Coastal Residents' Perceptions of the Impact of Community-based Tourism

Natthita Rojchanaprasart and Prasert Tongnunui***

Abstract

The purpose of this study was to examine the perceived impact of community-based tourism among coastal residents of Trang province, in Thailand. The concepts, theories, and previous research were reviewed for questionnaire construction, using a 5-point Likert scale. The content validity of the questionnaire was tested by expert and reliability was tested with the Cronbach alpha. The data collection using face-to-face questionnaire interviews was conducted with a total of 229 coastal residents. The results of this study indicated that coastal residents perceived CBT impacts in two ways: positively and negatively. The positive impacts indicated that coastal residents are likely to support future CBT development, mainly because of several benefits: cultural heritage, economy, and environmental resources. The negative impacts suggested that agencies encourage leaders and group members to study the best practice of CBT and provide training to develop their capacities in the areas of organizational management and conflict management. Leaders and group members in CBT need to improve CBT management through meetings to discuss and resolve these problems; moreover, they should build relationships with other people in the community by sharing ideas about CBT.

Keywords: *Perception, Impact, Community-based Tourism, Coastal Residents*

* Phisical Science, Faculty of Science and Fisheries Technology, Rajamangala University of Technology Srivijaya, 179 Moo 3, Maifad, Sikao, Trang 92150, THAILAND.

** Marine Science, Faculty of Science and Fisheries Technology, Rajamangala University of Technology Srivijaya, 179 Moo 3, Maifad, Sikao, Trang 92150, THAILAND.

การรับรู้ผลกระทบจากการท่องเที่ยวโดยชุมชน ของผู้อยู่อาศัยในชุมชนชายฝั่ง

ณัฐกิตา โรจนประศาสน์ และ ประเสริฐ ทองหนูนุ้ย***

บทคัดย่อ

รายงานนี้มีวัตถุประสงค์เพื่อศึกษาผลกระทบของการท่องเที่ยวโดยชุมชนต่อผู้อยู่อาศัยในชุมชนชายฝั่งจังหวัดตรัง ได้ทำการทบทวนแนวคิด ทฤษฎี และงานวิจัยที่เกี่ยวข้องเพื่อสร้างแบบสอบถาม โดยใช้ของลิเคิร์ทแบบ 5 สเกล ตรวจสอบความเที่ยงตรงเชิงเนื้อหาของแบบสอบถามโดยผู้เชี่ยวชาญ และหาค่าความเชื่อมั่นด้วยวิธีของครอนบาร์ค เก็บรวบรวมข้อมูลผู้อยู่อาศัยในชุมชนชายฝั่งโดยการสัมภาษณ์ตามแบบสอบถามทั้งหมด 229 คน ผลการศึกษา พบว่า ผู้อยู่อาศัยในชุมชนชายฝั่งรับรู้ผลกระทบของการท่องเที่ยวโดยชุมชน 2 ขอบเขต คือ ผลกระทบทางบวกและทางลบ โดยผลกระทบทางบวกชี้ให้เห็นว่าผู้อยู่อาศัยในชุมชนชายฝั่งจะสนับสนุนการพัฒนาการท่องเที่ยวโดยชุมชนต่อไป เพราะมีผลประโยชน์ในเรื่องวัฒนธรรม เศรษฐกิจ และสิ่งแวดล้อมธรรมชาติ ส่วนผลกระทบทางลบเสนอแนะว่า หน่วยงานที่เกี่ยวข้องต้องสนับสนุนให้ผู้นำและสมาชิกกลุ่มการท่องเที่ยวได้ศึกษาดูงานการท่องเที่ยวโดยชุมชนที่สำเร็จและเป็นตัวอย่างที่ดี และให้การฝึกอบรมพัฒนาศักยภาพในเรื่องการจัดการองค์กร และการจัดการความขัดแย้ง ส่วนผู้นำและสมาชิกกลุ่มการท่องเที่ยวโดยชุมชนต้องปรับปรุงการจัดการท่องเที่ยวโดยชุมชนด้วยการประชุมเพื่ออภิปรายและแก้ปัญหา รวมถึงจะต้องสร้างความสัมพันธ์กับคนในชุมชนโดยการแลกเปลี่ยนความคิดในเรื่องการท่องเที่ยวโดยชุมชน

คำสำคัญ: *การรับรู้ ผลกระทบ การท่องเที่ยวโดยชุมชน ผู้อยู่อาศัยในชุมชนชายฝั่ง*

* ภาควิชาวิทยาศาสตร์กายภาพ คณะวิทยาศาสตร์และเทคโนโลยีการประมง มหาวิทยาลัยเทคโนโลยีราชมงคลศรีวิชัย 179 หมู่ 3 ตำบลไม้ฝาด อำเภอสิเกา จังหวัดตรัง 92150

** ภาควิชาวิทยาศาสตร์ทางทะเล คณะวิทยาศาสตร์และเทคโนโลยีการประมง มหาวิทยาลัยเทคโนโลยีราชมงคลศรีวิชัย 179 หมู่ 3 ตำบลไม้ฝาด อำเภอสิเกา จังหวัดตรัง 92150

Introduction

Community-based tourism (CBT) is considered to be a tool for conserving natural and cultural resources and promoting community development (Davison et al., 2005: 1397). In general, the objectives of CBT include community empowerment and ownership, social and economic development, conservation of natural and cultural resources, and providing a valuable experience for visitors (Lopez-Guzman et al., 2011: 73). Many developing countries have been using CBT to mitigate the negative effects of mass tourism (Lopez-Guzman et al., 2011: 73) which often results in the destruction of resources and wildlife habitats (Xiao-li et al., 2006: 89).

The way of life of villagers in coastal communities depends on the abundance of aquatic resources. Nevertheless, the condition of natural resources is deteriorating and there is conflict over their use, especially due to global forces that promote industry or tourism in coastal areas. To survive and cope with the forces of external capital, some groups of coastal residents have adjusted their behavior to preserve coastal resources by emphasizing conservation activities, such as mangrove planting, restocking of aquatic animals, and establishing the monitoring of community resources. In addition, some coastal communities have encouraged ecotourism as a tool for coastal resource management (Rojchanaprasart, 2010: 100); for example, the communities on Libong Island in Trang province studied by Rattasomboon (2007), and at Yao Noi Island in Phang Nga Province, reported by Asker et al. (2010) and Satarat (2010).

Most studies directed at residents' perceptions of tourism and community-based planning that had been extensively conducted in the west countries (Aref & Redzuan, 2010: 87). Additionally, Aref & Redzuan (2010: 87) indicated that the positive and negative impacts of tourism were different depending on the communities. In to previous studies, the study samples were local residents, while there were only a few studies of coastal communities (e.g. Diedrich & Garcia-Buades, 2009; Dyer et al., 2007).

Research Objectives

1. To study the perceptions of coastal residents concerning the impacts of community-based tourism

2. To compare the demographic factors and perceptions of coastal residents

Literature Review

Studies of the impacts of tourism on the community have been apparently a popular topic (Aref & Redzuan, 2010: 87; Perdue et al., 1990: 587; Aref & Redzuan, 2010: 87). In the 1960's, early studies of this impact were focused on the economic and positive impacts of tourism. However, in the 1970's, tourism studies emphasized the negative socio-cultural impacts. In the 1980's and 1990's, studies of the impacts of tourism were seemingly more balanced in both positive and negative impacts, and this balance was called "sustainable tourism" (Tatoğlu et al., n.d.: 746). Aref & Redzuan (2010: 87) consistently noted that there were numbers of studies recently investigating the local residents' perception of the socio-cultural impacts of tourism. Moreover, Perdue et al. (1990: 587) stated that the differences of residents' perception of tourism impacts depended on sociodemographic characteristics such as tourism economy, place of residency, and distance from the tourism areas of the community.

The impacts of tourism on residents' perception were divided into different groups, depending on the criteria. Generally, the impacts of tourism were classified into three types: socio-cultural impacts, environmental impacts, and economic impacts (Jackson, 2008: 242; Alves et al., 2010: 23), while the tourism that affected residents in tourism destinations was divided into positive and negative impacts (Xiao-li et al., 2006: 87; Jackson, 2008: 242).

Regarding impact dimensions, some reports presented three dimensions of impacts, including economic, social and cultural, and environmental impacts (Xiao-li et al., 2006; Diedrich & Garcia-Buades, 2009; Upchurch & Teivane, 2000; Mohammadi et al., 2010; Chandralal, 2010; Popova, 2003). Some reports showed four dimensions—economic, social and cultural, environmental, and institutional impacts (Islam, 2009). Dyer et al. (2007: 414) reported positive social, cultural,

and economic impacts, and negative social impacts. Chandralal (2010: 45) reported three factors: economic impacts, social impacts, as well as environmental impacts. Moreover, some reports studied a specific dimension such as economic impacts (Stylidis et al., 2010), socio-cultural impacts (Brunt & Courtney, 1999; Aref & Redzuan, 2010), economic and social impacts (Horton, 2009), socio-economic impacts (Ramser, 2007), and environmental impacts (Dixit & Narula, 2010).

It could be said that alternative tourism, including, community-based tourism and ecotourism, has had several positive impacts, such as creating many jobs in communities, increasing family or community income (Ashley and Garlan, 1994: iv; Diamantis, 2004: 14; Isam, 2009: 48; Keane et al., 2009: 3; Rome, 1999: 41; Satarat, 2001: 301), improving infrastructures and facilities (Islam, 2009: 48; Keane et al., 2009: 3; Popova, 2003: 36; Satarat, 2010: 304), developing the skill of tourism group members (Ashley and Garlan, 1994: iv; Belanger, 2006: 4-5; Islam, 2009: 48; Keane et al., 2009), supporting cultural preservation (Keane et al., 2009: 3; Rome, 1999: 41; Satarat, 2010: 305), and encouraging members to conserve natural resources (Diamantis, 2004: 14; Isam, 2009: 48; Satarat, 2010: 305).

In addition, some studies on community-based tourism and ecotourism have revealed many negative impacts of tourism, such as higher family living costs (Keane et al., 2009: 3; Rome, 1999: 41; Satarat, 2001: 301), community problems (e.g. accident, inflection, drug) (Ponna, 2009: 34; Satarat, 2001: 301), conflicts among group members or communities (Ponna, 2009: 34; Kantamaturapoj, 2008), local people's lifestyle change (Horton, 2009: 100; Ponna, 2009: 34; Satarat, 2001: 301), and pollution (Buckldy, 2009: 151; Cuison, 2008: 2-3; Diamantis, 2004: 15; Popova, 2003: 36; Rome, 1999: 41), low income of CBT (Chellan, n.d.: 21; Halstead (2003: 11).

Methods of Study

Population and Sample

The population used in this study was residents in four coastal communities in Trang province on the Andaman coast in Thailand: Libong Island, Muk Island, Bo Hin village, and Yong Star village. All were engaged in activities related to CBT, including homestay, boat/car/motorcycle services, guiding, aquatic animal

processing, aquaculture, small-scale fishers' groups, production of curry paste and souvenir handicraft, Thai massage, etc. The population consisted of five CBT groups for a total of 270 persons. The number of members in each group came from interviews with the leaders. The total sample size was 229 interviewed persons (Table 1).

Table 1: Population and Sample Used for Questionnaire Interviews

Group Name	Population	Sample
Yong Star Community-based Tourism	80	64
Bohin Farm-stay	20	19
Koh (Island) Muk Homestay	55	44
Home Stay A-Koh (Island) Muk	30	22
Conservation Tourism and Koh (Island) Libong Development Association	85	80
Total	**270**	**229**

Research Instrument and Data Collection

The research instrument was a questionnaire that had two parts concerning: 1) demographic factors and 2) the perceived impact of CBT by coastal residents in Trang province. The latter part included economic, social and cultural, and environmental impacts. Those impacts also included both positive and negative impacts.

The concepts, theories, and previous research concerning both positive and negative impacts of CBT management were reviewed for questionnaire construction, using a 5-point Likert scale (strongly agree to strongly disagree) (Ko & Stewart, 2002: 523; Jackson, 2008: 245). The content validity of the questionnaire was tested by expert. The experts were five academics and three leaders of CBT groups. Data were used to improve and correct the questionnaire. For reliability testing, data were collected using questionnaires to interview 30 coastal residents, and reliability was tested with the Cronbach alpha. Questions which had item-total correlations of less than 0.30 were deleted (Ko & Stewart, 2002: 524), which left 23 questions concerning positive and negative impacts.

After that, face-to-face questionnaire interviews were conducted with 229 coastal residents, which accounted for 84.81% of the total population of 270.

Data Analysis

The quantitative data analysis was conducted using SPSS v.21 software. The demographic data on coastal residents were described according to frequency, percentage, mean, and standard deviation. A factor analysis was applied to organize the items of impact into factors. The variation in inter-group differences in demographic factors was tested with t-test, Analysis of Variance (ANOVA), and multiple comparison testing with Hochberg's GT2.

Results

Demographic Factors of Coastal Residents

The largest group of coastal residents was the Conservation Tourism and Koh Libong Development Association, which accounted for 34.93% of residents, followed by Yong Star Community-based Tourism and Koh Muk Home Stay, with 27.95% and 19.21%, respectively (Table 2).

Table 2: Number and Percentage of Residents Categorized by Group of Community-based Tourism Management

Group Name	Number	Percent
Yong Star Community-based Tourism	64	27.95
Bohin Farm-stay	19	8.30
Koh Muk Homestay	44	19.21
Home Stay A Koh Muk	22	9.61
Conservation Tourism and Koh Libong Development Association	80	34.93
Total	**229**	**100.00**

The largest group of coastal residents by gender was male, and the largest group by age was between 31-45 years. The most common occupation was rubber planter and the commonest educational achievement was upper primary school. Monthly family income was usually less than or equal to 10,000 baht. The most common duration of residency within a community was 36-50 years.

Most were members of CBT groups involved in homestays, boat/car/motorcycle services, guiding, safety preservation, and cooking (female). These were followed by residents involved in: 1) various occupational groups, 2) savings groups, funds and community banks, 3) health groups, including public health volunteers and Thai massage groups, and 4) coastal resource conservation groups, including aquatic animal conservation, mangrove conservation, specific missions units, and marine protection volunteers (Table 3).

Table 3: Percentage of Personal Characteristics of Coastal Residents, Trang Province

Personal Characteristics	Percent
Gender	
Male	52.84
Female	47.16
Age	
18-30 years	9.61
31-45 years	48.90
46-60 years	33.19
61 years or more	8.30
Min = 18, Max = 72, Mean = 43.92, S.D. = 10.85	
Education	
Lower primary school level	22.71
Upper primary school level	36.68
Lower secondary school level	14.85
Upper secondary school level	13.97
Diploma/bachelor's degree or higher	11.79
Occupation	
Fishery, aquaculture	28.38
Rubber plantation	36.68
Trading, personal business	13.11
Employment	10.48
Government employee	6.11
Housewife, student	5.24
Monthly family income	
Less than or equal to 10,000 Baht	67.57
10,001-20,000 Baht	21.62
20,001 Baht or more	10.81
Min = 1,300, Max = 80,000, Mean = 12,434.68, S.D. = 11,271.131	

Table 3: Percentage of Personal Characteristics of Coastal Residents, Trang Province (continued)

Personal Characteristics	Percent
Length of residency within a community	
Less than or equal to 20 years	17.03
21-35 years	24.89
36-50 years	37.99
51 years or more	20.09
Min = 2, Max = 72, Mean = 37.44, S.D. = 15.61	
Group member	
- Tourism groups: homestay, boat, car, motorcycle, guide, safety preservation, female cook,	27.67
- Cultural and sport group: Rong-ngeng dance	2.34
- Coastal resource conservation groups: aquatic animal conservation, mangrove conservation, a specific mission unit, marine protection volunteer	7.57
- Occupational groups	23.50
- Savings group, funds, community bank	15.67
- Women/ housewife group	4.18
- Health groups: Thai massage group, public health volunteer	7.83
- Other groups	11.24

Dimensions of Perceived Impacts of Community-based Tourism by Coastal Residents

To determine the primary factors of CBT impact, the full set of 23 impact items with a sample size of 229 interviewed persons was organized by factor analysis using principal component extraction and varimax rotation. A Kaiser-Meyer-Olkin statistic of 0.75 and an examination of the correlations among the items indicated that the data were suitable for factor analysis (Hutcheson & Sofroniou, 1990: 225). The items with factor loading equal to or higher than 0.45 were grouped for each derived factor, while the cut-off point for Teye et al. (2002: 675) was 0.40 and that of Webb et al. (2004: 144) was 0.50. Hair et al. (2010: 117) identified significant factor loadings of 0.45 based on a sample size of 150.

The factor analysis generated seven principal factors of perceived impacts of CBT, which explained a total of 61.44% of observed variance (Table 4). The seven factors were labeled as: 1) positive social and cultural impact, 2) negative social and cultural impact, 3) jobs and income, 4) product development, 5) positive environmental impact, 6) negative economic impact, and 7) negative environmental impact.

Table 4: Factor Loading Following Varimax Rotation of Perceived Impact of CBT

Factors	Factor Loadings	Eigen-value	% Variance Explained	Cumulative %
1. Positive social and cultural impact		**4.51**	**19.59**	**19.59**
1.1 CBT helps local residents, including youths and the elderly, to develop their skills.	0.66			
1.2 CBT supports local resident empowerment: group development, community ownership, and entitlement.	0.60			
1.3 CBT raises awareness among local residents of cultural heritage preservation.	0.77			
1.4 CBT supports rehabilitation of tradition, culture, wisdom, handicrafts, and historic places.	0.59			
2. Negative social and cultural impact		**2.94**	**12.79**	**32.38**
2.1 CBT creates social conflict within tourism management groups.	0.74			
2.2 CBT leads to social conict with gossip between group members and other local residents.	0.82			
2.3 CBT leads to the breakdown of religious activity, practice, and ceremony.	0.81			
2.4 CBT leads to problems of litter, waste.	0.57			
3. Jobs and income		**1.63**	**7.08**	**39.46**
3.1 CBT creates income or benefits for local residents.	0.71			
3.2 CBT creates several jobs in the community.	0.71			

Table 4: Factor Loading Following Varimax Rotation of Perceived Impact of CBT (continued)

Factors	Factor Loadings	Eigen-value	% Variance Explained	Cumulative %
3.3 CBT causes a distribution of benefits that increases economy in the community.	0.67			
3.4 CBT creates social network.	0.47			
4. Product development		**1.45**	**6.29**	**45.75**
4.1 Local businesses support CBT.	0.62			
4.2 CBT leads to various product developments.	0.83			
4.3 CBT supports the creation of channels for selling local products.	0.77			
5. Positive environmental impact		**1.34**	**5.82**	**51.57**
5.1 CBT leads to improvement of litter management.	0.82			
5.2 CBT brings about more feelings of appreciation and awareness of natural resources and the environment among community members.	0.69			
5.3 The benefits of CBT make local residents more willing to participate in natural resource conservation.	0.53			
6. Negative economic impact		**1.21**	**5.27**	**56.84**
6.1 The benefits of CBT are very small and uncertain.	0.72			
6.2 The benefits of CBT are distributed unequally.	0.71			
6.3 Investment by the public sector in facilities supporting CBT is very low.	0.57			
7. Negative environmental impact		**1.06**	**4.60**	**61.44**
7.1 CBT causes new areas to open or expand as natural attractions.	0.82			
7.2 CBT leads to more use of energy.	0.55			

The highest loadings on each factor are displayed as follows:

Factor 1–positive social and cultural impact: CBT raises awareness of local residents in cultural heritage preservation and helps local residents, including youths and the elderly, to develop their skills.

Factor 2–negative social and cultural impact: CBT leads to social conflict with gossip between group members and other local residents and CBT leads to the breakdown of religious activity, practice and ceremony.

Factor 3–jobs and income: CBT creates income or benefits for local residents and creates several jobs in the community.

Factor 4–product development: CBT leads to various product developments and supports the creation of channels for selling local products.

Factor 5–positive environmental impact: CBT leads to improvement of litter management and brings about more feelings of appreciation and awareness of natural resources and the environment among community members.

Factor 6–negative economic impact: The benefit of CBT is very small and uncertain and the benefit of CBT is distributed unequally.

Factor 7–negative environmental impact: CBT causes new areas to open or expand as natural attractions and leads to more use of energy.

Relationship between Demographic Factors and Perception of Coastal Residents

The seven factors of the perceived impacts of CBT by coastal residents were analyzed with respect to six demographic variables, namely: gender, age, education, occupation, income, and length of residency within a community.

1) Gender

Gender influenced the coastal residents' perceptions of CBT impact on product development ($p=0.01$). However, gender had no effect on the other six factors: positive social and cultural impact, negative social and cultural impact, jobs and income, positive environmental impact, and negative economic and negative environmental impact ($p>0.05$) (Table 5).

Table 5: Mean Differences in Tests of Perceived CBT Impacts by Gender

Impact	Mean		t	p-value
	Male	Female		
Positive social and cultural impact	3.85	3.78	0.82	0.41
Negative social and cultural impact	3.62	3.75	-1.12	0.26
Jobs and income	3.88	3.88	0.01	0.99
Product development	3.43	3.71	-2.58*	0.01
Positive environmental impact	3.85	3.81	0.43	0.67
Negative economic impact	2.70	2.70	-0.01	0.99
Negative environmental impact	2.97	3.06	-0.75	0.45

* Significant at the 0.05 level

2) Age

Age had no effect on perceptions with regard to any of the seven factors: positive social and cultural impact, negative social and cultural impact, jobs and income, product development, positive environmental impact, and negative economic and negative environmental impact ($p>0.05$) (Table 6).

Table 6: Mean Differences in Tests of Perceived CBT Impacts by Age

Impact	Mean				F	p-value
	18-30	31-45	46-60	> 60		
Positive social and cultural impact	3.76	3.80	3.85	3.84	0.13	0.94
Negative social and cultural impact	3.57	3.63	3.72	3.96	0.95	0.42
Jobs and income	3.98	3.92	3.82	3.74	0.97	0.41
Product development	3.56	3.50	3.57	3.91	1.32	0.27
Positive environmental impact	3.76	3.79	3.92	3.74	0.61	0.61
Negative economic impact	2.91	2.64	2.71	2.81	0.96	0.41
Negative environmental impact	2.80	2.98	3.00	3.50	2.20	0.09

3) Education

Education influenced the coastal residents' perceptions of CBT impact on jobs and income ($p=0.00$). However, education had no effect on perceptions of the other six factors: positive social and cultural impact, negative social and

cultural impact, product development, positive environmental impact, and negative economic and negative environmental impact (p>0.05) (Table 7).

Table 7: Mean Differences in Tests of Perceived CBT Impacts by Education

Impact	Mean					F	p-value
	Lower Primary	Upper Primary	Lower Secondary	Upper Secondary	Diploma or Higher		
Positive social and cultural impact	3.89	3.78	3.68	3.84	3.94	0.69	0.60
Negative social and cultural impact	3.62	3.64	3.64	3.62	4.05	1.35	0.25
Jobs and income	3.88^{ab}	3.71^{a}	3.85^{ab}	4.03^{ab}	4.24^{b}	4.91*	0.00
Product development	3.49	3.47	3.50	3.74	3.86	1.68	0.16
Positive environmental impact	3.86	3.75	3.91	3.76	3.98	0.65	0.63
Negative economic impact	2.66	2.78	2.69	2.69	2.56	0.53	0.71
Negative environmental impact	3.02	3.01	2.87	2.84	3.39	1.57	0.18

* Significant at the 0.05 level

4) Occupation

Occupation influenced the coastal residents' perception of CBT impact on two factors, which were positive social and cultural impact, and negative environmental impact (p=0.04, 0.01 respectively). However, occupation had no effect on the perceptions of the other five factors: negative social and cultural impact, jobs and income, production development, positive environmental impact, and negative economic impact (p>0.05) (Table 8).

Table 8: Mean Differences in Tests of Perceived CBT Impacts by Occupation

Impact	Mean						F	p-value
	Fishery	Rubber Plantation	Trading	Employment	Officer	Other		
Positive social and cultural impact	3.87^{ab}	3.87^{ab}	3.66^{ab}	3.50^{a}	4.21^{b}	3.73^{ab}	2.35*	0.04
Negative social and cultural impact	3.60	3.68	3.43	3.70	4.21	4.06	2.13	0.06
Jobs and income	3.76	3.95	3.98	3.69	4.13	3.83	1.87	0.10
Product development	3.61	3.56	3.63	3.24	4.02	3.33	1.90	0.10
Positive environmental impact	3.82	3.88	3.64	3.68	4.19	3.86	1.27	0.28
Negative economic impact	2.69	2.75	2.58	2.46	2.83	3.06	1.35	0.24
Negative environmental impact	2.90^{a}	2.90^{a}	3.12^{ab}	2.83^{a}	3.71^{b}	3.63^{ab}	3.43*	0.01

* Significant at the 0.05 level

5) Monthly Family Income

Monthly family income influenced the coastal residents' perception of CBT with regard to negative environmental impact (p=0.05). However, monthly family income had no effect on perception of the other six factors: positive social and cultural impact, negative social and cultural impact, jobs and income, product development, positive environmental impact, and negative economic impact (p>0.05) (Table 9).

Table 9: Mean Differences in Tests of Perceived CBT Impacts by Monthly Family Income

Impact	Mean			F	p-value
	≤10,000	10,001-20,000	>20,000		
Positive social and cultural impact	3.78	3.94	3.82	0.87	0.42
Negative social and cultural impact	3.69	3.51	4.02	2.77	0.06
Jobs and income	3.87	3.83	4.01	0.72	0.49
Product development	3.57	3.54	3.56	0.02	0.98
Positive environmental impact	3.78	3.97	3.93	1.36	0.26
Negative economic impact	2.69	2.61	2.90	1.25	0.29
Negative environmental impact	3.02^{ab}	2.81^{a}	3.38^{b}	2.98*	0.05

* Significant at the 0.05 level

6) Length of Residency

Length of residency influenced the coastal residents' perceptions of the negative environmental impact of CBT at (p=0.01). However, length of residency had no effect on the perceptions of the other six factors: positive social and cultural impact, negative social and cultural impact, jobs and income, product development, positive environmental impact, and negative economic impact (p>0.05) (Table 10).

Table 10: Mean Differences in Tests of Perceived CBT Impacts by Length of Residency

Impact	Mean				F	p-value
	≤20	21-35	36-50	>50		
Positive social and cultural impact	3.68	3.81	3.87	3.84	0.64	0.59
Negative social and cultural impact	3.63	3.61	3.63	3.92	1.49	0.22
Jobs and income	3.96	4.00	3.78	3.84	1.90	0.13
Product development	3.29	3.60	3.57	3.74	2.15	0.09
Positive environmental impact	3.70	3.89	3.88	3.76	0.76	0.52
Negative economic impact	2.68	2.65	2.75	2.70	0.21	0.89
Negative environmental impact	2.87^{a}	2.91^{a}	2.93^{a}	3.41^{b}	3.69*	0.01

* Significant at the 0.05 level

Discussion

Factors of Perceived Impacts of Community-based Tourism by Coastal Residents

Our results found that some factors of CBT perceptions were similar to those found in ecotourism and mass tourism. The results indicated that coastal residents perceived impacts on the following seven factors: positive social and cultural impact; negative social and cultural impact; positive economic impact on both jobs and income, and production development; positive environmental impact; negative economic; and negative environmental impacts. These findings have similar dimensions to those of Long (n.d.: 84-85), who reported positive socio-cultural impact, economic impact, and environmental impact, and negative socio-cultural impact, and environmental impact, but did not report any negative economic impact. Islam (2009: 70) reported only positive perceptions of ecotourism, including social-cultural, economic and environmental dimensions. Moreover, this study also had similar dimensions to those found for mass tourism by Dyer et al. (2007: 414), who reported positive social, cultural and economic impacts, and negative social impacts, but did not report any negative environmental impacts. Brida et al. (n.d.: 16) reported positive cultural-environmental impact, and socio-economic impact, and negative economic impacts (benefits not for residents), and environmental and socio-cultural impact. However, Chandralal (2010: 45); Trker & ztrk (2013: 51) reported perceptions of tourism with three factors, including economic and social impacts, as well as environmental impacts. Golzardi et al. (2012: 865) reported economic impact, social and cultural impact, and environmental impact. Pappas (2008: 59-60) reported economic and social impact.

In terms of negative social and cultural impact, the residents thought that CBT led to social conflict with gossip between group members and other local residents because all CBT groups of each community made those residents that were not members of CBT groups unaware of CBT benefits.

In terms of negative economic impact, residents perceived that the benefit of CBT was very small and uncertain. In the studied area, all the CBT groups were at an initial stage of development, and most had been active for 1 to 6 years only.

Advertising was rarely evident. Most used word-of-mouth among tourists, and promotion by their own staff. The websites of Trang Homestay Association had been terminated because the supporting budget from the public sector was discontinuously provided. Moreover, the connection across disciplines on the websites of community tourism was seldom connected. Some of their websites, have no connection with the others neither pubic nor private sectors. Finally, none of them was connected to mass tourism operators for conveying tourists into communities. As argued by Sebele (2010: 142), the community-based initiative will be damaged by a lack of business management and poor marketing skills. In addition, Halstead (2003: 11) stated that CBT generated low income and took time to gain benefits. The findings indicate that group members need to develop management and marketing skills (Mbaiwa et al., 2005).

Although all CBT management groups in the studied areas had regulations for sharing benefits, coastal residents thought that the benefits were unequally distributed because of management problems and conflicts. There were many factors affecting the selection of homestays by tourists in the studied area. Some tourists requested a sea view homestay. Some Muslim visitors requested to stay with Muslim homestay owners rather than non-Muslim homestay owners. Moreover, some big homestay owners got tourists directly without sharing with other homestays because big tourist groups requested to stay in the same homestay. Consistent with the study of Kantamaturapoj (2008), the tourists selected homestays near the tourism management center because it was convenient to walk to the car park without having to wait for a boat to take them out. To improve the sustainability of CBT, there should be capacity building in the organizational and conflict management of leaders.

Relationship between Demographic Factors and Perception of Coastal Residents

Gender did not relate to perceived negative impacts (negative social and culture impact, and negative economic and negative environmental impact). That is consistent with Perdue et al. (1990: 595). Furthermore, gender affected the perceptions of positive economic impact (product development), which is mostly managed by women in CBT villages and therefore differed between males and females. That

finding is consistent with Xiaoli (n.d.) in the case of positive impacts. However, Mensah (2012: 279-281) used the gender variable to test the relationship with the sub-items of economic, socio-cultural, and environmental impact.

Age did not affect either negative impacts (negative social and cultural impact, negative economic, and negative environmental impact) or positive impacts (positive social and cultural impact, jobs and income, production development, and positive environmental impact). It could be inferred that the effects of CBT were not obviously expressed as clear as expressed on mass tourism. The opinions of different ages, therefore, showed no differences. That finding is consistent with Perdue et al. (1990: 595) and Xiaoli (n.d.) in the case of negative impacts, but is not consistent in the case of positive impacts. However, Pappas (2008: 59-60) used the age variable to test the mean difference with the sub-items of economic and social impact. Mensah (2012: 283-284) used the age variable to test the relationship with the sub-items of economic, socio-cultural, and environmental impact.

Education level influenced perceived positive impacts (jobs and income) because some residents that had higher education thought that CBT created benefits not only for group members but also for other local sectors. Perdue et al. (1990: 595) and Xiaoli (n.d.) reported on education's effect on the perception of negative impacts, while Andereck et al. (2005: 1071) reported on the level of the effect of knowledge on the perception of community environment. However, Pappas (2008: 59-60) used the education variable to test the mean difference with regard to the sub-items of economic and social impact.

Occupation affected the perception of both positive social and cultural impact and negative environmental impact. Especially regarding negative environmental impact, the residents that were in fishery and rubber plantation occupations had to depend on coastal resources, which made them have different opinions.

Income influenced the perception of negative environmental impact because, for some residents, their income relied on abundant coastal resources. However, Pappas (2008: 59-60) used the income variable to test the mean difference regarding the sub-items of economic and social impact.

Length of residency influenced the perceived negative environmental impact, which is also consistent with Perdue et al. (1990: 595), while Xiaoli (n.d.) reported on the effect of the length of residency on the perception of negative impacts.

Conclusions and Recommendations

The purpose of this study was to examine the perceived impact of CBT among coastal residents that were members or were related to CBT groups of Trang province in south-western Thailand. The data collection using face-to-face questionnaire interviews was conducted with a total of 229 coastal residents.

The results of this study indicated that coastal residents perceived CBT impacts in two areas of perception, which were positive and negative impacts. In terms of positive impacts, they thought that CBT raises awareness of local residents regarding cultural heritage preservation; leads to various product developments; supports the creation of channels for selling local products; leads to improvement of litter management; and brings about more feelings of appreciation and awareness of natural resources and environment among community members. This indicated that coastal residents are likely to support future CBT development, mainly because of those benefits in relation to cultural heritage, the economy, and environmental resources. In terms of negative impacts, they thought that CBT leads to social conflict because of the gossip between group members and other local residents; CBT benefits are very small and uncertain; CBT benefits are distributed unequally; CBT causes new areas to open or expand as natural attractions; and CBT leads to more use of energy. It is suggested that agencies encourage leaders and group members to study the best practice of CBT and provide training to develop their capacities in the areas of organizational management and conflict management. Leaders and group members in CBT need to improve CBT management through meetings to discuss and resolve these problems; moreover, they should build relationships with other people in the community by sharing ideas about CBT.

References

Andereck, K.L., Valentine, K.M., Knopf, R.C., & Vogt, C.A. (2005). Residents' perceptions of community tourism impacts. *Annals of Tourism Research, 32*(4), 1056-1076.

Aref, F., & Redzuan, M.R. (2010). Community Leaders' Perceptions towards Socio-cultural Impacts of Tourism on Local Communities. *J Hum Ecol, 29*, 87-91.

Alves, H.M., BCerro, A.M.C. & Martins, A.V.F. (2010). Impacts of small tourism events on rural places. *Journal of Place Management and Development*, *3*(2), 22-37.

Ashley, C., & Garland, E. (1994). *Promoting Community-Base Tourism Development Why, What and How?* Retrieved October 29, 2011, from www.the-eis.com/data/RDPs/RDP04.pdf

Asker, S., Boronyak, L., Carrard, N., & Paddon, M. (2010). *Effective Community Based Tourism: A Best Practice Manual*. Retrieved September 19, 2011, from www.linkbc.ca/torc/downs1/APEC%20Effective%20Community%20Based%20Tourism%20WEB.pdf

Brida, J.G., Disegna, M., & Osti, L. (n.d.). *Residents' perceptions of tourism impacts and attitudes towards tourism policies in a small mountain community*. Retrieved April 29, 2012, from http://ssm.com/abstract=1839244

Brunt, P., & Courtney, P. (1999). Host Perceptions of Sociocultural Impacts. *Annals of Tourism Research, 26*(3), 493-515.

Buckley, R. (2000). *Ecotourism Principles and Practices*. UK: Cambridge University Press.

Chandralal, K.P.L. (2010). Impacts of Tourism and Community Attitude towards Tourism: A Case Study in Sri Lanka. *South Asian Journal of Tourism and Heritage, 3*(2), 49.

Chellan, N. (n.d.). *The social, economic and environmental impacts of ecotourism: case studies of the St. Lucia area and the Northern uKhahlamba-Drakensberg region in KwaZulu-Natal, South Africa*. Retrieved April 21, 2011, from www.geography.ukzn.ac.za/seminars/noel_chellan.ppt

Cuison, G. (2008). *Evaluation of Ecotourism Impacts in Costa Rica*. Retrieved April 21, 2012, from www.bukisa.com/articles/18717_evaluation-of-ecotourism-impacts-in-costa-rica

Davison, R.M., Harris, R.W., & Vogel, D.R. (2005). *E-Commerce for Community-Based Tourism in Developing Countries*. Retrieved April 17, 2011, from www.pacis-net.org/file/2005/234.pdf

Denman, R. (2001). *Guidelines for community-based ecotourism development*. Retrieved April 21, 2011, from www.icrtourism.org/Publications/WWF1eng.pdf

Diedrich, A., & García -Buades, E. (2009). Local perceptions of tourism as indicators of destination decline. *Tourism Management, 30*(4), 512-521.

Diamantis, D. (2004). *ECOTOURISM Management and Assessment*: Croatia Zrinski d.d.

Dixit, S.K., & Narula, V.K. (2010). Ecotourism in Madhav National Park: Visitors' Perspectives on Environmental Impacts. *South Asian Journal of Tourism and Heritage 3*(2).

Dyer, P., Gursoy, D., Sharma, B., & Carter, J. (2007). Structural modeling of resident perceptions of tourism and associated development on the Sunshine Coast, Australia. *Tourism Management, 28*(2), 409-422.

Golzardi, F., Sarvaramini, S., Sadatasilan, K., & Sarvaramini, M. (2012). Residents Attitudes towards Tourism Development: A Case Study of Niasar, Iran. *Research Journal of Applied Sciences, Engineering and Technology, 4*(8), 863-868.

Hair, J.F., Black, W.C., Babin, B.J., & Anderson, R.E. (2010). *Multivariate Data Analysis* (7th Edition). New Jersey: Pearson Education.

Halstead, L. (2003). *Making community-based tourism work: An assessment of factors contributing to successful community-owned tourism development in Caprivi, Namibia. Research Discussion Papers*. Retrieved October 29, 2011, from www.the-eis.com/data/RDPs/RDP60.pdf

Horton, L.R. (2009). Buying Up Nature Economic and Social Impacts of Costa Rica's Ecotourism Boom. *Latin American Perspectives, 36*(3), 93-107.

Hutcheson, G.D., & Sofroniou, N. (1990). *The Multivariate Social Scientist*. London: SAGE Publications.

Islam, W. (2009). *Co-Management Approach and Perceived Ecotourism Impact at Lawachara National Park in Bangladesh*. MSc thesis, Wageningen University & Research Center, Department of Environmental Sciences, Forest and Nature Conservation Policy Group, Socio-Spatial Analysis Group.

Jackson, L.A. (2010). Residents' perceptions of the impacts of special event tourism. *Journal of Place Management and Development, 1*(3), 240-255.

Kantamaturapoj, K. (2008). Impacts of Community Based Tourism in Thailand: A case study of Plai Pong Pang Village, Samutsongkram Province. *Khamis, 17 Jumadil Awal 1432 (Thursday, April 21st, 2011).*

Keane, J., Lemma, A., Kennan, J., Perez, F., Romero, W., Barrera, O., et al. (2009). *Rural Community-based Tourism in Central America.* Retrieved April 21, 2011, from www.odi.org.uk/resources/download/4623.pdf

Ko, Dong-Wan., & Stewart, W.P. (2002). A structural equation model of residents' attitudes for tourism development. *Tourism Management, 23*, 521-530.

Long, P.H. (n.d.). *Perceptions of Tourism Impact and Tourism Development among Residents of Cuc Phuong National Park, Ninh Binh, Vietnam.* Retrieved April 29, 2013, from www.ritsumei.ac.jp/acd/re/k-rsc/hss/book/pdf/vol03_07.pdf

López-Guzmán, T., Sánchez-Cañizares, S., & Pavón, V. (2011). Community-Based Tourism in Developing Countries: A Case Study. *An International Multidisciplinary Journal of Tourism, 6*(1), 69-84.

Mbaiwa, J.E., Ryan, C., & Aicken, M. (2005). *Chapter 8 - Community-Based Tourism and the Marginalized Communities in Botswana: The Case of the Basarwa in the Okavango Delta.* (pp. 87-109). Oxford: Elsevier.

Mensah, C. (2012). Residents' Perception of Socio-economic Impacts of Tourism in Tafi Atome, Ghana. *Asia Social Science, 8*(15), 274-287.

Mohammadi, M., Khalifah, Z., & Hosseini, H. (2010). Local People Perceptions toward Social, Economic and Environmental Impacts of Tourism in Kermanshah (Iran). *Asian Social Science, 6*(11).

Moscardo, G.E. (2008). *Community Capacity for Tourism Development.* Retrieved October 29, 2011, from http://bookshop.cabi.org/Uploads/Books/PDF/9781845934477/9781845934477.pdf

Pappas, N.V. (2008). City of Rhodes: Residents' Attitudes toward Tourism Impacts and Develop. *Anatolia: An International Journal of Tourism and Hospitality Research, 19*(1), 51-70.

Perdue, R.R., Long, P.T., & Allen, L. (1990). Resident support for tourism development. *Annals of Tourism Research, 17*(4), 586-599.

Ponna, P. (2009). *Community-Based Tourism Development in Sihanoukville, Cambodia.* Prince of Songkla University.

Popova, N. (2003). *Eco-Tourism Impact /Success Indicators Baseline Data 2002 Kalofer Pilot Region of Central Balkan National Park*. Retrieved April 17, 2011, from http://pdf.usaid.gov/pdf_docs/PNACT973.pdf

Ramser, T. (2007). *Evaluation Ecotourism in Laikipia, Kenya: Assessint the Scio-economic Impact of Ecotourism and Conservation Attitude in a Multiple Case Study.* Master thesis, Faculty of Natural Sciences, University of Bern.

Rattasomboon, S. (2007). *Ecotourism Development Guidelines for Koh Libong Community, Trang Province.* Master thesis of Urban and Regional Planning Program in Community Planning, Factulty of Architecture, Chulalongkorn University. (In Thai).

Rojchanaprasart, N. (2010). *Development of competency of small-scale fishers in fishery co-management.* Ph.D. Thesis in population education, Faculty of Graduate Studies, Mahidol University.

Rome, A. (1999). *Ecotourism Impact Monitoring: A Review of Methodologies and Recommendations for Developing Monitoring Programs in Latin America.* Retrieved March 15, 2012, from www.uhu.es/pablo.hidalgo/docencia/effects/AADD/d_4_e_ecotourism_impacts_monitoring_eng.pdf

Satarat, N. (2010). *Sustainable Management of Community-Based Tourism in Thailand.* Ph.D. thesis (Development Administration), National Institute of Development Administration.

Sebele, L.S. (2010). Community-based tourism ventures, benefits and challenges: Khama Rhino Sanctuary Trust, Central District, Botswana. *Tourism Management, 2010*(31), 136-146.

Suansri, P. (2003). *Community Based Tourism Hanbook*. Bangkok: Responsible Ecological Social Tour- REST.

Tatoğlu, E., Erdal, F., Özgür, H., & Azakli, S. (n.d.). *Resident Perceptions of the Impact of Tourism in a Turkish Resort Town*. Retrieved April 17, 2011, from www.opf.slu.cz/vvr/akce/turecko/pdf/Tatoglu.pdf

Teye, V., Sönmez, S.F., & Sirakaya, E. (2002). Residents' Attitudes Toward Tourism Development. *Annals of Tourism Research, 29*(3), 668-688.

Türker, N., & Öztürk, S. (2013). Perceptions of Residents Towards The Impacts of Tourism in the Küre Mountains National Park, Turkey. *International Journal of Business and Social Science, 4*(2), 45-56.

Upchurch, R.S., & Teivane, U. (2000). Resident perceptions of tourism development in Riga, Latvia. *Tourism Management, 21*(5), 499-507.

Xiao-li, L., Chun-you, W., & Gui-rong, X. (2006). Fuzzy Synthetic Evaluation on Residents Perceptions of Tourism Impacts. *Chinese Geographical Science, 16*(1), 87-94.

Xiaoli, L. (n.d.). *Resident perceptions of rural tourism impacts: A case study of Donggou village,China*. Retrieved April 29, 2013, from http://dtxtq4w60xqpw.cloudfront.net/sites/all/files/docpdf/xiaoliluresidentperceptionofruraltourismimpacts2.pdf

Webb, E.L., Maliao, R.J., & Siar, S.V. (2004). Using local user perceptions to evaluate outcomes of protected area management in the Sagay Marine Reserve, Philippines. *Environmental Conservation, 31*(2), 138-148.