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# Research on the Shaping of Central Enterprises' Overseas Low-Carbon Image Under the "Dual Carbon" Goals

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**Abstract:** This paper conducts an in-depth analysis of the shaping of central enterprises' overseas low-carbon image under the "Dual Carbon" goals. Firstly, the paper analyzes the significance of central enterprises in shaping a low-carbon image and the problems existing in the process. Subsequently, targeted strategies are proposed to help central enterprises effectively shape their overseas low-carbon image. The purpose of this paper is to provide valuable references for improving the global image of central enterprises, enhancing their influence, and promoting global sustainable development.

Keywords: "Dual Carbon" goals; Central enterprises; Overseas low-carbon image; Image shaping

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#### 1. Introduction

Currently, global warming has become one of the common challenges faced by humanity, attracting widespread attention and emphasis worldwide [1]. The proposal of the "Dual Carbon" goals, namely carbon peaking and carbon neutrality, is one of China's important measures to actively respond to global development trends and address climate change. Against this backdrop, as the main force driving China's economic development and participating in international competition, the shaping of central enterprises' overseas low-carbon image holds significant practical significance.

In the process of overseas development, central enterprises not only represent their own corporate image but also reflect the national image to a certain extent [2]. A positive central enterprise image that practices the concept of low-carbon development and actively implements low-carbon goals can not only enhance the enterprise's own influence, help expand overseas markets, and achieve sustainable corporate development but also strengthen the international community's recognition of China's efforts in addressing global climate change, improve the national

image, and enhance China's influence and discourse power in global climate governance. However, central enterprises face numerous problems and challenges in shaping their overseas low-carbon image, such as the lack of scientific goal planning and insufficient integration with local communities. In this regard, under the background of the "Dual Carbon" goals, central enterprises should keep pace with the times and actively shape their overseas low-carbon image through various methods and means. This will not only enable enterprises to achieve their own sustainable development but also help shape a positive overseas image of the country, gain recognition from the international community, enhance China's influence and international status in global climate governance, and lay a foundation for China's sustainable development [3].

# 2. Significance of shaping the overseas low-carbon image of central state-owned enterprises (CSOEs) under the "Dual Carbon" Goals

Against the backdrop of the "Dual Carbon" Goals, it is of great practical significance for CSOEs to proactively shape their overseas low-carbon image. This paper briefly elaborates on the following aspects regarding this issue.

# 2.1. Enhancing international influence

Currently, global climate issues have become one of the topics of widespread concern in the international community, and the world is paying increasing attention to enterprises' performance in environmental protection [4]. As important representatives of Chinese enterprises, CSOEs' active efforts to shape an overseas low-carbon image can demonstrate China's attitude and determination in addressing global climate change to the world. This not only helps enhance the enterprises' international influence but also improves China's image on the international stage. For instance, China National Nuclear Power Co., Ltd. has actively engaged in international cooperation. In its overseas project practices, the company has earnestly pursued the "Dual Carbon" Goals, always adhered to the concept of environmental protection, and adopted a variety of measures to proactively shape a low-carbon image. These actions have made it well-received and recognized by overseas countries, won wide attention and approval from the international community, and significantly elevated China's international image and status in the field of global climate governance [5].

# 2.2. Promoting sustainable development

The achievement of the "Dual Carbon" Goals requires the joint efforts of all countries around the world. CSOEs' active shaping of a low-carbon image overseas can effectively drive the sustainable development of the local economy <sup>[6]</sup>. By introducing advanced green technologies and low-carbon management models, they can effectively improve resource utilization efficiency, reduce carbon emissions, and minimize damage to the local environment—thus laying a solid foundation for the sustainable development of the local economy. Take the overseas oil and gas business of PetroChina as an example. The company has earnestly practiced the low-carbon concept, applied green technologies and advanced low-carbon management models to build green oilfield projects, and provided strong support for local environmental protection and the sustainable development of the local economy.

#### 2.3. Fulfilling social responsibilities

As the core force driving China's economic development, CSOEs inherently bear a strong sense of social responsibility and historical mission [7]. When carrying out projects overseas, proactively shaping a low-carbon

and environmentally friendly image is an important manifestation of fulfilling their social responsibilities. By practicing the low-carbon concept, alleviating local employment difficulties, and promoting local economic development, CSOEs can effectively gain the trust of local residents and the recognition of local governments, creating a favorable external environment for their own sustainable development. For example, in the practice of overseas projects, some CSOEs have actively participated in public welfare activities or launched public welfare projects, such as building roads and schools for local communities and providing high-quality medical assistance. These efforts have greatly improved the living conditions and quality of life of local residents, thereby establishing a positive overseas image of CSOEs.

# 3. Central state-owned enterprises (CSOs)' challenges in shaping an overseas low-carbon image

# 3.1. Unscientific target planning

Some CSOs lack scientific and clear target planning for shaping their overseas low-carbon image [8]. Although certain enterprises have recognized the importance of low-carbon image building and put forward the "dual carbon" goals (carbon peaking and carbon neutrality), they lack feasible implementation plans and clear timelines. This makes it difficult to achieve the "dual carbon" goals smoothly. These goals are too vague and not refined, resulting in employees lacking clear guidance in specific projects and practices, and being unable to integrate low-carbon concepts into their daily work. Meanwhile, when formulating goals, some CSOs fail to fully consider local laws, regulations, and actual conditions, leading to a disconnect between their goals and the real needs of overseas markets. In addition, the target planning process lacks forward-looking thinking about the future development of the market and technological upgrading. When the overseas market environment changes, if the previous target plans cannot be adjusted and optimized in a timely manner, it will hinder enterprises in shaping their overseas low-carbon goals.

# 3.2. Insufficient integration with overseas local communities

When conducting business overseas, CSOs often face challenges in social culture, policy systems, and social environment, making it difficult to fully integrate with local communities and residents <sup>[9]</sup>. In the practice of some projects, some CSOs lack an in-depth understanding of the local history, culture, and folk customs, and fail to fully consider the actual needs of local residents, which leads to numerous obstacles in project promotion. For example, some countries along the "Belt and Road" have little understanding of the project construction of certain CSOs, which has aroused concerns among local residents. They worry that the projects will damage the local environment, thereby affecting the shaping of the enterprises' overseas low-carbon image <sup>[10]</sup>.

#### 3.3. Overly grand narrative discourse

In the process of international communication, the narrative discourse of CSOs is sometimes overly grand and lacks affinity. When promoting their low-carbon image, some enterprises tend to use a large number of professional terms in their narratives. Although this approach can highlight the professionalism of the enterprises, such a serious and rigid discourse style makes it difficult for overseas residents to understand and generate emotional resonance [11]. Overseas residents are more in need of "easy-to-understand" language, and they are more concerned about the enterprises' actions in practicing the "dual carbon" goals and how these actions will affect their lives.

# 3.4. Difficulties in technology and capital

Successfully shaping the overseas low-carbon image of CSOs requires a large amount of capital investment and technical support. However, some CSOs often face difficulties with technology and capital in their overseas projects [12]. On the one hand, the R&D cost of green low-carbon technology is high, and the pace of technological iteration is fast. Due to their limited scientific research capabilities and backward technical levels, some CSOs lack competitive green technologies in the overseas market. At the same time, some advanced green technologies are often held by Western enterprises. Introducing these technologies requires a lot of capital, and enterprises may also face issues such as technological blockades and intellectual property protection, which further increase the difficulty of obtaining green technologies. On the other hand, capital issues are also one of the important factors plaguing the shaping of CSOs' overseas low-carbon image. Generally, overseas projects have a long cycle and slow investment returns. Coupled with instability in regional political, financial, and other fields, CSOs find it difficult to obtain sufficient capital support, which seriously restricts the construction of their overseas low-carbon projects and the shaping of their low-carbon image.

# 4. Implementation paths for central state-owned enterprises (CSOs) to shape their overseas "Low-Carbon" image

#### 4.1. Strengthen top-level planning

CSOs should formulate overseas low-carbon development plans in a scientific, systematic, and forward-looking manner from a strategic perspective [13]. Firstly, based on actual circumstances, they should clarify specific indicators for the "dual carbon" goals (carbon peaking and carbon neutrality) in overseas projects, break these indicators down into sub-targets, and ensure their integration into daily operations. This provides clear guidance for employees to implement the goals in practice. Secondly, adequate preparatory work must be done when formulating target plans. Such preparations include conducting preliminary market research, understanding local laws and regulations, market development trends, and local customs. These steps ensure that the "dual carbon" goals are fully aligned with local conditions and possess practical operability. Meanwhile, target plans should also be forward-looking. As science and technology and the future overseas market continue to develop, CSOs should promptly adjust their target plans in accordance with market trends and technological upgrading directions. This ensures that CSOs maintain a leading position in shaping their overseas low-carbon image. In addition, CSOs should enhance internal coordination and management, defining the responsibilities and objectives of each department in the process of implementing low-carbon target plans. This guarantees effective communication and mutual collaboration among departments [14]. Furthermore, low-carbon goals can be incorporated into the performance appraisal system. This measure fully stimulates employees' enthusiasm and initiative, laying a solid foundation for better implementing low-carbon concepts and achieving target plans.

#### 4.2. Innovate communication methods

Against the backdrop of the "dual carbon" goals, it is essential for CSOs to innovate their communication methods to enhance communication effectiveness, thereby helping them establish a sound overseas low-carbon image <sup>[15]</sup>. Firstly, CSOs can leverage social media platforms and use methods such as live broadcasts and short videos to showcase their low-carbon concepts, application of green technologies, and achievements made. This attracts the attention of overseas audiences and encourages them to abandon outdated perceptions. Secondly, CSOs can proactively organize and participate in cultural exchange activities. For instance, they can host low-carbon-themed

cultural exhibitions or special lectures, and invite industry practitioners, local governments, and the public to participate. This helps deepen the participants' understanding of CSOs' low-carbon concepts and implementation approaches. Besides, CSOs can build good relationships with overseas media organizations. By relying on local media, more local residents can learn about the enterprises' low-carbon goals and implementation plans, thereby expanding the reach of the enterprises' low-carbon image communication. At the same time, CSOs can regularly invite journalists to conduct on-site interviews of low-carbon projects. Through journalists' true and objective coverage, information about the enterprises' low-carbon image is conveyed to local residents. Finally, CSOs should optimize their communication content to make it locally relevant. They can develop targeted communication content based on local cultural backgrounds, language habits, and other characteristics. This ensures that the communication content is more in line with the preferences of local residents, thereby enhancing the affinity of communication.

# 4.3. Strengthening international cooperation

Central state-owned enterprises (SOEs) should also actively engage in international cooperation and establish stable cooperative relationships with well-known overseas enterprises, scientific research institutions, and other entities to jointly promote the research, development, and application of low-carbon technologies. Through indepth cooperation, enterprises can introduce advanced low-carbon technologies and management models, thereby advancing the construction of low-carbon projects and enhancing their core competitiveness. For instance, they can cooperate with foreign energy enterprises to jointly carry out project construction and research and development of low-carbon technologies; they can also collaborate with international climate organizations to share the experience and data of central SOEs in low-carbon emission reduction, so as to promote the improvement of global climate governance. In addition, they should actively participate in the formulation of various international standards to enhance China's right to speak and influence in the global climate governance, low-carbon, and other related fields.

### 4.4. Intensifying environmental management

Central SOEs need to establish and improve the environmental management and supervision systems for overseas projects, and strengthen efforts in pollution discharge control and environmental protection. During the construction and operation of projects, they must strictly comply with local environmental protection laws, regulations, and standards to ensure that their production activities meet environmental protection requirements. For example, they should strengthen environmental monitoring and assessment of overseas projects to promptly identify and address environmental issues; promote the application of clean production technologies and processes to reduce pollutant emissions. At the same time, they should proactively respond to the challenges brought by climate change, formulate corresponding response strategies, and improve the enterprises' adaptability.

#### 5. Conclusion

In conclusion, against the backdrop of the "dual carbon" goals (carbon peaking and carbon neutrality), central SOEs should fully recognize the importance of shaping an overseas low-carbon image, keep up with the trend of the times, and adopt various methods and means to build such an image. This will not only drive the sustainable development of the enterprises but also enhance the country's influence in the low-carbon field.

#### Disclosure statement

The authors declare no conflict of interest.

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