



Study on Sustainable Development of Ecotourism in the Northern Piedmont in the Qinling Mountains

Hongmei Dong

School of Management, Xi'an University of Science and Technology, Xi'an 710054, Shaanxi, China

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College of Tourism and Environmental Sciences, Shaanxi Normal University, Xi'an 710062, Shaanxi, China

E-mail: donghm1230@163.com

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Abstract

Tourism resources in the Northern Piedmont in the Qinling Mountains (NPQM) are quite abundant and play an important role in the development of the tourist industry in Shaanxi Province. Based on reviewing the status quo of ecotourism in the NPQM and existing issues, this paper puts forward countermeasures and recommendations for sustainable development of ecotourism in the NPQM. Firstly, a systemic tourism resources investigation should be conducted; secondly, a comprehensive assessment should be made on tourism resources; thirdly, suitable and reasonable principles of protective development should be established, considering to facilitate organic unification of ecological environmental protection and exploitation of tourism. All steps are helpful to realize scientific and sustainable development of ecological economy and tourism zone in the NPQM.

Keywords: North Piedmont of Qinling Mountains, Ecotourism, Sustainable development, Countermeasures

Qinling Mountains is not only a climatic boundary between North and South in China, but also one of areas with abundant biological diversity, acknowledged as "Kingdom of Animals and Plants" and "Chinese Medicinal Herb Storehouse". In recent years, the surrounding tourism roads and highways have been constructed in the NPQM and Shaanxi Province and Xi'an city governments have published series favorable policies and promoted the infrastructure investment, tourism industry has rapidly developed at the Northern Piedmont in the Qinling Mountains (NPQM). However, extravagant exploitation and negligence of protective construction have led to ecological crisis, such as, random development of tourism resources, vegetation deterioration, valley and water interception, environmental pollution, aggravation of water loss and soil erosion, and shortage of water resources, etc. On the basis of analyzing the status quo of ecotourism in the NPQM and existing problems, this paper puts forward countermeasures and recommendations for sustainable development of ecotourism in the NPQM.

1. General condition of NPQM and ecotourism resources

NPQM is located between Qinling watershed and South Rim of Kuan-Chung Plain, with important ecological functions, and is the ecological protective screen and water source reserve in the Central Shaanxi area. Its west is to Gansu, its east is to Henan, its north extends to villages and towns along mountainous highway, and its south is to the major ridge of Qinling Mountains. It presents a zonate form from west to east. It is approximately 450 km long, with an area of about 9290 km², among which the area of scenic spot and forest park is 1116 km², accounting for 12% of the total area. Administratively, it is attached to the three cities of Xi'an, Baoji and Weinan with well developed transportation. Qinling Mountains possess different climate features because of complicated topography, have various rare animals and plants, which are favorable to develop ecotourism. Its main tourism resources are as follows:

1.1 Natural ecotourism resources

There are abundant natural tourism resources in the NPQM, with grotesque peaks and steep mountains, suspending spring and waterfall on the upper reaches of rivers and rivulets, hot springs distributed along the piedmont, relatively obvious vertical zoning of mountainous region, complicated geological structure, abundant geothermal resources,

diversified forest covers and animal types within the area, typical remains of fossil glacier, unique magic of physiographic sight, hydrologic sight and climatic and biological sight of landslide physiography and karst landform. Its major scenic spots include the 6 national natural reserves. There are 11 state-level forest parks, such as Zhongnanshan and Taibai Mountain, three state-level scenic spots of Hua Shan, Lishan and Tiantai Mountain, and four provincial level scenic spots, and wetland ecotourism resources. In addition, the National Botanical Garden of Qinling Mountains is under construction. Biological resources in Qinling Mountains are extremely rich, such as, 3446 species of seed plants, 144 species of beasts, 399 species of birds, more than 5000 species of insects. There are 28 kinds of plants with key state protection, such as, *Kingdonia uniflora*, yew, and 56 species of wild animals with key state protection, such as, giant panda, golden monkey, *nipponia nippon* and takin. Hence, Qinling Mountains will not only become the base of bio-diversity conservation, research and popularization of science, but will also become a brand-new ecotourism garden plot in Shaanxi Province, and even all over the country.

1.2 Humanistic ecotourism resources

The 800-li Qinchuan (plain) at the NPQM is the birthplace of Chinese nation, and is the capital city for 13 emperors of the five dynasties of Zhou, Qin, Han, Sui & Tang, its humanistic ecotourism resources spread over the NPQM. The Holy Land of the Taoism of Lantian Man ruins (a history of 1.1 million years), and Terra-cotta Warriors (the Eight Wonders of the World), and the holy place of Buddhism of Caotang Temple are located in the plain.

1.3 Rural ecotourism resources

There are numerous rivers at the NPQM, especially along the circle line of mountainous tourism, with green mountains, fresh air, clear water and hot springs, and it is a good choice for vacation tourism. With further development of tourism industry in the NPQM, vacation mountain villa, summer villa, place of entertainment and happy farmhouse are rapidly development.

2. Status quo and problems of development of ecotourism

In recent years, with implementation of the policy of Western Development, rapid development of economy and general improvement of people's living standards, tourism industry in Shaanxi Province has experienced a fast development. At the time of reconstructing former scenic spots, new tourist attractions have continued to bring out in the NPQM. Declaration for the World Geological Park of Zhongnanshan in Qinling Mountains gained success in August 2009, and the Central National Park that is under declaration promotes rapid development of regional ecotourism industry to a great extent. Statistically, the tourist population in only 45 major scenic spots in Xi'an and Baoji in 2007 attained 10.876 million and they earned 513.097 million Yuan. The 39 scenic spots in Xi'an had a tourist population of 10.385 million in 2007, accounting for 96% of the total tourist population, and their annual gate receipts reached 497.807 million Yuan, accounting for 97% of the total gate receipts. The 4 scenic spots in Lintong in Xi'an had an annual tourist population of 6.2 million and their annual gate receipts reached 382.028 million Yuan, respectively accounting for 60% of the total annual tourist population in Xi'an and for 77% of the total gate receipts in Xi'an. The 5 scenic spots in Baoji had an annual tourist population of 0.49 million and their annual gate receipts attained 15.3 million Yuan. In 2009, the Municipal Party Committee and Government of Xi'an is considering to establish the tourism base in the NPQM, and an area of 6000 Mou of tourism ecological region will be constructed in the NPQM. In August 2009, Shaanxi Travel Bureau formally issued <<Tourism Development Project in Qinling Mountains>>, and attempted to establish Qinling into a demonstration base of international ecotourism. However, there still exist the following problems at the time of tourism development.

2.1 Ecotourism resources of geological landform is damaged

Damage of geological landform resources is mainly embodied in that of mountains shapes, ecology, landscape and environment, which is mostly caused by such economic activities as exploitation of real estate, mineral exploration, construction and highways, cables and hotels, etc. In the NPQM, some projects of exploitation of real estate, exploitation of mineral resources and scenic spots go to construction without any approval or assessment of environmental impact. Besides, the phenomena of construction getting out of line are serious. Thus, such geologic hazards as serious water loss and soil erosion and mountain landslide happen. In June 2002, Dabagou Forest Park and Fengyu Manor suffered from flood disaster as a result of occupying riverways, and caused heavy losses. In 2007, construction projects of NPQM merely within Chang'an District were as many as 50, but there were only 8 projects with authentic procedures. With villa projects in the NPQM being called to a stop and villa exploitation in the guise of tourism project again "seeking for new life", the degree of damage to geological landform resources were not under effective control.

2.2 Ecotourism resources of water body and biology are polluted.

There are 28 branches of Weihe river in the Kuan-chung Plain from Baoji and to Tongguan along the NPQM, there are 16 branches are polluted in some extent. In recent years, many vacation mountain villas, hotels, guesthouse and agritainment have been constructed in the surrounding of mountain passes of such rivers as Fengyukou in Qinling

Mountains. However, because environmental protection facilities are lacking in urban and rural areas, household garbage and waste residue in these units have had no fixed storage occasion, and are concentratively landfilled by local towns and villages at present. However, formal measures to prevent and control pollution are lacking in landfill occasions, and there exists indiscriminate discharge without any treatment, and even some units discharge a great deal of household garbage and sewage into valleys and riverways without any treatment. A large majority of industrial enterprises are short of sewage treatment facilities or are unable to run normally, and their industrial waste water is discharged without reaching standards, which causes environmental pollution and endangers security of water source. Therefore, the Xi'an Municipal Government planned to invest an amount of 0.5 billion Yuan in 2009 to concentratively treat with the problems of garbage and pollution in exploitation of ecotourism in the NPQM. At the same time, devastation of forests for arable land, ore exploitation, excessive cutting of forest and excavation of medicinal materials, etc, result in serious damage to forest cover, and frequently poaching for rare animals. Animals protected in some of happy farmhouses along Qinling Mountains become a specialty. Ecological environment of Tourism is seriously damaged.

2.3 Relatively laggard project, disordered management, serious duplication of similar projects, and low level of tourism resources exploitation

Quite a large number of scenic spots are short of a unified management and coordination institution and a long-term plan, with blind and disordered construction, and a large majority of forest parks and holiday resorts simply go on their own way, following the same pattern, without any individual characteristics. The phenomena of construction by several units and management by several departments exist, without a unified standard and requirement, outstanding phenomenon of disordered management and insufficient coordination of management system, which has a direct influence on investment and construction, and constrains exploitation of tourism resources and development of tourism industry. By the year 2008, there had already 1130 projects of sightseeing tour and agritainment in the NPQM merely within the urban district of Xi'an, including Shangwang Village and Tangyu Town, etc. There are also a large number of tourism development projects and all sorts of happy farmhouses that are not approved and registered in the government. Exploitation of tourism resources in a large majority of scenic spots are in an initial state, with low levels and monotonous activities of tourism, and their tourism functions are similar, merely focusing on the aspect of sightseeing, with bad comprehensive tourism benefits.

2.4 Shortage of talents and inefficient management

Ecotourism industry is an industry with high scientific content, which calls for professional talents with high quality. However, the relatively laggard local education, under-emphasis on talents of tourism, and unsound training mechanism, together with intensification of talents mobility, shortage of talents in ecotourism becomes more serious. Such shortage of talents is not only embodied in shortage of talents in high-level project and management, but also in low level of their managerial and administrative expertise and their shortage of experiences, so they cannot adapt to the needs of tourism development. Shortage of managerial and operational talents and corresponding scientific knowledge and skills causes low management efficiency of ecotourism within the district. Besides, randomness of decision making and the fact that everyone goes his own way result in chaos of the ecotourism market, inferiority of service quality and difficult development of real ecotourism.

3. Countermeasures and suggestions of sustainable development of ecotourism in the NPQM

Ecotourism is a form of tourism that involves traveling to tranquil and unpolluted natural areas. According to the definition and principles of ecotourism established by The International Ecotourism Society (TIES) in 1990, ecotourism is "Responsible travel to natural areas that conserves the environment and improves the well-being of local people". Connotation of ecotourism attaches more importance to protection on natural tourism resources, and refers to tourism with sustainable development. Ecotourism should not only harmonize with the nature at the cost of sacrificing the environment. On the contrary, ecotourism should qualify contemporary human beings with equal opportunities to share the natural landscape and human landscape of tourism with the later generation. A tourist should share vivid and concrete ecological education in the whole process of ecotourism. In order to bring advantages of tourism resources in the NPQM into play, and to realize rational utilization and rational distribution of tourism resources, the author puts forward the path for tourism resources exploitation in the NPQM in the future. First of all, an investigation is necessary to find out the foundation, and a comprehensive assessment should be conducted on tourism resources to establish the principle of protective exploitation; a medium and long term project should be strengthened to highlight characteristics of ecotourism in Qinling Mountains; the strategy of sustainable development should be carried forward to promote the organic integration of ecological environmental protection and tourism exploitation; characteristics and individuality of each district should be emphasized, and investment should be strengthened to develop rural ecotourism and ecological agriculture; quality of practitioners and level of managerial personnel should be improved so as to realize the scientific and sustainable development of ecological and economic tourism zones in the NPQM.

3.1 In order to provide potent scientific support for exploitation of ecotourism, a comprehensive survey and assessment should be conducted on ecotourism resources in the NPQM.

Scientific experts and experts from universities and colleges are organized to conduct a detailed survey and assessment on ecotourism resources in the NPQM, determining ecological environment capacity of each ecotourism scenic spot, controlling carrying capacity of ecological environment and confirming critical capacity of tourists in sightseeing districts at different periods. At the same time, we should analyze existing issues in development of ecotourism from the perspective of sustainable development of tourism industry, and provide scientific evidence for the government to formulate medium and long term tourism projects.

3.2 To establish the principle of protective development, strengthen medium term project and to highlight characteristics of ecotourism in Qinling Mountains

Development of ecotourism in the NPQM should be undertaken appropriately on the precondition of protecting ecological environment. Development and construction of ecotourism should not be undertaken at the cost of sacrificing ecological environment. Thus, when preparing to construct tourism facilities and travelling routes, we should pay special attention to those fragile and sensitive ecological districts, and when conflicts happen between economic interest and ecological environment, we should lay more importance to protecting the ecological environment. The project should follow the standard of advanced level in the world, designed in a long-range vision and persisting in the strategy of sustainable development. Hence, Shaanxi Province is going to formulate a series of standards about tourism development in Qinling Mountains, and especially stationing of newly developed tourist attractions and happy farmhouses should be conducted according to formally issued standards. High standards should be carried out, such as, environmental protection standard, environmental capacity standard, happy farmhouse construction standard, standard of tourist receipts capacity and sanitary standard, etc. A medium and long –term project should be drawn up, in which standards will be implemented one by one in batches, and those areas with mature conditions will be taken into consideration with priority and those projects that cannot meet standards or are not in accordance with the project should be refused. In August 2006, Shaanxi Province passed << Environmental Protection Project in the NPQM in Shaanxi>>. This project makes an analysis and assessment on the status quo and existing issues of ecological environment in the NPQM, and has directive significance to coordinating relationship between ecological environmental protection and development of tourism in the NPQM.

3.3 Strengthening the prevention of water loss and soil erosion and ecological environmental protection

In the NPQM, forest cover suffers unprecedented damage, together with clouded rivers, high drop of rivers, frequent rainstorms, and frequent geologic hazards of land slide and debris flow, so water loss and soil erosion is extremely serious. Therefore, we should strengthen comprehensive prevention by combination with establishment of forest for water and soil conservation, returning land for farming to forestry, natural forest protection and river training works, so as to guarantee security of people's lives and properties. We should extensively publicize and deeply carry out << Act of Ecological Environmental Protection in Qinling Mountains>>, and come to realize that ecological environmental protection is not only obligation of leaders at all levels and relevant departments of the government, but is also responsibility and obligation of the great masses and tourists. We should intensify management of protection on waterhead areas centered with reservoirs, especially reservoirs of Heihe and Stonebrook, etc. We should prohibit or restrict some exploitation activities so as to improve water quality and guarantee drinking water security of people and animals. We should insist on the strategies we have always been following to protect biological diversification.

3.4 To strengthen development for poverty relief and capital investment, to development vigorously rural ecotourism and ecological agriculture, and to realize regional sustainable development

We should enlarge capital investment in tourism, green industries and development for poverty relief, and strengthen investment force by means of governmental investment, attraction of investment, utilization of foreign investment and social financing, etc. We should support all projects of exploitation and construction, and vigorously development rural ecotourism economy and such new types of ecological agriculture as vegetables, flowers, fruits and forest, and sightseeing tour, etc, to promote overall coordination of regional tourism and social economy, to realize sustainable development and to establish a harmonious society.

3.5 To improve quality of practitioners in tourism and relevant industries and the level of managerial personnel, and to build up an ecological atmosphere in the scenic spots

Protection of ecological environment is one of the central connotation of ecotourism, which requires ecotourism managerial personnel to change the traditional development scheme of tourism, and to place ecological environmental protection in the first place. It is not allowed to take ecotourism as a "label" to attract tourists and to concentrate merely on economic interest, regardless of damage to tourism resources and environmental protection. Thus, we should strengthen training, cultivate professional ecotourism talents and establish a scientific management concept. For the time being, most practitioners in relevant industries in the NPQM come from local rural areas, who have no

professional learning and training experiences, with low professional quality, management level and inferior service quality. At the time of improving tourism infrastructure, we should continue to improve quality of practitioners, and their service quality. We should adopt various means to conduct ecological education on tourists and to improve their self-consciousness to protect ecological environment. At the time of making a sightseeing tour, tourists should protect every tree and bush within the conservation district. We should attempt to make our tourists come to comprehend the environmental protection idea of “taking only photos, leaving only footprints”.

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