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# Ecological Civilization Construction is the Fundamental Way to Develop Low-carbon Economy

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**Abstract:**

This article gives a brief account of the meaning, characteristics and origin of ecological civilization, an analysis of the positive impacts of ecological civilization construction on low-carbon economy, and proposes specific recommendations for constructing ecological civilization to develop low-carbon economy in China: compile "Planning Outline" and "Implementation Plan", increase the publicity of education on ecological civilization concept, strengthen discussion on ecological civilization problems, establish government-enterprise cooperative platform, supporting systems of green technology and financial services to support ecological civilization construction, incorporate ecological civilization indicator into the performance evaluation of government departments, strengthen ecological civilization legislation.

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## 1. The meaning, characteristics and origin of ecological civilization

As a form of human civilization, ecological civilization is based on natural respect and protection, takes the harmonious symbiosis among human-human, human-nature, human-society as its purpose, establishing sustainable production and consumption patterns as its content, and focusing on guiding people to get on sustainable and harmonious development path. Ecological civilization emphasizes human consciousness and self-discipline, stresses interdependence, mutually reinforcement and coexistence between human and natural environment. Besides man-ecology harmony, it also pursuits the human-human harmony, the latter is the premise of human-nature harmony. So we think ecological civilization as the achievement of a profound reflection on traditional form of civilization, especially industrial

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civilization, and the great progress of human civilization form as well as civilization development concepts, road and model. Coexistence between man and nature and harmonization between economic development and ecological environment frame the core of ecological civilization. In the view of connotation, ecological civilization includes the ecological awareness civilization, ecological legislation civilization, and ecological behaviour civilization.

According to Chinese civilization history, Chinese classical philosophy emphasizes "unity of the heaven and human beings". The so-called "Heaven" represents "nature", human and nature in essence is the same, so all human and activities should be in accord with laws of nature to achieve harmony between man and nature. Lao Tzu said: "human emulates earth, earth emulates heaven, heaven emulates thought and thought emulates nature". Confucian scholars Dong zhongshu proposed clearly that: "Man and heaven are combined into one ". These ancient proverbs represent China's first eco-civilization perspectives.

The formation of foreign ecological civilization ideology originated from American "Human Ecology Doctrine" in 1920s, putting forward that urban managers should adopt some natural ecological principles which was the budding of urban ecological civilization. The harm and danger of pesticides abusing on the environment and human beings disclosed by "Silent Spring" written by American scholar, Carlson, published in 1962, attracted public attention to environmental issues, and became a germinated symbol of human environmental consciousness. The concept of global ecological civilization rooted in environmental campaign spread around western society in 1970s. This campaign had begun to greatly change the governmental attitudes in west countries to environmental protection, and the damage by industrial civilization to environment has get to be controlled and restraint strictly. Roy. Morrison, a famous critic, clearly stated the concept of "ecological civilization" in his book "Ecological Democracy" in 1995. He pointed out that the pollution tax should replace income tax and information exchange should replace unlimited growth in order to control the harm of industrial civilization.

## **2. Role of ecological civilization construction in development of low-carbon economy**

### *2.1 Construction of ecological civilization can lay ideological foundation for the development of low-carbon economy*

Traditional industrial civilization features mainly man's robbery and conquest to nature, bringing about serious damages and breakage. However, construction of ecological civilization can promote reflection of mankind on the man-nature relationship and actively seek harmonious co-existence with ecological environment at a higher level instead of "end-of-pipe pollution control". In addition, construction of ecological civilization can promote the whole society to pay more attention to environmental quality and form joint efforts, to lay ideological foundation for the development of low-carbon economy.

### *2.2 Construction of ecological civilization can enhance capital efficiency of low-carbon economy development*

Construction of ecological civilization not only reflects human's concern about environment and resource constraints ,but also advocates a culture of content-type savings that requires to improve the efficiency of resources utilization to ensure to make best use of the limited resources. As a resource, investment capital of low-carbon economy should also be used efficiently. In this perspective, construction of ecological civilization is beneficial to relevant departments and firms enhance conservation awareness, ultimately enhance capital utilization efficiency of low-carbon economy development.

### *2.3 Construction of ecological civilization can increase the competitiveness of low- carbon economy development*

Driven by comprehensive strategy of building ecological civilization, technological innovation should make green transformation. China has mainly depended on introduced technology for a long time resulting in less industrious competitiveness and bad environmental protection. Combined to the Central Government's independent innovation strategy, we currently need to vigorously carry out independent low-carbon technology research and development. Only after possessing independent intellectual property rights, China has the potential to enhance low-carbon economy competitiveness.

### *2.4 Construction of ecological civilization can awaken social responsibility sense of business and financial institutions and promote developing low- carbon economy following market rules*

Not only enterprises but also financial institutions have responsibilities for constructing ecological civilization. Besides pursuing self-interests, enterprises and financial institutions also consider the interests of stakeholders when carrying out economic activities, which require that enterprises and financial institutions should implement certain social responsibilities, especially environmental responsibility. In order to achieve that, enterprises need to increase investment in low-carbon economy, while financial institutions should increase financial support for low-carbon economy development.

## **3. Specific recommendations on developing low-carbon economy through ecological civilization construction in China**

Ecological civilization construction is a systematic engineering, it need respective correlative departments to integrate resources, coordinate work such as developing plan, propagandistic education, policy measures and systematic security, etc. Besides, coordinate software and hardware construction to realize rapid increase of ecological civilization are essential.

### *3.1 Compile "Planning Outline of Strengthening Urban Ecological Civilization Construction "and" Implementation Plan"*

With rapid economic development, it is necessary for China to enhance the level of ecological civilization construction. However, we think that a complete and systematic planning and a more detailed implementation plan to facilitate implementation are essential to strengthening the construction of ecological civilization. So we recommend that relevant departments organize to compile "Planning Outline of Strengthening Urban Ecological Civilization Construction "and" Implementation Plan".

### *3.2 Make full use of media's mass communication function to strengthen publicity on ecological civilization concept*

As a guidance of public opinion, the media need to regard popularizing ecological knowledge and spreading ecological culture as its responsibility and become the mainstream platform for propagating ecological civilization concept. First of all, the media need to cooperate with the environmental protection departments. They can increase communication through joint meetings. Second, the media need to take a variety of ways to publicize the significance, basic requirements, main ideas and implementation steps of ecological civilization construction. Third, the media need to become platform for exchanging ecological civilization information. The media should convey government decisions and dispositions promptly about

ecological civilization construction, and feedback people's suggestion to relevant government departments at the same time.

### *3.3 Make full use of academic R&D ability of social scientific organizations to strengthen discussion on ecological civilization*

As social scientific organizations, social science research institutions and academic organization are supposed to carry out ecological civilization research. We suggest social science research institutions carry out discussion on major ecological civilization problems to get a number of ecological civilization achievements, and relevant academic organizations organizing academic study actively on ecological civilization problems, popularizing ecological civilization achievements and encouraging institutions, schools, businesses and communities to adopt these achievements, and thus they can play a role in a awareness training, behavioural guidance and decision making for managers at all levels and so on.

### *3.4 Establish a government-enterprise cooperative platform to support ecological civilization construction*

Ecological civilization construction not only requires guiding by government departments but also needs enterprises' cooperation. Government departments have a unique advantage other social forces lacked owing to certain political and economic resources. So it is government departments' historical mission to construct ecological civilization. However, as the microstructure of the national economy, Enterprises are also the undertaker of ecological civilization construction. In spite of pursuing profit, driven by social responsibility, enterprises should be able to act in concert with government departments and complete the specific tasks of ecological civilization construction. We propose to establish cooperative platform between government and enterprise that support ecological civilization to play the linkage role.

### *3.5 Establish green technology supporting system for ecological civilization*

Green technology over traditional technology emphasizes on introducing environmental factors in technological innovation process to realize protecting environment while achieving business value. Construction of ecological civilization can't produce ideal effects without the support of green technology. So we advise to establish green technology system to support ecological civilization, such as green technology personnel system, investment system, R&D system, market system and capital system, etc.

### *3.6. Establish service system of green finance to support ecological civilization*

Capital support is the premise of constructing ecological civilization. However, owing that the green finance concept has just been introduced to China and green finance service product is still under construction, it is badly lack of financial services which support construction of ecological civilization at present. In order to increase the capital support for ecological civilization, we suggest establishing green finance service systems, including systems of green credit project evaluation, risk identification and decentralized, systems of issuing guidance for green securities and technical support, green industry investment fund and green venture capital institutions mainly targeting at energy-saving industry, etc.

### *3.7 Incorporate ecological civilization indicator into the performance evaluation system of government departments*

We suggest incorporating ecological civilization indicator into the performance evaluation system and evaluate government contribution to ecological civilization according to sector features. The measures include that protect and improve ecological environment, cultivate ecological culture, develop ecological economy, implement ecological construction project, and so on. Strict accountability mechanisms should be established in government departments to punish severely the practice with negligence, dereliction of duty or failing to achieve the objectives, and to reward those making outstanding contributions in ecological civilization construction. In a word, putting ecological civilization indicator to the performance evaluation system can provide necessary institutional guarantee for ecological civilization construction.

### *3.8 Strengthen ecological civilization legislation*

Strengthening legislation is essential to ecological civilization construction. By regulations, legislation can grant legal effectiveness of eco-civilization construction and bring all the activities into a legal track preventing arbitrary behaviours. In the legislative process, we must persist on scientific and democratic legislation by absorbing experts and scholars to participate in the legislative procedure as well as expanding citizen participation to make the legislation into a broad process of whole society participation to constantly improve the quality of regulations.

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