

# Policy Connotation and System Analysis of Ecological Environment Education

Junjiao Zhang<sup>1</sup>

<sup>1</sup> Faculty of Education, Beijing Normal University, Beijing, China

Correspondence: Junjiao Zhang, Faculty of Education, Beijing Normal University, Beijing, China.

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## Abstract

Ecological environmental education is an important part of building a high-quality education system and promoting the modernization of education. It is the focus of current education reform. Literature research has found that the research content of ecological environment education has gradually enriched, but policy research is not enough. The research has shown that although ecological environmental education has achieved certain achievements, the literacy of the ecological civilization of the whole people still needs to be improved. Since the 18th National Congress of the Communist Party of China, China has established the policy specifications for the development of ecological environment education content and methods of ecological environment education involved in the main body, content, and methods of ecological environment education. The prominent problem of ecological environmental education is that its status has not been paid attention to, teachers are subject to restrictions, the curriculum system is not perfect, and the teaching system is affected. Research suggests that the system and mechanism construction of ecological environmental education is recommended, creating a good social atmosphere for ecological environment education, establishing a new type of education system for high-quality ecological environmental education, building an ecological education environment in schools, and building a network ecological environment education base.

**Keywords:** ecological environment education, ecological civilization literacy, education policy

## 1. Introduction

Ecological environmental education Undertook an important mission in advocating and spreading ecological civilization and has played huge functions. In the context of global ecological environmental education, China has gradually paid attention to the development of ecological environment education. Studying and thinking about the future direction and strategic concept of ecological environmental education in China is to build a new century with a new

ecological environment education system of Chinese characteristics. China's ecological environmental education started in the 1970s, gradually completed from the cultural thinking of solving ecological and environmental problems to the continuous development of sustainable development education, and continuously promoted the modernization of education in the process. However, due to traditional concepts, ecological environment education is most closely related to biology and

ecology and is not related to other disciplines and majors, especially liberal arts. Therefore, although China has conducted preliminary exploration in ecological environmental education, compared with the overall development of ecological environmental education abroad, China's national ecological environmental education has not been paid attention to. Big and depth gap. At present, what kind of policy situation, what practical issues do Chinese ecological environmental education face, and how does it adopt effective policies? It is the three basic issues of the new development of ecological environment education in the new era. To deeply and accurately analyze the situation, existing problems, and deep reasons facing ecological environmental education, and propose appropriate countermeasures and suggestions, this study will collect policy documents in mainland China's ecological environmental education, and conduct quantitative analysis and content analysis of policy texts.

## 2. Analysis of the Research Content of Ecological Environment Education

### 2.1 Research on the Mechanism of Ecological Environment Education

With the continuous improvement of practice and the expansion of the research perspective, the connotation of ecological environment education has also changed. The definition of early ecological environment education highlights the characteristics of empiricism, and it does not distinguish it from "ecology", "environment" and "sustainable development". The perspective of educational types does not jump out of the educational perspective to look at ecological environment education. (Fang, 1993) Social transformation perspective and ecological philosophy perspective are slightly utilitarian for ecological environment education, but reveal the attributes, existence, and nature between people and society and nature. The relationship between development, (Qi, et al., 2014) individual development and national governance perspective highlight the mission of ecological environmental education to promote individual development and social development, and reflect the nature of modern educational activities. (Shen & Zhao, 2013) First, the national nature, that is, the object of ecological environment education includes all members of the society; (Feng, 2019) Second, comprehensive, that is, the content of ecological environment

education covers all areas of society; (Jiang & Tian, 2021) Third, overall, that is, the systemic project needs to overall the overall planning, content, methods, and mechanisms; Fourth, life-long, that is, the cultivation of ecological environmental education literacy development is a long-term process and will affect the individual's life; Fifth, practical, ecological environmental education must eventually be implemented in practical activities, and the development of ecological environment education should be judged according to the practical situation. (Feng, 2019)

### 2.2 Research on Ecological Environment Education

People's life safety is affected by the environmental crisis, and solving prominent environmental problems has become an important means to realize harmonious coexistence and co-existence and co-prosperity between man and nature. (Zhou & Fang, 2021) In the process of ecological environment education in primary and secondary schools, there are difficulties in ideological understanding, curriculum positioning, and curriculum content. (Zhang, et al., 2017) There are some practical problems in universities, such as the imperfect education mechanism of ecological civilization responsibility, insufficient participation of families in the cultivation of ecological civilization responsibility consciousness, and apathetic awareness of ecological civilization responsibility among college students. (Dong, 2021) The development of new media has brought opportunities for ecological civilization education, but the "decentralization", "fragmentation" and "diversification" characteristics of new media communication are easy to entice students into a value trap, affecting students' complete cognition of ecological civilization, and not conducive to students' formation of correct ecological values. (Liu, 2017)

### 2.3 Research on the Path of Ecological Environment Education

Ecological civilization education requires cultivating ecological citizens with educational responsibility, ecological consciousness, ecological thinking, ecological virtue, and ecological action. (Liu, 2019) Schools are the main positions to carry out ecological and environmental education, and students are in a critical period to develop their outlook on life and values. According to the differences in

education and teaching tasks and the physical and mental development needs of different students, targeted ecological and environmental education is of great significance for the maintenance of the ecological environment. Primary and secondary schools should integrate ecological environment education into the curriculum to achieve localization and school-based. (Zhang, et al., 2017) Universities should cultivate students' awareness of ecological civilization responsibility and establish a correct and diversified view of ecological civilization responsibility. (Dong, 2021) Ecological and environmental education should gather the strength of the family, school, and community, build and create a theoretical education system and ecological culture, strengthen the practical experience of ecological and environmental education, and establish and improve the guarantee mechanism of ecological and environmental education. (Zhang & Meng, 2022) Ecological environment education should face the learning of reality and the future, in-depth learning of technology in ecological education, and teaching students the "pro-nature complex". (Chen, 2016)

#### *2.4 International Comparison of Ecological and Environmental Education*

The development of ecological environment education in various countries mainly takes the promotion of environmental education as the main line. To systematically popularize ecological environment education, a series of environmental education strategies have been introduced in various countries. French environmental education policies and regulations mainly stipulate the objectives and contents of environmental education, as well as the better certification of environmental education in primary and secondary schools. (Li & Zhu, 2019) The theoretical research and practical exploration of environmental education in Germany are among the first in the world, forming an overall atmosphere for government organizations and non-governmental organizations to attach importance to ecological and environmental education. (Zhu & Pan, 2003) Swedish environmental education also pays attention to multi-party alliances and focuses on cultivating citizens' environmental protection concepts, and has achieved success in theory and practice. (Zhu & Pan, 2005) As one of the countries with characteristics of environmental education

development in Western Europe, the Spanish government has determined the development strategy of environmental education and incorporated environmental education into relevant policies and regulations to ensure the effective implementation of environmental education in primary and secondary schools. (Zhu & Liu, 2004) South Africa has serious environmental problems. After the end of apartheid, it emphasized environmental education and civic skills training. (Zhu, 2002) Australia regards environmental education as one of the key links of the education system. To ensure the quality of the development of early childhood environmental education in Australia, policy documents such as the Framework for Early Childhood Learning and the Framework for School-age Care have been adopted, and a sound evaluation mechanism for early childhood environmental education has been formed. (Zhu & Xiong, 2021)

### **3. The Status Quo and Policy of Ecological Environment Education**

#### *3.1 Analysis of the Current Situation of Ecological Environment Education*

In 1937, Mr. Li Jitong gave the first lecture "Plant Ecology" in the Department of Biology of Tsinghua University, and China's ecological environment education began then (Duan, et al., 2001). In the past 20 years, China has cultivated a large number of ecological and environmental professionals. By the year 2000, 140 institutions of higher learning had offered 206 undergraduate environmental majors and enrolled more than 5,000 undergraduate environmental majors every year, with more than 20,000 undergraduate environmental majors and more than 1,200 graduate students (Xu, et al., 2000). He is an important reserve talent for the development of China's ecological environment. However, although the development trend of China's ecological environment education is relatively optimistic, the public's satisfaction with environmental protection is getting higher and higher, and the willingness to participate in environmental public welfare activities is constantly strengthened (Research Group of the Policy Research Center for Environment and Economy, Ministry of Ecology and Environment, 2019), it is relatively far from meeting the development requirements of international ecological environment education. According to the survey of Chinese residents' environmental and health

literacy conducted by the Ministry of Ecology and Environment in 2020, the level of Chinese residents' environmental and health literacy is 12.5%, that is, out of every 100 people aged 15-69, fewer than 13 people have basic environmental and health literacy. The basic concept of environment and health, basic knowledge, and basic skill literacy of residents were 25.3%, 5.8%, and 25.4%, respectively. Ecological environment education needs to be carried out urgently. A national university survey on the theme of ecological environment protection found that the implementation of ecological environment education needs to improve the current knowledge, value awareness, participation awareness, and popularity of garbage classification behavior of college students. (Qiu, et al, 2022)

### *3.2 Policy Analysis of Ecological and Environmental Education*

Since the 18th National Congress of the Communist Party of China, in response to the issue of ecological and environmental education, the competent authorities of China have issued several policy documents, which involve the theme, content, and methods of ecological and environmental education, etc., and have established policies for the development of ecological and environmental education.

#### *3.2.1 The Main Body of Ecological Environment Education*

Although the state has formulated a macroecological environment education policy and a small number of volunteers from the environmental protection department and other aspects have also been working hard, ecological environment education has only attracted enough attention from the national education management department in recent years due to the influence of the school examination system for a long time. Since 2012, China has gradually incorporated ecological and environmental education in primary and secondary schools into the national education system, with the Ministry of Education, PRC as the main body and the Ministry of Ecology and Environment, PRC as the main body of assistance. With the participation of the Central People's Government, the Publicity Department of the CPC Central Committee, the Office of the Central Spiritual Civilization Construction Steering Committee, the Central Committee of the Communist Youth League, the All-China

Women's Federation, the Ministry of Agriculture and Rural Affairs, the National Forestry and Grassland Administration and other departments, a relatively complete school ecological environment education management system has been formed, and ecological environment education has become an important responsibility of educational administrative departments at all levels and primary and secondary schools. In 2017, the "13th Five-Year Plan" for the Development of National Education proposed to integrate the concept of ecological civilization into the whole process of education and encourage the development of ecological civilization education courses and textbooks. Ecological civilization education has been formally written into the national education development plan and incorporated into the school education system.

#### *3.2.2 Contents of Ecological Environment Education*

In 2007, "ecological civilization" was written into the report of the 17th CPC National Congress. In 2011, the Ministry of Education revised the Curriculum Standards for Compulsory Education, incorporating the content and requirements of environmental education into the relevant curriculum objectives. In the same year, the Academic Degrees Committee of The State Council adjusted ecology to a first-level discipline. In 2012, the report of the 18th National Congress of the Communist Party of China independently discussed the construction of ecological civilization, and the "five-in-one" strategic layout provided a policy guarantee for the construction of ecological civilization in the field of education. With the Ministry of Education and the Ministry of Environmental Protection jointly issuing theme documents such as developing ecological education in colleges and universities and serving ecological civilization construction, the "Several Opinions on Promoting the Comprehensive Reform of Higher Agriculture and Forestry Education" and the "Excellent Agriculture and Forestry Talent Education and Training Plan" were issued in 2013. Proposed to coordinate the development of higher agriculture and forestry education (Ministry of Education et al., 2013). In 2014, the Opinions of the Ministry of Education on Cultivating and Practicing Socialist Core Values to Further Strengthen Moral Education in Primary and Secondary Schools were released. It

requires all schools to carry out ecological civilization education with resource conservation and environmental protection as the main content. The Environmental Protection Law of the People's Republic of China, revised in 2014, stipulates that educational administrative departments and schools should incorporate environmental protection knowledge into school education. In 2015, the Opinions of the Central Committee of the Communist Party of China and The State Council on Accelerating the Construction of Ecological Civilization proposed that "ecological civilization education should be regarded as an important content of quality education", and the concept of "ecological civilization education" was formally incorporated into quality education. The guideline pointed out that the public should enhance the awareness of ecological civilization, cultivate ecological culture, and make ecological civilization become the mainstream value of society. In 2015, the Ministry of Education issued the Code for Primary and Secondary School Students, which requires primary and secondary school students to develop behavioral habits of saving resources and protecting the environment. In 2017, the Guidelines for Moral Education in Primary and Secondary Schools were released, emphasizing ecological education as an important content of moral education. In the same year, the "13th Five-Year Plan for the Development of National Education" elaborated on "Enhancing students' ecological civilization literacy" and proposed to strengthen ecological civilization education. In the same year, the "Code of Conduct for the Ecological Environment of Citizens (Trial)" proposed ten codes of conduct, aimed at firmly establishing the socialist concept of ecological civilization, strengthening citizens' awareness of the ecological environment, and promoting the formation of a new pattern of modernization construction in which man and nature develop in harmony. In addition, in 2018, the Opinions on Strengthening the Combination of Agricultural Science and Education and Implementing the Education and Training Plan 2.0 for Outstanding Agricultural and Forestry Talents put forward policy suggestions for the innovative development of higher agriculture and forestry education and the cultivation of outstanding ecological talents. This opinion is based on the upgrading of relevant policies in 2013, which extended the ecological education

policy from developing basic education to strengthening higher education, and laid the foundation for the construction of a multi-school integrated ecological education system and the training of agricultural and forestry talents in the context of new agricultural science. Over the years, the ecological environment education policy has completed the education content system that focuses on environmental protection, promotes the harmonious development of man and nature, and enhances students' ecological civilization literacy.

### 3.2.3 Methods of Ecological Environment Education

In 2011, the National Program of Action for Environmental Publicity and Education (2011-2015) was released, proposing to explore the laws of environmental publicity and education during the 12th Five-Year Plan period and build a theoretical system of publicity and education with distinctive environmental protection characteristics. Since 2012, the "ecological education" curriculum policy has been implemented nationwide, which has promoted the formation of the "ecological education" system. In primary and secondary schools in our country, a set of ecological education systems with "classroom + practice" as the main content has been gradually formed. Ecological education in colleges and universities is an important part of constructing ecological civilization. The current basic education ecology course is both theoretical and practical. Guided by the basic concept of ecological civilization, it takes care of the environment and saves resources as its main content, aiming to help students establish an awareness of ecological civilization and cultivate the concept, knowledge, and ability of sustainable development. Higher education in ecological science and technology, the sustainable development of the way, and support, for our country's ecological civilization construction to provide sustainable development of talent reserves. With the promotion of the university ecology discipline to the first-level discipline and rapid development, the forestry discipline has been further strengthened on the original profound accumulation, and some disciplines closely related to ecology, such as landscape architecture, forestry engineering, agricultural and forestry economic management, have also begun to develop vigorously. In non-ecology majors, the general education of ecology is

carried out through subject infiltration and elective. College students with different levels of ecological cognition have a strong willingness to receive ecological environment education and hope that colleges and universities will set up independent ecological courses. More than 80% of college students believe that ecological environment education is beneficial to the natural environment, economic development, and social harmony, and can effectively promote the comprehensive and sustainable development of society. In primary and secondary schools, the ecological environment education for students mainly focuses on nature, biology, geography, etc., while in addition to these courses, most primary and secondary school students participate in practical activities with ecological themes, and are supported by parents and society. In addition, the Internet, television, newspapers, newspapers, etc., have also become the main way for people to obtain ecological knowledge. From the initial "propaganda", to enhancing the people's awareness of ecological civilization, creating a good social atmosphere, and integrating this concept into the entire education process, China's ecological and environmental protection education has completed a development process from informal education to formal education.

#### **4. Challenges and Problems of Ecological Environment Education**

##### *4.1 The Status of the Ecological Environment Education Has Not Been Paid Attention to*

The implementation of ecological environment education in the school education system has obvious arbitrariness, lack of systematism, and coherence. Compared with other subject education, ecological environment education has not been promoted to the due height, and many schools have not incorporated ecological environment education into school education and teaching planning, and have not formed a set of standardized ecological environment education and teaching system. Although the Ministry of Education designated environmental science as a first-level discipline in 2003, established the Environmental Science Teaching Steering Committee, and issued the "Guidelines for the Implementation of Environmental Education in Primary and Secondary Schools", ecological and environmental education with environmental science as the core has not yet received its due status compared with other disciplines. In terms of talent training standards,

the improvement of students' ecological values, ecological ethics, and ecological accomplishment is not enough, and some talent training programs do not even mention this point. Generally, only compulsory courses related to the ecological environment are set up for environmental majors, and basic ecological environment education courses are not set up as compulsory public courses for non-environmental majors. Some schools even do not offer elective courses related to ecological environmental protection. By the requirements of the state, some schools organize ecological education activities among college students in conjunction with World Environment Day and Earth Day. However, at this time node, the effect of ecological environment education is often not significant, and it is difficult to make students have a strong and lasting ecological awareness.

##### *4.2 The Teachers of Ecological and Environmental Education Are Restricted*

Teachers are the basic guarantee of ecological environment education. At present, the quality of ecological environment education among teachers still needs to be improved, and teachers with extensive ecological environment knowledge and high ecological environment education ability are relatively scarce. Although the major of ecology and environmental protection has trained a large number of talents with professional knowledge, relying only on the current strength to promote the implementation of ecological environment education is far from meeting the requirements of building a high-quality education system in the construction of ecological civilization. The lack of teachers in ecological environment education has also become another prominent problem that restricts the extensive and in-depth development of ecological environment education. The number of full-time teachers engaged in ecological and environmental education in China is not only small but also has not received systematic ecological and environmental education training. In the process of implementing ecological environment education, they are either limited by ecological ethics, values, culture, etc., or lack of necessary scientific knowledge and theory of ecological environment. In addition, China does not have similar professional and related training institutions to train ecological and environmental education teachers, which makes it difficult for teachers to receive systematic

ecological and environmental education training.

#### *4.3 The Curriculum System of Ecological Environment Education Is Not Perfect*

China's Ministry of Education has not taken ecology as a public basic course of non-ecology, biology, and other disciplines in universities, which leads to the unstandardized curriculum of basic ecological education, and there is a large randomness. In the teaching of ecological environment, because of its content, proportion, the number of educators, and other aspects of the proportion is small, so ecology can not be taught as a public professional course. Moreover, most teachers and students think that ecology is a very professional science, and it is difficult to teach it to liberal arts and engineering students, let alone take it as a required course of public courses, which makes it difficult to have any breakthrough progress in the implementation of ecology. In China, ecological and environmental education has not yet formed a certain scale, let alone an "everyone participates, lifelong participation" climate.

#### *4.4 The Ecological Environment Education and Teaching System Is Affected*

For a long time, Chinese universities have formed a division of liberal arts, science, engineering, and other disciplines, which has led to the separation of disciplines on a macro level, and the vertical system of departments and offices (Wen, et al, 2001). This system and pattern have never been a big change or breakthrough, forming a chaotic pattern. Such a disciplinary division system results in the fact that ecological environment education is still limited to the circle of ecology majors and cannot be brought to the public, which is unfavorable to the interdisciplinary and cross-professional teaching of ecology public courses, and also causes difficulty and resistance of carrying out public basic ecological environment education among college students. Although China has put forward the concepts of "interdisciplinary" and "cross-professional" in recent years and has made a preliminary exploration in many fields, the current ecological environment education has not been effectively integrated among multiple disciplines and subjects but has been integrated among multiple disciplines and subjects to a large extent, and has been integrated into the teaching and practice of other disciplines and

multiple subjects, still in ideal condition.

### **5. The Future Path of Ecological Environment Education Optimization**

#### *5.1 Strengthening the Construction of Institutions and Mechanisms for Ecological and Environmental Education*

The ecological environment problem is global and universal. In the new century, it is necessary to be "people-oriented" and build an ecological environment education system with "government as the leading, school as the main body and society as the link". Establish a leading group for ecological and environmental education, conduct comprehensive planning and organization of ecological and environmental education work, guide mass environmental protection activities, formulate sound ecological and environmental education programs and related environmental protection laws and regulations, strengthen and popularize ecological and environmental education legally, and provide necessary financial guarantees for it. The departments of environmental protection, education, justice, industry and commerce, human resources, and social security should strengthen linkage and close cooperation in promoting ecological and environmental education, give play to their respective advantages, and form synergy. Make full use of environmental protection associations, trade unions and other trade associations, schools and off-campus educational institutions, science and technology venues and public libraries and other popular science institutions, dry training centers and continuing education bases, and other government training institutions to carry out ecological and environmental education. Establish and improve the system of laws, regulations, and standards for ecological environment education to provide policy support for ecological environment education; At the same time, we should increase the investment in ecological environment education, and make full use of the market mechanism to establish a reasonable and diversified investment mechanism. It is necessary to build a support system for ecological and environmental protection education, gradually increase the investment in ecological and environmental protection education from both hardware investment and financial investment, pay attention to the post-training of teachers, and improve the overall quality of teachers.

### *5.2 Creating a Good Social Atmosphere for Ecological and Environmental Education*

Strengthen the ecological environment education of the public, cultivate the ecological consciousness of the public, create a good social atmosphere, build a healthy and orderly ecological environment operation mechanism, and promote the virtuous cycle and development of human and economy, society, and ecology. Adhere to a comprehensive and developmental attitude, so that the public can cultivate their ecological awareness from a holistic perspective, so that they can have systematic ecological knowledge, but also have a can adapt to the changes in the reality of the thinking and views, so that they can in the actual work, the ecological environment issues for the correct thinking and handling. In the process of economic development, the government should use various forms to carry out publicity and education on ecological environmental protection, actively publicize the harm caused by environmental pollution and ecological damage to society, popularize the knowledge of environmental science and environmental law, and carry out ecological environmental education on a large scale. Environmental protection departments shoulder the inescapable responsibility of publicity and education, to widely publicize laws and policies to society, give full play to their professional expertise, popularize scientific knowledge of environmental protection, especially through telling typical cases in life, to enhance people's environmental awareness, enhance their ecological awareness. Radio, television, newspapers, and other media should publicize green industries, green consumption, and ecological cities so that the concept of ecological civilization can penetrate every aspect of production and life and every family, enhance the public's ecological awareness, establish the public's ecological civilization concept, moral values, and values, and form a production and life mode of harmonious coexistence between man and nature. And mobilize social organizations to provide human, material, and financial support for ecological environment education. The community should play its "close to the masses" characteristics, and actively advocate individual citizens' production and life activities "ecological", with their practical actions to provide strong support for ecological education.

### *5.3 Establish High-Quality Ecological and Environmental Education Teachers*

The realization of ecological civilization and sustainable development is not only a technical performance, but also a cultural performance, and a profound transformation of human values. To take the path of sustainable development, we must not only have the support of science and technology, but also the guarantee of the legal system, but also enhance people's ecological awareness, and establish ecological values. To meet the requirements of ecological civilization, universities should establish a multi-dimensional ecological environment education system, and actively carry out ecological environment education in it, to cultivate more and better ecological talents. University ecological environment education should not only popularize ecological knowledge such as ecology and environmental protection but also cultivate "ecological man" with ecological consciousness and ecological value. This is a multidisciplinary, multi-level, and multi-dimensional comprehensive system engineering, which can not only be limited to a certain subject field. To formulate professional standards for ecological and environmental education teachers, set up a team of full-time and part-time teachers with good quality, pay attention to the establishment of ecological and environmental education teacher majors in colleges and universities, attract capably and volunteer social organizations to become part-time ecological and environmental education teachers, and strive to build a team of high-quality teachers with good conduct, knowledge and practice and excellent skills. From the central to local, from urban to rural areas, training and management centers for "ecological and environmental protection talents" have been established. Encourage colleges and universities or social institutions to hold a special training course for ecological and environmental education teachers to further enhance environmental education teachers' understanding of ecological and environmental science and enhance their concept of sustainable development through various forms such as long-term and short-term, on-campus and off-campus, pre- and post-post, collective and individual, on-the-job, training, observation, exchange, teaching and discussion, etc. Improve their education and teaching ability in the ecological environment.

#### 5.4 Building a New Education System for the School's Ecological Environment

The development of social ecology has pointed out a new direction and new requirements for the reform of ecological and environmental education in Chinese schools. Ecological and environmental education in schools should be reformed in a fundamental direction, focusing on the transformation of ecological and environmental teaching concepts, so that ecological and environmental teaching is no longer limited to biology, ecology, and other majors. Instead, the teaching content of ecology is included in the teaching content of non-biology, ecology, and other majors, and it is listed as a compulsory course. Ecological environment education should take school education, social education, and vocational education as the object; Ecological environment education in schools should be expanded from undergraduate and junior college levels to graduate students and primary and secondary school students. To reform the teaching system of ecological environment education, colleges, and universities should promote the integration of disciplines and pay attention to the ecological system theory and the holistic view. The "trinity" tradition of "arts, science, industry, and agriculture" in Chinese universities has caused the "separation" between different disciplines on a macro level, which goes against the ecological thought of "system" and "whole" and is not conducive to the mutual penetration of disciplines. Ecology is a science closely related to human life, it is a science closely related to human life, in the course of teaching, some profound theories and knowledge should be explained by simple examples. According to the current needs of cadres at all levels for ecological and environmental protection education, it is suggested to organize, compile, review, and publish a series of teaching materials suitable for cadres at all levels for ecological and environmental protection education as soon as possible, to meet the needs of cadres at all levels for ecological and environmental protection education in content, form, method and means. In addition, combined with the current after-school services in schools, ecology textbook teaching is taken as an important part of after-school services, so that students can truly experience the real experience brought by ecology in the process of learning ecological knowledge.

#### 5.5 Build a Three-Dimensional Network of Ecological Environment Education Base

Universities should become the main position of ecological and environmental education in China, actively communicate with environmental protection departments, explore the sharing of resources between universities, and establish a "cloud classroom" model of "recorded lessons" + "online" so that students can study at home regularly so that they can learn without interruption. Strive to realize the simultaneous development of online and offline activities, take the students to a "cloud tour" base with the lens, and make the offline ecological environment education base open to more education objects through the construction of a digital ecological environment education base. Ecological environment education venues should innovate the way of exhibition layout, adhere to the combination of construction and use, innovate the way of expression, and use multimedia and modern technology to carefully build a comprehensive ecological exhibition hall that integrates display, science popularization, and interactive experience, do a good job in the functional zoning of the education base, pay attention to situational compliance planning and layout of the site, publicize ecological environment education knowledge to the public and students, and share and build the earth home.

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