# BIODIVERSITY-BASED TOURISM MANAGEMENT FOR COMMUNITY ENTERPRISE GROUPS, MAE CHAEM DISTRICT, CHIANG MAI PROVINCE

# Parnprae Chaoprayoon Udomraksasup, Maejo University Chalermchai Panyadee, Maejo University Howhan Thaveeseng, Prince of Songkla University Jaruwan Tanakit, Thaksin University Jariya Koment, Maejo University

#### ABSTRACT

The objectives of this research were to 1) survey and evaluate the potential of tourism sites based on Biodiversity, 2) develop tourism routes basedon biodiversity 3) evaluate the result of tourism development based on Biodiversity. This research was conducted with a Mixed-Method using participatory action research to transfer knowledge on biodiversity-based tourism to community enterprises. Data were analysed using descriptive statistics, and qualitative data analysis was conducted through content analysis. The result of the research are as follows: 1) The results of a study on the potential of tourism sites based on Biodiversity found that most of the sites had a very high potential Mae Chaem District community enterprise group relied on biological resources in the community, combined with local wisdom to create community products. Especially community enterprise of conservation and lifestyles of elephant culture in Ban Huai Phak Kut, Ban Mae Pan-San Kiang Natural Safety Agricultural Enterprise Group, Weaving Community Enterprise Group, Ban Mae Lu Phai Community Enterprise Group. However, market needs and biological resource utilisation are causing a reduction in the availability of biological resources. Therefore, they were bringing in production factors from outside the community. In addition, there are also attractive cultural attractions in Mae Chaem District, especially Wat Pa Daet and Wat Phuttha-en, which can bring potential tourist attractions to be lined up as tourist routes based on Biodiversity. 2) The research team used the conceptual framework to develop tourism routes, and it consists of three main components: 1) Tourism attraction sites must have the potential for tourism biodiversity.; 2) Tourism attraction site must have received Geographical Indications, and 3) enterprises grouphas the potential for biodiversity-based tourism, and there are creative tourism activities that allow the cause for learning. The researchers used the AIC process as a tool to develop tourism routes. They discovered a tourism route of 3 days two nights. 3) the results of conducting a pilot tour to evaluate readiness for biodiversity-based tourism management for community enterprises in Mae Chaem District of 20 tourists found that most of the evaluators were female accounted for 55%, the age range of 30-39 years, representing 40%, most of the evaluators were single, accounting for 60%. The educational level of most of them are graduated with a bachelor's degree accounted for 60% and primarily engaged in working as a government officials/state enterprise employees accounted for 40%. The income of the majority per month was 10,000-20,000 baht, representing 40%. The 40 attractions that can create the most awareness among tourists is Wat PhutthaAen with an average of 4.60, because it is an ancient and famous temple. It also has an environment surrounded by biodiversity due to the abundance of areas such as lotus ponds, spring pondsand the big trees. The willingness to pay of tourists per biodiversity-

**Citation Information**: Udomraksasup, P.C., Panyadee, C., Thaveeseng, H., Tanakit, J., & Koment, J. (2021). Biodiversity-based tourism management for community enterprise groups, Mae Chaem District, Chiang Mai province. *Journal of Management Information and Decision Sciences*, *24*(S6), 1-12.

based itinerary found that tourists are willing to pay for the trip (3 days, two nights) at an average of 4,500 baht per person.

Keywords: Biodiversity, Utilization of Biodiversity, Tourism Route, Biodiversity Based Tourism

#### **INTRODUCTION**

The tourism industry is essential in the world because it is an industry that can generate employment, generate income in foreign currency, helped propel the economy of the country (Alan, Michael Hall, Dallen & Timothy, 2008; Parnprae Chaoprayoon, 2012; Chalermchai Panyadee, 2009). In the past, tourism was made as one of the tools used in community development. (Chaoprayoon, 2017; Maneeroj, 2017; SuanSri, Yeejaw-Haw & Richards, 2013). It was also set to become the policyand Strategy to drive the economic development of the country (Chittakhup Laongpliu, 2019). Focus more on mass tourism by emphasising beautiful natural selling points such as the sea, sandy beaches, mountain waterfalls. There was a lack of interest in the impact of tourism. Such a form of tourism leads to a lack of attention to the value and experience of tourism (Jittangwattana, 2005; Mowforth & Munt, 2007).

Based on the situation of changes in tourism worldwide, the behaviour of tourists has changed; they do not like the format way of tourism, thus creating a specific form of tourism that is suitable for specific groups of tourists. In this form of tourism, the group of tourists has changed from a large group of tourists to a smaller group (Niche Tourists) travelling according to the increasing variety of needs. Therefore, the tourism market focuses on niche markets (Richards & Wilson, 2006; Sriharun, 2018; Rojrungsat, 2010), such as creative tourism, community-based tourism, cultural Tourism, Eco-tourism, Agritourism and tourism based on conservation and exploitation of Biodiversity. (Biodiversity Based Tourism).

Biodiversity refers to all forms of life, including animals, plants and microorganisms both on land and in water as a source of natural resources beneficial to agriculture, medical and public health, commerce and industry. Biodiversity, therefore, consists of diversity in culture, environment, lifestyle, food and medicine. It serves as a resource base for ecosystem services (Chuanwongarun, 2020; Srikosamatara, 2018) Biodiversity-Based Economy Development Office, 2018). Tourism that lacks attention to natural resources and the environment and Biodiversity has harmed tourism communities in many areas.

Bio-Diversity Based Tourism is a form of tourism receiving attention today because it recognises the importance of managing sustainable tourism (Chan, 2015) (Chaoprayoon, 2017). By changing the management perspective from product tourism to the value of tourism, focusing on balancing tourism growth that creates a stable culture, prosperous tourism economy and sustainable natural resources by conserving nature, protect the environment and strengthen the ecosystem.

In solving tourism management, the government has formulated an important strategic reinforcement policy aimed at promoting and strengthening communities. Therefore, to solve the problems, including the development of rural communities, in enhancing their potential to manage the community's resources by increasing its value. Such as; human resources, natural resources, way of life, local wisdom, culture and good traditions of the people in the locality. In the form of tourism management development, bringing the rural lifestyle and traditional culture as a selling pointcreates attractiveness for tourists. Tourism activities are a form of production activity that is hidden in the potential of the community. It is a potential or a product with unique characteristics that are different from other products (Panyadee, 2009; Duangsaeng, 2010; Duangsaeng, 2020; UNWTO, 2004).

Mae Chaem District is one of the districts located in the southern part of Chiang Mai Province. It is a district that is outstanding in history and culture. It is an agricultural area of Chiang

1532-5806-24-S6-35

Mai Province. The main occupations of the population are mainly farming, gardening, and animal husbandry. The population in Mae Chaem District consists of low-lying Thais. (Indigenous people)

Furthermore, many hills tribe people have different cultures and traditions. They also have a unique way of life; theyhave preserved their culture and traditions for many generations (Wattana, 2019). The prominent features have made Mae Chaem District necessary and have varieties of natural and artificial attraction sites. Apart from this, there are also formal events or tourist activities that are known to tourists. Mae Chaem District also has a route linking major tourist attractions of Chiang Mai and Mae Hong Son. Mae Chaem District is considered the potential and readiness to develop into a cultural and eco-tourism attraction in Chiang Mai Province.

According to the context of the area and the basics of tourism management as well as the direction of the country's tourism development, it was found that Mae Chaem District has potential tourist attractions. However, there is still a lack of links to tourist attractions, group of community enterprises are ready to manage the tourism in the area into tourism routes based on Biodiversity. Therefore, tourism in Mae Chaem district is concentrated only in solid and attractive tourist attractions of the district, community and other enterprise groups. The surrounding area lacks additional income from tourism. In addition, community enterprises related to tourism still lack awareness and understanding of the body of knowledge on biodiversity-based tourism. Therefore, the research team raised the research question as to what is the potential of a biodiversity-based tourist attraction in Mae Chaem District? What should biodiversity-based tourism routes look like, and how should it build tourists' awareness and willingness to pay on biodiversity-based tourism routes?Therefore, the objectives of this research article were 1) survey and evaluate the potential of tourism sites based on biodiversity 2) develop tourism routes based on biodiversity 3) evaluate the result of tourism development based on Biodiversity.

#### **RESEARCH METHODOLOGY**

This research is mixed-method research. In the first objective, a rating scale was used to measure the potential of tourist attractions based on Biodiversity. which was applied from the Natural Tourist Attraction Quality Standards Assessment Manual of the Department of Tourism (2014) and the consideration of tourism components 5A. An assessment process that uses an expert consensus process (Peer Review) a total of 5 people after the experts had visited the attraction sites. Therefore, Osgood Scale, 1957's was applied. There is an appraisal style for each component of the assessed tourism potential. The scores for each item vary from 1 to 10.

A process was used as a tool for the second objective 2, development of tourism routes based on Biodiversity, and in the third objective, a biodiversity-based tourism development assessment model was developed, which consist of 5 parts as; 1) Personal characteristics 2) assess the perceptions of Thai tourists on tourism routes. The question was based on a 5-level Likert scale 3) assess the willingness to pay tourists on biodiversity-based tourism routes, the nature of the questions is open-ended. 4) Assess the readiness of community enterprises to accommodate tourists, and tourist Attraction site, Accommodations, Accessibility, Amenities, Activities) and 5) Suggestions, with a sample group of Thai tourists,tourism officer, representatives from tour operators a total of 20 people, who volunteered to travel along the biodiversity tourism route were assessed.

#### **RESULTS**

Mae Chaem District is located in the southwest of Chiang Mai, away from Chiang Mai. The topography of the area is forests and steep mountains. In the National Forest Reserve, almost the whole area has Mae Chaem River as the main river. Most of the area, about 70%, are forests and

1532-5806-24-S6-35

**Citation Information**: Udomraksasup, P.C., Panyadee, C., Thaveeseng, H., Tanakit, J., & Koment, J. (2021). Biodiversity-based tourism management for community enterprise groups, Mae Chaem District, Chiang Mai province. *Journal of Management Information and Decision Sciences*, *24*(S6), 1-12.

steep mountains of about 20% at the foothills, and about 10% is lowland. Mae Chaem District is a small district. They have a beautiful culture, a simple lifestyle, pure nature, and high Biodiversity in the area with their own identity. Mae Chaem District has a long history; thus; as a result, there are various people in the area. The use of resources in the area leads to the development of local wisdom, some of which have become important tourist attractions of Mae Chaem District. There are many tourist attractions in Mae Chaem District. This section presents attractions that have been divided into two types: natural attractions. and artificial tourist attractions

1. The results of a study on the potential of tourist attractions on biodiversity, Mae ChaemDistrict. The research team asked five experts to participate in the survey and assessment to assess tourist attractions' potential based on biodiversity by mutual agreement (Consensus) to consider the potential of each attraction, along with scoring in each component with the scores as shown in Table 1.

SHOWS THE POTENTIA						ON BI	ODIVERSI	TY IN MAE
Tourist Attraction	GPS Coordinates			Potential of Tourist Attractions Based on Biodiversity by the Composition				Potential Level
		1	2	3	4	5		
1) Thep Phanom Hot Spring	18.271309, 98.396726	9	10	10	8	8	45	very high
2) Rafting Pier and Ban Om Khat Homestay	18.276785, 98.384941	6	8	5	8	5	32	high
3) Mae Chaem Forest Park	18.307628, 98.363432	6	5	5	5	6	27	moderate
4) Nam Og Hu, Ban Kong Khaek	18.430587, 98.385287	7	8	7	7	6	35	high
5) Nam Og Hu, Ban Thung Yao	18.546677, 98.382758	8	9	9	8	7	41	very high
6) Rice terraces, Teen Pha House	18.541174, 98.441803	8	7	7	8	8	38	high
7) Rice Terraces, Pong Piang Forest	18.530646, 98.446384	8	7	7	8	8	38	high
8) Rice terraces, Ban Kong Kan	18.546879, 98.354343	6	5	5	5	6	27	moderate
9) Jiang Temple	18.509976, 98.359521	8	9	9	8	7	41	very high
10) Wat Pa Daet	18.479041, 98.376627	8	9	9	8	7	41	very high
11) Buddha Aen Temple	18.513297, 98.351105	8	9	9	8	7	41	very high
12) Community Enterprise Group, Conservation of Ways of Life and Elephant Raising Culture in Ban Huai Phak Kut Forest	18.746772, 98.216108	9	10	10	8	8	45	very high
13) Ban Mae Pan-San Kiang Natural Agricultural Community Enterprise	18.549054, 98.394767	9	9	9	8	8	43	very high
14) Passion Fruit Processing Community Enterprise	18.639784, 98.405375	9	7	7	8	8	39	very high
15) Community Enterprise Group, Muang Thong Fai Pattern Handicraft Group	18.540289, 98.411049	9	10	10	8	8	45	very high

1532-5806-24-S6-35

**Citation Information**: Udomraksasup, P.C., Panyadee, C., Thaveeseng, H., Tanakit, J., & Koment, J. (2021). Biodiversity-based tourism management for community enterprise groups, Mae Chaem District, Chiang Mai province. *Journal of Management Information and Decision Sciences*, *24*(S6), 1-12.

1532-5806-24-S6-35

16) Tha Pha Subdistrict Woven Fabric Group	18.487151, 98.353476	9	9	9	8	8	43	very high
17) Ban San Nong Chili								
Paste Making Group Community Enterprise	18.502195, 98.360000	9	7	7	8	8	39	very high
18) Ban Mae Lu Phai Community Enterprises	18.445924, 98.447364	8	7	7	7	6	35	very high
19) Pinkaewchan Ban Thap	18.481102, 98.370507	8	7	7	8	5	35	high

From the table assessing the potential of tourist attractions on Biodiversity, it can be seen that tourist sites with a very high potential are Thep Phanom Hot Springs, Pa Daet Temple, Buddha Aen Temple, Community Enterprise Group, Conservation Group for Lifestyle and Elephant Raising Culture in Ban Huai Phak Kut Forest Ban Mae Pan - San Kiang, Natural Safety Agricultural Community Enterprise of Passion Fruit Processing Community Enterprise Group, Muang Thong Fai Pattern Handicraft Group and Tha Pha Subdistrict Woven Fabric Community Enterprise, Ban San Nong Chili Paste Making Group Ban Mae Lu Community Phai Group, these various tourist attractions will be tourist spots in the development of tourism routes on the Biodiversity of Mae Chaem District.

## **Development of Tourism Routes Based on Biodiversity**

The researchers used AIC to develop tourist destinations, with a framework for developing tourist routes, including 1) a tourist attraction and community enterprise with the potential of tourist attractions based on biodiversity and resource conservation at a high level, considering the criteria for assessing the potential of tourist attractions in all five areas: (1) the value of tourist attractions in terms of Biodiversity (2) access to tourist attractions (3) facilities in tourist attractions (4) tourism activities (5) attraction management. The results of the study in Objective 1, as already reported above, 2) tourism or community enterprise has Geographical indication. The development of tourism routes on biodiversity emphasizes the linkage of tourism routes with the symbolic products used between the names of geographic sources and the products to show the buyers or consumers the origin of the products. of Mae Chaem District, which includes Tin Jok cloth, Mae Chaem. 3) Applying the principles of creative tourism to develop the route in order for tourists to be interested and to have tourism activities that meet the needs of tourists who like such tourism forms. 4) Tourist attractions and community enterprise groups are utilizing biodiversityin order to maximize the benefits of bringing such tourist attractions to use for tourism. From the conceptual framework for the development of such tourism routes, the results of the study were as follows: tourist route "Travel"Mae Chaem" knowing the value" a magical city of beauty in the middle of the valley." Duration 3 days, two nights. The highlight of the route is to pay homage to Phra Chao Saen Tong, admire the beauty of the church in the middle of the water and ancient paintings. Learn how to weave Sin Tin Jok GI, Mae Chaem City, learn how to grow rice terraces. Stay at the homestay, learn the way of life and local wisdom of the Pakagenyau people. learn safe farming Processing soybeans to rotten beans, a famous dish in Mae Chaem

## **Results of the Assessment of Biodiversity-Based Tourism Development**

Testing activities on tourism routes based on biodiversity The sample group of 20 volunteers travelled along the tourist route. "Travel "Mae Chaem" knowing the value the magic city of beauty in the middle of the valley" for three days and two nights. It was found that most of them were female. They accounted for 55%, with the age range of about 30-39 years, representing 40%. Most

of them were single, accounting for 60% in terms of educational level graduated with a bachelor's degree accounted for 60% and most of them were civil servants/state enterprise employees accounted for 40%, followed by a private company employee accounted for 35%, with most of their average monthly income was about 10,000-20,000 baht, representing 40%, followed by average monthly income of 20,001-30,000 baht, representing 30%, details as shown in Table 2.

Table 2 SHOWS THE PERSONAL FACTORS OF THE ASSESSORS OF THE BIODIVERSITY-BASED TOURISMROUTE TESTING ACTIVITIES						
	N=20					
Personal data	Quantity	Percentage				
1. Sex						
- male	11	55				
- female	9	45				
Total	20	100				
2. Age						
- 20-29 years	5	40				
- 30 - 39 years	8	25				
- 40 - 49 years	4	20				
- 50-59 years	2	10				
- 60+ years	1	5				
Total	20	100				
3. Status						
- Single	12	60				
- Married	8	40				
Total	20	100				
4. Education level						
- Below bachelor's degree	2	10				
- Bachelor's degree	12	60				
- Master's degree	5	25				
- PhD.	1	5				
Total	20	100				
5. Career						
- Government officials/state enterprise employees	8	40				
- Private company employees	7	35				
- Business owner / personal business	5	25				
Total	20	100				

1532-5806-24-S6-35

**Citation Information**: Udomraksasup, P.C., Panyadee, C., Thaveeseng, H., Tanakit, J., & Koment, J. (2021). Biodiversity-based tourism management for community enterprise groups, Mae Chaem District, Chiang Mai province. *Journal of Management Information and Decision Sciences*, *24*(S6), 1-12.

6. Average monthly income		
- 10,000 - 20,000 baht	8	40
- 20,001 - 30,000 baht	6	30
- 30,001 - 40,000 baht	3	15
- 40,001 - 50,000 baht	2	10
- 50,001 baht or more	1	5
Total	20	100

Assessment of creating awareness of tourists towards tourism routes based on biodiversity. It was found that the attractions that could create the most awareness for tourists consist of Wat PhutthaAen. It has an average of 4.60 because it is a long-established temple that is worshipped by the local people and has spring water that the locals believe is holy, clean, and can be consumed. In addition, the temple's architecture is beautiful and attractive to tourists, followed by Wat Pa Daet with an average of 4.55 because it was a temple built in 1877. The murals adorn the inside of the temple was built simultaneously with the temple. It is a picture that shows the way of life of the Mae Chaem people still intact. And most importantly, most of the young women in the picture are shown wearing the Teen Jok (Traditional handicraft for woman), a unique identity of the Mae Chaem people that has continued to this day.

The process of processing the passion fruit of the Ban Mae Wak Community Enterprise Group also created the highest level of awareness among tourists with an average of 4.50 due to the increased consumption of passion fruit and the recognition of tourists as well as supporting the cultivation of economic crops, as well as the traditional rotten bean production at Ban Mae Pan-San Kiang Safe Natural Agriculture Community Enterprise which create the most awareness for tourists, with an average of 4.45 because it is a lifestyle that has been passed down from generation to generation and continues to be popular as a seasoning to add flavour to food. Including the production process that creates interest for tourists to join in the practice, creating a new experience from tourism. The learning activities of making a hairpin at Ban Thap and learning about the process of weaving Teen Jok Mae Chaem, the uniqueness of Ban Thong Fai Community Enterprise had the same average of 4.10, probably because the hairpin making required high skill and precision in each production process. As well as the unique weaving of Sin Teen Jok, It takes skill and experience, expertise, practice, and takes many steps and months to get each piece of cloth until it's certified as a Geographical Indication (GI), tourists may find it difficult to create patterns but still appreciate the unique value that is difficult to imitate and still requires the craftsmanship of the local community—experienced through training so well that it can be preserved to this day.

The public relations media section is a brochure that the project prepared for use in providing services to tourists. It was found that tourists were aware of the knowledge of biodiversity with an average of 4.55, there is clear and comprehensive information about tourist attractions with an average of 4.40

Evaluate tourists' willingness to pay for biodiversity-based tourism routes. The results showed that Tourists are willing to pay for their participation in each activity at different prices. Including elephant raising activities, Ban Huai Phak Kut and hot water activities from natural hot springs at Thep Phanom Hot Springs; they are willing to pay an average of 250 baht, which is the most, because of the service fees that the government has set, which includes access to the facility. Service rate followed by Mae Chaem Teen Jok weaving activity, the tourist is willing to pay an average of 200 baht because tourists will learn about GI from Teen Jok Mae Chaem cloth. Making chilli paste and traditional desserts at Ban San Nong, tourist are willing to pay an average of 180

baht for a passion fruit processing activity. Ban Mae Wak Community and Peanut Making Activities Ban Mae Pan-San Kiang tourist are willing to pay an average of 150 baht for hair barrette activities, tourist is willing to pay an average of 120 baht.

Also, tourists are willing to pay for meals each day consisting of breakfast, willing to pay 100 baht, for lunchwilling to pay an average of 150 baht, and dinner are willing to pay an average of 200 baht on average the part of the leaders of the enterprise—tour guide and guide Willing to pay an average of 500 baht. They are still willing to pay for the accommodation. Homestay type Willing to pay an average of 450 baht each night, hotels and resorts willing to pay an average of 600 baht, as well as tourists willing to pay an average of 1,000 baht for transportation throughout the trip. Moreover, when assessing the overall picture for the cost of travelling along the biodiversity-based tourism route for three days, tourists are willing to pay an average of 4,500 baht per person, which most travellers assessed as good value. The activities involved were attractive in each activity provided to be able to participate in the attraction.

Evaluate the readiness of community enterprise groups to accommodate tourists. The results showed that the readiness to accommodate tourists of community enterprises along the tourism route was at the highest leveland when assessing the readiness of community enterprise groups to accommodate tourists in all five aspects, namely, the attractiveness of community enterprise groups: access to tourist attractions, facilities, accommodate tourists of community enterprises along the overall tourism route showed that Chun enterprises in Mae Chaem District were ready to accommodate tourists at the highest level ( $\bar{x}$ =4.40, SD=0.75)

When considering the attractiveness issues of community enterprise groups, it was found that community enterprise groups were most readily equipped with goods and services related to the utilization and conservation of biological resources ( $\bar{x}$ =4.58, SD=0.69). It was found that community enterprise groups were at a high level of readiness for the travel time is not long ( $\bar{x}$ =4.12, SD=0.78). It was found that the community enterprise group was at a high level in terms of having a tourist service point ( $\bar{x}$ =4.03, SD=1.05). In terms of accommodation, it was found that the community enterprise group was at the highest level in terms of part of the profit. Accommodation is used to conserve biological resources ( $\bar{x}$ =4.41, SD=0.93) and tourism activities. It was found that community enterprise groups were at the highest level of readiness in regard to cultural conservation activities ( $\bar{x}$ =4.35, SD=0.82) and activities related to community lifestyle ( $\bar{x}$ =4.41, SD=0.93), as shown in Table 3.

Table 3   RESULTS OF THE ASSESSMENT OF THE READINESS OF COMMUNITY ENTERPRISE GROUPS   TO ACCOMMODATE TOURISTS					
ASSESSMENT ISSUES ON THE READINESS OF COMMUNITY ENTERPRISE		READINESS LEVEL OF COMMUNITY ENTERPRISE GROUPS (n=20)			
		S. D.	Meaning		
1. The Attraction of Community Enterprises					
1.1. They are in group and operate continuously	4.31	0.87	Highest Level		
1.2. There is a network of cooperation between the group.	4.38	0.76	Highest Level		
1.3. Local wisdom is used to produce goods and services.	4.48	0.69	Highest Level		
1.4. Availability of goods and services related to the utilization and conservation of biological resources	4.58	0.69	Highest Level		

1532-5806-24-S6-35

**Citation Information**: Udomraksasup, P.C., Panyadee, C., Thaveeseng, H., Tanakit, J., & Koment, J. (2021). Biodiversity-based tourism management for community enterprise groups, Mae Chaem District, Chiang Mai province. *Journal of Management Information and Decision Sciences*, *24*(S6), 1-12.

1532-5806-24-S6-35

1.5. There are souvenir products that belong to the group.	3.96	1.14	High Level
2. Access To Tourist Attractions			
2.1. There is a road linking the tourist attractions to the group.	4.48	0.78	Highest Level
2.2. Tourists can use a variety of vehicles.	4.34	0.78	Highest Level
2.3. The travel time is not long	4.12	0.78	High Level
2.4. There is a clear signpost.	4.63	0.57	Highest Level
2.5. There is a public relations media that recommends travelling to the enterprise group.	4.50	0.65	Highest Level
3. Amenities			
3.1. There is a tourist service point.	4.03	1.05	High Level
3.2. There is adequate parking spaces	4.38	0.77	Highest Level
3.3. There is a sign that conveys the meaning of Biodiversity.	4.68	0.52	Highest Level
3.4. There is a meeting room available for study visits.	4.42	0.72	Highest Level
3.5. There is a security system for tourists.	4.74	0.57	Highest Level
4. Accommodation			
4.1. Accommodation is available for tourists.	4.13	1.17	High Level
4.2. The property is equipped with toiletries made from biological resources.	3.04	1.37	Moderate
4.3. The accommodation provides food made from bio-resources in the community.	3.25	1.36	Moderate
4.4. The accommodation provides activities for tourists.	3.36	1.42	Moderate
4.5. Part of the profit of the accommodation is used to conserve biological resources.	4.41	0.93	Highest Level
5. Tourism Activities			
5.1. There are activities for the utilization of Biodiversity.	3.60	1.36	High Level
5.2. There are activities for the conservation of biological resources.	3.16	1.38	Moderate
5.3. There are cultural conservation activities.	4.35	0.82	Highest Level
5.4. There are activities related to local wisdom.	4.20	1.17	High Level
5.5. There are activities related to the way of life of the community.	4.41	0.93	Highest Level
<b>Readiness of the Community Enterprise in Accommodating Tourist</b> Along the Travel Route	4.40	0.75	Highest Level

## DISCUSSIONS

This research study on the development and readiness of biodiversity tourism management for community enterprise groups, Mae Chaem District, Chiang Mai Province, was to study and develop communities that have established a group of enterprises to be ready to manage tourism on Biodiversity (Biodiversity Based Tourism), which is a new concept in the form of tourism management. The components used in the potential assessment consisted of (1) the value of tourist attractions in terms of diversity; (2) access to tourist sites, (3) tourist facilities, (4) tourism activities, and (5) attraction management. The result of the study was consistent with the research work of (Thongkaew, 2017). Use the components to assess the potential of tourism value in the study of the potential of tourism resources in Khanthuli Sub-district Surat Thani Province and the work of Chaoprayoon (2017); ChalermchaiPanyadee (2017) have used all five components to assess the potential of tourism value, but the work of (Bindusa, 2018; Srirathu, 2008) set criteria for assessing the potential of tourist attractions that must cover four elements of tourism, such as area component, management component, activity component and participatory component. When considering the elements of potential tourism assessment, it is necessary to consider which types of tourist potential assessments, because the elements used to consider them will be different.

The study results from the survey and assessment of tourist attractions in Mae Chaem District found that the tourist attractions with very high potential were Thep Phanom Hot Springs, Pa Daet Temple, and Wat Phuttha Aen, because these attractions were the highlight. Moreover, they serve as a magnet in attracting tourists to travel to Mae Chaem, Furthermore, It is also a tourist attraction where both government and private agencies go to make some study, establish a committee to drive tourism, and provide them budget to support the development of a major tourist attraction. This result corresponds to the work of (Pongnirundorn, 2016) who said that the government, the private sector, and the local people should establish committee for tourism management projects. starting from the survey of the area planning storage. Defining the guidelines Project Monitoring and Evaluation including establishing a fund for operations to develop tourism management in the long term, provide members with a source of funds for various activities that are beneficial to tourist attractions and society. Srimaitri (2016) said that community enterprises in Ubon Ratchathani province can develop the community's economy from tourism activities to see and study arts, handicrafts and local culture under the strength, solidarity Unity in community enterprises, which will lead to sustainable development.

Assessing the development of tourism on biodiversity the study results found that the assessors tested the tourism routes based on biodiversity. The tourist attractions that could generate the most awareness for tourists consisted of Wat Buddha Aen-followed by Wat Pa Daet, which is consistent with the information of Mae Chaem District Office Chiang Mai Province That has presented the most cultural attractions of the temple type because it is the selling point of Mae Chaem and it emphasizes their culture and the people'sway of life and work (Wattana, 2019). The community potential of Mae Chaem District has three outstanding characteristics: 1) Geography. It's geography and terrain are in the valley basin, thus causing cultural strength. Even though it's difficult and serves as a barrier for outsiders to access, but such landscapes are classified as excellent shields in ways that it protects their culture.(2) Appearance, these are belief systems, wisdom, traditions, ceremonies, and general ways of life, which are community potentials that are still visible and preserved up till today. Furthermore, it also uncovers the potential of the community's power base such as; strength of power within the community is respect for elders who are informal leaders. The power of the new generation with the idea of developing cultural tourism in their birthplace including the power base of official government leaders who coordinate and push for the promotion of cultural tourism. 3) Identity, it is reflected from the appearance, which is a crucial community potential, such as; local wisdom, weaving Teen Jok, making hairpins, step farming, architectural style of building according to belief, in accordance with (Pakdeenarong, 2004).

The study found that community enterprises are one of the popular tourist destinations because they are in line with the changing needs of tourists. In addition, community enterprises adopted the concept of creative tourism to help develop tourist attractions, allowing tourists who travel to the area engage in activities with the host or community. This result was consistent with (Chinnaphong, 2018), Said that homestay community enterprises studies local wisdom and applied modern technology knowledge together with old local wisdom. They collected data of community enterprise to enable them get, and obtain accurate, and up-to-date information, there are also exchange of local knowledge and extension of the local wisdom were passed to future generations.

1532-5806-24-S6-35

To create awareness of tourist attractions in areas with Biodiversity, the researcher prepared a public relations media. (Brochure for Public relations) to the sample and the result found that tourists are aware of the knowledge about Biodiversity at a high level with an average of 4.55, consistent with (Ramingwong, 2008) work, print media is considered an ancient media that humans used to carry out any of their activities and achieve their objectives, it can reach all target groups, and have low production costs, business and service operators chose it as the first choice media from other media. Kukkong (2017) due to the importance of public relations, which is a communication process that is sent to the target group. especially target groups in tourism and service businesses, there must be communication or public relations to provide information about service or various business products to help convince tourist with the decision to use their service. SurasithWittayarat (2003) Said Its main purpose is to provide information or persuade the reader and the viewer to understand or conform to the text in the advertisement in a short time and the image that will be used must be short, concise, be in point and also meaningful.

#### RECOMMENDATIONS

- 1) The government should focus on the word "Biodiversity" it should be taken as a national agenda for development in the social science dimension, especially in tourism. Since biodiversity is an essential component of sustainability, governments should adopt biodiversity as a pillar in their strategy for national sustainable tourism development.
- Biodiversity tourism is a new tourism model that focuses on conserving and utilizing biodiversity and local wisdom. Agencies involved in tourism development and promotion should adopt a definition. The conceptual framework of such tourism forms has been spread widely.
- 3) Mae Chaem District Agriculture Office should apply the research results to develop the group of enterprises by promoting tourism activities on biodiversity among enterprises and nearby tourist attractions in order to achieve sustainability in continuous development.
- 4) Conservation-related agencies should study, promote and create a database on the use of wisdom from the utilization of biodiversity in many areas, such as rotten bean production, natural fabric dyeing weaving TeenJok so that local wisdom is not lost

## ACKNOWLEDGEMENT

Develop readiness for biodiversity-based tourism management for community enterprise groups, Mae Chaem District, Chiang Mai Province. Received funding for research from the Office of the Biodiversity-Based Economic Development Research Project Coordinator for the fiscal year 2018. The researchers would like to thank the committee of experts who considered and approved this research fund and thanked the Faculty of Tourism DevelopmentMaejo University which is the host and centre for coordinating this research project. Thanks to Mae Chaem District Agriculture Office, Community Enterprise Group in Mae Chaem District, and the community members in the tourist area in Mae Chaem District, who spent time participating in the project to develop the community's potential in tourism and cooperate reasonably in this research.

#### REFERENCES

Alan, A.L., Michael, H., & Timothy, D.J. (2008). World geography of travel and tourism. Elsevier Inc.

Biodiversity-Based Economy Development Office. (2018). Guidebook; Local Biodiversity Management. Biodiversity-Based Economy Development Office (Public Organization).

Chaoprayoon, P. (2017). Bio-economic tourism routes in linkage with learning centers into important bio-economic tourist attractions. Bangkok: Office of Bio-Economic Development (Public Organization).

Chaoprayoon, P. (2012). Pai; The process of identities development and cultural construction of meaning for tourism industry. Doctor of Philosophy (Administration Sciences – Hospitality), Maejo University.

Chaoprayoon, P. (2017). Bio-economic tourism routes in linkage with learning centers into important bio-economic

tourist attractions. Bangkok: Office of Bio-Economic Development (Public Organization).

- Chinnaphong, P. (2018). Potentiality of community enterprises development model which affects the success of tourism based Community Enterprises. *Dusit Thani College Journal*, *13*(2), 83-100.
- Chuanwongarun, K. (2020). Biodiversity. Online: https://ngthai.com/science/30380/biodivers/(Retrieved on Febuary 25th, 2021).
- Duangsaeng, V. (2010). Impacts of tourism and household adaptation on dense tourist attractions: A Case Study of Pai District, Mae Hong Son Province, Thailand. Doctor of Philosophy (Administration Sciences – Hospitality), Maejo University.
- Duangsaeng, V. (2019). Innovation as tools for developing tourism market in Huay Pong village, Mae Win Sub-district, Mae Wang District, Chiang Mai Province. Ministry of Higher Education, Science, Research and Innovation
- Jittangwattana, B. (2005). Sustainable tourism development. Press and design.
- Kukkong, P. (2017). Production of print media for public relations of accommodations businesses in Kamphaeng Phet Province. Online; https://research.kpru.ac.th/sac/fileconference/24552018-05-01.pdf (Retrieved on Febuary 25th, 2021)
- Laongpliu, C. (2019). Secondary city tourism: Alternative of creative attraction in Ratchaburi Province. *Inthaninthaksin Journal*, *14*(2), 40-60.
- Mowforth, M., & Munt, I. (2007). Tourism and sustainability. Routledge.
- Maneeroj, N. (2017). Community based tourism management. Journal of International and Thai Tourisn, 13(2), 25-46.
- Pakdeenarong, P. (2004). The politics of aesthetics in Pha Sin Tin Jok and the reinvention of Maecham's culture. Master of Arts: Chiang Mai University.
- Panyadee, C. (2009). Research and development of integrated tourism network for enchaning ans raising tourism standard in the Upper Northern Region of Thailand. Bangkok, National Research Council of Thailand
- Panyadee, C. (2017). The biodiversity and local knowledge utilization model area project for sustainable development. Bangkok: Office of Bio-Economic Development (Public Organization).
- Pongnirundorn, S. (2016). Guidelines for effective development in tourism management of Wang Nam Khiao District, Nakhon Ratchasima Province. *MBA-KKU Jounal*, 9(1), 234-259.
- Ramingwong, P. (2008). Corporate identity design and print media production for sale promotion: A case study of I love DJ, a Dise Jockey School. Master of Arts : Chiang Mai University.
- Richards, G., & Wilson, J. (2006). Developing creativity in tourist experiences: A solution to the serial reproduction of culture? *Tourism Management*, 27, 1209–1223.
- Rojrungsat, P. (2010). Community based tourism. Bangkok; Ocean Store.
- Saichompoo, S. (2015). Ecotourism based on biodiversity and local wisdom for economic development in Khung Bangkachao, Phrapadaeng District, Samutprakarn Province. Academic Journal Phranakhon Rajabhat University, 6(2), 9-19.
- Sriharun, P. (2018). Community tourism: A new alternative to sustainability. Dusit Thani College Journal, 12, 3.
- Srikosamatara, S. (2018). Biodiversity and food security. Online: https://biothai.net/ node/30563 (Retrieved on Febuary 25th, 2021).
- srirathu, V. (2008). *Eco-tourism potential of amphoe khao kho, phetchabun province*. Master of science : graduate school srinakarinwirot university, bangkok.
- Srimitree, M.(2016). Development of model and potential of community enterprise in cultural tourism according to local identity to tourists in Ubon Ratchathani province. *Thai Hospitality and Tourism Journal*, 11(2), 53-65.
- SuanSri, P., Yeejaw-haw, S., & Richards, P. (2013). Community Based Tourism (CBT) Standard Handbook. Chiangmai: Wanida Karnpim Limited Partnership.
- Theeraphansatien, M.(2019). The potentials for communities in Agro-tourism management: A case study of Banpattawee community enterprises for agriculture health, Makham district, Chanthaburi province. Master of Business Administration : Rambhai Barni Rajabhat University.
- Thongkaew, B. (2017). Potential and guidelines for tourism development in Khanthuli Sub-district, Suratthani Province. *Area Based Development Research Journal*, 9(2), 106-121.
- UNWTO. (2004). Indicators of sustainable development for tourism destinations: A Guidebook. Madrid: Spain.
- Wattana, S. (2019). A community potentials for the development of the cultural tourist attractions in Mae Chaem District Area, *Chiangmai Province. Research and Development journal Suan Sunandha Rajabhat University*. Online; shorturl.at/bkvRT. (Retrieved on Febuary 25th, 2021).
- Wittayarat, S.(2003). Printed media. Bangkok: Suan Sunandha Bookstore.

12