

Original Research Article

## Research on coordination and sharing mechanism of public library resources in Changde area from the perspective of ecological civilization

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**Abstract:** For a long time, the libraries in the same region have been divided into their own, which has seriously wasted social resources. Libraries, which originally had advantages, have not been able to develop in accordance with the established ideal model, often unable to meet the needs of readers due to the shortage of funds and other problems. At the same time, the harmonious coexistence of ecological culture and library culture has been ignored. From the perspective of ecosystem, the ecological niche of public libraries is convergent, and the role of ecological education is still limited. The construction of hardware facilities and equipment lacks of ecological elements, and a new cultural ecosystem formed by the library from the ecological perspective and its unique development mode are bound to contribute to the library cause. Therefore, this paper aims to combine the new deployment made by the central and provincial economic work conferences to further promote the construction of ecological civilization, focus on the actual situation of Changde, and explore the construction and optimization countermeasures of public libraries in Changde based on ecological theory, information ecology theory and high-quality development theory, so as to promote the high-quality development of public cultural services in Changde.

**Keyword:** Ecological civilization; Public libraries; Changde Area; Sharing mechanism

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## 1. Introduction

With the deepening of ecological civilization construction, public library, as an important position of cultural dissemination and knowledge popularization, its resource coordination and sharing mechanism is particularly important. Changde region has rich cultural resources and ecological resources, through the establishment of public library resources coordination and sharing mechanism, we can make more effective use of these resources, meet the growing cultural needs of the people, and promote the popularization and practice of ecological civilization.

Changde area has a certain base of public library resources, including municipal library, county library and township culture station. However, in the actual operation process, there are still problems of uneven distribution of resources and low utilization efficiency. The specific performance is as follows: some library collection resources are single, it is difficult to meet the diversified needs; The library resources in some remote areas are scarce and the service level is limited. The channel of resource sharing is not smooth, and the phenomenon of information island is more prominent.

## 2. Research status analysis

### 2.1. Study on library theory from the perspective of ecological civilization

#### 2.1.1. Library functions from the perspective of ecological civilization

As an information service organization, library mainly provides information service for readers, and the

function of ecosystem is another effect of a system. Xu Yang believes that the function of library ecosystem is to realize its functional value through the circulation of material flow, energy flow and information flow, and the most important function of library ecosystem is the function of information flow<sup>[1]</sup>. As a kind of artificial ecosystem, Wu Wenhua also believes that information exchange and information service are its main functions. The library has the ability to use the existing conditions to complete the system ecological exchange (material, energy, information and value)<sup>[2]</sup>. Jeremy Lachal proposes that libraries provide free access to information, connectivity and social interaction. The library is understood as a place for personal development and a civic space for social connections.

### **2.1.2. Library composition from the perspective of ecological civilization**

Wu Weici believes that its composition consists of books, readers, managers, technical methods, buildings, equipment and other elements. Huang Zongzhong reached a consensus with Wu Weici in the aspects of collection, readers, personnel, and thought that it also involved funds, materials, information, and time. Wang Ling has the same views as Huang Zongzhong in terms of resources, users, personnel, funds, materials, construction equipment, and technical methods from the perspective of micro-ecology. Chen Jianjian et al. analyzed the structure of library ecosystem from two parts: biology and environment. The biological part is mainly composed of readers and librarians, and the environment inside and outside the library is composed of environment. The environment of the museum is mainly the way of service, the resources of the collection, the transmission of information, etc. The environment outside the museum is mainly the surrounding environment. Huang Jiannian et al. used the ecological pyramid theory to analyze the ecological cone of library ecosystem structure, which is similar to the cone of quantity, knowledge information and material energy. Luo Ying pointed out that the structure of library ecosystem includes internal and external structures. Internally, it involves collection of literature, carrier, professional education, service content, system, etc., while externally, there are per capita literature volume, reader structure layer, and structure of relevant departments. Bowonder gives a different view. From the two-dimensional and three-dimensional perspective, the knowledge ecosystem in the two-dimensional perspective is an interactive network and knowledge warehouse. On the three-dimensional level, knowledge ecosystem is interpersonal communication network, knowledge network and technology network. He also believes that the knowledge system also has the so-called knowledge pyramid, and there are also evolutionary phenomena and knowledge succession<sup>[3]</sup>.

## **2.2. Research on library construction from the perspective of ecological civilization**

### **2.2.1. construction-related research**

Sun Xiaoying pointed out that the architecture of ecological civilization is based on the principle of ecological balance, to build a multi-level circulation of new architecture based on the interdependence and promotion of human and environmental space. Environmental factors such as sunlight, air circulation and cleanliness should be considered, while artificial factors such as decoration materials, lighting and green plants should also be considered. Chen Fei et al believe that ecological libraries should conform to architectural ecology, make full use of natural resources, consider the coordination and unification of the surrounding environment, and rationally plan and layout<sup>[4]</sup>. Create internal and external environment and space to match the development of The Times and economic construction. Zhao Kewei believes that the ecological functions of libraries should include

spacious reading environment, different color matching, scientific natural light, good ventilation environment, and low-energy building materials, reflecting green, energy saving, and environmental protection.

### **2.2.2. Resource-related research**

From the perspective of ecological civilization construction of university libraries, Liu Junxia et al. believe that in the case of limited financial support, the comprehensiveness of electronic resource database should be guaranteed, not to purchase repetitive databases, and to cover all disciplines. Inter-library loan is realized among universities to meet the diversified reading needs of readers. Mary Lee Kennedy proposes that research libraries must collaborate globally with a complex system of knowledge, not all of which are accessible, knowable, or stable. It is also proposed that academic materials can be shared, as well as shared catalogues (such as open access journal catalogues) to create a shared research library capability. Alexandra Chassanoff et al believe that libraries should be fully equipped and not always adequately resourced. Hou Yan et al. put forward strategies to optimize the information ecological resources of university libraries, including optimizing procurement channels, innovating knowledge resources of information nodes, and integrating information resources. Jiang Xiuli believes that libraries should broaden their openness to social services, strengthen cooperation and exchanges with other document and information institutions, and share resources<sup>[5]</sup>.

### **2.2.3. Culture-related research**

American public libraries introduce social practice education, integrate local art works and folk customs into the decoration of their buildings, introduce fireplaces and terraces, display community art products, and display community historical events, etc. The John A. Home branch library in New York places wood furniture commonly used in North America in the youth reading area. Gao Mian proposed that in the new environment, data quality education should be carried out to improve readers' ability to obtain data, analyze and share data; Carry out personal information security education and have information security awareness. Liu Haitao et al. proposed that carrying out colorful reading promotion activities is an effective way to realize the construction of cultural ecological civilization system in university libraries<sup>[6]</sup>. Liu Yan has studied the construction of ecological children's libraries in Japan and believes that the experience of Japanese children's libraries can be used for reference, such as forming a multi-channel and multi-level ecological culture education system, listing ecological culture education as an important part of the construction of modern public cultural service system, so as to make ecological civilization consciousness run through all aspects of people's lives and realize the life of ecological civilization<sup>[7]</sup>.

## **2.3. Research review**

Scholars at home and abroad have systematically studied the theory, practice and construction of libraries from the perspective of ecological civilization, and most of them discuss the construction of libraries from the theoretical level. However, there are few research results from the perspective of empirical research and overall system construction of regional libraries. Due to the large deviation between theory and practice, few scholars have systematically studied the construction of regional public libraries from the perspective of ecological civilization through investigation and analysis and case studies. Therefore, based on ecological theory, information ecological theory and high-quality development theory, the investigation and analysis of public libraries in Changde and the corresponding countermeasures are proposed, which has practical guiding significance for promoting the construction of public libraries in Changde from the perspective of ecological

civilization.

### **3. Coordinate and share mechanism construction**

Resource integration and optimal allocation

Establish a resource sharing platform: by using modern information technology, establish a resource sharing platform for public libraries in Changde area to realize the interconnection, co-construction and sharing of books, periodicals, electronic resources and other information.

Overall planning of collection resources: According to regional characteristics and reader needs, overall planning of collection resources to avoid repeated construction and waste of resources. At the same time, pay attention to the procurement and collection of ecological and environmental protection resources to meet the needs of ecological civilization construction.

Chain branch library construction mode

Government-led, multi-party participation: The government should be the main investment subject in the construction of chain branch libraries, and encourage the participation of social forces and enterprises to form a diversified investment pattern.

Resource sharing and service extension: By building community libraries in various regions and towns as branch libraries of the original libraries, services can be extended to the communities. This mode can effectively save resources and improve service coverage.

Cooperative joint office model

Strategic alliance and resource sharing: Establish strategic alliance with universities, scientific research institutions, social groups, etc., and realize resource sharing and complementary advantages through joint library building and cooperation.

Project-driven, coordinated development: With major cultural projects as the driving force, guide all forces to participate in the construction and development of public libraries, and form a good situation of coordinated development.

Strengthen information services and dissemination

Strengthen the dissemination of ecological and environmental protection information: make use of the advantages of library information resources, strengthen the development and utilization of ecological and environmental protection literature resources. Through compiling catalogues of ecological and environmental protection documents and resources, holding special lectures and exhibitions, the public's awareness of and participation in the construction of ecological civilization will be enhanced.

Improve the quality of information services: strengthen the professional training of librarians and the cultivation of service awareness, improve the accuracy and timeliness of information services. At the same time, new media tools such as social media and mobile apps are used to expand service channels and ways to meet the diversified needs of readers.

## **4. The countermeasures of public library construction in Changde area from the perspective of ecological civilization**

### **4.1. Hardware facilities construction countermeasures**

In the construction of hardware facilities, we should adhere to the concept of ecological civilization and pay

attention to energy conservation and environmental protection. First, when building a new library, we should pay attention to the ecological environment of the site selection to avoid damage to the ecological system; Second, in architectural design, adopt the concept of green building, make full use of natural ventilation and natural lighting, and reduce energy consumption; Third, in the decoration, choose environmentally friendly materials to avoid the use of harmful decoration materials; Fourth, in equipment procurement, give priority to energy-saving and environmentally friendly equipment, such as the use of LED energy-saving lamps, the use of fresh air systems; Fifth, in daily operations, the implementation of garbage classification and recycling, reduce waste, reduce energy consumption; Sixth, in terms of indoor and outdoor environment creation, we strive to create green ecological space, increase green area, and create a comfortable and pleasant reading environment. Through these measures, the concept of ecological civilization is implemented in all aspects of the hardware facilities construction of public libraries, and a resource-saving and environment-friendly reading space is created for readers.

#### **4.2. Countermeasures for the construction of library resources**

The concept of ecological civilization requires public libraries to embody the concept of resource saving and environment friendly in the construction of collection resources. Public libraries in Changde should strengthen the procurement and construction of digital resources, build a digital resource sharing mechanism, and realize resource sharing and optimal allocation. At the same time, we should pay attention to the collection and protection of characteristic literature resources, excavate and sort out local literature resources, and fully reflect the local cultural characteristics. In the procurement of paper document resources, books published with environmentally friendly materials such as recycled paper should be preferentially selected, and a reasonable collection resource allocation and low-value book resource recycling mechanism should be established to maximize the service life of document resources. In addition, public libraries should strengthen cooperation with other libraries, archives, museums and other cultural institutions to achieve joint construction and sharing of document information resources, avoid repeated procurement and construction, and promote resource conservation and efficient use.

#### **4.3. Service function construction countermeasure**

In terms of service function construction, public libraries in Changde should fully implement the concept of ecological civilization and strive to provide readers with green, environmental protection and low-carbon services. First of all, we should strengthen the construction of digital services, use modern information technology means to provide readers with online and offline integrated services, and reduce the use and waste of paper resources. Secondly, it is necessary to carry out various forms of environmental protection themed activities, such as environmental protection reading clubs, green home lectures, etc., to raise public awareness of environmental protection. Thirdly, we should optimize the service process, simplify the handling procedures, and save time and energy for readers. At the same time, we should strengthen the construction of barrier-free services to provide convenience for people with disabilities. In addition, we should attach importance to community services and extend services to street communities so that more people can enjoy high-quality public cultural services. In short, public libraries in Changde should base on the concept of ecological civilization, innovate service models, and contribute to the construction of scholarly Changde.

### **5. Conclusion**

From the perspective of ecological civilization, the construction of public library is a complicated project

with unique system, which involves many factors such as economy, technology, humanity and management. In addition, Changde is an important cultural and creative city in Hunan, which attaches great importance to public cultural services and national reading. Therefore, this paper analyzes the existing problems and causes of public libraries in Changde from the perspective of ecological civilization, and discusses the construction and optimization countermeasures of public libraries in Changde based on the actual situation of Changde based on ecological theory, information ecology theory and high-quality development theory. It is of reference value to promote the high quality development of public cultural services and the healthy development of public libraries in Changde.

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## **References**

- [1] Luo Qianqian, Kou Yin. Study on the green transformation of public library development mode [J]. Journal of Henan Library, 2024, 44 (05): 22-24.
- [2] He Yanhui. Drum and call for public library association of National ecological Civilization Demonstration City [J]. New Century Library, 2023, (09): 10-18.
- [3] Li Chuanteng. Study on Green Development of Library from the perspective of ecological civilization construction [D]. Heilongjiang University, 2023.
- [4] Ling Yunxiao. Research on the status quo of Green Construction of Provincial Public libraries in China [D]. Anhui University, 2023.
- [5] He Yanhui. Bearing the responsibility of society and gathering the efforts of the industry to participate in the establishment of public library consortium in national ecological civilization demonstration City [J]. Library Research, 2023, 53 (01): 32-37.
- [6] Direction is clear, Tao Jiajia. Practice and enlightenment of children's environmental literacy education in foreign public libraries [J]. Library and Information Work, 2022, 66 (15): 55-65. (in Chinese)
- [7] Li Wenhui. Thinking on the construction of library ecological civilization in the new era. University Library Work, 2022, 42 (03): 54-57.