

# Development Course and Future Development of Education in Ecological Civilization in Colleges and Universities

Zhang Qi

School of Economics and Trade, Shandong Management University, Shandong, China

## **Abstract:**

Although China has made remarkable achievements in its rapid economic development since the reform and opening up, it has also paid a heavy price, such as water pollution, land desertification, forest destruction, smog weather, etc., which has seriously threatened people's lives and property safety and directly affected the national economy and people's livelihood. Since the 17th National Congress of the CPC, the strategic deployment of green development and building a beautiful China has been gradually started. The construction of ecological civilization calls for ecological civilization education, of which college students are the key targets. Therefore, in this paper, the issues such as the reasons for ecological civilization education, the methods to integrate ecological civilization into higher education, and the way to further develop education in ecological civilization were expounded. In this paper, focusing on the education in ecological civilization, a scientific understanding of the knowledge in the field of ecological civilization has been formed after collecting, studying and analyzing relevant information. Through qualitative analysis, the development process of education in ecological civilization in China has been processed and sorted out, and the future development path has been given by combining theory with practice. According to the current problems of ecological civilization education, the development path of ecological education is proposed to optimize the campus environment, enhance practical activities, and promote the education system, so as to play a leading role in the construction of ecological civilization in colleges and universities. Ecological civilization is a new civilization form in the development of human society and a key problem to be noticed in the new era. In the education in ecological civilization for all people, special attention should be paid to the education in ecological civilization for college students, as they are the most valuable human resources. Through the further integration of education in ecological civilization and higher education, the construction of social ecological civilization will be effectively promoted and the smooth realization of the goal of building a beautiful China will be promoted.

**Keywords:** *Ecological environment, Ecological civilization, Ecological civilization education.*

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## **I. ECOLOGICAL CIVILIZATION AND ECOLOGICAL CIVILIZATION EDUCATION**

### **1.1 Ecological Civilization**

Ecological civilization is the sum of the material and spiritual achievements that human beings

have made in accordance with the objective law of the harmonious development of man, nature and society. Three hundred years of industrial civilization is mainly characterized by human conquest of nature. The development of world industrialization has brought the culture of conquering nature to the extreme. A series of global ecological crises have shown that the earth can no longer support the continued development of industrial civilization, but needs to create a new form of civilization to continue human existence, which is "ecological civilization". If agricultural civilization is "yellow civilization" and industrial civilization is "black civilization", then ecological civilization is "green civilization", which runs through the whole process of economic construction, political construction, cultural construction, social construction and systematic engineering in all aspects, and reflects the civilization and progress of a society.

Although China has made remarkable achievements in its rapid economic development since the reform and opening up, it has also paid a heavy price, such as the destruction of the ecological environment caused by the rapid growth of industries with high consumption and heavy pollution, and local government officials' insistence on the GDP growth theory, which has severely restricted China's sound and rapid development. "China's constant correction of the relationship between environment and development, promotion and improvement of development concepts, and innovation of system and mechanism have promoted the development of environmental protection, but the contradiction between economic and social development and resource shortage and ecological degradation is still very prominent. Frequent ecological destruction and environmental pollution incidents, such as water resource pollution, land desertification, forest destruction, haze weather, etc., have seriously threatened people's lives and property safety and directly affected the national economy and people's livelihood [1]. At present, the defects and constraints of traditional civilization have been exposed completely. The harmony between man and nature has become the key factor affecting the construction of harmonious society in China, and the establishment of ecological civilization is imminent.

At the 17th National People's Congress of China, "ecological civilization" was written into the political report for the first time, and it was proposed to "build ecological civilization, basically form the industrial structure, growth mode and consumption mode to save energy resources and protect the ecological environment", so that "the concept of ecological civilization can be firmly established in the whole society", which is a new development of our country's understanding of the law of socialist modernization. Since the 18th National Congress, China has made a series of strategic decisions around the construction of ecological civilization. Specifically, ecological civilization was included in the overall layout of the "five-sphere integrated plan" at the 18th National Congress. In the report made at the 19th National Congress, the strategic plan of accelerating the reform of ecological civilization system, promoting green development and building a beautiful China was comprehensively expounded. It is clearly pointed out in the report that the modernization we are building is a modernization in which man and nature coexist harmoniously. We should not only create more material and spiritual wealth to meet people's growing needs for a better life, but also provide more high-quality ecological products to meet people's growing needs for a beautiful ecological environment. Report of the 19th National Congress pointed out the road map for China to promote ecological civilization construction and green development in the future.

## 1.2 Education in Ecological Civilization

"Talents are the key to good governance of the country, and the way to cultivate talents in the world is to educate them." The construction of ecological civilization calls for the education of ecological civilization. It is an important task for education to serve the great rejuvenation of the Chinese nation to integrate the education of ecological civilization into the whole process of educating people. The ecological environment is not only a matter of technological level and economic ability, but also a matter of ideology and value orientation. To strengthen the construction of ecological civilization and build a beautiful China, the main body and responsibility lies with human beings. Therefore, it is necessary to inculcate the idea of ecological civilization, carry forward the ecological culture, advocate the green development concept, cultivate citizens' ecological awareness, ecological responsibility, ecological morality and ecological ability, shape stable citizens' ecological emotion and ecological will, and strengthen the education of the whole people's ecological civilization accomplishment, ecological civilization construction and ecological governance ability [2].

College students, as a group with knowledge, ideals, influence and passion, are the pillars of the country, the hope of the nation, the important object of ecological civilization education and the new force to promote the construction of ecological civilization in China. Therefore, strengthening the education of ecological civilization of college students, guiding them to establish the concept of ecological civilization, and letting them spread the concept of ecological civilization to the society through various forms can make them become the main carriers and disseminators of the concept of ecological civilization. At the same time, college students are the main undertaker of ecological civilization construction. "Well equipped youths lead to a powerful country." As a group of senior intellectuals among the youth, college students possess high knowledge and skills and represent the future and hope of the country. Only by mobilizing their enthusiasm, actively guiding them to establish a green concept of ecological civilization, offering suggestions and contributions to ecological civilization can they promote the vigorous development of ecological civilization and the development of ecological civilization construction be passed down from generation to generation. Therefore, improving the education and teaching system of ecological civilization, focusing on optimizing the campus ecological civilization environment, cultivating good ecological awareness and ecological behavior of college students, and comprehensively improving their ecological civilization quality have become important and urgent practical issues of ideological and political education in colleges and universities in the new era.

## **II. THE ROLE OF ECOLOGICAL CIVILIZATION EDUCATION IN PROMOTING THE CONSTRUCTION OF ECOLOGICAL CIVILIZATION**

### 2.1 Ecological Civilization Education is the Fundamental Way to Improve the Awareness of Ecological Civilization.

In the past long years, human beings wantonly plundered the only homeland on which they depend for survival, resulting in sharp decline of forests, extinction of species, acid rain pollution, soil erosion, and the

homeland where human beings live has been riddled with holes. At this point, people began to realize that it was difficult to sustain the economic development for a long time at the cost of environment pollution and destruction of the ecological environment. They also realized that only harmonious coexistence between people and nature is the main melody today.

Enhancing ecological civilization education is the mission of the times to promote the harmonious development of human society. In the era of ecological civilization, we need modern citizens with the quality of ecological civilization. However, there is still a certain gap between our citizens' ecological civilization and the requirements of the times. Bad ecological behaviors, ranging from littering to forest destruction, are the direct causes of ecological imbalance and environmental damage. The education of ecological civilization can standardize citizens' behavior, improve their cognition of ecological knowledge and enhance their sense of responsibility for the protection of ecological environment, arouse their ecological concern and enthusiasm for the construction of an ecological civilization society, so as to achieve the unity of knowledge and practice and gradually meet the requirements of the construction of ecological civilization that respects, complies with and protects nature.

## 2.2 Education in Ecological Civilization is an Inevitable Requirement for Building a "Beautiful China"

In October 2017, "Building a Beautiful China" was written into the report of the 19th National Congress. The report pointed out: "We should, on the basis of continuing to promote development, strive to solve the problem of inadequate and unbalanced development, vigorously improve the quality and efficiency of development, better meet the people's growing needs in economic, political, cultural, social and ecological aspects, and better promote all-round human development and social progress"[3], which means that building a beautiful China is the aspiration of the people and the goal of the country. Building a beautiful China requires green hills and water, while green hills and water require extensive mobilization of all sectors of society to participate, pool their efforts and work together. In the final analysis, the education in ecological civilization aims to promote the thorough change of people's thoughts, behaviors and values. Therefore, strengthening ecological civilization education combined with ideological and political work, especially for college students, is conducive to improving the quality of ecological civilization of college students, enhancing their responsibilities and obligations for the construction of ecological civilization, and realizing the wide transmission of knowledge of ecological civilization from class to class, from inside to outside, from themselves to others, and from point to point, creating a good atmosphere for the construction of ecological civilization[4].

## 2.3 Education in Ecological Civilization is an Important Foundation for the Sustainable Development of Economy

Ecological civilization construction requires changing the mode of economic development, which requires knowledge innovation, scientific and technological innovation and management innovation. Education can provide innovation driving force for economic development. The key to provide innovative driving force is to cultivate innovative talents. It is the basis of cultivating innovative talents through

education, which can improve the quality and quantity of human capital so as to realize the transformation of economic growth pattern. Therefore, to promote the construction of ecological civilization, we need to vigorously develop education, cultivate innovative talents and improve the efficiency and quantity of the transformation of scientific research results [5].

### III. THE PROCESS OF INTEGRATING EDUCATION IN ECOLOGICAL CIVILIZATION INTO CHINA'S HIGHER EDUCATION

The deterioration of the global ecological environment has led to the gradual rise of various environmental protection movements, and environmental education has attracted wide attention from all walks of life. In 1970, the American government formulated and promulgated the *Environmental Education Act* to promote and guarantee the curriculum development and implementation of environmental education in all levels and types of education by legal means. In 1985, Germany made environmental education a common compulsory key course from primary school to university. In 1988, the United Kingdom promulgated the *National Curriculum*, which proposed to incorporate environmental education into the interdisciplinary theme. All above shows that there is a good interaction between environmental education and higher education. Ecological education in colleges and universities in China mainly goes through three periods:

#### 3.1 The Preliminary Exploration Stage of Ecological Education (from 1949 to 1992)

At the beginning of the founding of New China, the country's environmental pollution was increasingly serious due to the iron and steel smelting. After the "Cultural Revolution", the ecological environment was further deteriorated due to the one-sided pursuit of economic output value. In 1970, Premier Zhou Enlai emphasized at many meetings that the environment should be protected and public hazards should be dealt with, which laid an ideological foundation for later environmental and ecological education and training. In 1972, the United Nations Conference on the Human Environment was held in Sweden. China responded positively and realized for the first time the breadth and depth of environmental problems. In 1973, in the *Several Decisions on Protecting and Improving the Environment* issued at the first national environmental protection conference, it was pointed out that "relevant colleges and universities should set up environmental protection majors and courses and train technical talents", which promoted the formal start of environmental education at all levels in China and marked the beginning of integration of environmental education and the training of related disciplines and professionals in Chinese colleges and universities. In 1977, Tsinghua University was the first to establish an environmental engineering major in China. In 1978, Peking University and Beijing Normal University enrolled the first batch of graduate students majoring in environmental protection. By the early 1980s, more than 30 universities in China had created more than 20 environmental protection majors, covering different levels such as specialized courses, undergraduate courses and postgraduate courses [6]. At this stage, environmental education has been generally recognized as an interdisciplinary integrated education and comprehensive quality education in China's higher education circle, and has begun to integrate with discipline development and personnel training. However,

on the whole, the interaction and integration between environmental education and higher education are not sufficient.

### 3.2 Deep Development Stage of Ecological Education (from 1992 to 2012)

With the deepening understanding of resource depletion and ecological imbalance in the world, environmental education has gradually changed from "education for the environment" to "education for the sustainable development of human beings and the environment". During this period, the integration of ecological education and higher education developed in depth.

In 1992, the United Nations Conference on Environment and Development was held in Brazil, which combined environmental issues with economic and social development and established the view that environment and development should be coordinated with each other. Influenced by this, China has successively issued *Ten Major Countermeasures for China's Environment and Development* and *China's Agenda 21* and other important policies, pointing out that "the idea of sustainable development should run through the whole education process from elementary to higher education". At the same time, China's first special document on environmental education, the *National Action Plan for Environmental Publicity and Education (1996-2010)*, was issued. During this period, the stage of environmental education in colleges and universities has been greatly developed. In 1993, Beijing Normal University began to enroll the first batch of masters in environmental education, and environmental normal education also started gradually. In 1998, 115 colleges and universities across the country compiled teaching materials for environmental education, with a total of 832 kinds [7]. In 1998, Tsinghua University proposed to build a "green university" from three aspects: green education, green scientific research and green campus. In January 2008, the Ministry of Education held a "Seminar on Building a Sustainable Campus" in Tongji University, and 32 universities in the "985 Project" jointly issued a *Declaration on Building a Sustainable Campus*, which advocated that the concept of conservation and sustainable development should run through all fields of campus construction and management, such as personnel training, teaching and research, school administration and logistics services [8]. The gradual introduction of environmental education and education for sustainable development has promoted the promotion of the concept of talent cultivation in higher education in China and has comprehensively promoted the positive changes in university science education, quality education, moral education and the construction of campus culture [9].

### 3.3 Stage of Quality Improvement of Education in Ecological Civilization (from 2012 to the Present)

In order to maximize the effect of education for sustainable development, China has actively participated in the "GLOBE" plan, the EPD education project and the international ecological school project together with other countries to carry out the global cooperation of education for sustainable development, which have played a positive role in changing teachers' concept and improving the curriculum system of ecological civilization education, indicating that the development of ecological civilization education in higher education in China is becoming more and more vigorous. In May 2018, 160 colleges and universities joined the "Chinese Universities Alliance of Education in Ecological

Civilization". In 2019, the Ecological Civilization Education Research Branch of the China Institute of Higher Education was established in Beijing, which contributed to the alliance among colleges and between colleges and local governments and further promoted the international influence of ecological civilization education in Chinese universities. In July 2018, the Ministry of Education issued a *Proposal for the Establishment of Green Schools in China* which pointed out that "the education of ecological civilization should be strengthened; the concept of green and circular low carbon should be integrated into the whole education process; schools should be encouraged to develop courses related to ecological civilization, education on relevant national and international conditions should be strengthened; and laws, regulations and scientific knowledge of ecological civilization should be popularized, and students should be encouraged to carry out targeted and research-based learning.", which puts forward new and higher requirements for ecological civilization education in the new era. Colleges and universities begin to offer general education courses around ecological civilization education. For example, Inner Mongolia Normal University offers *Environmental History* course to the whole world, which enables college students to critically consider the relationship between man and nature and establish the concept of sustainable development. Besides, colleges and universities have begun to explore the construction of "green universities" and cultivate "green talents". For example, the Northeast Forestry University has set up more than 100 environmental protection associations, established the first ecological philosophy research room in China relying on the northeast state-owned forestry park, and cultivated students' ecological science and ecological morality by using the forest museum on campus, and set up ecological civilization thinking through internalization of ecological consciousness. At the same time, based on two first-class disciplines of forestry engineering and forestry science, supported by ecology and biology, education in ecological civilization has played an important role in forest cultivation and economy, as well as major theoretical and technological issues in forest ecosystem.

#### **IV. THE FUTURE DEVELOPMENT OF INTEGRATING ECOLOGICAL CIVILIZATION EDUCATION INTO HIGHER EDUCATION**

Higher education in China bears the important mission of personnel training, cultural heritage and scientific research, and must play a pioneering and leading role in the construction of ecological civilization.

Firstly, enhance the feelings of ecological civilization and create an ecological and cultural environment on campus. Optimizing the campus environment and building a "green university" can not only enhance students' ecological awareness, but also enable students to deeply think and reflect on ecological issues while enjoying the beautiful environment, and motivate them to be active practitioners of ecological civilization in their lives.

Campus culture is divided into material culture and spiritual culture. The former covers all the material conditions in the campus, and integrates the concept of environmental protection into the basic construction and greening of the campus in order to play the role of infiltration and education of campus material culture; while the latter is an important part of campus culture and embodies the inside

information and connotation of a school. School spirit, teaching style and study style are the symbols of school spiritual civilization. Specifically, the elegant school spirit of ecological civilization will promote the cultivation and creation of qualified teachers of ecological civilization education, and the excellent teaching style will further promote a good style of study of ecological civilization, which will make college students pay more attention to ecological civilization education, externalize it in practice and internalize it in their hearts, so as to truly be the practitioners of ecological civilization.

Secondly, strengthen the ecological practice ability and enrich the ecological practice activities.

The education in ecological civilization of college students "requires not only theoretical teaching in the classroom, but also the cooperation of extracurricular practical activities, and the comprehensive use of practical teaching, situational infiltration, subjective experience and other educational methods"[10], so as to enable college students to experience the current status of the ecological environment and realize the importance of saving resources, protecting the environment and realizing green development. Therefore, the colleges and universities should make full use of the resources inside and outside the school to carry out practical education activities of ecological civilization.

First of all, a practice base should be set up to provide conditions for college students to understand, be close to and integrate into nature. Secondly, social surveys should be carried out to enable students to go deep into villages, communities, factories and enterprises, construction sites and regions with large discharge of pollutants, and to write research reports on their implementation of ecological protection, so as to enhance their ecological responsibility and practical ability from personal experience. In addition, voluntary activities can also be carried out to encourage and require college students to participate in environmental protection public welfare voluntary activities, such as encouraging college students to publicize and practice garbage classification work and helping cities or communities to set up garbage classification models. In this way, the ecological behavior of college students can be regulated and restrained by participating in voluntary activities to protect the environment.

Third, the education system should be promoted to play the leading role of education in ecological civilization. First of all, the goal of education in ecological civilization is to cultivate high-level ecological talents with ecological civilization concept, ecological knowledge cognition, ecological morality accomplishment, ecological civilization behavior and ecological science and technology rationality. Therefore, the basic requirements of education in ecological civilization should be integrated into the overall goal of talent cultivation. Secondly, a complete training chain linking undergraduate, postgraduate and continuing education should be established in the training system to open the path between ecological civilization education, professional education and general education [11]. Thirdly, in the teaching staff, teachers should be given more education and training on ecological civilization, so as to expand their professional knowledge on ecological civilization and teach them the ways and means of ecological civilization education, in order to achieve high quality and high efficiency of ecological civilization education in colleges and universities. Finally, in terms of teaching content, the role of ideological and political course as the main channel should be brought into full play, teaching content and teaching means

should be improved, ecological responsibility education, ecological rule of law education, ecological security education and other contents should be included in the knowledge system, and ecological hot issues should be integrated into the teaching content, so that on the one hand, college students can deepen their understanding of the concept of ecological civilization, on the other hand, they can accept the latest research results of ecological civilization and deepen their understanding of the importance and urgency of national ecological civilization construction.

Ecological civilization, as a new form of civilization in the development of human society and a new stage of civilization development, has become the expectation of the people and the general trend of development. College students are the new force to promote the development of the cause of socialism with Chinese characteristics and the most valuable human resources. They are shouldering the historical mission of "two centenary goals" and realizing the great rejuvenation of the Chinese nation "Chinese dream". Therefore, promoting the further integration of education in ecological civilization and higher education will effectively promote the construction of social ecological civilization and the smooth realization of the goal of building a beautiful China.

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