

Analysis on the Design and Development Countermeasures of Eco-tourism Routes in Shengshan National Nature Reserve of Heilongjiang Province

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ABSTRACT. Heilongjiang Shengshan national nature reserve is located in the southwest of Aihui district, Heihe city, Heilongjiang province, China. The reserve provides ideal places for the survival and breeding of many rare wild animal and plants, and provides a good foundation for the development of ecological tourism. Taking Shengshan national nature reserve in Heilongjiang province as the research object, this paper firstly analyzes the general situation of eco-tourism resources in Shengshan nature reserve, and secondly analyzes the development status of local tourism. Thirdly, we design ecotourism routes. Finally, on the basis of the above analysis, the countermeasures for the development of Eco-tourism in the reserve are put forward.

KEYWORDS: Current situation, Eco-tourism products, Route design, Countermeasure

1. Introduction

There is a considerable amount of research on eco-tourism development in nature reserve at China and abroad. Zhao Zhuang and Wang Wen(2010) studied the landscape quality evaluation of Shengshan national nature reserve and they found the countermeasures for Eco-tourism development [1-2]. Rugayah Hashima et al. (2015) studied the sustainable regeneration function of Langkawi island ecosystem in Malaysia through ecotourism.[3]. Guo Jinhui, Sun and Yujun. Studied the Evaluation System of Community Participation in Ecotourism in Nature Reserves [4]. Chaikumbung and David Weaver studied eco-tourism in *nature reserves* from different perspectives[5-6].

Shengshan national reserve has relatively complete natural ecosystem, rare wild animals and plants, comfortable natural environment, valuable historical relics and other resources, which have high protection value and ecological tourism development value. By studying

the eco-tourism products and route design and development countermeasures of the reserve, it can regulate the tourism activities of the reserve, promote the coordinated development of nature protection and tourism development, and provide reference for the local government, tourism management departments and tourism developers.

2. General situation of ecotourism resources and current situation of ecotourism development in Shengshan national nature reserve

2.1. Overview of ecotourism resources in Shengshan national nature reserve

According to China's national standard "classification, investigation and evaluation of tourism resources" (GB/T 18972-2003), the survey shows that there are 8 main categories, 13 subcategories and 27 basic types of tourism resources in Shengshan national nature reserve in Heilongjiang province, with abundant types of natural, humanistic and ecological resources. Shengshan nature reserve has superior forest conditions and it is an important activity space or place for wild animals to feed, lie down and escape from natural enemies. The nature reserve with a total of 2053 species of wildlife species, including 7 kinds of national II level protected plant, 6 kinds of national I level focus protected animals, 43 kinds of national II level to protect animals (35 species of birds, 8 beasts). Visitors can experience the unique natural beauty brought by wildlife. In terms of cultural tourism resources, the ruins of fighting against Russia, logging and forest operation in daling are also very distinctive. There are some sites and relics of logging and forest operation in forest farms in those years. These sites and relics are the best place for tourists to experience forest life and integrate into forest culture. There are some sites and relics of logging and forest operation in forest farms in those years. These sites and relics are the best place for tourists to experience forest life and integrate into forest culture.

2.2. Current Situation of Ecotourism Development in Shengshan national nature reserve

The tourism industry of Shengshan national nature reserve in Heilongjiang province is still in its infancy and has not entered the stage of sustainable development and utilization. The tourism elements matching degree in the nature reserve is relatively low. Now, the reserve planning to build roads, and has set up a part of the tour guide. The nature reserve has done little work in the development of tourism activities. At present, the tourists who come to the nature reserve have not been treated for daily management, and tickets have not been charged. So far, the direct income of tickets is zero. However, the good natural conditions and various natural and cultural tourism resources in the reserve provide an excellent foundation for the development of eco-tourism in Shengshan national nature reserve of Heilongjiang province, and the development prospect of eco-tourism is very broad.

3. Eco-tourism route design

3.1. Principles of eco-tourism route design

(1) Eco-tourism routes should be organized according to different purposes and modes of tourists. For example, leisure and vacation, scientific exploration, sightseeing and other forms of tourism should have different routes.

(2) The sightseeing route should be able to organically connect all the scenic spots and groups of scenic spots, so that tourists can visit the main scenic spots and get the most enjoyment in a limited time.

3.2. Thematic tour route design

(1) Ecological sightseeing tour

Comprehensive service center -- Anion breathing area -- Daling ecological sightseeing trail -- Bird watching platform and animal feeding point -- The site of anti-russian war in Daling -- Guosonggou

(2) Popular science education tour line

Mission and education center -- Economic animal farm -- Three modern nursery -- Medicinal botanical garden -- Shengshan forestry museum -- Logging and forest operation site -- Lumberjacks inn

(3) Leisure tour

Camping field (summer camp base) -- Outdoor extreme sports base -- Senbila river leisure rafting -- Leisure and entertainment community -- Forest picking paradise

4. Countermeasures of eco-tourism development

4.1 Strengthen the publicity of environmental protection

First of all, the development and management personnel of eco-tourism should be educated to make them understand the latest knowledge of environmental protection and eco-tourism development, realize the current trend of tourism development, launch real eco-tourism products in the development and management of eco-tourism, and promote the coordinated development of eco-tourism development and environmental protection. Secondly, in the tourism development of shengshan nature reserve, it is necessary to constantly strengthen the publicity of ecological and environmental protection for the public and tourists, so as to enhance their awareness of environmental protection.

4.2 Strengthening community co-ownership

Community participation and community management is an inevitable choice for the sustainable development of ecotourism in nature reserves. The shengshan national nature reserve in heilongjiang province should constantly strengthen the community management, and the local community residents, other interest organizations, scientific research scholars

and environmentalists should take an active part in the development and management of the reserve.

First of all, the protection zone should vigorously carry out poverty alleviation through science and technology for the surrounding communities, such as building economic forests, vigorously promoting economic animal breeding, etc., so as to increase the economic income of community residents. Secondly, it is necessary to expand the extensiveness of the participation of reserve residents.

4.3 Tourism capacity will be strictly controlled

Natural reserve tourism development must be based on the ecological environment bear ability, the black dragon river wins mountain natural protection area shall be a root according to the body condition, through the timely release of tourism information, the scenic locations of the order on line flexible way to enter the area of visitor to do a good job of space-time distribution, strict control visitors enter the sanctuary.

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