

# Corporate Environmental Social Responsibility under the Governance of Low-Carbon Economy

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## ABSTRACT

The advancement of global climate governance alongside the deep implementation of China's "dual carbon" strategy has elevated the collaborative governance of the ecological environment to a central position within high-quality economic and social development. As ecological and environmental issues receive increasing attention, corporations, as the primary consumers of environmental resources and the principal sources of environmental pollution, bear a significant responsibility for improving and protecting the existing ecological environment. Against the backdrop of developing a low-carbon economy, it is imperative to clarify the environmental social responsibility that enterprises should undertake in environmental protection from multiple dimensions, including fostering low-carbon philosophies, enacting environmental legislation, increasing investment in low-carbon technology R&D, and strengthening government guidance.

## KEYWORDS

Low-carbon economy; Low-carbon technology; Environmental social responsibility

## 1. INTRODUCTION

In recent years, nations globally have faced pressing issues such as the depletion of natural resources, frequent natural disasters, and escalating environmental pollution; these challenges not only impede the sustainable development of the global economy but also pose a profound threat to the foundational survival of human society. To achieve global sustainable economic development, pursuing a path toward a low-carbon economy represents the only viable trajectory (Zhai et al., 2023). A low-carbon economy is a green, ecological, and circular economic development paradigm; it is predicated on low energy consumption, low pollution, and low emissions alongside high performance, high efficiency, and high returns, adopting low-carbon development as its strategic direction, energy conservation and emission reduction as its operational modality, and carbon neutrality technologies as its core methodology (Shadbegian and Gray, 2006). Consequently, as correctors of resource factor misallocation and practitioners of low-carbon technological innovation, enterprises should rightfully serve as the core micro-level entities in the green and low-carbon transition. The proactive extension and profound implementation of environmental social responsibility by enterprises constitute an endogenous strategic choice to navigate changing climate dynamics and surmount institutional green barriers (Agliardi and Agliardi, 2021). Only when enterprises conceptualize the ecological environment as a critical production factor endogenous to the production function and translate it into normalized green governance actions can the harmonious development between corporations and the environment be realized.

## **2. LITERATURE REVIEW**

At the macro level, corporations have the depth and boundaries of their environmental social responsibilities heavily shaped by the interplay of formal and informal institutional environments. On the one hand, formal institutional frameworks, such as policy mandates and administrative supervision, exert coercive pressures that compel enterprises to internalize environmental externalities. For instance, mandatory environmental information disclosure policies significantly stimulate corporations to proactively enhance their CESR and low-carbon governance performance (Tian et al., 2025). Conversely, institutional regulatory gaps or a severe lack of administrative oversight by government authorities can lead to a pervasive deficit in corporate awareness regarding ecological responsibility, prompting firms to prioritize blind profit-seeking over ecological compliance (Dyck et al., 2019). This institutional slack directly explains why some heavy-polluting enterprises evade carbon reduction measures when external enforcement is weak. On the other hand, informal institutional frameworks, including societal green norms, public opinion, and collective industry practices, play an indispensable role in steering corporate low-carbon transitions. First, geographic environmental regulations and regional ecological civilization construction exert a subtle, mimicking pressure on firms; corporations headquartered in regions with more stringent environmental regulations typically demonstrate superior environmental scores and a stronger propensity to assume carbon responsibilities (You, 2023). Second, in the digital era, public opinion and media exposure break the traditional "information asymmetry," triggering legitimacy crises for environmentally non-compliant firms. Furthermore, corporate green practices exhibit prominent peer effects within specific sectors; under the dual pressures of market screening and reputation capital, following enterprises tend to mimic the low-carbon innovations and green strategies implemented by industry leaders (Gao et al., 2025).

## **3. PRIMARY ISSUES REGARDING CORPORATE FULFILLMENT OF ENVIRONMENTAL SOCIAL RESPONSIBILITY AGAINST THE BACKDROP OF A LOW-CARBON ECONOMY**

As an increasing number of corporate environmental violations are exposed by online and traditional media, the public has directed growing attention and significance toward the issue of corporate environmental social responsibility. Consequently, corporations exhibit the following primary deficiencies regarding the fulfillment of their environmental social responsibilities.

### **3.1. Misconceptions in Humanistic Philosophies**

A combination of diverse factors, including societal mindsets and corporate cultural concepts, has collectively led to ideological misconceptions among enterprises regarding the fulfillment of environmental social responsibility. The vast majority of enterprises believe that as long as they operate successfully and generate high profits, they can contribute more tax revenue to the government, which in turn can invest in environmental remediation; they perceive this mechanism as fulfilling their environmental social responsibility. In fact, many enterprises operate under the assumption that environmental protection is exclusively the duty of the government. Guided by this erroneous mindset, enterprises one-sidedly pursue high profit margins, consuming vast amounts of energy and discharging heavy volumes of pollutants during production, which exerts severe impacts on the natural environment. This misconception places Chinese enterprises in a passive position regarding environmental social responsibility; faced with multiple pressures from government environmental regulations, public opinion, and supply chain partners, they are compelled to adopt measures to mitigate energy consumption and pollutant emissions. Most small and medium-sized enterprises (SMEs) view the assumption of environmental social responsibility as a drain on internal corporate resources that is both time-consuming and labor-intensive; they prefer to allocate limited

resources to production and operational management, making them reluctant to assume broader environmental social responsibilities.

### **3.2. The Need to Update Legal Philosophies Regarding Corporate Environmental Social Responsibility**

Traditional economics presupposes that the enterprise acts as an "economic man" (*homo economicus*), positing that profit maximization is its singular pursuit, while other goals are merely ancillary. Under the guidance of this "economic man" hypothesis, most enterprises overlook their environmental impact throughout the entire lifecycle—from raw material procurement to production organization and product sales—rendering environmental protection virtually non-existent. Consequently, the legal framework established upon this "economic man" hypothesis naturally prioritizes the maximization of corporate profits as the core subject of legal protection. However, this framework neglects the maintenance of social equity, the harmonious coexistence of nature and human society, and the fundamental reality that nature serves as the bedrock of human survival; this omission prevents enterprises from integrating environmental protection into their production and operations. Therefore, influenced by the corporate "economic man" hypothesis, traditional legal theories and statutory systems leave corporate environmental social responsibility devoid of a solid legal foundation.

On the other hand, the majority of Chinese enterprises fail to incorporate low-carbon economic concepts when establishing internal mechanisms for environmental social responsibility. China's "Three Simultaneities" institution (where environmental facilities must be designed, constructed, and operated simultaneously with the main project) was formulated based on a traditional, unidirectional, linear development model; its purpose is to control the final stage of pollutant discharge, prompting enterprises to implement emission reduction measures to prevent pollution. The "Three Simultaneities" institution essentially represents an end-of-pipe governance methodology, whereby enterprises deploy various measures to treat waste gas, wastewater, and solid waste (the "three wastes") at the terminal discharge point of production. Because this approach fails to manage "three wastes" emissions during the pre-production and mid-production phases, the remediation operates with a time lag, resulting in incomplete waste treatment that falls short of the requirements for developing a low-carbon economy. It is precisely because Chinese enterprises did not internalize the philosophy of a low-carbon economy at an earlier stage that their legal and regulatory frameworks for environmental social responsibility require further refinement, making it difficult to achieve ultimate environmental protection goals.

### **3.3. Inadequate Government Regulatory Measures**

Driven by distorted perceptions of political performance, some local officials one-sidedly pursue economic growth at the expense of the environment—evaluating success solely based on GDP—and even act as protective umbrellas for major local taxpayers, which allows these heavy-polluting, high-revenue enterprises to bypass environmental protection measures. Concurrently, inadequate supervision by relevant functional government departments allows certain enterprises to evade their environmental social responsibilities; for instance, some projects fail to obtain environmental approvals during construction applications, while others, despite securing approvals, implement zero pollution control measures across project design, construction, and commercial operation, making environmental protection completely absent.

### **3.4. Failure of Enterprises to Become the Investors in Environmental Protection**

Owing to the high operational costs of environmental protection equipment paired with low immediate environmental and economic returns, corporate environmental investment often becomes volatile or arbitrary—especially under poor operating conditions or after paying standard pollutant

discharge fees. Enterprises typically conceptualize environmental investment as an inflation of operational costs rather than an activity capable of generating economic dividends. Consequently, most enterprises preserve only profit-driven targets while omitting environmental protection objectives, failing to elevate environmental responsibility and ecological preservation to a strategic status co-equal with economic development.

## **4. RECOMMENDATIONS FOR STRENGTHENING THE DEVELOPMENT OF CORPORATE ENVIRONMENTAL SOCIAL RESPONSIBILITY AGAINST THE BACKDROP OF A LOW-CARBON ECONOMY**

### **4.1. Enterprises Must Establish the Concept of Assuming Environmental Social Responsibility**

For enterprises to achieve long-term development, they must foster a low-carbon economy and discard traditional mindsets; they need to conceptualize the assumption of environmental social responsibility as a form of "long-term social investment" through a visionary lens that prioritizes future corporate development and recognizes that reciprocating society inherently drives corporate growth. First, enterprises must transition from operational models characterized by "sole profit-seeking" and "predatory development" toward modern management paradigms centered on "harmonious coexistence," "coopetition and win-win dynamics," and "sustainable development." Second, it is essential to establish modern, human-centric corporate values; from a perspective that acts for, relies on, respects, understands, and serves people, enterprises should research and develop low-carbon, humanized products, thereby constructing a harmonious relationship between humanity and nature. Meanwhile, it is necessary to intensify institutional construction regarding corporate environmental protection, pursue a path of low-carbon production and low-carbon lifestyles, and foster a corporate culture that actively internalizes environmental social responsibility.

### **4.2. Updating Legal Philosophies Regarding Corporate Environmental Social Responsibility**

Updating the legislative philosophy concerning corporate environmental social responsibility is essential to guide and advance corporate accountability, thereby promoting low-carbon and ecological development within enterprises. Under the guidance of the "economic man" hypothesis, enterprises treat profit maximization as their sole objective, overlooking the substantial depletion of natural resources and heavy emissions of pollutants during production, which severely degrades the ecological environment. With China's escalating emphasis on environmental protection, an increasing number of scholars and observers recognize the profound deficiencies of the corporate "economic man" hypothesis; the emergence of the "ecological man" hypothesis precisely remedies these gaps and offers a significant correction to the "economic man" framework. Consequently, when optimizing existing legal frameworks or enacting new legislation regarding corporate environmental social responsibility, we must thoroughly integrate the vital role of the corporate "ecological man" theory. Currently, China is in a critical period of economic structural transition, yet the phenomena of high energy consumption, high pollution, and high emissions remain prevalent throughout corporate production processes. The low-carbon philosophy dictates that enterprises must abandon the notion that natural resources are cost-free, transitioning toward viewing natural resources as scarce assets and "priceless treasures"; this shift compels corporations to continually mitigate energy consumption and reduce pollution, thereby ensuring ecological sustainability and fostering harmony between humanity and nature. Due to prior legislative deficiencies surrounding corporate environmental social responsibility, the majority of enterprises—particularly SMEs—failed to internalize low-carbon economic principles during their developmental stages. The philosophy of a low-carbon economy requires enterprises to reduce energy consumption and minimize the discharge of the "three wastes"

during production processes. Therefore, it is imperative to swiftly establish a relevant system of laws and regulations to compel enterprises to prevent environmental pollution and degradation, thereby encouraging them to proactively assume greater environmental social responsibility.

#### **4.3. Strengthening Government Guidance and Promotion of Corporate Fulfillment of Environmental Social Responsibility**

The assumption of environmental social responsibility by enterprises is both a necessity for production and operations, and an indispensable component of constructing a corporate social responsibility management system. The broader assumption of environmental social responsibility during corporate operations requires not only vigorous guidance and promotion from government departments, but also the support and supervision of the general public. Consequently, to promote corporate environmental social responsibility, relying solely on autonomous corporate action is manifestly insufficient; it necessitates strong guidance and promotion from functional government departments, requiring the state to play a guiding role in legislation, enforcement, policy support, media publicity, market supervision, and international cooperation to urge enterprises to establish relevant institutional mechanisms. Specifically, at the governmental level, authorities should establish leading coordination bodies to advance the legalization and standardization of corporate environmental social responsibility, reinforce the dissemination of laws and regulations alongside administrative law enforcement supervision, actively cultivate non-governmental organizations (NGOs) and intermediary agencies involved in related affairs, and guide enterprises to participate in international cooperation to acquire advanced environmental protection experiences from foreign firms. Second, at the corporate level, enterprises themselves should intensify academic research and learning to foster a scientific outlook on corporate development and a proper corporate ethical paradigm, incorporating environmental social responsibility into their overarching corporate development strategies and integrating it into strategic management systems. Third, at the societal level, it is essential to reinforce the guidance and oversight of public opinion, strengthen consumer supervision over enterprises, and enhance monitoring by environmental industry associations and eco-NGOs, thereby forging a powerful synergy to guide and supervise enterprises in assuming greater environmental social responsibility.

#### **4.4. Increasing Investment in the Development of Low-Carbon Technologies**

When developing new technologies and products, enterprises must place corporate profits and environmental protection on an co-equal strategic footing. Consequently, enterprises need to continuously elevate their technological innovation capabilities for low-carbon product development and forge low-carbon enterprises, positioning themselves as the primary actors in China's low-carbon economic development. The low-carbon technological transition required by sustainable development entails not only a series of transformations in key technologies, but also a concurrent evolution in organizational management models and institutional environments. In constructing low-carbon enterprises, corporations should avoid the pursuit of short-term, exorbitant profits and instead continuously develop market-oriented low-carbon products to lay a robust foundation for long-term corporate viability. Currently, China is in a critical period of continuously strengthening and perfecting its market economy system, and enterprises are steadily building and refining modern corporate institutions; making the enhancement of low-carbon technological innovation capabilities a core element of modern corporate systems will empower enterprises to become strategic leaders in assuming environmental social responsibility and developing a low-carbon economy.

## **5. CONCLUSION**

Environmental protection is an obligatory and unshirkable responsibility of enterprises. Amid China's rapid economic expansion, enterprises must assume corresponding environmental social

responsibilities to minimize resource consumption, pollutant discharge, and carbon emissions, striving to transform into resource-conserving and environmentally friendly low-carbon firms. The 21st century represents the era of the low-carbon economy; only by fulfilling broader environmental social responsibilities can enterprises earn the trust and respect of consumers, secure market recognition, continuously enhance their social competitiveness, and ultimately realize long-term sustainable corporate development.

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