A Probe into Wetland Ecotourism

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Abstract. Wetland has very high tourism value with biodiversity and cultural diversity and a function of environmental education. Wetland ecotourism is embodiment of tourism economy and the realization of wetland protection and sustainable development and it has raised common concern now. This paper mainly explained research method, research structure and research significance of wetland ecotourism and analyzed measures to promote the development of research on wetland ecotourism, with the expectation to provide certain guidance to wetland tourism in aspects including resource development, environmental and ecological protection and management mode.

Introduction

Wetland has long been honored as "kidney of the earth", as a transition zone between land and water with rich and diversified ecological landscapes. It plays an important role in human's existence and development as well as social and economic development. Wetland ecotourism is a new research topic but research on wetland ecotourism has been far from complete. At present, wetland ecotourism in China has till remained at a primary development stage and there are still many problems in research. What's more, there has been no complete research system. This paper started from the current situation of wetland ecotourism in China and combined research experience abroad to carry out a probe into wetland ecotourism in China, hoping to promote the reasonable development of wetland ecotourism and provide certain guidance to the environmental protection and scientific management of wetland ecotourism.

Exploration progress of wetland ecotourism in abroad

The wetland ecotourism started in 1987 in foreign countries. Although certain research achievements have been made, no breakthrough has been reached and its research contents and methods are yet to be further improved.

Relationship between wetland and tourism

Foreign scholars deem that wetland is highly related to tourism and the two supplement each other. At one hand, wetland possesses conditions and sites for tourists to have activities such as swimming, sunbath, boating, fishing and watching wild animals; on the other hand, income gained from tourism can provide financial support to wetland protection and realize a sustainable development of wetland environment. At the same time, people's expectation and environmental problems resulted from tourism will make government to attach importance to the protection and management of wetland. Researchers think that the carrying out wetland ecotourism can not only promote sustainable development of the regional economy and protect ecological environment of the wetland but also promote ecological civilization construction through practical environmental education to tourists.

Wetland ecotourism and poverty reduction

Foreign researchers found in their research that some local residents overdeveloped wetland resource and government's development of wetland ecotourism damaged local residents' interest. In order to solve these conflicts of interest, researchers brought local residents into the development of wetland ecotourism and let them share achievements of wetland ecotourism and participate in it by themselves. It not only made them realize the importance of protection of wetland ecology, changed their previous mode to overdevelop wetland resources but also improved their economic income from revenue of wetland ecotourism. However, at present, in spite there have been many research on

influence of wetland ecotourism on residents' economy, social life and environmental protection, it has not been proved by rich practice. Merely remaining as a theoretical guidance, further improvements have yet to be made in its management mode.

Wetland ecotourism and environmental protection

Foreign scholars have come to a conclusion through research on wetland ecotourism and environmental protection that: the raise of sea level will affect costal wetland tourism and the decline of water level will affect wetland tourism in inland areas. Relevant scholars carried out research in areas with developed tourism in Mediterranean area to find that tourism will result in ecological damage and pollution to ecological environment of wetland. And a waste of water resource in large amount and noise pollution will result in disruption of ecological environment. However, there are still no feasible measures to balance wetland protection and sustainable development of wetland ecotourism. Unreasonable wetland tourism plan will result in wetland degradation, which will not only go against the development of wetland ecotourism but also result in negative influence to ecological environment of wetland. What's more, at present, environment, soil and biodiversity are regarded as a reference standard to measure whether the ecological environment of wetland is bad.

Exploration of wetland ecotourism in China

In 2000, China joined "Wetlands International"—a NGO to effectively promote the internationalized process of wetland protection and research in China. At present, there are 68 wetland parks in China, 39 of which have been listed into the directory of international major wetlands. Tourist activities themed with wetland ecological environment have been held repeatedly. As a world heritage, the "three parallel rivers" is also a typical area for wetland ecotourism. And in China, the principle of "protecting natural treasures with tourism" has been gradually adopted in wetland nature reserves. However, there are still many prominent problems in the environmental condition of many wetland ecotourism areas. For example, the blue-green algae repeatedly broke out in Mianchi, Yunnan. In spite of the large amount of money invested to environmental management, no fundamental improvement was made. And compared to research achievements in abroad, the research on wetland ecotourism in China started late and developed slowly with no established scientific research system. What's more, research on wetland ecotourism focused on theory and development plan with a lack of foresight and predictability and research results are mainly case-by-case without operability.

Definition of wetland ecotourism resource

Many scenic spots in China are located in wetland areas. The diversified and beautiful natural landscape in wetlands can be developed for activities including sightseeing, recreation and entertainment. At present, the research community of wetland ecotourism in China paid much attention to the development and planning of wetland tourism resource and tourism product design, etc. but overlooked some groundwork. For example, topics such as how to define the resource of wetland ecotourism and how to reasonably classify resources, etc. were not involved, thus resulting in a blind development of wetland ecotourism and damage to original wetland ecological environment. In those researches, wetland resource and wetland tourism resource were mixed up. And because there was a lack of matched classification method and specification, wetland tourism resource was equal to wetland ecotourism resource by mistake. Such method with an absence of scientific classification is to the disadvantage of benign development of wetland tourism.

After development for a period of time, domestic scholars have provided preliminary classification methods for ecotourism resource. The one that has been recognized by most scholars is the classification of tourism resources specified by Classification, Investigation and Evaluation of Tourism Resources issued by the Standardization Administration of the People's Republic of China. Some scholars classified wetland ecotourism resource into wetland natural tourism resource and wetland humanistic tourism resource and then develop subdivisions on this basis. While some scholars classified wetland resource according to its functions and divided it into entertainment (such as Hangzhou Xixi Wetland Park), sightseeing (Hangzhou West Lake), culture and scientific

investigation (international major wetlands), etc. The two methods above are quite comprehensive since they have given consideration to the operability in both practice and theory.

Planning and development of wetland ecotourism

Researchers once planned the development and utilization of wetland tourism resources such as Three River Plain Wetland, Western Wetland of Poyang Lake, Dongting Lake Wetland, etc. A comprehensive investigation of the social economy and tourism resource of a region is a preparatory work before working out a development plan for the wetland ecotourism. And in tourism areas, which have been developed or will be developed, there should be detailed investigations on various natural elements, humanistic elements, and social elements that make up wetland environment and wetland protection methods and process. And investigations should also be carried out in aspects such as local residents' production and operation activities, economic level, environmental protection condition, employment condition, etc. In addition to that, a systematical ecotourism resource information protection system should be established to carry out contrastive analysis on relevant data and materials.

So researchers deem that as a kind of tourism resource, wetland is characterized by its dual diversity in landscape and culture, ecological vulnerability and widespread distribution, thus the principle for the development of wetland tourism should be sustainable instead of improving economic returns through wetland ecotourism. And some researchers considered to divide the operation and management area of wetland into core area, buffer area and experimental area and proposed to carry out science popularization tourism planning in the experimental area. What's more, it's proposed by some scholars after conducting an investigation of Beijing Wild Duke Lake Wetland Nature Reserve to carry out ecotourism activities with different themes in different areas. Lots of researchers proposed many constructive ecological protection advices based on wetland ecological conditions. Although they were quite reasonable regarding individual cases, there have been no systematical wetland ecotourism planning for wetlands of the same kind and development method and the planning methods were still yet to be improved.

Environmental influence of wetland ecotourism

The degradation of wetland and water pollution of wetland are prominent among wetland ecological problems in China. To be specific, they are function degradation of wetland, decline of biodiversity, damage to landscape structure, shrinking wetland area and unbalanced ecological environment, etc. In addition to that, in some wetland ecotourism areas with relatively large tourist amount, the ecological environment has been damaged in a large area of the wetland because of overdevelopment. On the contrary, the damage of wetland ecological environment restricted the tourism development. For example, the severe water eutrophication in Taihu Lake restricted the development of local tourism. The environmental researches on wetland ecotourism in China mainly focused on research on environment of wetland margin and research on environmental carrying capacity of wetland ecotourism. Such research method was quite effective for individual case of environmental problem in wetland ecotourism. However, frequently repeated or single method cannot be applied to all wetland ecotourism. However, frequently repeated or single method cannot be further improved. We can make pointed reference to relevant research experience and protection methods in abroad and strengthen practice research on wetland ecotourism.

It's found by a scholar that in Yunnan Tahai Wetland, wetland areas closer to tourist routes were subject to more serious influence and the longer tourism activity lasted, the greater influence would be resulted to soil and plants in the wetland. While in Napa Lake wetland in Shangri-La County, Yunnan, the unconstrained tourism activities resulted in serious soil degradation to the wetland and gave rise to vegetation deterioration, leading the local wetland ecotourism into a vicious circle. And it's also showed by researches on tourist carrying capacity of environment of wetland ecotourism by other scholars that wetland tourism should be protection oriented and supplemented by development to control the passenger flow of tourists in wetland ecotourism. Seen from the comprehensive influence brought by wetland ecotourism to environment, the extensive tourism development method intensified the already fragile wetland ecological environment. Therefore, it's necessary for us to adopt a relevant ecological supply mechanism.

Research method of wetland ecotourism

At present stage, researches on wetland ecotourism mainly focused on status analysis and characteristic description and there have been no systematical theoretical method or research method for wetland ecotourism and research methods in landscape ecology and wetland ecological system were adopted as reference.

Experimental study method

Qualitative descriptive method

Reflect the influence brought by tourism development to wetland ecological system through a description of the ecological system of wetland tourism or analyze changes in wetland ecological environment through the reflection of substantial changes of tourism landscape. This method is mainly based on observation on wetland ecology. It's is a common practice at the primary stage of wetland ecotourism in China, but it has the nature of subjectivity.

Contrast test method

It means carrying out a contrast between the ecological environments before and after the wetland tourism development to reflect the influence on wetland ecological environment brought by tourism development and different development routes through contrastive analysis. This method is most commonly used in current wetland ecotourism and its results are also significant. However, its shortcoming lies in that it's very difficult to gain environmental cost before carrying out wetland development.

Questionnaire survey statistical method

When carrying out research on carrying capacity of wetland ecology, enthusiasm of residents' participation in wetland ecotourism development and management of wetland ecotourism, the questionnaire survey statistical method should be adopted. It's quite complicated to establish this method and the survey involves in a large amount and drastic changes. However, as the researches on wetland ecotourism constantly deepen, this research method is also gradually improved.

Tourism ecological evaluation method

The ecological environment of wetland ecotourism is constantly changing with changes of tourists' activities; therefore, predictive analysis should be carried out in time for new problems in wetland ecotourism and possible consequence brought by such environment to adopt relevant prevention measures according to the analysis results. This method has a high operability but there is still no complete standard system for wetland ecotourism evaluation.

Management tool for wetland ecotourism

The quality of the wetland ecotourism management determines the effect of environmental protection of wetland ecotourism. The management methods proposed by foreign researches have been weighed and considered from various aspects and combine community participation, long-term environmental planning and improved management indicator system, etc. domestic researchers have proposed a wetland management mode targeted at sustainable development and balanced interest subject. The author thinks that the wetland ecotourism management should be carried out according to circumstances to conduct comprehensive analysis and consideration. It should give consideration to both the carrying capacity of the environment of wetland ecotourism and route design in the wetland ecotourism; it should consider environmental protection in wetland ecotourism and realize certain economic benefit; it should conform to the principle of sustainable development and consider reasonable utilization of wetland ecotourism resource to establish and improve relevant management mechanism and promote the benign development of wetland ecotourism.

Conclusion

Researches on wetland ecotourism serve as guidance in social and economic development, humanistic environmental construction and satisfying people's spiritual pursuit, etc. It's closely bound up to human's survival and activities. Thus it should start from ecological system, environmental protection, tourism development, etc. and comprehensively study the necessity and

operability of wetland ecotourism to maximize the economic benefit of wetland ecotourism based on the protection of wetland ecological system so as to realize a sustainable development of wetland ecotourism. Wetland ecotourism has a promising development prospect and constant exploration needs to be conducted by relevant researches to promote its development.

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