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### Provincial Green Index with Sustainable Development in Mekong Delta Provinces in Vietnam

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#### Abstract

Year 2022 is the first time VCCI Introducing and announcing the Provincial Green Index (PGI) in Vietnam. This is a set of indicators to evaluate and rank environmentally friendly localities from the perspective of business practices such as the level of application of environmentally friendly technology by local businesses, level of management and application. Environmental treatment of businesses, the level of concern and willingness to invest in environmental issues of local governments and

many other important environmental issues. Tra Vinh province ranked first with 17.67 points (out of 40 points) and Hanoi ranked last with 12.52 points. The article points out issues related to the Provincial Green Index (PGI), the current status of PGI in the Mekong Delta provinces and offers some solutions to improve the Provincial Green Index to promote sustainable development. sustainable in the Mekong Delta provinces in particular and in Vietnam in general.

**Keywords:** Provincial Green Index (PGI), Green Economy, Sustainable Development

#### Introduction

The issue of proactively responding to climate change, strengthening resource management and environmental protection has pointed out the important issues Vietnam is facing. The ability to adapt to climate change and prevent and control natural disasters is still low, the economy is vulnerable and suffers great damage when natural disasters occur. Natural resource management still has many weaknesses and ineffective use, especially land resources and water resources. Some types of resources are abused and over-exploited, leading to degradation and depletion. Environmental pollution continues to increase, especially in urban areas and large cities, greatly affecting people's lives and activities, becoming a pressing social problem. is not clear, labor productivity increases mainly due to increased capital intensity, the process of restructuring economic sectors still has many limitations; The difference in living standards and the level of people's enjoyment of social services between regions and between localities in the region is still large; Science and technology have not yet become the core driving force of sustainable development, there is still a lack of supporting mechanisms and policies for businesses to innovate and apply technology...; Environmental pollution is still complicated in some localities, especially in areas with high density of industrial development. Environmental pollution in some places is still complicated, handling violations there are still many shortcomings regarding the environment; Climate change and natural disasters greatly affect regions..."

The PGI index gathers business sentiment and conveys the "voice" of the entire business community about the quality of environmental management to governments at all levels. A locality is considered to have good environmental governance quality when it makes efforts to prevent and minimize environmental pollution and negative impacts of climate change; Develop and enforce reasonable regulations and measures to ensure compliance with environmental laws without creating excessive burdens for businesses; fully guide and disseminate green practices and focus on green procurement; and finally, encourage the "greening" of production and business models through specific policies and support programs.

This toolkit will provide the Government and the Ministry of Natural Resources and Environment with useful information about the current environmental situation at the enterprise level. This index is also expected to create direction and pressure for businesses to invest more widely in environmental issues.

**Overview of the Provincial Green Index (PGI)**

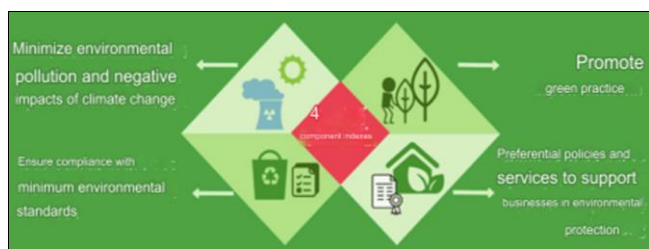
Provincial Green Index, English name Provincial Green Index (PGI) is a set of indicators that evaluate and rank the quality of local environmental governance from the perspective of business practices such as the level of application of environmentally friendly technology. School of businesses; the level of management and environmental behavior of businesses, the level of interest and willingness to invest in environmental issues of local governments and many other important environmental issues.



Source: Compiled by the author

Fig 1: PGI index

The Provincial Green Index is a set of indexes that evaluate and rank environmentally friendly localities from the perspective of business practices such as the level of application of environmentally friendly technology by local businesses, the level of environmental management and behavior of businesses, the level of concern and willingness to invest in environmental issues of local governments and many other important environmental issues. The goal of the green index is to promote provinces and cities in Vietnam to pay more attention to economic development associated with environmental protection, providing timely information to support provincial and city governments in political planning. Policies, promoting the building of an environmentally friendly business ecosystem, contributing to attracting investors with a sense of environmental protection and "green" and quality projects for Vietnam.



Source: Compiled by the author

Fig 2: Components of the PGI Index

The provincial green index is evaluated and ranked based on 4 component indexes: (1) Minimizing environmental pollution and negative impacts of climate change; (2) Ensure compliance with minimum environmental standards; (3) The role of provincial governments in promoting green practices; (4) Policies and services to support businesses in environmental protection. At the same time, PCI contributes to promoting the process of reforming the local business environment in the current difficult economic context and the business community facing many challenges. By building and announcing PGI, VCCI hopes to encourage and encourage provinces and cities in Vietnam to pay more attention to economic development associated with environmental protection. Because reality proves the very important role of provinces and cities in environmental protection and sustainable development in recent times.

Localities are the main subjects implementing policies related to investment and the environment, selecting environmentally friendly investment projects. Accordingly, localities also play an extremely important role in building an environmentally friendly business ecosystem. These policies also contribute to orienting investors and businesses to be conscious of protecting and promoting more green and environmentally friendly projects. These are the groups of activities and assessment content that the PGI index targets.

**Promote the application of green, environmentally friendly technology**

The Provincial Competitiveness Index (PCI) 2022 report was built based on feedback from 11,872 businesses, including 10,590 private enterprises and 1,282 foreign investment (FDI) enterprises. Operating in Vietnam. Since its inception in 2005, 176,496 businesses have participated in the PCI survey, reflecting diverse aspects of the business environment in Vietnam.

PGI Index survey results in 2022 shows that the environmental quality of localities needs to be paid more attention to improvement. More than half of businesses nationwide rate local environmental quality as good or very good. However, 30% of businesses said the locality where they operate is "not polluted" or only "slightly polluted". 37% of businesses said they were not affected by pollution. Notably, 58% of businesses observed that the phenomenon of businesses polluting the environment is common in their locality. Also, according to the VCCI Report, although in general FDI enterprises appear to be more satisfied with local environmental management, compared to domestic private enterprises, there are still some areas that have not been covered. FDI enterprises evaluated positively, such as preventing environmental pollution and sanctioning polluting enterprises. However, foreign investors have a more positive assessment of the local government's guidance on environmental laws and policies to support businesses in environmental protection.

**Current status of the Green Index (PGI of provinces and cities in the Mekong Delta**

| No | Province/City | Year | PGI score |
|----|---------------|------|-----------|
| 1  | Tra Vinh      | 2022 | 17.67     |
| 2  | Vinh Long     | 2022 | 15.27     |
| 3  | Long An       | 2022 | 15.04     |
| 4  | Can Tho       | 2022 | 14.90     |
| 5  | An Giang      | 2022 | 14.43     |
| 6  | Dong Thap     | 2022 | 14.33     |
| 7  | Hau Giang     | 2022 | 11.14     |
| 8  | Bac Lieu      | 2022 | 13.64     |
| 9  | Tien Giang    | 2022 | 13.43     |
| 10 | Soc Trang     | 2022 | 13.36     |
| 11 | Kien Giang    | 2022 | 13.34     |
| 12 | Ca Mau        | 2022 | 12.80     |
| 13 | Ben tre       | 2022 | 12.72     |

Source: VCCI (2023)

Fig 3: PGI scores of Mekong Delta provinces

The Mekong Delta Region, Tra Vinh ranked 1st with 17.67 points, followed by Vinh Long province with 15.27 points

and ranked last, 12th is Ben Tre province with 12.72 points (Fig 4).

| Province/City | Provincial Green Index scores are not yet weighted | Policy 1. Minimize environmental pollution and negative impacts of climate change (for businesses) | CSTP 2. Ensure compliance with minimum environmental standards | CSTP 3. The leadership role of the provincial government in promoting Green practices | CSTP 4. Policies and services to support businesses in environmental protection |
|---------------|--|--|--|---|---|
| An Giang      | 14.43  | 3.37   | 5.04   | 4.00  | 2.05  |
| Bac Lieu      | 13.64  | 3.44   | 4.94   | 3.90  | 1.39  |
| Ben tre       | 12.72  | 3.36   | 4.46   | 2.98  | 1.83  |
| Ca Mau        | 12.80  | 3.31   | 4.33   | 3.27  | 1.93  |
| Can Tho       | 14.90  | 3.27   | 6.23   | 3.83  | 1.61  |
| Dong Thap     | 14.33  | 3.55   | 4.96   | 3.88  | 1.98  |
| Hau Giang     | 11.14  | 3.97   | 4.07   | 3.77  | 2.24  |
| Kien Giang    | 13.34  | 3.36   | 4.48   | 3.86  | 1.63  |
| Long An       | 15.04  | 4.23   | 5.13   | 3.81  | 1.91  |
| Soc Trang     | 13.36  | 3.40   | 5.21   | 3.12  | 1.73  |
| Tien Giang    | 13.43  | 3.27   | 5.15   | 3.19  | 1.88  |
| Tra Vinh      | 17.67  | 6.41   | 5.54   | 3.88  | 1.88  |
| Vinh Long     | 15.27  | 4.10   | 5.02   | 4.17  | 2.00  |

Source: VCCI (2023)

Fig 4: PGI component scores of provinces and cities in the Red River Delta region

Many experts believe that Vietnam is one of the vulnerable countries in the world due to climate change and the Mekong Delta is forecast to be an area that will be greatly negatively affected by the impact of climate change. Climate change. Therefore, production and adaptation to climate change towards green growth are an inevitable need. Besides the challenges of climate change, the Mekong Delta region also has many opportunities to develop a green and circular economy. The provinces and cities in the Mekong Delta are the largest agricultural regions in the country, without many industrial factories, so the land, water, and air environment here is still very "wild"; this region also has a lot of potential for developing green industries such as renewable energy and eco-tourism, and has favorable conditions for green economic development. However, to stimulate green economic development, it requires supportive and encouraging policies from management agencies. In particular, for businesses, as the main subjects of the economy, they must transform traditional production thinking towards greening and sustainability.

**Local participation**

According to the 2022 PGI Ranking, Tra Vinh province achieved 17.67 points and is considered the leading province in the country in terms of environmental governance quality and green growth orientation in 2022. This is a great motivation for Tra Vinh. Vinh continues to make further reforms and advances in carrying out tasks, always aiming for the satisfaction of people and businesses for the sustainable development of the province, in order to contribute to improving the environment. Business schools, promoting the building of an environmentally friendly business ecosystem in the province.

Sharing about socio-economic development policies in the area, Vice Chairman of Long An Provincial People's Committee said that it is a locality close to Ho Chi Minh City - the economic leader of the country but for sustainable development., Long An does not trade off the environment for economic development, and at the same time prioritizes clean agricultural projects, environmental protection, and high technology applications. To attract domestic and foreign investors, in the coming time the province will review and promulgate environmental protection documents and promptly deploy the business community to reach out and strengthen propaganda to call for the participation of investors. Community; Promote inspection and supervision

of implementation of environmental laws, promote attraction and socialization of wastewater treatment for urban areas, industrial parks and economic zones.

Support businesses and investment project owners in choosing production investment technology, investment capital for environmental treatment technology and performing environmental protection tasks at the facility. Improve capacity in environmental quality monitoring, timely response and handling of environmental incidents, environmental degradation and environmental pollution. Strengthen the capacity of environmental science research, environmental technology application and environmental technology transfer into socio-economic practice.

To promote the application of technological achievements in socio-economic development in the Mekong Delta provinces and cities, many experts believe that localities need to focus on researching, applying and effectively transferring technologies. Environmental treatment technology such as: Waste and water treatment technology in wetlands; industrial and hazardous waste treatment technology; medical and hospital waste treatment technology; waste treatment technology in aquaculture and processing; biotechnology in environmental treatment; technology to provide clean and hygienic water; production and farming technologies that are ecologically compatible with wetlands in the Mekong Delta provinces and cities... Besides, provinces/cities in the Mekong Delta need to strengthen international cooperation on research and technology transfer, ensuring sustainable socio-economic development and environmental protection in the process of promoting industrialization and modernization.

**Minimize environmental pollution - adapt to climate change**

Faced with the current challenges of climate change, the province has set many important goals in reducing greenhouse gas emissions to join the Government in achieving net zero emissions, transforming a sustainable growth model. Sustainable, improving economic resilience and competitiveness, especially in provinces with over 65km of coastline; has strengths in agriculture.

Integrating into the development trend as well as common responsibility, the Mekong Delta province has issued many preferential policies and investment support for businesses... to promote agricultural production in the direction of organic, develop processing industry according to clean production processes and promote renewable energy.

As the unit implementing business development support activities, the Small and Medium Enterprise Development Project has been accompanying the province to implement policies to develop the organic coconut value chain; Encourage and support the development of environmentally friendly production and business ideas; Support the development and implementation of policies to improve the province's business environment to attract sustainable investment.

In implementing tasks aimed at minimizing environmental pollution - adapting to climate change, the province sets the goal of maintaining achievements on PGI, being consistent in direction and implementation. Between provincial leaders and grassroots, closely monitoring, asking for advice, and being responsible for feedback from the business community regarding the limitations of agencies, industries, fields and areas in charge. At the same time, focus on tasks

and fields: Planning appropriate agricultural development strategies, gradually adapting to climate change.

### **Green transformation roadmap for the transportation industry**

On July 4, 2023, the Provincial People's Committee issued Plan No. 60/KH-UBND of the Provincial People's Committee on implementing the Action Program on green energy conversion, reducing carbon emissions and methane gas from the transportation industry in the province. This is a positive action to implement Decision No. 876/QĐ-TTg dated July 22, 2022 of the Prime Minister approving the Action Program on green energy conversion, reducing carbon and gas emissions. Methane from the transportation industry.

Plan No. 60/KH-UBND aims to implement the Action Program on green energy conversion at the local level. Green energy conversion contributes to achieving green growth goals, helping the transportation sector in the province develop synchronously in the direction of modernization and sustainability, keeping pace with trends, levels and standards. Advanced development.

Accordingly, the Provincial People's Committee determines the tasks and attaches the responsibilities of the state management agency in the province to the grassroots government in the task of green energy conversion, in accordance with the assigned functions and tasks of the province. Departments and branches with a reasonable roadmap, consistent with the ability to mobilize resources, ensuring feasibility, efficiency and sustainability in the implementation process through planned programs.

The plan of the Provincial People's Committee has set out general and specific goals; Roadmap for transferring green energy to roads, inland waterways, maritime, and urban transport. At the same time, assign tasks and solutions; mechanisms, policies, planning... each sector.

For provinces and cities in the Mekong Delta, the PGI index will continue to be one of the important criteria in the province's socio-economic development process. Mekong Delta provinces and cities together with the whole country carry out the "green race" towards the goal of achieving net zero emissions. The province has set out action directions for the business and development community. Agriculture as well as related fields... make the best efforts to maintain the PGI index in 2023 and the following years.

### **Solutions**

To get results according to the VCCI 2022 report on PGI, it is necessary to synchronously implement the following specific solutions:

#### ***On the side of Tra Vinh Province***

*First*, to carry out inspection and supervision of environmental protection activities of production and business establishments, to completely handle environmental pollution, the province needs to plan and build treatment zones. Waste.

*Second, dialogue and meetings with businesses:* Increase meetings and dialogues with businesses at all levels from province to grassroots, to promptly support and resolve difficulties in production, business and investment activities. Investment in the province. Calling on investors to deploy projects with green, environmentally friendly technology, improving the quality of appraisal work when licensing projects.

*Third, strengthen the role of the Provincial Business Association:* Continue to enhance and promote the role of the Provincial Business Association to connect, share and improve the production and business efficiency of enterprises. Represent and enhance the interests of its members, act as a bridge, advocate for policies, maintain dialogue with leaders of provinces and cities and coordinate relationships with agencies, units and localities in the province on policies that affect the business activities of the local business community. Business Associations need to operate more effectively.

*Fourth*, put forward many implementation plans, the entire political system focuses on management, use of resources and environmental protection. Specifically: Regularly inspect environmental protection work in economic zones and industrial parks; The point of view is not to trade off the environment for economics simply, and resolutely not put into operation projects and production facilities that do not meet environmental requirements and have not completed construction projects. Treatment of environmental pollution.

#### ***On the part of businesses***

*First*, Businesses and entrepreneurs need to strive to promote the spirit of self-reliance, self-reliance, creativity, and overcome all difficulties; Implement well the guidelines and policies of party committees and authorities at all levels; proactively develop strategies, production plans, build corporate culture, and business ethics. Be proactive, creative, explore, learn, improve the capacity of your own business, and make efforts to approach development policies according to the orientation set by the province. Actively participate in conferences, meetings, and dialogues organized by the province, thereby voicing their opinions on overcoming difficulties in production and business activities.

*Second*, proactively coordinate with provincial and local agencies, industrial park management boards as well as the province's Business Association to do a good job of meetings, meetings, exchanges and discussions in conferences held by the province and localities. Locally organized. Do not hesitate to raise opinions and problems so that provincial leaders can promptly grasp and solve problems related to the environment: Resource use, waste treatment.

*Third*, Enterprises need to determine how to harmoniously develop the three goals of the development triangle: Economy, society and environment. Enterprises develop production and business according to the State's planning and orientation, comply with State laws on environmental protection, contribute resources to environmental protection, and actively demonstrate social responsibility. The social responsibility of businesses is first of all to ensure that the production process limits negative impacts on the environment.

*Fourth*, in current conditions, when the Fourth Industrial Revolution is developing strongly, businesses need to approach and apply its achievements into practice, innovate technology, and apply business models. New, environmentally friendly for sustainable development.

*Fifth*, Invest in qualified and high-quality human resources, paying attention to labor income. Have a plan to organize staff and workers to update information, train, improve knowledge and skills at work, apply new technologies in production, save resources, and protect the environment. and

towards sustainable development.

### **Conclude**

In the context of climate change affecting many localities, applying the Provincial Green Index (PGI) in parallel with the Provincial Competitiveness Index (PCI) plays an important role in development. Of Vietnamese businesses and economy. Therefore, localities need to encourage businesses to convert to greener business methods and promote the application of green and environmentally friendly technology. Along with that, for the reception of investment projects, there needs to be multi-dimensional assessments of long-term environmental impacts. Thereby, creating motivation to create high added value and be environmentally friendly. Through the Green Index, we hope that provinces and cities will pay more attention to economic development associated with environmental protection. Providing timely information to support the government in making policies related to investment and the environment, promoting the building of a friendly business ecosystem, promote more green projects, orienting investors who are conscious of environmental protection towards sustainable development.

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