



## Comparison of Mountain Greenway in Sanming City and Mountain-Sea Greenway in Xiamen Island

Xu Xin, Gao Meirong, Hou Xinping, Zhang Shuting

Sanming University

School of Civil Engineering

Corresponding Author: Xu Xin

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**ABSTRACT:** Through field questionnaire surveys on the Greenway in Sanming City and Greenway in Xiamen City, empirical analysis of models of recreational involvement, local attachment and well-being are conducted to verify the relevant research conclusions. Based on the findings of the investigation, improvement suggestions were put forward for the construction and management of Sanming and Xiamen Greenways.

**KEYWORDS:** Greenway, Tourist experience model, Xiamen island, Sanming

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### I. INTRODUCTION

At present, the principal contradiction of china society has been transformed into the contradiction between the people's ever-increasing need for a better life and the unbalanced and inadequate development. Greenway is an important part of urban and rural and regional ecosystems, integrating environmental protection, sports, leisure, tourism and other functions. It is an effective carrier for the perfect combination of ecological protection, improvement of people's livelihood and economic development. The greenway connects the public space in the city with the external water body, scenic spots and historical sites, forests and other areas organically, and promotes the ecological and economic development along the greenway. At the same time, it can reduce the urban heat island effect, change people's travel mode, behavior mode, consumption concept, urban form, structure of developed areas and underdeveloped areas, and accelerate the process of organic urbanization. In September 2018, the State Administration of Market Supervision and Administration promulgated the Service Quality Specification for Leisure Greenways, which put forward relevant requirements for various greenways with leisure functions in terms of route planning, landscape environment, infrastructure, etc. According to the different levels, functions and scales of greenways, Fujian province can be divided into three levels: provincial greenways, city (county) greenways and community greenways. According to the location and target function of greenways, they can be divided into three different categories: ecological type, rural type and urban type.

According to the Overall Planning of Greenway Network in Sanming City, the planned length of greenway construction in Sanming City is 935km. The greenway network in Sanming central Urban area consists of 2 provincial greenways, 7 municipal greenway main lines, 4 municipal greenway branch lines and 13 community-level greenways, totaling 245km. In combination with the regional characteristics of the greenways, the planning sets themes for a total of 9 greenways at the provincial and municipal levels. For example, the theme of one of the provincial greenways is Shanmei Sanming Line:It is characterized by Sanming mountains and valleys, reflecting the high forest coverage rate and the beauty of green ecological nature in Sanming. The theme of Xijiang Riverside Greenway is waterfront Line:Along the west bank of Shaxi river in Sanming Urban area, the greenway echoes the scenery on the east bank, serving as the waterfront sightseeing line of Sanming city, demonstrating the charm of Sanming city. At the same time, the types of greenway in urban area are divided, among which the urban greenway is 113.5km, accounting for 46.33% of the total length of greenway in Urban area.84.4 km of country greenway, accounting for 34.45% of the total length of Urban area greenway; Ecological greenway is 47.1 km, accounting for 19.22% of the total length of Urban area greenway [1] .



Picture 1: typical greenway in city

As early as 2013, Sanming Municipal Party Committee and Municipal Government attached great importance to and actively responded to the policies and principles of the Party and the state. Based on the purpose of serving the people and the simple wish of improving the people's spiritual and civilized life, through reasonable planning, serious discussion and dialectical research, the urban greenway construction project in Sanming City was finally born [2]. Among them, the urban back mountain greenway in Sanming urban area is based on the forest of Yizhong Mountain in the east of Sanming urban area. Considering the requirements of "environmental protection, safety and sightseeing" as a whole, a 20km-long suburban greenway is planned to be built from Xiaoxi Farm in Melie district through Guixiyang, Xianren Valley, Miaoyuan Mountain and Wenbi Mountain. In 2015, 17km of greenway (including 2.26 km of trestle and 3km of auxiliary line) will be completed, 5.39 km of guardrail will be built and 558 street lamps will be installed. Four 1000m<sup>2</sup> post stations, two 2700m<sup>2</sup> parking lots, 13 1250m<sup>2</sup> pavilions, 13 995m<sup>2</sup> viewing platforms, 13 public toilets and several rest spots will be built. There are 279 species of trees and shrubs with 56,800 plants, 128 species of ground cover with 796,000 plants and 29 species of vines with 72,300 plants [3]. In order to highlight the local characteristics of Sanming, 12 relatively concentrated and contiguous small areas are planned along the greenway, and the people's governments of 12 counties (cities and districts) under the jurisdiction of Sanming City are responsible for planting 12 kinds of fruit trees (flowers and trees) with local characteristics respectively [4]. The air quality of the whole greenway is Grade A all the year round. During the period from 08:00 to 10:00 a.m., the negative ion concentration is relatively high in the areas with abundant plant species such as water landscape and arbor, shrub and grass greening structure. The air negative ion concentration in the core area of the waterfall is above 10000 • cm<sup>3</sup>, and the highest is 19688 • cm<sup>3</sup> [5]. The unique cultural and artistic characteristics of the landscape pavilions, corridors and structures built along the line or the hanging couplets, as well as the safety warning signs added along the guardrails along the line, shall be used for carving, landscape pavilions, corridors and structures, etc., so as to integrate the local unique cultural elements into them. The greenway from Panling Post Station to Xianren Valley Park focuses on the construction of family instruction culture, focusing on the display of Zhu Zi's family instruction, Hakka ancestral instruction, "Twenty-four Filial Piety" written by Guo Jujing, a native of Youxi in Yuan Dynasty. The greenway from Xianren Valley Park to Miaoyuanyi Station focuses on creating ecological culture and displaying forest culture such as Sanming forest poetry, forest prose, forestry ballad, forestry science popularization, etc. The greenway around Wenbi Mountain focuses on creating student culture, focusing on the display of student culture contents such as persuading students to learn, young Chen Jingrun, etc [7].



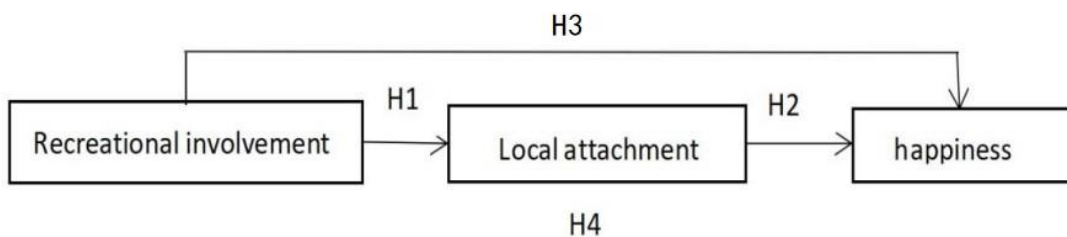
Picture 2: mountain greenway in Sanming

Xiamen City Greenway (Mountain-Sea Health Trail) is about 23 kilometers long, starting from the cruise terminal and ending at Guanyin Mountain Dream Beach. The healthy footpath connects the important ecological nodes in the north-central part of Xiamen Island, forming a mountain-sea pedestrian corridor running through the east-west direction of the island. In order to facilitate the entry and exit of citizens and tourists, the connection with the existing footpath or main urban traffic nodes shall be fully considered in the elevated section. Citizens and tourists can get on and off the healthy footpath through the connecting entrances and exits set along the line. The entrances and exits are mainly arranged in ramps, ordinary stairways, oval stairs, oval elevators, vertical elevators, etc. According to the actual situation, 52 entrances and exits are set along the footpath, with an average spacing of about 280m. There are 14 post station nodes along the footpath, with a service radius of 500m-700m, and service rooms, public toilets, direct drinking fountains, automatic sales and other facilities. One rest point shall be set every 300m in the middle section of the forest, and rest and stop space shall be set in combination with viewing platform, post station, widened section of main line, entrance and exit ramp, etc. In addition, the elevation difference of some nodes is large, and elevators are provided. The project provides a footpath system integrating leisure, fitness, tourism, commuting and other functions for citizens along the line. The construction of the footpath adheres to the requirements of ecology, humanity, humanism, landscape and operability, creating a green low-carbon and natural urban "landscape footpath" with Xiamen characteristics, and improving the image of urban landscape [8].



Picture 3: Mountain-Sea Greenway in Xiamen Island

Zeng Zhen et al. conducted field investigation on Sanming Greenway in 2017, collected data according to sampling questionnaire survey method, and obtained that the recreation motivation of urban residents to greenway mainly includes three types: relaxation, communication and interaction and fitness, and closeness to nature by factor analysis method. The satisfaction degree of Sanming urban residents to greenway from high to low is overall layout, plant configuration, rest layout, sign facilities and supporting facilities [9]. Two years later, another survey was conducted to analyze the recreational motivation, satisfaction and health benefit evaluation of greenway visitors [10]. Wang Zhenning et al. investigated Fuzhou greenway on the spot and established a model of the relationship between visitor involvement, place attachment and happiness in urban leisure greenway [10], as shown in Figure 4. This paper makes an empirical study of this model in Sanming and Xiamen.



Picture 4: Relationship model between recreational involvement, local attachment and well-being

## II. SURGERY DESIGN

### 2.1 Surgery assumption.

recreation involvement is the degree of excitement, fanaticism, concentration and other behaviors and cognitive feelings that individuals have when participating in favorite recreation activities, and the degree of recreation involvement depends on factors such as individual's self-needs, values or specific goals. Place attachment is the emotional identity of an individual to the spatial environment when he is in a specific place, and it is the connection between the individual and the place in cognition, emotion and behavior. It plays an important role in measuring the degree of human-land emotional connection. Wang Zhenning et al. proposed the following assumptions:

H1: Recreational involvement has a significant positive effect on place attachment.

H2: Recreational involvement has a significant positive impact on well-being.

H3: Place attachment has a significant positive impact on well-being.

H4: Place attachment plays a mediating role in the effect of recreation involvement on well-being.

**2.2 Questionnaire**

The questionnaire is also designed by Wang Zhenning and is divided into two parts. The first part includes the basic demographic characteristics such as gender, age, education level, occupation, monthly income, and the investigation of the behavior characteristics such as the number of visits to the Greenway, the length of time spent, and the way of travel, with a total of 8 items; The second part is a survey of recreation involvement, place attachment and well-being of the subjects, as shown in Table 1 below.

Tab.1 Indicators of recreational involvement, local attachment and well-being

measured variable	Measurement indicators
Recreational involvement	Traveling to the greenway for fitness is very important to me. I am very interested in traveling to the greenway for fitness. Traveling to the greenway for fitness is one of my favorite activities. Traveling to the greenway for fitness is very enjoyable, and I enjoy it very much. When I go to the greenway for fitness, I can truly be myself. When others go to the greenway for fitness, I can see their differences. When I go to the greenway for fitness, the way others see me is that I want to show it to others I have found that my sightseeing and fitness activities always revolve around the greenway. The greenway plays an important role in my sightseeing and fitness activities I am willing to spend time and energy sightseeing and sightseeing on the greenway
Local attachment	I like to take part in all kinds of activities of the greenway, including sightseeing, playing, photography, sports, etc. The greenway tour and fitness let me relax in the intense work, study and life. I learned the knowledge of natural culture in the greenway. The natural landscape of the greenway is very attractive. The greenway gives me the feeling of being very intimate. The greenway has special meaning to me. I agree with the greenway very much.
Happiness	Greenway tour fitness makes me full of confidence in life Greenway tour fitness makes me satisfied with life Greenway tour fitness makes me feel that life is meaningful Greenway tour fitness makes my relationships harmonious

**2.3 Data acquisition**

The survey data were obtained by random sampling. Five field surveys were conducted in Sanming Greenway from October 24 to November 8, 2020, and one field survey was conducted in Xiamen Greenway (Shanghai Health Trail) on November 11,2020, and questionnaires were distributed to urban residents and tourists who came for leisure and recreation. Before the formal questionnaire survey, the investigators first explained the purpose of this survey to the interviewees and explained the meaning of relevant items, which ensured the accuracy and effectiveness of the questionnaire to a certain extent. A total of 317 questionnaires were distributed in Sanming Greenway. After screening and eliminating invalid questionnaires, 302 valid questionnaires were obtained, and the effective rate of questionnaire was about 95. A total of 103 questionnaires were distributed in Xiamen Greenway. After screening and eliminating invalid questionnaires, 91 valid questionnaires were obtained, and the effective rate was about 88.3%. After descriptive statistical analysis, the demographic characteristics of the samples in Sanming and Xiamen are shown in Table 2.

Tab.2 Descriptive statistics of samples ( N = 302, 91)

Category	Subject	Sanming' s sample	Percentage/%	Xiamen' s sample	Percentage/%
gender	male	177	58.6	48	52.7
	female	125	41.4	43	47.3
Year	18 below	17	5.6	9	9.9
	18 ~ 29	60	19.9	23	25.3
	30 ~ 45	94	31.1	35	38.5
	46 ~ 60	104	34.4	20	22.0
	Above of 60	27	8.9	4	4.4

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Educational background	lever1	49		16.2		11	12.1
	lever2	107		35.4		30	33.0
	lever3	138		45.7		46	50.5
	lever4	8	2.6	4	4.4		
Occupation	student	37		12.3		17	18.7
	worker	33		10.9		5	5.5
	Company employee	56		19.2		16	17.6
	Company administrator	27		8.9		8	8.8
	Cultural,sport and teaching personnel	7		2.3		0	0
	Civil servant or public institutions	33		11.0		13	14.3
	Professionals	19		6.3		7	7.7
	Self-employed	18	6.0	6	6.6		
	Freelancer	17		5.6		2	2.2
	retired	36		11.9		9	9.9
	other	17	5.6	8	8.8		
Monthly Income	below 2000 yuan	56		18.5		21	23.1
	2 000 ~ 5 000 yuan	125		41.4		28	30.8
	5 001 ~ 8 000 yuan	92		30.5		32	35.2
	Above of 8 000 yuan	29		9.6		10	11.0

Note:Lever1=Junior high school and below      Lever2=High school or technical secondary school  
 Lever3=Undergraduate and Junior college      Lever4=Graduate student

Male respondents in Sanming were 1.9% more than those in Xiamen, where 63.8% of the respondents were young adults aged 18-45, while in Sanming, the majority were middle-aged and elderly people aged 46-60, the respondents in Sanming had more employees, workers and retirees than those in Sanming, accounting for 42.0 percent of the total In the survey of the monthly income of the respondents, the number of people at the 2000-5000 Yuan and 5001-8000 yuan levels is the majority, and the high-income people in Xiamen are more than those in Sanming.In addition, new tourists and weekly fitness users accounted for 41% of all respondents in Sanming, and 1-2 hours was the longest time spent on sightseeing tours, for 61.3% of respondents in Sanming, while the majority of respondents in Xiamen were traveling with their families, colleagues and friends, and on their own.

Tab.3 Behavior characteristics of samples ( N = 302,91 )

Category	Subject	Sanming' s sample		Percentage/%		Xiamen' s sample		Percentage/%	
Half a year									
Number of exercise	1 ~ 3 times	80	26.5	25	27.5				
	4 ~ 6 times	64	21.2	45	49.5				
	7 ~ 18 times	53	17.5	15	16.5				
	Obove of 18 times	105	34.8	6	6.6				
Spend times	1 ~ 2 h	150	49.7	38	41.8				
	2 ~ 3 h	113	37.4	44	48.4				
	3 ~ 4 h	31	10.3	8	8.8				
	4 h above	8	2.6	1	1.1				
Way of traveling	with family	127	42.1	26	28.6				
	with workmate and friends	99	32.8	36	39.6				
	alone	76	25.1	29	31.8				

**III. DATA ANALYSIS**

**3.1 Reliability and validity analysis**

SPSS was used to analyze the reliability and validity of the sample data in Sanming and Xiamen. Using Cronbach's  $\alpha$  coefficient to test the sample reliability, the results showed that the related indicators of recreational involvement in Sanming were slightly higher than those in Xiamen, the related indicators of local attachment in Xiamen were slightly higher than those in Sanming, and the related indicators of well-being in Sanming were slightly higher than those in Xiamen, the overall reliability coefficient of the questionnaire is higher than 0.800, which indicates that the questionnaire has good reliability, the KMO of recreation involvement in Sanming is slightly higher than that in Xiamen, the KMO of local attachment in Sanming is higher than that in Xiamen, the KMO of happiness in Xiamen is better than that in Sanming, and the KMO of the whole questionnaire in Sanming is higher than that in Xiamen, the KMO values of the whole questionnaire and all parts were higher than 0.800, which indicated that the questionnaire had good structural validity and was suitable for factor analysis.

Tab.4 reliability and validity

Indicator	Sanming's sample	Xiamen's sample
Reliability recreational involvement	0.939	0.923
local attachment	0.882	0.902
happiness	0.928	0.908
questionnaire	0.927	0.944
Validity recreational involvement	0.917	0.889
local attachment	0.896	0.833
happiness	0.813	0.832
questionnaire	0.925	0.864

**3.2 Confirmatory factor analysis**

Confirmatory factor analysis was performed on the sample data using AMOS 21.0 to test the fitting effect of the study model. Because there are many items in the part of recreation involvement in the measurement index, the same method of Wang Zhenning is used to pack the items related to recreation involvement according to dimensions, and finally 3 items are generated. The results of confirmatory factor analysis are shown in Table 5. The standardized factor load of each measurement item is between 0.678~0.884, which is higher than 0.500 and significant at the level of 0.001. The combined reliability (CR) and average extraction variance (AVE) of each study variable are between 0.857~0.918 and 0.615~0.668, which are higher than the general requirements of 0.700 and 0.500, indicating that the study model has good internal consistency and convergent validity. As shown in Table 6, the standardized factor load of each measurement item was between 0.678 and 0.884, both higher than 0.500 and significant at the level of 0.001. The combined reliability (CR) and mean extracted variance (AVE) of each study variable were between 0.857 and 0.918 and 0.615 and 0.686, both higher than the general requirements of 0.700 and 0.500, which also indicated that the study model had good internal consistency and convergence validity.

Tab.5 Confirmatory factor analysis results (Sanming N = 302)

Study variables	items	standardized factor	t-value	CR	AVE
Recreational involvement	R11	0.884 * * *	0.857	0.668	
	R12	0.743 * * *	16.712		
	R13	0.818 * * *	19.711		
Local attachment	LA1	0.770 * * *	0.918	0.615	
	LA2	0.831 * * *	16.564		
	LA3	0.740 * * *	14.369		
	LA4	0.790 * * *	15.535		
	LA5	0.857 * * *	17.205		
	LA6	0.678 * * *	12.959		

	LA7	0.811 * * *	16.052	
happiness	HP1	0.853 * * *	0.897	0.686
	HP2	0.811 * * *	17.845	
	HP3	0.855 * * *	19.379	
	HP4	0.791 * * *	17.167	

Note: \* \* \* indicates  $P < 0.001$ .

Tab.6 Confirmatory factor analysis results (Xiamen N = 91)

Study variables	items	standardized factor	t-value	CR	AVE
recreational involvement	R11	0.884 * * *	0.857	0.668	
	R12	0.743 * * *	16.712		
	R13	0.818 * * *	19.711		
local attachment	LA1	0.770 * * *	0.918	0.615	
	LA2	0.831 * * *	16.564		
	LA3	0.740 * * *	14.369		
	LA4	0.790 * * *	15.535		
	LA5	0.857 * * *	17.205		
	LA6	0.678 * * *	12.959		
	LA7	0.811 * * *	16.052		
Happiness	HP1	0.853 * * *	0.897	0.686	
	HP2	0.811 * * *	17.845		
	HP3	0.855 * * *	19.379		
	HP4	0.791 * * *	17.167		

### 3.3 Correlation analysis

The mean, standard deviation and correlation coefficient analyses of the major research variables and some demographic variables involved in this survey are shown in table 7 in Sanming. The results showed that recreational involvement was positively correlated with place attachment ( $r = 0.876, p < 0.01$ ) and happiness ( $r = 0.718, p < 0.01$ ), there was a significant positive correlation between attachment and well-being ( $r = 0.746, p < 0.01$ ). Xiamen is shown in table 7. The results showed that recreational involvement was positively correlated with place attachment ( $r = 0.876, p < 0.01$ ) and happiness ( $r = 0.718, p < 0.01$ ), there was a significant positive correlation between attachment and well-being ( $r = 0.746, p < 0.01$ ). To sum up, there are significant correlations among the main research variables.

Tab.7 Mean, standard deviation and correlation coefficient of each variable (Sanming N = 302)

Study variables	M	SD	1	2	3	4	5	6
gender	1.450	0.499	1					
Year	2.920	0.881	-0.059	1				
Educational background	2.750	0.718	-0.108 *	0.142 * *	1			
recreational involvement	4.130	0.699	-0.181 * *	0.222 * *	0.057	1		
local attachment	4.294	0.706	-0.160 * *	0.169 * *	0.003	0.876 * *	1	
happiness	4.228	0.726	-0.062	0.264 * *	0.005	0.718 * *	0.746 * *	1



Tab.8 Mean, standard deviation and correlation coefficient of each variable (Xiamen N = 302)

Study variables	M	SD	1	2	3	4	5	6
Gender	1.450	0.499	1					
Year	2.920	0.881	-0.059	1				
Educational background	2.750	0.718	-0.108 *	0.142 * *	1			
Recreational involvement	4.130	0.699	-0.181 * *	0.222 * *	0.057	1		
Local attachment	4.294	0.706	-0.160 * *	0.169 * *	0.003	0.876 * *	1	
Happiness	4.228	0.726	-0.062	0.264 * *	0.005	0.718 * *	0.746 * *	1

3.4 Hypothesis testing

SPSS was used to analyze the main variables and some demographic variables to test the hypotheses of this study. The results of Sanming analysis are shown in Table 9. Well-being is the dependent variable of M1-M4, place attachment is the dependent variable of M5-M6, and gender, age and education are the control variables of M1 and M5. Among them, M6 tested the hypothesis of the influence of entertainment participation on place attachment, namely H1; M2 tests the hypothesis of the effect of entertainment participation on well-being, i.e. H2; M3 tested the hypothesis that place attachment affects well-being, i.e. H3; M4 tested the mediating effect hypothesis of position attachment, i.e. H4. Firstly, the main effect test showed that entertainment participation had a significant positive effect on place attachment (M6,  $\beta = 0.882$ ,  $P < 0.01$ ), which supported H1 hypothesis. Entertainment participation had a significant positive effect on well-being (M2,  $\beta = 0.707$ ,  $P < 0.01$ ), which supported H2 hypothesis. Place attachment had a significant positive effect on well-being (M3,  $\beta = 0.731$ ,  $P < 0.01$ ), which supported H3 hypothesis. Secondly, place attachment mediated the relationship between entertainment participation and happiness (M4,  $\beta = 0.513$ ,  $P < 0.01$ ), which supported H4 hypothesis. The situation in Xiamen is shown in table 8.

In conclusion, H1, H2, H3 and H4 hypotheses are supported in Sanming and Xiamen.

Tab.9 Hierarchical regression analysis (Sanming N = 332)

	Happiness				Local attachment	
	M1	M2	M3	M4	M5	M6
Control variables						
Gender	-0.050	0.068	0.062	0.071	-0.154 * *	-0.006
Year	0.267 * *	0.118 * *	0.146 * *	0.128 * *	0.165 * *	-0.021
Educational background	-0.038	-0.044	-0.011	-0.021	-0.037	-0.044
Argument recreational involvement		0.707 * *		0.254 * *		0.882 * *
Mediating variable local attachment		0.731 * *	0.513 * *			
R <sup>2</sup>	0.073	0.534	0.580	0.595	0.052	0.769
ΔR <sup>2</sup>	0.073	0.461	0.507	0.061	0.052	0.717
F	8.659	93.743	113.056	95.739	6.033	272.757
ΔF	8.659	323.457	395.042	48.851	6.033	1016.874

Note: \* indicates  $P < 0.05$ . \*\* indicates  $P < 0.01$ .

Tab.10 Hierarchical regression analysis (Xiamen N = 91)

	Happiness				local attachment	
	M1	M2	M3	M4	M5	M6
control variables						
Gender	-0.050	0.068	0.062	0.071	-0.154 * *	-0.006
Year	0.267 * *	0.118 * *	0.146 * *	0.128 * *	0.165 * *	-0.021
Educational background	-0.038	-0.044	-0.011	-0.021	-0.037	-0.044
Argument						

recreational involvement	0.707 * *		0.254 * *		0.882 * *	
Mediating variable						
local attachment			0.731 * *		0.513 * *	
R2	0.073	0.534	0.580	0.595	0.052	0.769
△R2	0.073	0.461	0.507	0.061	0.052	0.717
F	8.659	93.743	113.056	95.739	6.033	272.757
△F	8.659	323.457	395.042	48.851	6.033	1016.874

Note: \* indicates  $P < 0$ . \*\* indicates  $P < 0.05$ .01.

#### IV. Comparative conclusions and recommendations

##### 4.1 Comparative conclusions

The development and popularization of urban leisure greenway is the innovation link and important carrier of regional ecological civilization construction, which can draw close the relationship between man and nature, and provide recreation, fitness, photography and other comprehensive functions for the recreational. It is a happiness project that benefits the people. The purpose of this study was to examine the relationship between involvement, local attachment and well-being of greenway recreational users in Sanming, based on the findings of relevant studies, to construct the research model of recreation involvement, local attachment and well-being. Through empirical analysis, we found that:

Recreation involvement had a significant positive effect on place attachment ( $\beta = 0.882, p < 0.01$ ), the level of involvement perception can affect the degree of its connection with destination identity and dependence, which effectively supports the view of Williams and other scholars.

Recreational involvement has a significant positive effect on happiness ( $\beta = 0.707, p < 0.01$ ), it shows that the inner feelings of the recreational participants can affect the generation of their satisfaction and pleasure. The deeper the involvement state, the stronger the experience satisfaction and happiness, this is consistent with the research of Yang et al.

Local attachment has a significant positive effect on well-being ( $\beta = 0.731, p < 0.01$ ), indicating that recreational people have a positive effect on well-being in their leisure activities, with the deeper connection between the tourist and the destination, the more satisfied they are in the experience and the more happy they are, this further corroborates the conclusions of Wiles et al.

Local attachment plays a part in mediating the effect of recreational involvement on well-being ( $\beta = 0.513, p < 0.01$ ); The results show that the emotional connection of the tourists to the tourism destination can affect the effect of the recreational involvement on the sense of well-being to a certain extent, and the involvement perception of the tourists can not only directly affect the formation of their sense of well-being, but also affect the formation of their sense of well-being, moreover, it can indirectly affect the well-being through the degree of local attachment of recreational people, and further extended the relevant research ideas.

##### 4.2 Suggestion

The principles of greenway construction should be guided by the guidelines for the planning and construction of Greenway in Fujian Province, and should be based on the advantages of the mountains, forests and water of Sanming city, according to local conditions established the "Road of leisure, the road of Green, the road of Happiness," the concept of Green Road. Specific to the following:

- (1) and urban planning, urban construction, management level;
- (2) and Low-carbon city, Eco-city, livable city construction;
- (3) with the ecological protection, the transportation construction unifies
- (4) with the green building, the energy conservation environmental protection, the resources utilization unifies;
- (5) Combine it with urban culture, sports (especially cycling) and recreation.

Basic requirements of Greenway Construction are summarized as follows:

(1) Elevation selection. The elevation of greenway is controlled between 230-300 meters above sea level.

(2) The choice of topography, pay attention to the basic principle of "According to the situation of the mountain", utilize and transform the topography reasonably, minimize the damage to the original topography and landform, and achieve the true significance of ecological construction.

(3) Road design, the section from side ridge to Xianrengu adopts walking standard design, the width of roadbed is 5 meters, the width of road surface is 3 meters, the longitudinal slope is controlled within 8%. The section from Xianrengu to Wenbishan adopts the standard design of integrated slow lane. The main line is 6m wide with 4m wide pavement (including 2.5 m bike path and 1.5 m walkway). The longitudinal slope is limited

to 5% .In terms of the choice of materials for the Green Road surface, the idea of integrating nature and adapting to it is proposed to use coloured Tarmac, permeable concrete, stone pavements, and in ecologically vulnerable areas and cross-valley sections, the trestle bridge is erected.Iv.

The significance and function of the construction of the greenway. The Greenway is a part of the green traffic, through the construction of greenway can make people in life and production to obtain huge social and economic benefits:

(1) Greenway construction is an important measure to practice Scientific Outlook on Development.Greenway construction basically does not need to occupy building land indicators, with less investment, quick results, in line with the development purposes of low-carbon cities, but also in line with our country to expand domestic demand and stimulate consumption, one of the effective measures to promote economic development.At the same time, it can also improve the city's functions, strengthen the characteristics of local style, improve the city's taste, enhance the city's brand image, highlight the city's characteristics.

(2) Greenway is an important part of urban-rural and regional ecosystem, which integrates environmental protection, sports, leisure, tourism and other functions, it is an effective carrier to protect ecology, improve people's livelihood and develop economy.In terms of the functions of the greenway, the functions of the greenway are also multi-faceted, improving the ecological quality, providing recreational opportunities and venues, protecting nature, inheriting and developing urban spirit, and protecting historical and cultural resources can all play their due roles and contributions.

(3) The construction of the Greenway has remarkable economic effect, which is beneficial to the sustainable development of the local society and economy.The Greenway links up the public space in the city with the water body, the historical sites, the forest and so on, and drives the ecological and economic development along the greenway.At the same time, it can reduce the urban heat island effect, change people's travel way, behavior pattern, consumption idea, urban form, the structure of developed area and less developed area, and accelerate the organic urbanization process.

(4) It is conducive to the further improvement of urban infrastructure, the expansion of urban development space, the enhancement of Sanming's urban taste, and the satisfaction of residents' needs in areas such as recreation, sports and fitness, ecological education and low-carbon transportation, make People's recreation, communication, leisure life more rich and healthy, enhanced sense of happiness, and ultimately achieve a low-carbon and ideal livable life.

The construction of the Greenway is one of the important measures to speed up the construction of "Beautiful Sanming, open Sanming and Happy Sanming".In recent years, Sanming has been promoting the idea of "Beautiful Sanming, open Sanming, Happy Sanming", with the construction of the greenway in part emphasising support for party committees and municipal governments, sanming's cities are becoming more beautiful, more open and its people happier.According to the research conclusion, we should pay attention to the recreation characteristics of the disadvantaged groups, improve their participation in greenway recreation, improve the construction of supporting facilities, improve the amenity of Citizens Greenway Recreation, and optimize the effect of plant configuration, some strategies, such as increasing the seasonal change rate of plants, are put forward to meet the recreational needs of urban residents.

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