Jingzhou Haizi Lake Tourism Area Planning and Design Research based on Green Biological Conservation Concept

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Abstract — with national developing requirement for new-type urbanization, urban development is paying more attention to green biology and characteristics displaying. On the one hand, it sticks to inherit excellent culture, preserve historical relics and build local features; on the other hand it sets up a city with its unique style, combined with natural environment and construction condition. This article, on the basis of analyzing relative ecological tourism theory, generalizes the theory and framework of urban ecological tourism area planning, studies the background and significance of Haizi Lake tourism area planning, and proposes that tourism planning should follow the environment sensitivity principle and method, thus deepens the research of green biological tourism theory. Taking the example of core area of Jingzhou Chujian City Great Ruin Protection Zone—Jingzhou Haizi Lake ecological cultural tourism area, the article analyzes how to fully protect ecological environment, strengthen green ecological development, inherit its extensive Chu culture and build special new area, on the basis of handling good relationship between historical preservation and development and utilization, as well as historical preservation and economic development.

Keywords - environment sensitivity evaluation; ecological tourism; Jingzhou Haizi Lake Ecological Cultural Tourism Area

I. INTRODUCTION

Tourism has become the fastest developing industry since 1980s, and it has become the third pillar industry contributing to GDP in the globe [1]. Under such condition, many countries start developing their tourist economy, for the specialists think this is a smokeless industry with less investment and quick effect, and should be developed greatly[2]. As a result of this, all kinds of tourism industries are overdeveloped, and crowded people can be seen in every tourist area, exceeding the designed tourist capacity greatly. Moreover, all kinds of environment problems are appeared with the development of tourism, such as natural landscape damage, air and water, noise pollution, refusal disposal, and overuse of tourism resources. Along with improvement of people living standard and the change of social consumption structure, people are more and more attracted by ecological tourism, at the same time, tourism scholars are starting to reflect the negative effect of too fast development of tourism[3-4]. Thus in recent years, ecological tourism has become a hot topic under the background of economic and ecological sustainable development[5].

At present, our biological tourism is on the starting stage, and it has become a key point for tourism researches on coordinate development of urban tourism and ecological environment. Under such background, the article selects ecological tourism area planning as the object of research[6], hopes acquire method and framework on the design of green ecology conservation tourism area planning through summary, field research and analyzing investigating material, provides solution and strategy for the these existed problems, and proposes some new thinking for the design and construction of ecological tourism planning[7].

II. STATE OF THE ART

Biological tourism is a new tourism subject, and it has undergone great changes after nearly 30 years development since it was proposed in 1983. Since entering 21st century, ecological tourism has acquired high recognition for tourism industry and society, and has been regarded as one of most important methods of sustainable development[9]. Now the national and international definition for ecological tourism is as the following:

The definition for ecological tourism that is popular in the international is as the following: ecological tourism is a form of tourism with natural attributes, including appreciation of natural landscape, cultural relics and biological resources in the planning area. It can collect funds for protection of local natural biology; create employment opportunities and new economic growth points for indigenous people and at the same time facilitate to natural preservation and sustainable development[10-11].

The national scholars define the ecological tourism as the following: it is a tourist activity, guided by ecological thinking and based on natural landscape, biological system and folk culture, for the purpose of preserving original biological environment community integrity and facilitating its quick development, and realizing harmonious development for components of total tourist activity at last through methods of environment education and implementing of biological engineering[12].

Combined with characteristics of china biological tourism industry development, biological tourist area can be
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defined as following: it is a special area that can facilitate improving living standard and realizing tourism economy sustainable development by the method of providing tourism service, for the purpose of preserving natural resources and ecological environment in the protection planning area[13-14]. Tourism area should have special design and planning for the protection of ecological environment, which plays the role of protecting local natural environment, ecological resources and historical relics. Usually, there is large green area in ecological tourism area, so it will have good ecological self circulation effect[15]. Besides, there are various vegetation landscapes and landforms, which cannot be matched with multitude artificial landscapes in the city.

Figure 1 Eco-tourism

Jingzhou Chu Jinan City Great Ruin Protection Area and Jingzhou Haizi Lake Ecological Cultural Tourism Area (shortened as new area), are situated in the north of center city of Jingzhou. It is the core area of Jingzhou, which is the “famous historical and cultural city” first released by the state council, as well as the core protection demonstration area of “Jingzhou Great Ruin Area Under National Protection” determined by the State Cultural Relics Bureau and People’S Government Of Hubei Province in 2010. The “Chu Jian Ancient City” in this area is the capital of Chu state which had been governed by 20 Chu kings within 411 years. It is the birth place of Chu culture which is one of important components of Huaxia culture, and is the most concentrated area for precious Chu heritage relics. It is just as Mr Zhangzhengming, who is a leading scholar on Chu culture, said: Chu people created the Chu culture based on Jingzhou, which can be matched with the ancient Greek and Athens cultures at the same period”. So with deep culture heritage and cultural relics, this area is capable of building the world unique Chu culture tourism destination.

The poem “I went down the river to look for him. And there is in mid water. Sure enough, it is he” comes from Jianjia. The Book of Songs, and this famous poem was song in the bank of haizi lake in Chu jinan city before nearly 2600 years. Presently, the Haizi Lake is still clear and beautiful. Haizi Lake is the third largest lake in Hubei province, 30km from east to west, average lake width is 4km, and water area is about 120km2. It is divided the new area into south and north two banks, and is a treasuring land provided with comprehensions of flood storage, irrigation, cultivation, shipping, tourist, and wetland ecology (figure 1)

In October 22, 2012, people’s government of Hubei province approved the general planning of Jingzhou Haizi Lake Ecological Cultural Tourism Area, and proposes that it should keep good relationship between cultural relics protection and development , facilitate the overall development of cultural relics protection and economic construction in the line of “preservation with timely rescue; utilization under strict control” principle, and based on environment bearing capability, it should control the construction scale of the tourism reasonably, facilitate the economic, social and environmental harmonious and sustainable development, thus build the Haizi Lake Cultural Tourism Area into a demonstration area in the tourism circle of western part of Hubei provinces.

Figure 2 Relation diagrams between Haizi Lake Cultural Tourism Area and central city of Jingzhou

As a result of this, the planning defines the ecological environment basic strategy as core strategy, based on good ecological environment and rich Chu cultural resources. Firstly, good ecological environment is one of important premises of tourism development in this area, as well as the basis of sustainable development. Secondly, it adopts the Chu culture leading strategy. Without Chu culture, this tourism area is only an ecological area or ecological new city, so the projects related to Chu culture should the soul project in this area, and Chu cultural products should be the core attraction for future tourism area. Thus the article analyzes the planning based on development strategy of ecological protection and Chu culture inheritance.
III. METHODOLOGY

A. Evaluation for Environmental Sensitivity

Environmental sensitivity has double meaning: for the subject, it refers to the suitable level to the subject by the object (environment), but for the object, it refers to the effect degree for the object by the subject. Environmental sensitivity relates to many factors, for this planning area, they include cultural relic, water ecosystem, public facilities, construction building, vegetation, landform, soil, geology, animal and climate, etc, which should be considered for corresponding evaluation. The evaluation for environmental sensitivity carries out the new thought with the contradictory balance between development and protection—smart growth and smart protection thinking, adopts modern planning technology (GIS technology) to analyze and research the planning through specifying environment sensitivity for different districts.

Based on characteristics of haizi lake ecological cultural tourism area, the article selects six factors as the evaluation factors for environment sensitivity, including cultural relics factors, public facilities factors, water factors, construction land factors, slope factors, vegetation factors. These six factors can represent the main environmental factors in this tourism area, and we will use analytic hierarchy process (AHP method) to determine the weights of each evaluation factor (table 1)

<table>
<thead>
<tr>
<th>Factor</th>
<th>Cultural heritage sites</th>
<th>Municipal facilities</th>
<th>Water body</th>
<th>Has been construction land</th>
<th>Slope</th>
<th>Vegetation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weights</td>
<td>0.436</td>
<td>0.209</td>
<td>0.182</td>
<td>0.089</td>
<td>0.031</td>
<td>0.053</td>
</tr>
</tbody>
</table>

B. Ecological Evaluation for Haizi Lake

It can be divided into five grades (table 2) for environmental sensitivity in Haizi Lake Ecological Cultural Tourism Area. From the results we can see the very high sensitivity area and high sensitivity area are mainly located in the western, south and north of the planning area, as well as linear crossing in other area. The total area of the two grades is 3963.25 hm², accounting for 35.33% of the planning area. Human activities should be avoided in these areas. In addition, most of linear sensitivity areas crossing other district are public facilities, so if we can change the trend of arrangement of them, the environmental sensitivity will be reduced greatly.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Esi</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extremely sensitive</td>
<td>2.633 &lt; ESI &lt; 6.899</td>
<td>Environmental sensitivity is high, the development of limiting factors</td>
</tr>
<tr>
<td>Highly sensitive</td>
<td>1.183 &lt; ESI &lt; 2.633</td>
<td>Environmental sensitivity is high, the development of more restrictive factors</td>
</tr>
<tr>
<td>Moderately</td>
<td>0.691 &lt; ESI &lt; 1.183</td>
<td>Environmental sensitivity</td>
</tr>
</tbody>
</table>

Moderate sensitivity areas are mainly situated in the middle and eastern parts of the planning area, which is corresponding to the lake surface and eastern fishpond of Haizi Lake, with total area 3858.25hm², accounting for 34.4% of planning area, where are suitable for development with low intensity, so keep natural factors as best as possible. Light sensitivity areas are dotted in every place of the planning area, with total area 1350.75hm², accounting for 12.04% of planning area, where are suitable for moderate development with control of intensity. Low sensitivity areas are situated in the north and south of the planning area with the shape of island, with total area 2 0 4 4.75hm², accounting for 18.23% of the planning area, where can be developed with few limitation (figure 3). Through the evaluation for environmental sensitivity, we can arrange the layout for developing object, strategy and scale reasonably, divide functional division, and control the scale of tourism construction, and facilitate the overall sustainable development of economy, society and environment.

C. Inherence of Chu Culture in the Planning Area

For the planning design for urban suburb ecological tourism, the main symbol of success is the service features provided by tourism area. There are many aspects for attraction factors, so the service features consist of multitude aspects too, such as landscape environment, vocation activity project, sightseeing resources, food, lodging and holiday service. The tourism area should build special ecological tourism product for each aspect to attract tourist based on its own condition. At present, the honored status of Jingzhou is closely related to the splendid achievements of Chu culture and...
eventful years of ancient capital of Jinan in Chu state. As a
Ying capital of political, economical and cultural center of
Chu state, it not only accumulated lots of talents in Chu state,
but also created splendid cultural achievements; including
Chu state as well as essence of Chinese civilization results.
Chu culture, which includes material culture and spiritual
culture, is extensive and rich, including copper and iron
smelting, silk embroidery, lacquer ware making, jade carving,
Taoism, calligraphy and painting and music and dance eight
aspects. The aim of the planning is not professional research
on Chu culture, but how to utilize Chu culture, inherit Chu
culture and fully play the role of extensive and rich Chu
culture in this area. Depending on deep Chu culture and
unique cultural relics, on the basis of completing national
historical relics protection and ecological environment
modification protection engineering, through modern
methods as resource developing, space time transformation,
scene materialization, and landscape optimization, we should
build the district into a core area in China south great relics
protection demonstration area, national cultural industry
demonstration area, and western Hubei ecological cultural
tourism demonstration area and best known tourism
destination at home or abroad.

IV. RESULT ANALYSIS AND DISCUSSION

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The planning structure can be generalized as: one ring:
relaxing holiday belt around Haizi Lake; tow cores: cultural
sightseeing core (capital of Chu impression scenic spot),
tourism service core (tourism comprehensive service region);
three districts: cultural sightseeing experience district,
lakeside ecological relaxing holiday district, tourism
service and new village developing area.
TABLE III THE PARTITION OF HAIZI LAKE ECO CULTURAL TOURISM ZONE

<table>
<thead>
<tr>
<th>The first partition</th>
<th>The second partition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Culture and Tourism Experience Zone</td>
<td>Chu Culture Exhibition Zone</td>
</tr>
<tr>
<td>Lake Ecological lounge</td>
<td>Jigong Mountain Ruins</td>
</tr>
<tr>
<td>Travel services and new rural development areas</td>
<td>Exhibition Performing Arts Center</td>
</tr>
<tr>
<td></td>
<td>Yutaishan Mountain eco-village</td>
</tr>
</tbody>
</table>

D. tourism development planning

The planning, depending on most special resources — Chu culture and lake, combined with market requirements, focuses on the relative projects with experiencing culture and closing natural including cultural oriented, natural ecology oriented and market requirements oriented project planning, and forms the three classes of tourism products including sightseeing experience, relaxing holiday and special topic tourism (figure 7).

Figure 7 Haizi Lake eco cultural tourism area tourist route planning

For the cultural sightseeing experiencing tourism within one to three days, you can select Chu Cultural Display Area, Jugeshuian, Chudi, Chu Jinan Ancient City National Heritage Park, Xiongjiazhong Ancient Tombs, Baling Mount Ancient Tombs, Yutaishan Heritagte Park and Longshang Cultural Industry Park. For the natural sightseeing, you can select Haizi Lake Humid Land Park, Happy Village, Donghuangtaiyi Palace, Phoenix Mount Ecological Park, etc.

V. CONCLUSION

In recent years, along with the quick development of tourism, many areas have strengthened the intensity of tourism development, especially economic tourism. The article adopts the evaluation method of environment sensitivity, thus acquires the region division by environment evaluation weight. It also conducts environment sensitivity evaluation aiming to ecology of Jingzhou Haizi Lake, draws the distribution of region division for its ecological scenic area, and thus provides the theoretical basis for planning ecological conservation tourism. Based on the distribution of region division in the ecological scenic area, it plans green ecological tourism area for Jingzhou Haizi Lake, makes tourism area grading according to grading principle in tourism area, and at last proposes the targeted tourist project planning and development for each scenic area. Jingzhou will surely has a splendid future with combination of ecological environment and modern civilization, under guidance of scientific outlook development to handle relationship between cultural resources, ecological resources and other economic resources, and integration of ecological protection and green ecological conservation tourism into concrete construction practice with ecological environment as basis and tourism as main part.

REFERENCES