

Research on the Construction of Green Accounting System under the Goals of Carbon Peak and Carbon Neutrality in the Greater Bay Area(GBA)

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Abstract: With the severe challenges posed by global climate change to economic and social development, achieving carbon peak and carbon neutrality has become a common goal of the international community. Under this background, as an important growth pole and a frontier of reform and opening-up in China, how enterprises in the the Greater Bay Area(GBA) (hereinafter referred to as the Greater Bay Area) can build a green accounting system to adapt and promote the realization of the "dual carbon" goal has become a worthwhile topic for in-depth discussion. This paper aims to explore and analyze the necessity, current situation, challenges, and strategies of enterprises in the Greater Bay Area in building a green accounting system under the goal of carbon peak and carbon neutrality. This study not only provides a systematic solution for enterprises in the Greater Bay Area to build a green accounting system, but also provides reference and guidance for the green transformation of enterprises in other regions, which has important theoretical and practical significance for promoting green and low-carbon development in China and the world.

Keywords: Carbon Peak; Carbon Neutrality; Green Accounting; the Greater Bay Area(GBA); Sustainable Development

1. Introduction

Global climate change has become one of the biggest challenges facing mankind in the 21st century. In order to meet this challenge, the international community has reached a consensus on reducing greenhouse gas emissions and achieving carbon peaking and carbon neutrality. As the world's largest carbon emitter, China has clearly committed to achieving carbon peak by 2030 and carbon neutrality by 1960 [4],

which marks that China will take more active measures to promote the green and low-carbon transformation of the economy and society.

The Guangdong-Hong Kong-Macao Greater Bay Area, as one of the most active areas of China's economic development, has strong economic strength and innovation ability, and is an important platform for China to participate in international competition and cooperation. The Greater Bay Area has unique advantages and conditions in promoting green and low-carbon development and building a green accounting system. However, at present, there are still many shortcomings in green accounting practice for enterprises in the Greater Bay Area, such as insufficient disclosure of environmental information, imperfect green accounting policies, and lack of professional green accounting talents. These problems seriously restrict the process of green transformation of enterprises in the Greater Bay Area.

As an emerging branch of accounting, green accounting aims to reflect the environmental protection and resource utilization of enterprises through accounting means and promote the sustainable development of enterprises. Building a scientific and systematic green accounting system not only helps enterprises better meet the requirements of carbon peaking and carbon neutrality goals, but also helps to improve the market competitiveness and social image of enterprises. Therefore, it is of great theoretical and practical significance to study how enterprises in the Guangdong-Hong Kong-Macao Greater Bay Area build a green accounting system to promote the green and low-carbon development of the Greater Bay Area and even China.

On the basis of existing literature and practice, this article intends to deeply analyze the necessity, current situation, challenges and countermeasures of enterprises in the Guangdong-Hong Kong-Macao Greater Bay

Area to build a green accounting system under the goal of carbon peaking and carbon neutrality, in order to provide theoretical guidance and practical reference for the green transformation of enterprises in the Greater Bay Area, and contribute to promoting China's green and low-carbon development. Thin power.

2. The Necessity for Enterprises in the Guangdong-Hong Kong-Macao Greater Bay Area to Build a Green Accounting System Under the Goals of Carbon Peak and Carbon Neutrality

Under the goal of carbon peaking and carbon neutrality, the necessity of enterprises in the Guangdong-Hong Kong-Macao Greater Bay Area to build a green accounting system is mainly reflected in the following aspects:

2.1 Promote Sustainable Economic Development

The green accounting system can help enterprises measure and manage their impact on the environment more accurately, promote the rational use of resources and environmental protection, so as to support the long-term sustainable development of the economy. This is reflected in the Guangdong Carbon Peak Implementation Plan, which emphasizes the importance of a green and low-carbon circular development economic system and puts forward specific goals and action plans.

2.2 Improve the Competitiveness of the Enterprise

With the increasing global awareness of environmental protection, consumers and investors are increasingly inclined to choose those with good environmental records. By building a green accounting system, enterprises can improve their environmental performance and enhance their brand image, so as to gain a competitive advantage in the market.

2.3 Respond to Policy Requirements

The Chinese government has clearly set the goals of carbon peaking and carbon neutrality, which requires enterprises to take measures to reduce greenhouse gas emissions. As one of the most dynamic areas of China's economy, the Guangdong-Hong Kong-Macao Greater Bay Area has built a green accounting system, which helps to better comply with and respond to relevant national policies and regulations.

2.4 Risk Management

Climate change and environmental degradation may bring financial risks to enterprises. Through green accounting, enterprises can identify and manage environmental-related risks, such as compliance costs, fines, litigation costs, etc., so as to protect the financial stability of enterprises.

2.5 Promote the Development of Green Finance

The green accounting system provides financial institutions with tools to evaluate the environmental performance of enterprises, which is conducive to promoting the development of green financial products, such as green bonds, green credit, etc. This is reflected in the activities of the Guangdong-Hong Kong-Macao Greater Bay Area Green Finance Alliance, which helps the high-quality development of the Greater Bay Area by promoting the development and application of green finance.

2.6 Improve the Quality of Information Disclosure

The green accounting system requires enterprises to disclose their environmental impact and carbon emission information, which helps to improve corporate transparency and enhance the trust of stakeholders in enterprises.

2.7 Promote Technological Innovation

Building a green accounting system can motivate enterprises to invest in clean technology and green innovation to reduce their environmental footprint, which echoes the acceleration of the development of green low-carbon industries and the promotion of industrial structure optimization and upgrading mentioned in the Guangdong Carbon Peak Implementation Plan.

In summary, building a green accounting system is not only a need for enterprises in the Guangdong-Hong Kong-Macao Greater Bay Area to achieve national strategic goals, but also an important way to improve their own competitiveness, manage risks and promote technological innovation.

3. Analysis of the Current Status of Green Accounting in the Guangdong-Hong Kong-Macao Greater Bay Area

3.1 Development of Green Finance

The Greater Bay Area has made significant progress in the field of green finance, including the development of financial products such as green credit, green bonds, and green insurance. Major central cities like Guangzhou, Shenzhen, Hong Kong, and Macau are leading in terms of green finance policies, standard setting, and product innovation.

3.2 Policy Support and Innovation

As a pioneer of reform and opening up, the Greater Bay Area has advanced levels in the issuance of green finance policy norms, design of standard systems, and innovation of financial products and services. At the same time, the area is actively exploring new methods and paths for financial support for green development.

3.3 Environmental Information Disclosure

Although the Greater Bay Area has made progress in environmental information disclosure, there are still issues such as inconsistent standards, the need for stronger regulatory efforts, and insufficient comparability of information. These factors affect the cross-regional cooperation and coordinated development of green finance in the area.

3.4 Product and Service Innovation

The innovation of green financial products and service expansion in the Greater Bay Area is relatively slow, mainly focused on green credit, while the development of products such as green bonds, green insurance, and green investment is not fast enough to meet market demand.

3.5 Uneven Regional Development

There is an imbalance in the development of green finance within the Greater Bay Area. Cities like Hong Kong, Shenzhen, Guangzhou, and Macau are developing rapidly, while other cities are relatively lagging behind. This affects the overall coordinated planning of green finance and the construction of ecological civilization in the Greater Bay Area.

3.6 Talent and Professional Functions

The Greater Bay Area is relatively short of professional talents in the field of green finance, especially lacking in compound talents who understand both finance and environmental protection. This shortage constrains the development of green finance.

3.7 Carbon Emissions and Reduction

The manufacturing industry in the Greater Bay Area is a key sector for carbon emissions, particularly the petrochemical and electrical and electronic industries. Enhancing the green competitiveness of these industries is crucial for promoting high-quality economic development in the Greater Bay Area.

3.8 Transition Finance

As an important part of green finance, transition finance faces challenges in various aspects, including policy support, market mechanisms, and technological innovation.

3.9 International Cooperation and Standards

The Greater Bay Area has unique advantages in international cooperation on green finance but also faces challenges in aligning with international standards. It is necessary to strengthen collaboration with the international community in terms of data sharing and information disclosure.

3.10 Emission Reduction Paths and Financial Support

A report released by the World Resources Institute WRI indicates that the Greater Bay Area faces challenges and opportunities for emission reduction under the dual carbon background. Measures such as optimizing industrial structure, improving energy efficiency, and developing clean energy are needed to achieve deep emission reduction.

These analyses suggest that while the Guangdong-Hong Kong-Macao Greater Bay Area has made certain achievements in green accounting and green finance, improvements and enhancements are still needed in unifying standards, strengthening regulation, product innovation, and talent cultivation to achieve higher quality green development.

4. Challenges Faced by Guangdong-Hong Kong-Macao Greater Bay Area Enterprises in Building a Green Accounting System Under the Goals of Carbon Peak and Carbon Neutrality

Under the goal of carbon peaking and carbon neutrality, the challenges faced by enterprises in the Guangdong-Hong Kong-Macao Greater Bay Area to build a green accounting system mainly include:

4.1 Imperfect Laws and Regulations

Compared with developed countries, China's construction of green accounting laws and regulations is relatively lagging behind, and lacks specialized laws and a perfect system of laws and regulations, resulting in the lack of guidance of national policies and laws in the implementation of green accounting.

4.2 Immature Theory of Green Accounting

The theoretical foundation of green accounting is relatively insufficient, there is a lack of a standardized accounting system, and there is a lack of a unified format of information disclosure in terms of time, content, method, etc., so that enterprises will not take the initiative to disclose information or deliberately omit important information.

4.3 Lack of Professional Talents

The degree of professionalization of green accounting is relatively high, which requires practitioners not only to master accounting-related knowledge, but also to master the knowledge of law, pollution prevention and control, resources, ecological environment and other disciplines. Existing accounting practitioners lack professional training in green accounting, and most domestic universities have not opened green accounting-related majors. The course leads to a lack of professional green accounting talents.

4.4 Market Acceptance

Enterprises do not have a good understanding of green accounting, and it is difficult to fully apply green accounting in the actual development process. It is necessary to strengthen publicity and training to improve the environmental protection awareness and awareness of green accounting of enterprises and the public.

4.5 Risk Management

Green accounting requires enterprises to identify and manage risks related to the environment, which requires enterprises to establish a corresponding risk management system, which is a challenge for enterprises.

4.6 Information Disclosure

Green accounting requires enterprises to disclose their environmental impact and carbon emission information, which requires enterprises to

establish an effective information disclosure mechanism to ensure the authenticity and integrity of the information.

4.7 Technical Application

Under the background of big data, there are problems in the application of green accounting in the Guangdong-Hong Kong-Macao Greater Bay Area, and strategies need to be optimized to achieve the development goals of the Green Greater Bay Area as soon as possible.

4.8 Regional Coordination

There are differences in carbon emissions and carbon sinks between cities in the Guangdong-Hong Kong-Macao Greater Bay Area. It is necessary to strengthen regional cooperation, clarify the timing and coordination of urban carbon neutrality and differentiated development, and promote the formation of a cross-regional carbon compensation and carbon emission trading mechanism.

4.9 Policy Support

Although Guangdong Province has issued policies such as the "Implementation Plan for the Development of Green Finance in Guangdong Province to Support Carbon Peaking Action", in the specific implementation process, there may be problems such as difficult policy implementation and uneven implementation intensity, and it is necessary to further strengthen policy support and implementation.

4.10 International Standard Docking

To promote the relevant standards of China's green bonds to become one of the international standards, it is necessary to try them first in the Guangdong-Hong Kong-Macao Greater Bay Area, promote the green index system of China's bonds to become regional standards and regional standards, and explore upgrading to industry standards and national standards.

These challenges require the joint efforts of the government, enterprises and all walks of life to overcome them by improving laws and regulations, strengthening theoretical research, cultivating professional talents, improving market acceptance, strengthening risk management and information disclosure, promoting technological application, strengthening regional coordination, increasing policy support and docking with international standards.

5. Strategies for Building a Green Accounting System by Enterprises in the Guangdong-Hong Kong-Macao Greater Bay Area Under the Goals of Carbon Peak and Carbon Neutrality

Under the "dual carbon" goal, the strategy of building a green accounting system for enterprises in the Guangdong-Hong Kong-Macao Greater Bay Area can be carried out from the following aspects:

5.1 Promote the construction of the accounting and auditing standard system in the Greater Bay Area

In order to reduce the cost of financial information for cross-border business and reduce the difference in accounting and auditing standards in the Greater Bay Area, it is necessary to formulate a unified system of accounting and auditing standards. This includes the establishment of the Greater Bay Area Accounting and Auditing Standards Coordination Agency, the coordination and unification of guiding standards, and the strengthening of interconnection to promote the implementation of the results of the equivalent mutual recognition of accounting and auditing standards [1].

5.2 Strengthen Environmental Information Disclosure

Environmental information disclosure of financial institutions is an important support for the development of green finance. Financial institutions in the Greater Bay Area should carry out environmental information disclosure, which will help improve the level of climate risk management and allocate more funds to green and low-carbon fields. For example, 13 pilot institutions such as Guangzhou Bank and Guangzhou Agricultural and Commercial Bank have released environmental information disclosure reports through the "Guangdong Credit" platform, which is the first regional unified organization and centralized public display model in China.

5.3 Improve the Mutual Recognition Mechanism Of Accounting Qualifications

In order to build a new highland of talents in the Greater Bay Area, it is necessary to optimize the talent gathering mechanism and improve the mutual recognition of accounting professional

qualifications in the three places. This includes allowing accounting professionals who hold certified public accountant qualifications in the mainland or Hong Kong and Macao to practice in the Greater Bay Area, as well as establishing an accounting talent pool to create a professional talent highland in the Greater Bay Area. [Five]

5.4 Improve the Efficiency of Cross-Border Supervision

In view of the differences between accounting and auditing systems, mutual recognition of qualifications, cross-border practice and supervision, we put forward countermeasures such as establishing accounting and audit standards, creating a new highland of talents, exploring new momentum for services, and improving the efficiency of cross-border supervision, so as to promote the integrated development of the accounting service industry in the Guangdong-Hong Kong-Macao Greater Bay Area. [One]

5.5 Strengthen Green Financial Cooperation

Support Hong Kong to build a green financial center in the Guangdong-Hong Kong-Macao Greater Bay Area, build an internationally recognized green bond certification body, and encourage more enterprises in the Guangdong-Hong Kong-Macao Greater Bay Area to use the Hong Kong and Macao platform to finance and certify green projects [1].

5.6 Support the Development of Characteristic Financial Industries in Hong Kong and Macao

Give full play to Hong Kong's leading role in the financial field, strengthen the functions of the International Asset Management Center and Risk Management Center, and build an investment and financing platform to serve the construction of the Belt and Road Initiative [2].

5.7 Financial Technology Support

Use financial technology to support green financial innovation, and improve the efficiency and coverage of green financial services through financial technology.

Through the above strategy, enterprises in the Guangdong-Hong Kong-Macao Greater Bay Area can build an effective green accounting system under the goal of carbon peaking and carbon neutrality to support and promote green development and economic transformation in the

region.

6. Conclusion

Through the exploration and analysis of the construction of green accounting systems by enterprises in the Guangdong-Hong Kong-Macao Greater Bay Area under the goals of carbon peak and carbon neutrality, it can be concluded that the construction of green accounting systems by enterprises in the Greater Bay Area is of significant importance, but also faces many challenges. This paper proposes suggestions for advancing the construction of accounting and auditing standards systems in the Greater Bay Area, enhancing cross-border regulatory efficiency, and financial technology support. The Guangdong-Hong Kong-Macao Greater Bay Area will continue to deepen the construction of green accounting systems, by continuously improving relevant policies, regulations, and standards, strengthening talent cultivation and technological innovation, to promote the high-quality development of the regional green economy.

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