In recent times, green industry development has consistently received significant attention from various levels of government and sectors, being regarded as one of the criteria that accelerate the process of green economic development. Consequently, the introduction of laws, sub-laws, and resolutions from the central to local levels in Hung Yen related to green industry, as well as the orientation towards green industrial development in industrial zones within the province, has been increasingly diverse.

3.2.2.2. Regarding the quality of legal documents promoting green industry development in industrial zones in Hung Yen province

It is evident that green industry, while long-established and developed in advanced nations, has only recently been discussed in Vietnam. As a result, the formation of a dedicated legal framework and policies for green industry development remains relatively new and has not yet been concretely established. However, the elements promoting green industry are interwoven within the criteria of various laws and legal documents. The absence of a dedicated law has led to a lack of a comprehensive legal framework for effectively managing and implementing support solutions, as well as for guiding the development of the sector in a coordinated manner from the central to local levels and across related ministries and sectors. This situation hinders the effective institutionalization of the policies and directions concerning industrial development in general and green industry in particular.

3.2.2.3. Coordination mechanism between provincial -level state management agencies in Hung Yen

In order for green industry to truly be the driving force for sustainable development in Hung Yen province, state agencies in the province have coordinated in harmony to specify requirements and implement environmental laws.

3.2.3. The impact of the institutional framework on green industry development in Hung Yen province through green technology criteria

From a technological perspective, there are three specific development channels: (1) Importing environmental technology from abroad; (2) Upward/downward technology transfer; (3) Internal research and development.

First, importing environmental technology from abroad

Second, transferring environmental technology geared towards green industry development

Third, internal research and development in environmental protection in industrial zones within Hung Yen province

The impact of the institutional framework on green industry development in Hung Yen province through green environment criteria

First, wastewater treatment

Second, air quality

Third, solid waste management and treatment

Fourth, recycling capacity of enterprises

The impact of the institutional framework on green industry development in Hung Yen province through green enterprise criteria

First, energy consumption levels during production

Second, the number of green enterprises to the total number of operating enterprises

3.3. GENERAL ASSESSMENT OF INSTITUTIONS PROMOTING GREEN INDUSTRY DEVELOPMENT IN HUNG YEN PROVINCE

3.3.1. Achievements

The system of documents and institutions to promote green industry development in Hung Yen province has been gradually built and increasingly improved, with a consensus on the Party's viewpoints, the State's legal policies, documents, Resolutions, Directives, Plans, and Action Programs of the Provincial Party Committee, People's Council, and People's Committee on industrial development in general and green industry in particular.

3.3.2. Limitations and causes

Despite the achievements of the institutional framework in promoting green industry development in Hung Yen province, several limitations remain:

Firstly, the feasibility of some institutions and policies for promoting green industry development is not high.

Secondly, there is a lack of comprehensive institutions and policies supporting the entire production organization process of recycling activities.

Thirdly, institutions, mechanisms, and policies remain overlapping, and the quality of the institutional framework is not high.

Fourthly, the system of documents guiding the implementation of the framework institutions has not been fully and promptly developed.

The causes of these limitations include:

First, from the perspective of state management agencies.

Second, from the enterprises, which are the entities directly affected by the institutions.

Chapter 4

SOLUTIONS TO IMPROVE INSTITUTIONAL FRAMEWORKS TO PROMOTE GREEN INDUSTRIAL DEVELOPMENT IN HUNG YEN PROVINCE

4.1. FORECASTING CONTEXTS AND DIRECTIONS FOR IMPROVING INSTITUTIONAL FRAMEWORKS TO PROMOTE GREEN INDUSTRIAL DEVELOPMENT

4.1.1. Global and domestic contexts impacting the institutional framework for green industrial development

- Global context

Firstly, sustainable development has become a dominant global trend; digital economy, circular economy, and green growth are now the models chosen by many nations.

Secondly, transitioning to a carbon-free world is theoretically beneficial for all countries.

Thirdly, the risk of energy insecurity.

Fourthly, global financial crises and economic recessions, along with non-traditional security issues, have exposed the weaknesses and unpredictability of current economic models. This calls for transforming

growth models and economic restructuring to establish a sustainable development foundation.

- Domestic context

Green growth is growth based on the process of transforming growth models and restructuring the economy to leverage comparative advantages, enhance efficiency, and increase the competitiveness of the economy through research and application of advanced technologies, the development of modern infrastructure systems to efficiently use natural resources, reduce greenhouse gas emissions, respond to climate change, contribute to poverty alleviation, and create momentum for sustainable economic growth...

From there, Vietnam has identified 3 strategic tasks to achieve the goal of green economic development as follows: *First*, reducing the intensity of greenhouse gas emissions and promoting the use of clean and renewable energy. *Second*, greening production. *Third*, greening lifestyles and promoting sustainable consumption.

4.1.2. Directions for improving the institutional framework for green industrial development

First, complete the institutional framework to promote green industrial development.

Second, promote green production by effectively implementing policies on energy efficiency and supporting enterprises to adopt cleaner production technologies.

Third, awareness campaigns should aim at changing the attitudes and behaviors of government agencies, businesses, and the public.

4.2. SOLUTIONS TO IMPROVE THE INSTITUTIONAL FRAMEWORK FOR GREEN INDUSTRIAL DEVELOPMENT IN HUNG YEN PROVINCE

4.2.1. Improve the system of policies and legal documents related to green industrial development at the provincial level

Firstly, build on global criteria for green industry, especially from countries with similar conditions, to form a comprehensive legal framework for green industry.

Secondly, green industry should be based on existing industrial foundations and be representative of localities across the country, ensuring that the legal framework for green industry development is practical and applicable in industrial zones.

Thirdly, Local management agencies must understand their industrial strengths to establish specific regulations that ensure industrial zones meet "green" standards. Tax reductions and fee exemptions are crucial incentives to promote green industrial zones in Hung Yên.

4.2.2. Improve state management of industrial zones

Enhancing the institutional framework for green industrial development requires the participation of the entire management system, from local governments to functional departments involved in green industrial development.

It can be said that in order to implement the above solutions, in addition to the external factors from the global and Vietnamese economies, a crucial factor that determines the feasibility of these solutions is the coordination between the relevant departments and agencies in Hung Yên Province, such as the Department of Industry and Trade, the Department of Planning and Investment, the Department of Finance, the Department of Natural Resources and Environment, the Department of Labor, War Invalids, and Social Affairs, the Department of Science and Technology, and the Department of Construction.

4.2.3. Improve the institutional framework for green technology funding

First, establish green technology development funds from both business and management perspectives.

Second, adjust emission fee levels.

Third, disseminate information on funding standards for ecological improvement activities in enterprises.

4.2.4. Improve human resource training policies for green industrial development

First, innovate training methods at universities, colleges, and vocational schools, particularly in fields related to green industry.

Second, strengthen planning for training and utilizing a workforce for green industries in Hung Yên province.

Third, improve the quality of vocational training in the province.

4.2.5. Balance interests between businesses and the state in promoting green industry

First, the government should strictly implement policies to save resources, combat waste, and prevent corruption.

Second, establish a fund to encourage green industrial development

Third, in the current context, government agencies should lead and create favorable conditions for businesses to engage in green and clean technology ventures.

4.2.6. Leverage international integration to improve environmental technology and develop green industry

Regarding the construction and improvement of policies to support technology imports

Regarding identifying priorities for clean technology imports in various industries and sectors at each stage

Regarding implementing support for technology import enterprises

Regarding improving the effectiveness of state management of clean technology import

Regarding international cooperation

4.2.7. Improve the planning and management of industrial zones in Hung Yen toward green industrial development

First, adjust planning scientifically to align with the practical needs and development of industrial zones, aiming for smart, green urban development with unique characteristics and pioneering qualities.

Second, develop industrial zones harmoniously in both breadth and depth, with a focus on depth.

Third, select representative industrial zones to implement green-oriented planning.

Fourth, form a competitive business community within industrial zones that protects and enhances the living environment for surrounding communities, fulfilling green growth and sustainable development goals.

CONCLUSION

Developing green industry is a trend of sustainable development. The Party and the State have always focused on building, issuing, and implementing institutional frameworks to promote green industrial development, linking economic growth with environmental protection, and developing sustainable economic models from the very beginning, minimizing negative impacts on biodiversity, and ensuring a clean and safe living environment. The institutional framework promoting green industrial development is an effective legal tool to achieve fundamental, comprehensive, and long-term transformation.

The dissertation focuses on analyzing and clarifying theoretical issues related to the institutional framework for promoting green industrial

development at the provincial level. It introduces several basic concepts, including the central concept of an institutional framework for promoting green industrial development, and identifies the characteristics and roles of such a framework at the provincial level. From there, it outlines the content and criteria for evaluating the institutional framework that promotes green industrial development, and analyzes the factors influencing the institutional framework at the provincial level.

The analysis of the current state of the institutional framework for promoting green industrial development in Hung Yên Province shows that it has gradually been built and improved in a more synchronized, civilized, and complete manner. At the same time, the institutional framework in Hung Yên has created conditions for businesses in the province to move towards green production, modern technology, and environmental friendliness. Based on the policies of the Party, the State, and the Provincial People's Committee and People's Council, businesses have been more focused on, and have better access to, high-tech projects. However, to date, the institutional framework for promoting green industrial development still needs to be further built, supplemented, and improved; the quality of some institutions remains low, with overlaps.

Based on the theoretical framework that has been established, the assessment of the current state of the institutional framework for promoting green industrial development in Hung Yen rrovince has provided forecasts of global and domestic contexts impacting the province's institutional framework for promoting green industrial development. The author has thus proposed several solutions to build and improve the institutional framework for promoting green industrial development in Hung Yen province, such as: Solutions for raising awareness; Solutions for improving the direct management system of green industry; Solutions for capital to innovate green technology; Solutions for human resources in green industrial factories; Solutions for harmonizing interests; Solutions for integration.

Despite significant efforts, due to time limitations and difficulties in collecting data, the dissertation inevitably has some shortcomings. The researcher sincerely hopes to receive deep contributions and critiques to continue improving and enhancing the quality of the dissertation.”

RECOMMENDATIONS

Recommendations to the Government

Recommendations to the Hung Yen Provincial Government

**LIST OF THE AUTHOR'S PUBLISHED SCIENTIFIC WORKS
RELATED TO THE THESIS**

1. Nguyễn Lê Hương (2023), "Institutional Framework, Policies for Green Industrial Development, and the Issues for Hung Yen Province," Finance Journal, Issue 2, May 2023 (801), pp. 140 - 142.
2. Nguyễn Lê Hương (2023), "Institutions Promoting Green Industrial Development in Some Localities and Lessons for Hung Yen Province," Finance Journal, Issue 2, September 2023 (809), pp. 113 - 115.
3. Nguyễn Lê Hương (2023), "Solutions to Promote Green Industrial Development in Hung Yen Province," Economics and Forecasting Journal, Issue 31, November 2023 (858), pp. 81 - 83.