Original Research

The Effect of Psychological Factors and Ecotourism on Residents' Ecological Behavior in National Park in China

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Abstract

For ecological security, China is actively promoting the national park system pilot. The residents are important stakeholders in the ecological protection of national parks, and their ecological behavior is affected by the internal psychological factors as well as the external way of livelihood. At present, there are few studies on the ecological behavior of Chinese national park residents. The study attempted to expand the socio-psychological behavior model i.e. Theory of Planned Behavior (TPB), including new structure ecotourism which combining ecological protection and personal well-being. Taking Shennongjia National Park as an example, 253 questionnaires gathered from the residents were analyzed by structural equation modeling. Results showed that the residents' three psychological factors (attitude towards behavior (β = 0.283, p<0.001), subjective norm (β = 0.177, p<0.01), and perceived behavioral control (β = 0.195, p<0.01)) positively and significantly influenced their ecological intention; their ecological intention (β = 0.322, p<0.001) further impacted their behavior, and attitude towards behavior was proved to be the main key factor influencing the residents' ecological intention. Moreover, ecotourism had the greatest positively and significantly influence on the residents' ecological intention (β = 0.383, p<0.001) and behavior (β = 0.250, p<0.001). So the local government and the national park management department should take various measures to deepen the residents' sense of identity and responsibility for the ecological protection in national parks, and also encourage the residents to participate in ecotourism.

Keywords:ecological protection, the residents, theory of planned behavior, psychological factors, ecotourism, Shennongjia National Park

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Introduction

The so-called "green mountains are gold mountains". China has always paid special attention to ecological progress and environmental protection, and incorporated the construction of ecological civilization into the "Five-pronged overall plan". In the past, the management of nature reserves in China mainly focused on the protection of ecological environment, while the residents were in a passive and weak position. [1] Nowadays, in the process of the construction of national park and other natural protected area, the Communist Party of China and the government attach great importance on the residents with the policy support [2]. National parks are the material basis and space carrier for the survival and development of the residents. They are both users of natural resources and protectors of ecological environment. [3-4] The study of their ecological behavior is not only related to the effectiveness of biodiversity conservation, but also related to the sustainable development of the region [5].

It is one of the important issues of national parks how to coordinate the relationship between ecological protection and residents development. [6-7] In order to protect the ecological environment of national parks, they are strictly restricted to the residents' traditional production and living modes and resource utilization methods in the protected area, and even any ecological destruction will be strictly prohibited such as felling, fishing, hunting, etc.. [8] Most scholars have studied the residents' attitudes and cognition on issues related to national parks from a psychological perspective, including cognition and attitude towards national parks [9-11], attitude towards resource utilization [12], perception and attitude towards tourism [13-15], perception of management mechanism [16-17], intention to ecological compensation [18-19], and attitude towards wild animals [20]. There are also scholars who study the impact of national parks on the residents from the perspective of livelihood. The construction of national parks has positive and negative effects on community economy. The positive impact can stimulate community industry development, provide a good ecological environment for community residents [21], reduce income poverty in the region [22], and also help improve wildlife resources [23] and protect forest resources [24]. While the negative impacts include prohibiting infrastructure construction, intensifying conflicts between humans and animals, and triggering conflicts in forest land compensation [21]. And the community will also suffer symbolic and material losses [25]. Therefore, the construction of national parks needs to fully consider the psychological and livelihood of the residents.

Human behavior arises from internal psychological and external environment [26-28], and TPB focuses on the impact of internal psychological factors on individual behavior, while external environmental factors (availability of technology, the internal impact on the environment, the law and rule system, cost and income, social norms and expectations, etc) also affect personal behavior [29]. Obviously, human ecological behavior is also affected by both internal and external factors [30], and the way of livelihood as an external factor also influnces ecological behavior choices. National parks are mostly located in remote areas, where most residents are poor and highly dependent on natural resources. Furthermore, the strict nature protection system of national parks has restricted the residents' use of natural resources, resulting in reduced channels for the residents' income, difficult energy utilization and increased employment pressure. Fortunately, the residents can use the national parks' unique natural resources to develop ecotourism which is regarded as the solution to these two major challenges facing the world today: poverty and biodiversity [31]. However, the existing literature rarely focuses on the ecological behavior of residents in national parks, and fails to comprehensively analyze the objective and subjective factors, such as the combination of psychological and ecotourism.

Ecological behavior is a specific term, which is defined as the actions conducive to environmental protection and/or conservation [32]. In the context of natural resource management, attitude-behavior correspondence researches have the potential to guide intervention strategies that affect biodiversity and human well-being [33]. Furthermore, studies have shown that the theory of social psychology has led to a further understanding of human behavior that benefits and promotes environmental sustainability. As one of the most important theories about the generation of individual behavior in social psychology, the theory of planned behavior (TPB) can explain human environmental behavior [34]. For example, based on the TPB, Kaiser [35] explained that two factors of behavioral intention (attitude towards behavior and subjective norms) play a decisive role in ecological behavior. Using the extended TPB, Zhang and Li [36] studied the effects of psychological factors and ecological compensation on local residents' ecological protection intentions and behaviors. Although TPB has been widely, it is still not exhaustive model [37]. For a long time, scholars have been revising and optimizing the TPB model, adding new moderating variable, independent variable and even independent variables according to the research content. [36, 38-39]

Based on previous studies, the study will also use the TPB theory to analyze the impact of psychological factors on the ecological behavior of residents in national parks, moreover, add ecotourism as a new variable to explore its impact on ecological protection intention and behavior. This research is not only a front topic in the behavioral field, but also a concern of the government, which is helpful for the government to formulate protection policies and encourage residents to participate in ecological protection activities.

Materials and Methods

Theoretical Background and Hypotheses

TPB is a theory designed to predict and explain human behavior in specific situations, Ajzen initially proposed it based on the theory of rational action (TRA) by adding the variables of perceived behavioral control in 1985, untill his published "Planned Behavior Theory" in 1991 made it more mature. According to the theory, it's true goal is to explain human behavior, not merely predicting [40], and behavioral intention is the most direct influencing factor of individual behavior, which is determined by the result of three factors: attitude towards behavior (AB), subjective norm (SN) and perceived behavioral control (PBC) [41]. The first factor AB can be defined as the evaluation which individuals have a positive or negative performance about the particular behavior [41]. A major determinant of people's behavior is their perception of a problem [42-43], and the higher the positive attitude, the more likely they are to perform the particular behaviors. Another factor SN refers to the support or opposition of a specific behavior to social pressure perceived by an individual, and social pressure often comes from important others, such as family members, relatives, friends or the public [44]. Generally, the closer the social distance is, the greater the influence of other people on individual subjective norm perception. The final factor PBC expresses people's perception about the ease or difficulty of performing the behavior of interest [40], and the cognition of individual's behavior ability will affect whether the behavior is adopted or not. In normally, the better AB and SN, and the stronger PBC, the greater the individual's intention to perform the considered behavior. [40]

As one of the most frequently cited and influential models to predict human social behavior [45], TPB and extended TPB (ETPB) have been widely used in the field of ecological behavior, and most of studies focused on ecological consumption [46-48], low carbon consumption [49-50], green hotel consumption [51-53], tourism environmental responsibility behavior [38, 54-55], environmental behavior of farmers [36, 56-58], etc. Most of these indicate that ecological intention (EI) has a great influence on ecological behavior (EB) through AB, SN and PBC. Therefore, we propose the following hypotheses:

H1 AB significantly and positively influences EI

H2 SN significantly and positively influences EI

H3 PBC significantly and positively influences EI

H4 EI significantly and positively influences EB

Ecotourism is defined as responsible travel to natural areas, protecting the environment, maintaining the well-being of local people, and involving interpretation and education. [59] In other words, ecotourism combines environmental responsibility with the generation of local economic interests, which has both an impact on development and an incentive for environmental protection. [60] Exactly as the social exchange theory, the potential benefits brought by ecological protection will prompt people to have a positive attitude towards protection. [61] Although the ultimate goal of ecological conservation is to protect natural resources and biodiversity, the strict ecological conservation requirements will affect the residents' attitudes and behavior towards national parks. Out of concern for living environment and livelihood, the residents are willing to participate in the protection and management of national parks under effective mechanism, and can also benefit from it to support their sustainable upgrading [3]. Ecotourism is a better livelihood option for residents of national parks. There are some scholars revealed that tourism can help local community residents change their attitudes towards biodiversity conservation, make them more motivated to protect the environment and reduce their use of resources. [62-64] Therefore, the study takes ecotourism (ET) as the new structure, and builds an analytical model (Fig. 1). Likewise, we have the following hypotheses:

H5 ET significantly and positively influences EI

H6 ET significantly and positively influences EB

Research Area

Shennongjia National Park is located in northwestern Hubei Province, China (Fig. 2). It integrates the 4 national protected area (national nature reserve, national forest park, national geological park, national wetland park) and 2 provincial protected area (Shennongjia provincial scenic area, Shennongjia big nine lake provincial nature reserve), with unique ecosystem and abundant species resources (subtropical forest ecosystem known as the "lungs of the earth", peat
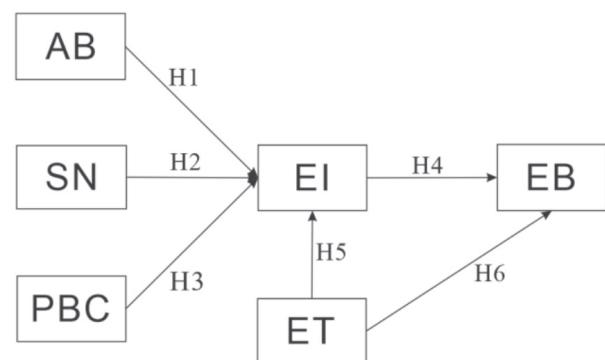

Fig. 1. Research model.
Note: AB = Attitudes Towards Behavior; SN = Subjective Norms; PBC = Perceived Behavioral Control; EI = Ecological Intention; EB = Ecological Behavior; ET = Ecotourism
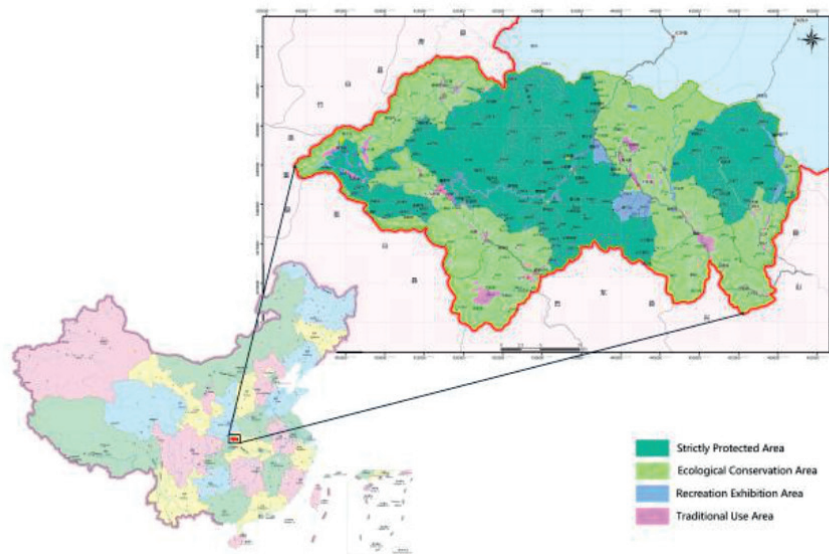
Fig. 2. Location and area map of Shennongjia National Park.

moss wetland ecosystem known as the "kidneys of the earth" and wildlife habitat known as 31°N miracle). It is also an important water conservation site in the Middle Route South-to-North Water Diversion Project and the largest natural green barrier in the Three Gorges Reservoir area, which is of great significance to the protection of national ecological security. Obviously, Shennongjia National Park is of great significance to China's ecological security.

Shennongjia National Park is located within 5 towns (Dajiuhu Town, Muyu Town, Hongping Town, Xiagu Township and Songluo Township), including 25 villages, and with more than 8,000 households and 20,000 permanent residents. The total area is 1170 square kilometers, accounting for 36% of Shennongjia Forestry District. The daily production and life of the residents are mainly concentrated in 3.2% of the traditional utilization areas, mainly engaged in the traditional production mode relying on natural resources, leading to a single economic structure, low level of socio-economic development, and a large proportion of the poor.

Measurement Design

For this study, information was collected by structured questionnaires. To ensure that the respondents could truthfully reflect the information, the questionnaire's cover letter indicated that the purpose of the survey was academic research. Then the questionnaire consisted of two parts. The first part aimed at collecting basic information, including gender, age, education, occupation, annual family income and main sources of income. The second part is the measurement of seven variables which were developed from previous validated items, TPB constructs were measured by nineteen items adopted from Ajzen [40], Sirivongs and

Tsuchiya [64] and Zhang and Li [36], and ecotourism construct were assessed by four items adopted from Bai et al. [65] and Li [66]. And the questionnaire used the 5-point Likert-type scale to evaluate each of the items (from 1 = strongly disagree to 5 = strongly agree) [52, 67]. The relevant items are given in Table 2.

Data Collection Procedures

This survey used a combination of interviews and questionnaires. On the one hand, we communicated with the residents to understand the changes in their livelihoods after the establishment of national parks, as well as their interests; on the other hand, we explained the contents of the questionnaire to the residents to guide them to fill in the questionnaire. Before the final data collection, few changes were made according to the results of the preliminary study. Then a four-member team distributed questionnaires to the residents by a direct door to door survey method from August 24 to 30 of 2019. Since the residents in Shennongjia National Park is mainly concentrated in Dajiuhu town, Muyu town and Xiaguping township, where 8 villages (Muyu village, Qingtian village, Qingfeng Village, Honghua village, Pingqian village, Dajiuhu village, Xinglongsi village and Jinjiaping village) with large population were selected as the survey sites from 23 villages. At last,253 completed questionnaires were returned from distributed 300 with an effective recovery rate of 84.33%.

Data Analysis

The properly employed of structural equation modeling (SEM) provides great potential for the development of psychology and social sciences, thus the paper used a two-step model for proposed theoretical

framework analysis under the guidance of Anderson and Ginberg [68]. The measurement model is employed to evaluate convergence validity and discriminant validity, then the structural model evaluates the model fit and hypothesis testing. SPSS22 and AMOS21 were employed for data analysis, among which AMOS provides an analysis about the relationship between AB, SN, PBC, EI, ET and EB through the maximum likelihood method. Although AMOS21 contains many fit indices, we selected chi-squared fit statistic (χ^2/df), Tucker-Lewis Index (TLI), the comparative fit index (CFI), the root mean square error of approximation (RMSEA), and the standardized root mean square residual (SRMR) as measurement indices from the previous studies. [69-72] There are no unified reliability standard, the paper followed the views of relevant

scholars, which the criterion of χ^2/df is between 1 and 3, TLI is greater than 0.9, as well as CFI [73], while the values of RMSEA and SRMR are less than 0.07 [74].

Results and Discussion

Descriptive Statistical Analysis of the Respondent

Based on Table 1, the respondents' demographic information showed that 55.3% were male, 68% were at the age of 25-54. The education degree of the respondents were junior high school or below. The annual income of the respondents' families were mostly between 20000-40000 yuan, accounting for 41.1%, and the main sources of income were tourism and work outside, accounting for 42.7% and 31.2% respectively. In general, the structure of the respondents can basically reflect the actual situation of the survey site.

Measurement Model

To measure and evaluate the validity of potential variables, confirmatory Factor Analysis (CFA) was used [75]. As presented in Table 4, the outcomes of the CFA were $\chi^2 = 456.341$, $df = 215$, $\chi^2/df = 2.123$, TLI = 0.926, CFI = 0.937, RMSEA = 0.067, and SRMR = 0.0532, all met the acceptable levels. Further, Cronbach's α, factor loading, Composite Reliability (CR) and Average Value Extract (AVE) were selected to assess the convergence validity of relevant factors. Table 2 showed that the Cronbach's α of the latent variables were ranged from 0.838 to 0.913, higher than the standard of 0.7 [76], the CR values were between 0.841 and 0.916, conforming with the standard above 0.7 [77], and the standardized factor loading of all items were higher than the critical value of 0.6 or above, ranging from 0.640 to 0.839 [78], further the AVE scores were from 0.576 to 0.731, which were also above the acceptable limit of 0.5 [79]. Thus, all above indexes indicated that the proposed model has convergent validity and reliability. Additionally, the measurement model was tested to have good discriminant validity from the Table 3, which the square root of AVE for individual construct was higher than the correlation coefficient between latent variables [80]. In general, this measurement model had good reliability and validity.

Structural Model

Table 4 provides the details of the proposed model fit indices ($\chi^2 = 471.084$, df = 218, $\chi^2/df = 2.161$, TLI = 0.923, CFI = 0.934, RMSEA = 0.068, and SRMR = 0.0674), which indicated the model fited well. As the main indicator of a study, the explained variance can find the most influential variables, while the study of Yurieva et al. [80] found that more than half of the analysis articles did not report the number of explained variance. In order to enhance the explanatory power

Table 1. Demographic data of the sample .

Characteristics	Category	Quantity	Percent (%)
Gender	Male	140	55.3
	Female	113	44.6
Age	18-24	28	11.1
	25-34	61	24.1
	35-44	60	23.7
	45-54	51	20.2
	55-64	32	12.6
	≥65	21	8.3
Education	Primary school or below	64	25.3
	Junior high school	75	29.6
	Senior high school	49	19.4
	Technical secondary school	48	19.0
	Undergraduate	17	6.7
	Master or above	0	0
Annual Income	<6000	9	3.6
	[6000,8000)	10	4.0
	[8000,10000)	12	4.7
	[10000,20000)	25	9.9
	[20000,40000)	104	41.1
	[40000,60000)	50	19.8
	≥60000	43	16.9
Main Income Source	Tourism	108	42.7
	Agriculture	31	12.3
	Wage	79	31.2
	Salary	31	12.3
	Other	4	1.5

Table 2. Reliability and validity test .

Constructs and Indicators Item text	Factor loading	CR	AVE
Attitude towards behavior (Cronbach's α = 0.876)		0.890	0.671
Ecological protection of the national parks is a national policy that must be implemented	0.797		
Ecological protection of the national parks can achieve green mountains and clear water, bring happy mood	0.830		
Ecological protection of the national parks can also bring stable income	0.754		
Ecological protection activities of the national parks are very important for my family's production and life	0.648		
Subjective norm (Cronbach's α = 0.913)		0.916	0.731
Government believes that ecological protection activities of the national parks should be carried out	0.760		
Family believes that ecological protection activities of the national parks should be carried out	0.817		
Neighbors believe that ecological protection activities of the national parks should be carried out	0.820		
Relatives and friends believe ecological protection activities of the national parks should be carried out	0.805		
Perceived behavioral control (Cronbach's α = 0.838)		0.841	0.576
I am confident that if I want, I can protect ecological environment of the national park.	0.644		
Whether or not I protect ecological environment of the national park is completely up to me.	0.640		
It is easy for me to protect ecological environment of the national park.	0.779		
I can take risks in the process of ecological protection	0.700		
Ecotourism (Cronbach's α = 0.893)		0.894	0.680
Ecotourism development increases my economic income	0.827		
Ecotourism is an alternative industry to traditional agriculture and forestry	0.783		
Ecotourism development promotes infrastructure improvement	0.821		
Ecotourism development requires a good ecological environment	0.736		
Ecological intention (Cronbach's α = 0.893)		0.889	0.728
I am willing to follow ecological protection regulations of the national park	0.827		
I am willing to make personal sacrifices to protect ecological environment of the national park	0.836		
Participation in ecotourism will strengthen my intention to protect ecological environment of the national park	0.808		
Ecological behavior (Cronbach's α=0.905)		0.911	0.721
I strive to maintain the achievements of national park ecological protection.	0.808		
I protect the ecological environment of the national park when participating in ecotourism	0.839		
I stop others from destroying the ecological environment of the national park	0.761		
I try to learn about ecological environment protection of the national park	0.775		

Note: CR = Composite Reliability; AVE = Average Variance Extracted.

of TPB theory, the explained variance is calculated. In the proposed model, AB, SN, PBC and ET were able to explain the variance of EI by 36%, higher than 33%, with with medium explanatory power, while ET and EI explained 24% of the variance of EB, higher than 19%, reaching an acceptable level [81].

As detailed in Table 5, the hypothesis testing results of the proposed model. The positive effects of AB (β = 0.271, t = 4.318, p<0.001), SN (β = 0.173, t = 2.809, p<0.01) and PBC (β = 0.189, t = 3.207, p<0.01) on EI were significant, and EI (β = 0.323, t = 4.452, p<0.001) was positively related to EB. Hence, the hypothesis H1, H2, H3 and H4 were supported. As the additional

construct into the TPB model, ET had direct positive effect on the residents' EI (β = 0.371, t = 5.795, p<0.001) and EB (β = 0.252, t = 3.514, p<0.001), therefore the following hypothesis H5 and H6 were supported. Furthermore, ET also had a significantly positive indirect influence on EB.

Research Hypothesis Analysis

As Table 6 shown, these hypotheses H1, H2, H3 and H4 suggest that the residents' psychological factors have significant direct and positive influence on EI, and they also have significantly indirect influence

on EB through EI. These results are consistent with the original TPB model, and similar with existing studies [36, 64-65], indicating psychological factors as important antecedent to EI and actual EB. AB (β = 0.271) has proved to be the most significant factor in the EI among the three psychological factors. As Bruun and Kalland [82] contend, attitudes to the natural environment are consequently influential in determining how environmental resources are used. The residents have lived in the Shennongjia Forestry District for generations, and have accumulated the wisdom of living in harmony with nature, which led to their innate awareness of ecological protection, as the so-called backer has mountain, rely on water draft. The research of Pan et al. [10] proved that the residents have a positive attitude towards the environmental

Table 3. Discriminant validity test.

Latent variable	AB	SN	PBC	ET	EI	EB
AB	**0.819**					
SN	.229	**0.855**				
PBC	.029	.140	**0.759**			
ET	.162	.025	.070	0.824		
EI	.374	.265	.245	.436	**0.853**	
EB	.247	.301	.146	.396	.421	**0.849**

Table 4. Goodness-of-fit test.

Goodness-of-fit index	χ^2	*df*	χ^2/df	TLI	CFI	RMSEA	SRMR
Measurement model	456.341	215	2.123	0.926	0.937	0.067	0.0532
Structural model	471.084	218	2.161	0.923	0.934	0.068	0.0674

Note: TLI = Tucker-Lewis index; CFI = Comparative fit index; RMSEA = Root mean square error of approximation; SRMR = standardized root mean square residual.

Table 5. Hypotheses testing and structural results.

Path	Standardized path coefficient	t-value (t)	Hypothesis
H1: AB→EI	0.271	4.318***	Supported
H2: SN→EI	0.173	2.809**	Supported
H3: PBC→EI	0.189	3.027**	Supported
H4: EI→EB	0.323	4.452***	Supported
H5: ET→EI	0.371	5.795***	Supported
H6: ET→EB	0.252	3.514***	Supported

Note:*** $p<0.001$; ** $p<0.01$.

Table 6. Effects of Different Variables on Ecological Intention and Behavior.

Latent variable	EI			EB		
	Standardized Direct Effects	Standardized Indirect Effects	Total Effects	Standardized Direct Effects	Standardized Indirect Effects	Total Effects
AT	0.271		0.271		0.088	0.088
SN	0.173		0.173		0.056	0.056
PBC	0.189		0.189		0.061	0.061
EI				0.323		0.323
ET	0.371		0.371	0.252	0.120	0.372

impact of the establishment of the Shennongjia National Park. While SN ($\beta = 0.173$) and PBC ($\beta = 0.189$) play a relatively small factor, which is related to the local natural and social environment. Shennongjia National Park is located in the Qinba Mountains with scattered residential areas, so they feel less social pressure about ecological conservation. Due to the protection of the ecological environment, the residents may suffer certain losses, for example, the destruction of crops by wild animals and the ban on the collection of herbal medicines cause more direct losses to the the residents than the corresponding compensation and employment income [83], even the residents needs to be relocated to a different place [84]. Furthermore, low income levels make them less able to take risks.

The total effects of ET on the residents' EI and EB were 0.371 and 0.372, higher than other effects. These indicate that ET not only directly and effectively encourages the residents to participate in ecological protection, but also exerts its indirect incentive effect by positively affecting EI. For nature conservation, economic incentives are imperative [34], while ecotourism not only provides economic support for ecological protection [85], but also provides alternative development methods for the development of local agriculture and forestry [86]. In 2019, Shennongjia Forest District received 18.285 million tourists and realized a total tourism economic income of 6.76 billion yuan [87]. It can be said that 60% of the townships and 70% of the population directly benefited from the tourism industry. Hence, in the strictly protected Shennongjia National Park, ecotourism can provide the residents with greater incentives for ecological protection and change the traditional way of resource utilization, improving the ability of the residents to resist ecological protection risks.

Conclusions, Recommendations and Future Research

Based on the mature social psychology model TPB and added ecotourism as a new variable, this paper takes Shennongjia National Park as an example to explore the influence psychological factors (AB, SN, PBC) and ET on the residents' EI and EB. The 6 research hypotheses proposed have been verified, which shows that psychological factors and ecotourism are positively related to residents' ecological intentions and behaviors. Moreover, compared with other factors, ecotourism has the greatest impact, thus it is important to encourage the residents in National Parks to develop ecotourism appropriately.

Relying only on the environmental protection departments, tourism departments or even tourists are difficult to achieve ecological protection, the main body of ecological environmental protection is local residents or communities. [88] As a new type of protected area, National Parks not only manage resources, but also

guide the residents to establish green development methods and lifestyles consistent with the national park's ecological protection goals. Therefore, in order to make the residents consciously become the protectors and managers of the ecological environment in national parks, the following policy recommendations should be adopted.

Deepen the residents' sense of identity and responsibility for the ecological protection in national parks. Therefore, the local government and the national park management department should adopt multiple publicity methods to spread the idea of national parks to every household and ensure that every family can understand the significance of building national parks and protecting the ecological environment. At the same time, they should guide the residents to actively participate in the formulation and implementation of policies and plans related to the ecological protection of national parks, express reasonable interest demands, and provide rich ecological protection experience. Then, family, community, relatives and friends, and other subjects should create an ecological behavior atmosphere to effectively stimulate residents' ecological responsibility. Moreover, the residents lived in national parks should be appreciated and compensated for their sacrifices to protect the ecological environment.

Encourage the residents to participate in ecotourism. In the trend of mass tourism and quality tourism, ecotourism is an important alternative to the traditional livelihood (grazing, felling, farming, hunting, etc) of the residents in national park. Firstly, a perfect franchise system should be established to standardize the construction and management of catering, accommodation and other tourism service facilities and create a good tourism development environment. Furthermore, certain priority should be offered to the residents in the selection of operators, employment of franchise project staff, and feedback of franchise funds. At the same time, the local government and relevant social organizations provide training and education for tourism practitioners to facilitate the residents to provide high-quality tourism services without violating the ecological protection goals, and ultimately achieve the symbiotic development of tourism development and ecological protection.

Despite the systematic analysis and discussion, we should still pay attention to the limitations of this study. The investigation and analysis about ecotourism were a little general, not all residents have participated in and benefited from ecotourism, so the research needs to further compare the ecological intention and behavior of participating ecotourism and non-participating ecotourism to clarify the important role of ecotourism. Moreover, the strict ecological protection system in national parks has a great impact on the traditional way of life and production methods of the residents, so future research should also consider the factor of ecological compensation.

Acknowledgements

Conflicts of Interest

The authors declare no conflict of interest.

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