

## An analysis of sustainable livelihoods through community-based tourism in Andaman coastal communities, Thailand\*

การวิเคราะห์การดำรงชีพอย่างยั่งยืนด้วยการท่องเที่ยวโดยชุมชนในชุมชนชายฝั่งอันดามัน  
ประเทศไทย

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### Abstract

This paper aims to investigate how the success of community- based tourism (CBT) affect sustainable livelihoods. The survey research was conducted. A total of 59 local residents who participate with CBT's processes and activities in two communities, namely Ban Tha Lay Nok, Ranong province and Koh Yao Noi, Phang Nga province in the Andaman Coastal of Thailand were participants of this study. The data were analyzed by using simple linear regression analysis. The results reveal that community- based tourism (CBT) plays an important role to the livelihoods of local residents who join the community- based tourism activities. Specially, it is found that community- based tourism's success factors are significantly related to sustainable livelihood outcomes in economic, social and environmental aspects. The findings of this study contributes to the conclusion that residents in the community- based tourism communities must be aware of the success factors, the initiation of activities and contribute to full participation of stakeholders.

**Keywords:** community-based tourism, sustainable livelihoods, the success of community-based tourism

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## บทคัดย่อ

งานวิจัยนี้มีจุดมุ่งหมายเพื่อสำรวจความสำเร็จของการท่องเที่ยวโดยชุมชนนั้นส่งผลต่อการดำรงชีพอย่างยั่งยืนอย่างไร โดยใช้การวิจัยเชิงสำรวจ ทำการศึกษาจากประชาชนในพื้นที่จำนวน 59 คนที่มีส่วนร่วมในกระบวนการและกิจกรรมการท่องเที่ยวโดยชุมชนในสองชุมชนชายฝั่งอันดามัน ประเทศไทย ได้แก่ บ้านทะเลนอก จังหวัดระนอง และ เกาะยาวน้อย จังหวัดพังงา และมาวิเคราะห์ข้อมูลด้วยการวิเคราะห์การวิเคราะห์การถดถอยเชิงเส้นอย่างง่าย ผลการศึกษาพบว่า การท่องเที่ยวโดยชุมชนมีบทบาทสำคัญต่อการดำรงชีพของประชาชนในชุมชนที่เข้าร่วมกิจกรรมการท่องเที่ยวโดยชุมชน โดยเฉพาะอย่างยิ่งเมื่อการท่องเที่ยวโดยชุมชนนั้นประสบความสำเร็จจะส่งผลอย่างมีนัยยะสำคัญต่อความยั่งยืนในการดำรงชีพทั้งทางด้านเศรษฐกิจ สังคมและสิ่งแวดล้อม โดยสรุปข้อค้นพบจากการศึกษาต่อการท่องเที่ยวโดยชุมชนได้ว่าประชาชนในชุมชนที่ดำเนินการการท่องเที่ยวโดยชุมชนจะต้องตระหนักถึงปัจจัยแห่งความสำเร็จ การคิดริเริ่มกิจกรรมและการมีส่วนร่วมของผู้มีส่วนได้ส่วนเสียอย่างเต็มรูปแบบ

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## Introduction

Community-Based Tourism (CBT) is acknowledged as an approach for low-impact tourism that helps alleviate poverty, promotes environmental conservation and improves livelihoods (Harold & Rosa, 2009). Again, the positive influence of tourism towards the enhancement of communities in different destinations has raised many doubts. As Mitchell and Reid (Mitchell & Reid, 2001) likely put it:

*‘Communities, particularly rural ones, are often at the front line in service provision but last to receive benefits from that effort. Tourism in the developing world has frequently been a double-edged sword; while it may provide a venue for communities and people to augment their income or livelihood, the majority of benefits tend to flow out of them. Additionally, real power and decision-making regularly resides outside of community control and influence’ (113-114)*

For this reason, the term of CBT was promoted to provide the alternative forms of tourism and the way of development in many places around the world. For example, poverty alleviation and community development in Pondoland South Africa, Namibia's Community Based Tourism Policy, CBT and indigenous communities in Ecuador (Nyaupane & Poudel, 2011). Presently in Thailand, there are a total of 299 communities managing CBT in their communities; 143 communities in the North, 48 communities in the central, 29 communities in the Northeast, and 79 communities in the South (Satarat, 2010). All of them are presented in different purposes and aspects such as environmental conservation, community development, additional income and livelihood improvement.

CBT is relying on natural resources, local culture and way of living as tourism attractions such as beaches, coastlines, mountains, forests, lakes, oceans, scenery, tradition, wisdoms and architectures, provided by landscapes in the most destinations (Gossling & Hall, 2006). Therefore, it shows the linkages among biodiversity, livelihood and tourism (Nyaupane & Poudel, 2011). CBT is the positive aspect of resources used for tourism that engages positive attitudes towards conservation to people in the community and tourists and to enhance quality of living such as health, education, amenities and infrastructure. Consequently, CBT is counted as sustainable tourism by its activities and purposes. CBT also addresses the importance of sustainability aspects; economic, social, environment (ChuangChot, Thanupon and Siriwong, 2015). It seeks to encourage better resource management outcomes with the full participation of communities in decision-making activities and the incorporation of local institutions, customary practices, and knowledge system in management regulatory and enforce processes. As CBT emphasizes on the improvement of community resident's livelihood, it is in compliance with Sustainable Livelihood Approach (SLA) because it seeks to understand and build on people's existing assets to develop positive livelihood outcomes by identifying practical action. Both CBT and SLA are based on people-centre paradigm.

Among other things, SLA involves the development of short-term coping mechanisms and long-term adaptive capacities that enhance the abilities of individuals and communities to deal with changing circumstances (Chambers & Conway, 1992). The two main ideas on which SLA is focused on are 1) adaptive strategies and 2) participation and empowerment. As indicated, the adaptive strategies are defined as "the changes and adjustments people make in their livelihood systems in order to cope under difficult circumstances" (Singh, 1996). SLA has been used in tourism research but there remain few studies that link the SLA and tourism (Shen, Hughey, & Simmons, 2008; Tao & Wall, 2009) and there is limited evidence to explore CBT as a livelihood strategy for the community (Bocking, 2010; Tao & Wall, 2009). This issue is crucial as that CBT has to be recognized as affecting the sustainable livelihoods of the people in the community.

In Thai context, previous studies indicated that the success factors of CBT in Thailand are participation in decision-making processes, local ownership, collective responsibility, leadership and management, sharing of resources, sharing of benefits among members achieving authenticity, and achieving distinction (Pongkornranksilp, 2014; Nitikasetsoontorn, 2014). The Andaman coastal communities are promoting CBT to outsiders and tourists in such ways that can take part in numerous alternatives such as homestay, study trips, volunteer activities, variety of eco activities, culture, and adventure tours. Due to the benefits of tourism,

tourism sector encompasses a large number of different travel-related activities including inter alia, hospitality enterprises, souvenir and craft businesses, travel agencies, transport enterprises, tour operators and tourist guides. To further illustrate this, some areas affected by tsunami or environmental conservation, CBT is regarded as a tool for relief from the impacts of tsunami and solves problem from environmental degradation in the community. The success of CBT can also raise the optional income, enhancing people's better well-being, so that people have put CBT in account as means of livelihoods and well-being. This research will explore the relationship between CBT success factors and sustainable livelihoods dimensions by conducting survey research and using a sustainable livelihood approach which build on five capital assets, including human, social, physical, financial and natural (Ashley & Carney, 1999; Chambers & Conway, 1992) to identify a set of sustainable livelihoods outcomes ensuring that the success factors of CBT are positively related to sustainable livelihoods.

### **Objectives of the study**

The objectives of this study are to; examine the relationship between the success of CBT and sustainable livelihoods dimensions, and identify how the success of CBT can lead to sustainable livelihoods.

### **Conceptual framework**

The success of community-based tourism depends on positive impact on social, economic, and environmental conditions of the community. It also indicates that the success of CBT relies on benefits delivered to host communities (Asker et al., 2010; Responsible Ecological Social Tours, 2006; Tasci et al., 2013; Thailand Community Based Tourism Institute, 2012) cited in (Nitikasetsoontorn, 2014). The findings from previous research indicated that CBT is positively resulting to the community in case of the true CBT. However, it found that tourism in the community is affecting people livelihood but there remains a few of evidences from research supporting the relationship between CBT and sustainable livelihoods. Under the principle of CBT concerning natural and cultural resources, community organizations management and learning, the community will succeed in CBT. Focusing on the success factors of CBT that include the ultimate outcomes of CBT, the seven success factors are selected. There are participation in decision-making processes, local ownership, collective responsibility, leadership and management, sharing of resources, sharing of benefits among members and partnership and external support. Besides, sustainable livelihood is concerning five aspects of community capital, including human capital, social capital, natural capital,

physical capital and financial capital. We can see that the aspects of sustainable livelihoods are presented in the principle of CBT as the tourism resources in both of tangibles and intangibles resources. Hence, the hypothesis to investigate the relations between the success of CBT with sustainable livelihoods through three dimensions of sustainable livelihoods outcomes. The relationship between the success of CBT and sustainable livelihoods are showing the significance that is related to sustainable livelihoods outcomes which are sustainability economic development, sustainability social development and sustainability environment development.

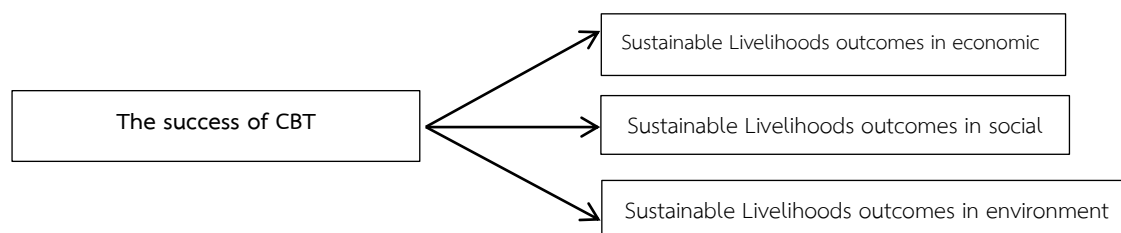


Figure1 represents the conceptual model for this study

### **Sustainable livelihood and tourism**

The focus of “livelihood” in sustainable livelihoods (SL) framework is an attempt to move away from narrow definitions of poverty, and as such reframing the broad aim of development as an effort to improve people’s livelihood options. “Livelihood” refers broadly to a means of making a living, and includes the assets, access to institutions and processes, and strategies that a person utilizes to achieve livelihood outcomes (Ashley & Carney, 1999). The term “sustainable” refers both to the characteristic of a livelihood to endure the various shocks and uncertainties likely to be encountered in the environment, and to avoid contributing to long-term depletion of natural resources (Chambers, 1987). Meanwhile, Brocklesby and Fisher referred sustainable livelihood as a means of linking socioeconomic and environmental concerns (Brocklesby & Fisher, 2003). The sustainable livelihoods framework offers an analytic basis for understanding the complexity of rural livelihoods. It forces users to think systematically about rural development rather than solely focusing on one or two aspects of rural poverty reduction (Scoones, 1998). It is observed by Rakodi that an interaction between livelihood opportunities and household assets influences both the livelihood strategies and outcomes adopted by the poor. Livelihood outcomes focused on achievements, indicators and progress the understanding of which is intended to provide, through a participatory inquiry, a range of outcomes that will improve well-being and reduce poverty in

the broad sense (DFID, 1999). For example, if livelihood strategies adopted by the poor people provides a positive outcomes, it implies an “improved income, increased well-being, reduced vulnerability, improved food security and make more sustainable use of the resources” (Rakodi, 2002).

Drawing on Chambers and Conway, they contended that capability, equity and sustainability are fundamental principles to sustainable livelihoods and added the concept of capability into the definition of SL;

*“A livelihood comprises the capabilities, assets (including both material and social resources) and activities required for a means of living. A livelihood is sustainable when it can cope with and recover from stresses and shocks maintain or enhance its capabilities and assets, while not undermining the natural resource base”* (Chambers & Conway, 1992)

Tourism may be a new activity in a community and it is often perceived as being risky. It is useful to explore how tourism is and might be incorporated into the existing mix of livelihood strategies so that it enriches rather than replaces the means by which people may be sustained. If a community decides to incorporate tourism as one of their livelihood strategies in order to achieve SL, tourism will be a form of livelihood diversification. Ellis (1998, p. 5, cited in Hussein & Nelson, 1998, p. 4) defined livelihood diversification as “the process by which rural families construct a diverse portfolio of activities and social support capabilities in their struggle for survival and in order to improve their standards of living.” Such diversification can have many advantages and tourism can become: (1) a means to enable accumulation (e.g., income) for consumption and investment; (2) a means to help spread risk; (3) an adaptive response to longer-term declines in income or entitlements, due to serious economic or environmental changes beyond local control; and/or (4) a means to take pressure off fragile lands and increase household incomes. Appropriate involvement in tourism, which is often desired by local people, will bring changes in uses and values of resources and activities. These need to be reviewed and understood in the local cultural and natural setting where they occur, and through local minds rather than being assessed solely by external agencies. It is important that local communities have the opportunity to evaluate their own resources (human, physical, and economic), to assess their past, present and future needs and resources, and to identify their strengths and weaknesses before evaluating any decision to become involved in tourism. Only when communities understand themselves and their abilities in their own terms can they begin to evaluate decisions relating to external features such as tourism. From the perspective of community involvement, there is a continuum from enclave tourism to a communal approach to tourism approach to tourism development. The enclave tourism

is often criticized for excluding local people involvement while communal approach to tourism enhance the local communities involvement in sharing economic benefits from tourism.

### **Methodology**

For more understanding of the key themes, the research employs both conceptual of community-based tourism (CBT) and sustainable livelihood approach (SLA), which aims at incorporating key principles CBT and SLA (Shen et al., 2008). The study employs the sustainable livelihood for tourism as a system, which includes assets, activities related to tourism, outcomes, institutional arrangement and vulnerability contexts as proposed by Shen et al., (2008). It is assumed that “sustainable tourism livelihood is embedded in the tourism context within which can cope with vulnerability, and finally achieve livelihood outcomes, which should be economically, socially, environmentally and institutionally sustainable without undermining other” (Chambers & Conway, 1991; Shen et al., 2008). The questionnaire of this study was adapted from the previous study and most of constructs measurement were adopted from studies conducted in western countries. Therefore, cross cultural adaptation was necessary to ensure that the meaning of words and phrases in Thai have equivalent meaning (Sperber, 2004).

Quantitative analysis of data from the questionnaire survey used the statistical package for the social sciences (SPSS). After coding the data, the statistical analyses such as frequencies, descriptive, factor analysis, correlation analysis, simple regression are used according to the respective objectives of the study.

### **Participants**

The sampling groups being used in this research are local residents who participate in CBT's processes and activities such as land managers, entrepreneurs, services and product providers, and employees in two selected CBT communities in the Andaman coastal of Thailand namely Ban Tha Lay Nok, Ranong province where the local people employed CBT for community development purposes. The CBT activities are managed cooperatively by the Ban Tha Lay Nok CBT Group with the goals of creating and spreading income, conserving culture and stimulating local participation and unity, conservation and creating opportunities for exchange between villagers and guests. While, Koh Yao Noi, Phang Nga province community employed CBT to solved environmental degradation in their community, and created many activities that related to rehabilitated environmental.

Residents of community who participate in CBT's processes and activities will earn income and get benefit from CBT both of direct and indirect ways. The number of 59 respondents was chosen to estimate the sample size, basing on the using G\*power 3.1.9.2 (Fual, Erdfelder, Lang, & Buchner, 2007). We divided the sampling into two communities. According to Wiratchai (2012:76), the effect size used medium to high scale 0.25, alpha ( $\alpha$ ) 0.05 and power 0.95. and questionnaire were distributed in the two communities equally.

### Data analysis and findings

Data from the survey questionnaires show that the number of the respondents at Ban Tha Lay Nok, Ranong province and Koh Yao Noi, Phang Nga province who are females (47.46%) is close to the number of the respondents who are males (52.54%). Nearly half of the participants are between 45 to 54 of age (44.07%), where 35 to 44 years old accounts for 28.81% and 25 to 34 years old accounts for 8.47%. The proportion of the participants who were 18 to 24 years old (10.17%) is higher than those who are 55 to 60 years old (3.39%). The elderly respondents, who are over 60 years old and older accounts for 5.08%. According to the observations, respondents had major occupations. The majority of respondents worked as freelancer 33.89% for the main occupation while 20.33% are fisherman and people who are merchant and farmer are equal at 15.25%. There is 10.6% doing tourism as a major occupation and only 5.08% are employees. However, over half of participants doing tourism as a minor occupation 55.93% of the total respondents. There is 13.55% of respondents who are fisherman, 11.86% are freelancers while 10.16% is merchant. Only 6.78% is farmer and 1.69% is employee.

A follow up, an alpha coefficient (Cronbach's alpha) was calculated to estimate the internal consistency of the scale. Referring to the Table 1, results from varimax rotation suggested that all 44 items in performance demonstrated high convergent and discriminant validity by loading strongly on the factors they were designed to measure and weakly on other factors.

Constructs	Factor loading	Cronbach Alpha
<b>The successful of community based tourism</b>		0.94
You have involved in making decision related to CBT development in your community.	0.56	
You can express opinions and share ideas and knowledge on to CBT development in your community.	0.65	
You are depending on network.	0.70	



You are aware of the positive and negative impact of CBT in your community.	0.56
You are able to manage own enterprises in your community.	0.77
You are involved in tourism as entrepreneurs.	0.66
You understand roles in tourism business.	0.63
You have positive impact while minimizing negative impact.	0.71
You are taking immediate actions to correct problems in your community.	0.79
CBT is setting aside at least part of the tourism income for community projects.	0.81
You can exchange special talent, knowledge, know-how and skills to community members and tourists.	0.83
You can spread of flyers and promotional materials.	0.60
The CBT's benefit is sharing for the whole community.	0.66
You can access public facilities.	0.78
You can access additional budget.	0.78
CBT leader encourages members to participate in decision-making.	0.75
CBT leader energizes plans into action.	0.82
CBT leader acts as the linkages between members and other stakeholders.	0.64
CBT get help in marketing and promotion from partnership and outside support.	0.73
The partnership and outside support give community provision of advice and support.	0.58
The partnership and outside support promote you to have training and educational	0.51

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**Sustainable livelihood outcome in economic**

0.92

CBT makes a lot of livelihood options.	0.87
CBT creates more number of employment opportunities to the community.	0.82
Price of goods-essential goods (such as food and medicine) tends to be stable because of the growth of CBT.	0.84

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The community has better infrastructures (such as roads, electricity, water, public transport).	0.93
Education and better medical services available in general since the development of CBT.	0.89
I have more opportunities to obtain training for the development of CBT.	0.59
With the development of CBT, it's making easier to obtain various information that valuable to my live.	0.85
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<b>Sustainable livelihood outcome in social</b>	<b>0.70</b>
CBT development does not affect the norms and values in our area so stay awake.	0.67
CBT has increased the sense of mutual cooperation (solidarity) society.	0.74
People from outside have immigrated to our community because of development of CBT and do not bother me.	0.58
The tourist existences tend not to interfere.	0.55
Emancipation of women is increasingly visible after the development of CBT.	0.70
Increase rate of women participation in CBT after the development of CBT.	0.70
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<b>Sustainable livelihood outcome in environment</b>	<b>0.82</b>
The development of CBT in this area makes the surrounding landscape more interesting.	0.71
CBT does not cause pollution of the local environment (water, soil and air).	0.60
CBT increases awareness and creates sense of love and care for natural resource and environment among community members.	0.74
Systematic waste management is developed because of CBT.	0.83
Tourists/ visitors do not encourage environmental damage.	0.70
With CBT, public awareness of environmental protection is increased.	0.80

Table 1: Factor analysis result

Focusing on the success of CBT, it had factor loading range from 0.51 to 0.83 (greater than 0.5, representing an acceptable significant level of internal validity) with the reliability of 0.94 (Cronbach Alpha). For the construct of sustainable livelihoods outcomes in economic was loaded cleanly in one factor, and the factor loading of this construct ranged from 0.59 to 0.93, the cronbach alpha was 0.92. The sustainable livelihoods outcomes in social construct ranged from 0.55 to 0.75 with items reliability of 0.70, and the sustainable livelihoods outcomes in environment had clearly loaded as one factor with number of loading ranged from 0.60 to 0.83, the overall reliability for this construct was 0.82. Since all factor loadings were acceptable significant level with substantially high internal consistencies, all 42 questionnaire items retained for further analysis.

Regression analysis was performed in order to investigate the influence of CBT's success factors on the dependent variable, livelihoods outcomes (economic, social and environment). The model of determinants of sustainable livelihoods through CBT is shown in Figure 1. Before running the regression, the correlation matrix was performed. The results were shown that all variables are correlated in each variables and itself in positive sign. These variables have correlation greater than 0.50, and the correlation matrix of all variables is displayed in Table 1. Referring to the model of determinants of sustainable livelihoods through CBT in Figure 1, we use simple linear regression analysis as a statistic method in this study. However, the overall result of regression analysis displayed in Table2.

	The successful of CBT	SL in economic	SL in social	SL in environment
The successful of CBT	1.0			
SL in economic	0.85	1.0		
SL in social	0.83	0.73	1.0	
SL in environment	0.74	0.58	0.72	1.0

Table 2: Correlation matrix

Regression analysis conducted in the model (see Figure 1). From this model, the successful of CBT were independent variables and sustainable livelihoods in economic was dependent variable. The first analyzed, the success of CBT variable explained a substantial variance in the dependent variable, sustainable livelihoods in economic 73 percent. It will be noted from Table2 that the success of CBT displayed a significant, positive linkage with sustainable livelihoods outcome in economic with a beta coefficient of 0.85 ( $p < 0.001$ ). This implies that the success of CBT had a great influence to sustainable livelihoods in economic.

The second, the success of CBT variable explained a substantial variance in the dependent variable, sustainable livelihoods in social. It revealed that the model significantly explains the variance of sustainable livelihoods in social 68 percent. The beta coefficient of this model was 0.83 ( $p < 0.000$ ). It appears that the success of CBT had a great impact on the sustainable livelihoods in social. Finally, the success of CBT was independent variable and sustainable livelihoods outcomes in environment was dependent variable. In term of relationship between them, the variance is explained 55 percent. The success of CBT significantly predicted sustainable livelihoods outcomes in environment with standardized coefficient of 0.74 ( $p < 0.000$ ).

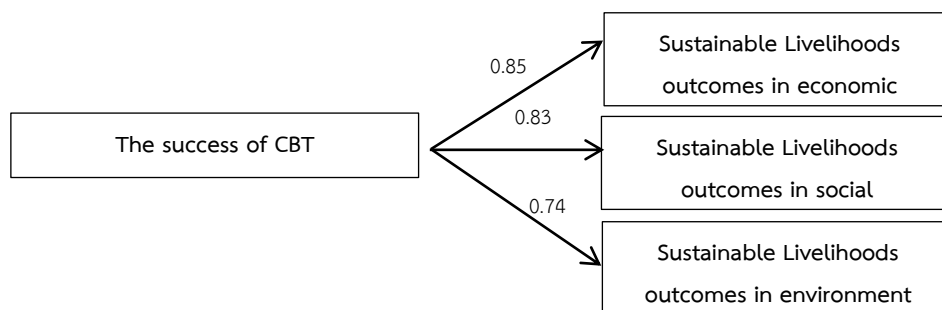


Figure 2 Regression analysis-model

Dependent variable	Independent variable	$R^2$	Beta	P-value
SL in economic	CBT's success factors	0.73	0.85	0.000
SL in social	CBT's success factors	0.68	0.83	0.000
SL in environment	CBT's success factors	0.55	0.74	0.000

Table 3 Results of regression analysis

## Conclusions

The basis of CBT in Koh Yao Noi and Ban Tha Lay Nok was beautiful natural resources and the scenic surrounds, the authentic way of living. Largely as a result of CBT, there has been a boom in tourism in both communities and there have been a number of other changes that have altered community's outlook. The two communities employed CBT as the livelihood strategy in different purposes. Moreover, they also emphasized the CBT as a means of sustainable livelihoods enhancement and community economic, social and environment development. In terms of economics, CBT's member arranged the homestay

activities offered for tourists accommodation to learn and share their experiences. The awards were guaranteed their successful of activities. In addition to contextual challenging in successful of CBT, there are various challenges to create and operating in CBT. The most important of CBT's successful is the willingness of participants to corporate and work together for mutual benefit. (J. D. Johnson, Snepenger, & Akis, 1994; P. A. Johnson, 2010) The unplanned or inappropriate of CBT activities and management poses one of the greatest threats to the communities.

The success of CBT as a sustainable livelihood strategy in Andaman coastal communities will depend on community members working together, and accepting CBT as a tool to tackle shared challenges. The group of CBT needs to reach out to identify the actors in community. The awareness of the benefits of CBT to the whole community should focus on society, culture, environment and economy. With emphasis on the household level, CBT can bring better quality of living by provide the additional income to family. However, the initiation of activities and the full participation of stakeholders should be considered.

### **Recommendation from this study**

Based on the study of the relationship between CBT and sustainable livelihoods, an action oriented strategy can be developed as follows:

- Determine the role of CBT that can become part of the bigger area in order to increase more sustainable livelihoods, opportunities for income generation and employment for local villagers.
- Identify ways that people can participate in CBT related activities to enhance the opportunity of sustainable livelihood with attractions either in nearby other areas of the province.
- Provide appropriate scale and direction for CBT as sustainable livelihoods strategy and activities/businesses that match with the local needs, take into consideration of environmental development, social development and economic development. For the long run, it should match with the possible market for the area.

Due to differences in communities, tourism is not the right answer for all and maybe inappropriate because of the social, environmental and cultural conditions. It needs to assess the costs and benefits of CBT and its related activities and determine its future as it relates to tourism as a form of sustainable livelihoods and community development.

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