

# Residents' Attitudes toward Recreation Forest Development<sup>1</sup>

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## 休養林 開發에 대한 地域住民 態度 分析<sup>1</sup>

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### ABSTRACT

The purpose of this study is to ascertain the local residents' attitudes toward adjacent recreation forest development sites. 20 items of residents' attitudes were designed from previous tourism impact studies. For this study, two recreation forest areas were selected. In 1995, a total of two-hundred and four local residents were interviewed in their villages near the two recreation forests. A 5-point Scale was used to record the answers. Most respondents were concerned about two negative impacts of the recreation forests development : small economic gains for the residents and damage to the local environment. There were significant differences in certain socioeconomic characteristics of the respondents. Specially, significant differences were identified between the variables of income or non-income from visitors and residence length. Results indicate that recreation forests development may not be perceived as positive as hoped by the government. Further research needs to be conducted on the impacts of present and projected recreation forest development at the local level.

*Key words : residents' attitudes, recreation forest development.*

### 要 約

본 연구는 휴양림 개발에 따른 개발 인접 지역의 주민 태도를 알아보기 위해 수행하였다. 기존 관광 영향 연구 문헌을 참조하여 20개 주민 태도 항목을 선별하였다. 본 연구를 위해 2개의 휴양림지역이 선정되었다. 1995년 휴양림 지역 인근에 거주하고 있는 204명의 지역 주민을 대상으로 직접방문조사가 실시되었다. 응답은 5 point 척도를 이용하였다. 주민 태도 분석결과 대부분의 응답자들은 현 휴양림 개발에 대해 경제적 혜택이 적고 지역 환경에 피해를 주고 있다는 부정적 시각을 갖고 있었다. 지각 태도는 응답자들의 사회 경제적 특성에 따라 유의한 차이가 있었다. 특히 휴양림 방문객으로부터의 수입 여부와 거주기간 정도에 따른 유의적 차이가 현저하였다. 본 연구결과 휴양림 개발지역은 정부가 의도하고 있는 긍정적 측면이 지각되지 못하고 있음을 보여주고 있었다. 현재 및 계획된 휴양림 개발 효과에 대한 지역 영향 연구가 수행될 필요가 있었다.

### INTRODUCTION

In 1990 the Korean Forestry Administration amended the national Forest Law toward multiple

use of the land, making possible recreation forest development. The amended Forest Law defined and designated recreation forests. The sites had to have natural scenic beauty, healthy forest stands, easy accessibility for the visitors,

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and abundant water resources. The minimum size of any recreation forest site was set at a minimum of 100 ha in the national forests and 30 ha in the private forests. Since 1988, Korea has set aside or constructed 67 new recreation forests and will develop 115 recreation forests by the year 2007(Korean Forestry Administration, 1997). The number of forest recreation participants will continue to increase annually. The number of forest visitors at the turn of the century is expected to reach 16.7 million(Korean Forestry Administration, 1991).

However, the Korean government has attempted to meet the needs of the local residents through the development of new policies to assist the young farmers in making a living in these areas. The age of the farmers continues to rise. Rural incomes lag behind those of the urban areas. The government has emphasized that these improvements will help the businesses in the villages that are within the new national recreation forest sites(Korean Forestry Administration, 1996). Recreation forest development is the primary business sector that is to be enhanced. Part of the success of the recreation forest development lies with the residents and their attitudes toward the new venture. But the planning has not measured the residents' attitudes toward the new recreation forest development.

The phenomena of local residents' attitudes toward new economic growth and change has been the focus of many tourism studies(Camasso and Moore, 1985; Liu and Var, 1986; Gramling and Freudenburg, 1992; Lankford and Howard, 1994; Kang, Long and Perdue 1996; Wall, 1996). Researchers have attempted to classify the socio-cultural impacts of tourism in a broad context(Haralambopoulos and Pizam, 1996). It is recognized that tourism can have both positive and negative impacts at the local level(Lankford and Howard, 1994). Local residents do prefer environmental protection, economic benefits, low social costs, cultural benefits, and an improvement in their standards' living. When asked how tax dollars should be spent, local residents made the following rank order: crime prevention, environ-

mental protection, and then tourism promotion (Lin and Var, 1986).

The purpose of this study is to ascertain the local residents' attitudes toward the development of new recreation forest sites using previous tourism impacts variables. This information can be utilized by foresters to direct the future plans for forest recreation.

## MATERIALS AND METHODS

### 1. Study Area

For the purpose of this study, two recreation forest sites, Mt. Jangyoung and Mt. Jangtae, were chosen. The areas were chosen because of a similar distance from the entrance road to the recreation forest site: Mt. Jangtae is 5km from a highway, and Mt. Jangyoung is 6km from a highway. Residents were selected from villages that were intersected by the road from the main entrance to the entrance to the forest recreation site. Both are close to Taejon City, a major urban area of 1.2 million residents located in the center of the nation. It is served by excellent highways and railroads in all directions. Taejon City has experienced a recent population increase due to the creation of a new science and technology center on the northwest edge of the city, the deployment of the nation's military pentagon to the southwest of the city, and the development of national and international tourism to Taejon with the EXPO '93 international fair.

Both recreation forest sites are within an hour's drive of Taejon. The Mt. Jangyoung site is part of a public forest, while Mt. Jangtae is a private forest. Both sites are experiencing large numbers of visitors. Summer is the "high use" seasons, reflecting a pattern usually found in rural and farm tourism(Oppermann, 1996). Plus, the two areas are similar in that they have only one entrance point from a public highway.

### 2. Data Collection Method and Data Analysis

A questionnaire was designed to measure local residents' attitudes toward recreation forest sites development. Based on the pretesting using

Chungnam National University students, 20 items of residents' attitudes toward recreation forest sites development were selected from tourism impact attitude items used by previous studies (Liu and Var, 1986 ; Lankford and Howard, 1994). 10 items of residents' opinions and social and economic variables in the study were also based on previous studies(Liu and Var, 1986 ; Gramling and Freudenburg, 1992 ; Lankford and Howard, 1994). Sampling was limited to persons 18 years and older. Interviews were conducted by a team of one female and one male student from Chungnam National University, Taejon. The residents were interviewed in their homes at lunch time, in the evening, or on a weekend. All interviews were conducted during October, 1995. A total of 204 adults were sampled from the two recreation forest sites : 104 from Mt.

Jangtae and 100 from Mt. Jangyoung.

A 5-point Scale was used to record the answers for 20 residents' attitudes items and 10 residents' opinions items ; strongly disagree(1), disagree(2), middle(3), agree(4), strongly agree(5). Data analysis used the SPSS PC+ Program, including frequency, mean score, and anova analysis.

**RESULTS AND DISCUSSION**

**1. Socio-Economic Characteristics of Respondents**

As showed in Table 1, more males than females were interviewed. This reflects the traditional culture of our country in which the male dominates the discussions and decision-making process in the home.

**Table 1.** Socio-economic characteristics of residents

	Total		Mt. Jangtae		Mt. Jangyoung	
	N	%	N	%	N	%
<b>Sex</b>						
Male	139	68	73	70	66	66
Female	32	65	31	30	34	34
Total	204	100	104	100	100	100
<b>Age</b>						
Under 19	4	2	4	4	-	-
20's	33	16	27	26	6	6
30's	42	21	22	21	20	20
40's	67	33	32	31	35	35
Over 50	58	28	19	18	39	39
Total	204	100	104	100	100	100
<b>Education Completed</b>						
Middle School	84	41	24	23	60	60
High School	94	46	61	59	33	33
University	26	13	19	18	7	7
Total	204	100	104	100	100	100
<b>Income(won/month)</b>						
Under 1.0 mil.	121	59	58	56	63	63
1.0-1.5	52	26	21	20	31	31
Over 1.5	31	15	25	24	6	6
Total	204	100	104	100	100	100
<b>Residence Length</b>						
Under 5 years	20	10	12	12	8	8
6-10	20	10	15	14	5	5
11-20	37	18	25	24	12	12
Over 20 years	127	62	52	50	75	75
Total	204	100	104	100	100	100

The ages of the respondents were relatively uniform. Despite new national policies and programs toward universal education through the high school level, the study found that 41% of the respondents had less than a middle school education. This reflects past social customs and educational programs. The respondents' annual income was low compared to the rest of our country, with 59% earning less than one million won/month. It was also found that 62% of the residents lived in these areas for 20 years or more. Thus, a general profile would be that the residents were less educated and earned less income, and had lived at their present site for many decades.

## 2. Residents' Attitudes Analysis

Respondents were asked their attitudes toward the impacts of recreation forest site development (Table 2). Respondents were aware of the recreation forest site near their respective village. Approximately 22% of the respondents used the nearby recreation forest area for their recreation

at least once a month.

This study found that while respondents felt that forest recreation development has little on economic impacts, such as increase in employment opportunity, more economic investments in the community, and improvement in local living standards, the residents perceived that forest recreation development has brought their community into more environment problems. This includes questions about increase in traffic congestion, more litter and water pollution, increase in noise, and more landscape destruction. Specifically, the Mt. Jangtae respondents(private forest recreation site) perceived less economic benefits as well as environment problems than did the respondents from the Mt. Jangyoung area. For the rest of the impact items, respondents did not perceive positive or negative effects obviously.

These findings are disagreed in part with previous research that showed that residents' attitudes toward tourism was that the level of economic effects was relatively high(Liu and Var, 1986 ; Haralambopoulos and Pizam, 1996).

**Table 2.** Residents' attitudes toward recreation forest development

	Totals		Mt. Jangtae		Mt. Jangyoung	
	mean	SD	mean	SD	mean	SD
More employment opportunity	1.9	1.0	1.8	0.9	2.2	1.1
More investments	2.1	1.1	1.9	1.2	2.2	1.1
Standard of living	2.1	1.1	1.9	1.1	2.2	1.0
Local business improvement	2.4	1.2	2.1	1.2	2.6	1.2
Local inflation	2.5	1.2	2.3	1.2	2.8	1.2
Over consumption	2.6	2.1	2.6	1.1	2.7	1.1
Recreation opportunity	2.8	1.1	3.0	1.2	2.5	1.0
Local cultural activities	2.7	1.0	2.8	1.1	2.5	1.0
Pride in the area	3.0	0.9	3.1	1.0	2.8	0.9
Roads and communication	2.4	1.3	1.9	1.1	3.0	1.4
Shopping opportunity	2.3	1.0	2.1	1.0	2.5	0.9
Anxiety about children's ed.	2.8	1.2	2.6	1.2	3.1	1.1
Decrease in morality	2.7	1.2	2.6	1.2	2.9	1.2
Increase in crime	2.4	1.1	2.5	1.1	2.4	1.2
House and road improvement	3.0	1.2	2.8	1.3	3.1	1.1
Local image improvement	3.1	0.9	3.2	0.8	2.9	1.0
Destruction of the landscape	3.5	1.2	3.1	1.1	3.9	1.1
Increase in noise	3.9	1.2	3.6	1.3	4.2	0.9
Litter and water pollution	4.0	1.2	3.7	1.3	4.4	1.0
Traffic congestion	4.3	1.2	4.2	1.4	4.4	1.0

\* Scale : 5 points(1=strongly disagree, 2=disagree, 3=middle, 4=agree, 5=strongly agree),  
SD : Standard Deviation.

Respondents perceived the development of recreation forest sites as having little positive economic impact. Also, they perceived that the development has had a negative impact on the environment. These views are contrary to the national government's efforts to improve the residents' income and to stabilize the environment. Residents prefer environmental protection, rather than specific economic gains from the new development, specifically in Mt. Jangtae(Table 3).

This finding was showed well in the results of two items as I want to get income from visitors and income from visitors is more important than protecting the environment. They continue to show kindness to the visitors. And they also showed the impotence of their environment problems. They preferred stiffer fines for littering.

For the other items, such as recreation forest information, visitors' behavior, and attending local group activities, respondents didn't have positive or negative attitudes obviously.

**3. Attitudes Differences Analysis**

Previous research has revealed that residents' attitudes will differ based on age, length of residency, degree of exposure to the tourists, personal and locational contacts, and the distance from the residents' home to the tourist zone (Belisle and Hoy, 1980 ; Brougham and Butler, 1981). Other studies report that residents' attitudes could vary according to the type of devel-

opment undertaken in their town(Pizam, 1978 ; Murphy, 1981).

To investigate perceived differences in the impact of socio-economic characteristics on the development of recreation forest sites and their use, One-way analysis was used(Table 4).

Significant differences were identified between the variables of income or non-income from visitors and residence length. Respondents who have obtained their income from recreation forest visitors perceived more positive for economic impacts than the respondents who didn't gain from visitors, such as items of more employment opportunity, more investment, and improvement of living standard(0.01<P). This study's findings substantiate the conclusions by Haralambopoulos and Pizam(1996) ; that perceived impacts vary according to the respondents' business relationship with the tourism. Residents with a business relationship with tourism perceived more positive impacts on economic-related issues(employment opportunity, personal income, and/or standard of living). Plus, this study confirms previous findings by King, Pizam and Milman(1993) and Haralambopoulos and Pizam(1996) that respondents who economically benefitted from the visitors perceived more positive economic benefits effects than those respondents who did not economically gain. But for the other impacts items, including environmental items, significant differences didn't present. These findings suggest that local social

**Table 3.** Residents' opinions toward visitors

	Total		Mt. Jangtae		Mt. Jangyoung	
	mean	SD	mean	SD	mean	SD
I'll inform the recreation forest	3.0	1.1	3.2	1.0	2.9	1.1
I'm kind to visitors	3.4	1.0	3.3	0.9	3.5	1.0
I want to get income from visitors	2.6	1.4	2.2	1.4	2.9	1.3
Income from visitors is more important than protecting the environment	2.3	1.4	1.9	1.3	2.6	1.3
Most visitors are obnoxious	2.8	1.1	2.4	1.1	3.2	1.0
Rec. forest destroys the environment	3.3	1.1	3.1	0.9	3.6	1.1
Stiffer fines for littering	4.2	1.0	4.3	1.1	4.2	0.9
I am devoted to local group activities	2.9	1.1	2.8	1.0	3.0	1.2
I often meet visitors	2.8	1.3	2.7	1.3	3.0	1.2
Most visitors are not courteous	2.9	1.0	2.5	1.0	3.3	1.0

\* Scale : 5 points(1=strongly disagree, 2=disagree, 3=middle, 4=agree, 5=strongly agree), SD : Standard Deviation.

**Table 4.** Different income types from visitor and residence length types

	Means					
	Income from Visitors			Residence Length(Years)		
	Yes <sup>a</sup>	No <sup>b</sup>	Sig.	<20yr.	20yr. ≤	Sig.
More employment opportunity	2.5	1.8	.001**	2.1	1.8	.033*
More investment	2.8	1.9	.000**	2.2	1.9	.066
Standard of living	2.7	1.9	.001**	2.2	1.9	.036*
Local business improvement	2.7	2.4	.071	2.5	2.2	.208
Local inflation	2.6	2.5	.715	2.5	2.5	.681
Over consumption	2.9	2.6	.187	2.7	2.6	.572
Recreation opportunity	2.6	2.7	.682	2.9	2.6	.040*
Local cultural activities	2.7	2.6	.798	2.8	2.5	.015*
Pride in the area	3.0	2.9	.714	3.1	2.8	.009**
Roads and communication	2.7	2.3	.165	2.3	2.4	.620
Shopping opportunity	2.5	2.2	.127	2.3	2.2	.354
Anxiety about children's ed.	3.2	2.7	.072	2.7	2.8	.669
Decrease in morality	2.5	2.7	.481	2.5	2.7	.218
Increase in crime	2.3	2.4	.685	2.4	2.4	.945
House and road improvement	3.2	2.9	.213	3.1	2.8	.152
Local image improvement	3.1	3.0	.724	3.1	3.0	.514
Landscape destruction	3.6	3.4	.401	3.1	3.6	.005**
Increase in noise	3.8	3.9	.886	3.7	3.9	.222
Litter and water pollution	3.9	4.0	.795	3.7	4.1	.039*
Traffic congestion	4.1	4.3	.561	4.1	4.3	.143

<sup>a</sup> : respondents who have a business relationship with recreation forest visitors(N=24).

<sup>b</sup> : respondents who have no business relationship with recreation forest visitors(N=180)

F-test(significant) : \* at the level 5%, \*\* at the level 1%

and environmental problems would be more important than economic benefits toward forest recreation development, despites of government's efforts to improve economic benefits for residents around recreation forest areas.

Previous research also revealed that residents' attitudes differed according to the length of residence(Brougham and Butler, 1981 ; Lie and Var, 1986 ; Lankford and Howard, 1994). The longer respondents lived in the communities, the more negative they were toward tourists and tourism (Lankford and Howard, 1994). In this study, a majority(62%) of the respondents had lived in their respective villages for over 20 years(Table 1). To investigate this phenomena further, the two groups were divided into those who had lived there under 20 years and those who had lived there more than 20 years.

There were significant differences between the two groups concerning attitudes toward employment opportunities and improvements in the local

standard of living(0.05<P). The respondents who had lived more 20 years scored lower on these items than the respondents under 20 years. Plus, there also were significant differences between the groups on the perception of an increase in recreation opportunities(0.05<P), an improvement in local cultural activities(0.05<P), community pride(0.01<P), and on the issues of landscape destruction(0.01<P), more litter, and greater water pollution(0.05<P). The respondents who had lived more 20 years scored higher on concern for the environment and environmental issues such as more landscape destruction, more litter, and water pollution, while they scored lower for items of recreation opportunity, local cultural activities, and their local community pride than the respondents under 20 years.

## CONCLUSIONS

The Korean government has designated that

forest recreation areas be developed to provide outdoor recreation space for the general public, and to contribute income to the private forest owner(Korean Forestry Administration, 1991). Korea has developed 67 forest recreation sites, with plans for 115 by the year 2007. But there has been little research of the residents' attitudes toward the development of the sites. Such information is important to the recreation forest planner and to the success of the development. In these rural areas it appears that the heads of households are older than the general population, with less education and lower income levels. Most respondents have resided in their homes for more 20 years.

Most respondents perceived that the current recreation forest development didn't provide obvious economic benefits and environment issues were more important than economic gains in the community. Yet, those respondents who have gained economically from the new recreation forest sites are more likely to perceive positive economic benefits effects from the new developments. The longer the length of residency, the more likely the resident will see the development negatively and have a higher concern for the protection of the environment. Based on this research, the national government may desire to seek local residents' attitudes before planning more development in the rural areas.

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