

Satun UNESCO Global Geopark, the readiness for sustainable tourism

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Abstract: Satun Geopark is recently UNESCO Global Geopark creating pride for the people in the country. The area covers four of seven districts of Satun Province namely Thungwa, Manang, La-Ngu, and Muang Satun. The Geopark attraction points are categorized into four types. It consists of ecotourism and adventure attraction; sea – islands attraction; attraction for learning; and intangible/ cultural heritage. The famous tourist attractions are Li-Pe Island, Hin Ngam Island, Adang-Ra Wi Islands, Tarutao National Park, Petra National Park, Pak Bara Beach, Satun Karst Zone includes Le- Stegodon Sea Cave, Chet Khot Cave, and Phu Pha Phet Cave. Being a global geopark can attract eco-tourists from all over the world. Therefore, in the Satun geopark, there must be efficient and proper tourism management not only to preserve the existing ecosystem but also impress the tourists. Logistics management is consequently applied to sustainable tourism. Satun Geopark logistics management can be categorized into four components which consist of geological resources and landscape; transportation; amenities; and environmental management as well as creating the value of tourism products using three supporting factors: information and communication technology; innovation; and sustainable management provide tourism value for the tourists in terms of flexible, convenient, fast, and safe. The objectives of this paper are to discover the component of logistics management and to evaluate the logistics management potential for sustainable tourism for Satun UNESCO Geopark. The results could be used for government agencies, and the private sector involved such as Satun Provincial Administrative Organization, Sub-district Administrative Organization in the area as well as travel service operators.

Keywords: Satun UNESCO Global Geopark, logistics management, sustainable tourism, geotourism

Introduction

In Thailand, tourism has become a pioneer sector and made a significant contribution to the country's gross domestic product (GDP). It generates income and creating employment for local people. During January to August 2018, there are 25,886,325 foreign tourists. Compared to the same period of last year tourism expanded by 9.94%, in line with the expansion of tourists in almost all regions and generated total revenue of 1,350,317.90 million baht, expanding by 12.85% from the same period of last year. From the large amount of tourists, the management of sustainable tourism is needed.

Thailand is a country with abundant of natural resources, including cultural and historical attractions. Southern Thailand contains many islands and beautiful beaches. As UNESCO announced to Satun geopark is UNESCO global geopark on April 17, 2018, creating pride for the people in the country. Being a global geological park can attract eco-tourists from all over the world. Satun Geopark covered four districts of Satun Province namely; Muang, La Ngu, Tungwa, and Manang located along the Coast of Andaman Sea. It possesses many beautiful islands such as Li-Pe Island, Hin Ngam Island, Adang-Ra Wi Islands, and Dong Islands located in Tarutao National Park. Moreover, Satun Geopark also features some attractions about culture and the local way of lives. The Geopark attraction points can be categorized into four types; (1) ecotourism and adventure attraction such as Le-Stagodon Cave, Puhapet Cave, Chet Chod Cave, Thanpliew Waterfall; (2) sea – islands attraction such as Adang - Ra Wi Island, Li-Pe Island, Tarutao Island, Petra Island. There are also dunes called Dragon's back at Tan-Yong-Po and many diving sites such as Jabang diving site; (3) attraction for learning such as Satun Geopark Museum, many fossil sites such as Khao Noi stone hierarchy, trilobite fossil at Tarutao Island, nautiloid at Khao Dang. There are also many Karst in Thungwa and Manang Districts; (4) intangible/ cultural heritage such as Ma-Ni, a native Nigrito at Manung District, floating boat tradition of Orang Laut, the indigenous sea people at Adang and Li-Pe Island. Since there are many types of attractions in the area, and some area is famous for foreign tourists, there must be attracted abundant of tourists both Thai and foreigner tourists. Therefore, in the Satun geopark, there must be efficient and proper tourism management not only to preserve the existing ecosystem but also impress the tourists. Logistics management is the way to manage sustainable tourism. By managing the tourism logistics, it is the planning of the administration of tourism products and services before tourists travel until tourists come to travel conveniently throughout the journey.

This article, therefore, is the studied the logistics management components for tourism and to evaluate the logistics management potential for sustainable tourism of Satun UNESCO Global Geopark. The government

sector can apply the findings to prepare for the infrastructure, logistics system, and facilities to develop logistics management for sustainable tourism to facilitate the tourists and to create a balance in the economy, society, and environment.

Materials and Methods

The area of the study is Satun Geopark (as known as Satun UNESCO Global Geopark) which composed of four of seven districts of Satun Province namely; Muang, Thungwa, La-Ngu, and Manang District. The area covers four types of geopark attraction points; ecotourism and adventure attraction; sea – islands attraction; attraction for learning; and intangible/ cultural heritage.

Geotourism is a form of tourism that sustains or enhances the geographical characters of a location such as its geology, environment, culture, heritage, aesthetics, and the well-being of the communities. (Tourtellot, 2011). There are several works of literature about geotourism management in different principles. Valiakos (2010) mentioned five components of geological park management. It composes of 1) geology and landscape which consist of three elements; territory; geography conservation; and natural and cultural heritage 2) management structure 3) interpretation and environmental study 4) geotourism 5) sustainable economic management in the area. Lewis T.O. Cheung (2014) explained the factors that affect geopark. There are the external and the internal value of the park. The external value of the park consists of five components. There are convenient public transportation, easy access to the bathroom, visitor guides and useful maps, adequate leisure facilities, and clear road signs. Also, the internal value of the park consists of four components which are outstanding scenery and landscape; beautiful mountain and attractive area; coast, seashore, and beautiful beach; and interesting geology and ecology. He also analyzed the three main components of motivation in tourism. It includes 1) travel for novelty which are five elements that tourist have; enjoyment and fun; freedom; new experiences in different lifestyles; tried exotic foods; and seen as much as can be seen during the free time. 2) Leisure travel which includes what the tourists want to have in travel; body movements and participation in sports; positive attitude about the trip after returning home; and have been changed from busy jobs. 3) Tourism for escape from something which is an escape from the need at home; searching for excitement; meet people with similar interests. Moreover, Patrick (2014) described how to develop ideas and activities in geological park. He mentions four categories. 1) Sustainable mobility: the concept of public transport or bicycle access 2) Sustainable hotel business 3) Geothermal energy from Geological Park 4) Energy and climate strategy.

Result & Discussion

The integrity of tourism resources in ecology, terrain, and nature, Satun Geopark create various types of natural tourism activities. The activity has been classified into various types (and still counting). The tourism sector today aims to cater to the needs and preferences of all types of tourists, and thus, seems to take into consideration specific areas of their interest. In present, there are many tour operators provide variety of tourism activities for the tourist. Their offices located near Pak Bara Port. The tourists are able to choose the activities or the trip that they prefer from the tour operator in the area or book it from internet.

The tourism in Satun Geopark can be categorized as following:

- 1) Adventure Tourism (as known as adventure travel). This kind of tourism has been famous among adventure seeker in Satun Geopark. The adventure tourists indulge in challenging activities such as water rafting, scuba diving, caving, hiking, rock climbing, and so on. There are several adventure points in Satun Geopark such as Le-Stegodon Cave, Chet Chod Cave, Wangsaithong Waterfall, and so on. The diving sites in the area are Jabang Pinnacle, Adang-Rawi, Li-Pe Island, Tarutao Islands, and Petra Islands. The tourists can go diving by buying a package tour from tour operator at Pak-Bara Port and nearby and speed boat rental is also available.
- 2) Cultural Tourism. The concept of cultural tourism encompasses things, such as history of a given region, the lifestyle of people in a particular geographical locale, architecture, oral traditions, religions, festivals, cuisine, and so on. Tourists can visit the floating boat which is the native fishery tradition.
- 3) Ecotourism. Ecotourism also encompasses the concepts of geotourism. It involves the traveling to primary attractions which are natural beauty or settlements of indigenous communities. The tourists can learn the lifestyle of Mani (the native Nigrito) in Thungwa, Manang, and La-Ngu Districts.
- 4) Educational Tourism. There are many fossil sites in Satun Geopark for geo-scientist, geologist, students, and other people who interested in studying variety of fossil. The Satun Geopark terrain originated as a sea floor in the Cambrian Period more than 500 million years ago. The oldest fossils of primitive sea life in Thailand were found in the red sandstones on Tarutao Island.

As various types of attraction points and variety activities provided in Satun Geopark, the logistics management is consequently applied to sustainable tourism. From the review literature, logistic management of sustainable tourism of geopark can be categorized into four components and applied to Satun UNESCO Global Geopark as in Table 1. The components of logistics management for sustainable tourism are 1) transportation 2) amenities 3)

geological resources and landscape, and 4) environmental management as well as creating value of tourism products using three supporting factors: information and communication technology; innovation; and sustainable management provide tourism value for the tourists in terms of flexible, convenient, fast, and safe.

The evaluation of the particular component of logistics management for sustainable tourism of Satun Geopark is as following:

- 1) Transportation. There are three sub-component combining to Satun Geopark. A) The transportation from the visitor's origin to Satun Geopark is essential for the visitor to decide whether they travel to travel site or not. The transportation information should inform the visitor how to go to the main attraction points such as the type of vehicle, the time table of the train from the nearby airport or train station to Satun Geopark and back. B) The transportation network among geo-point is significant. In the present, the visitor or the tourist would like to travel by public transportation. The local transit in Satun Geopark has to be improved to support the coming visitors travel from site to site. There is still a lack of local transportation. The best way for the visitor is to rent a car or a motorcycle, but there is an insufficient service provider in the area. C) Transportation from Satun Geopark to Langkawi Island, Malaysia. Because it is convenient for the visitor to travel from Langkawi Island to Satun Geopark, it takes about one hour by speed boat from Langkawi Island to Li-Pe Island. Also, there is an international airport in Langkawi Island. The transportation in the area is the obstacle for Satun Geopark tourism development, and it has to be improved shortly.
- 2) Amenities. It composes of accommodation, restaurant, primary healthcare and hospital, public service, and travel service provider. The accommodation in Satun Geopark is hotel and homestay. There are many hotels and resorts in Li-Pe Island and land, but there is still a lack of homestay in the area. For primary public healthcare and hospital, there are emergency medical service (EMS) system provided by every Sub-District Administrative Organization (SAO) in Satun Geopark, but in some SAOs have to improve their services. There is also a marine emergency service from Tarutao National Park located at Rawi Island. The public service in the area is security checkpoints for the police. The travel service providers are private businesses mostly located near Pak Bara Port.
- 3) Geological Resources and Landscape. The sub-component of this part are a territory and natural beauty, ecological value, nature, cultural heritage, and landscape design around the geopark site. There are abundant resources of attraction in Satun Geopark. The landscape around geopark must have well design and fit the nature.
- 4) Environmental management. There is four sub-component consist of water supply, electricity supply, waste disposal, and air pollution control. In the present, there are wastewater and waste disposal in some areas. This problem has to be appropriately diminished. The Chief of SAOs and stakeholders in the area have to solve these problems. The obstacle is political in the local areas.

Conclusions

Satun Geopark is recently UNESCO Global Geopark. Being a global geological park can attract eco-tourists from all over the world. Therefore, in the Satun geopark, there must be efficient and proper tourism management not only to preserve the existing ecosystem but also impress the tourists. Logistics management is consequently applied to sustainable tourism. Satun Geopark logistics management can be categorized into four components. It consists of geological resources and landscape; transportation; amenities; and environmental management as well as creating the value of tourism products using three supporting factors: information and communication technology; innovation; and sustainable management provide tourism value for the tourists in terms of flexible, convenient, fast, and safe.

The logistics management for sustainable tourism needs a lot of support from both local and central government. The government has not only promoted and supported the tourism industry, but also requiring the tourism industry to be a part of the country's strategic plans such as National Economic and Social Development Plan, National Tourism Development Strategy, and Service sector development strategy of Thailand. The strategies focus on driving policies to promote, support and develop tourism, both products and service systems, to be able to facilitate tourists for maximum efficiency along with sustainable development for tourism which will lead to income generation in the country and increase the competitiveness of the country.

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Table 1. The Components of Logistics Management of Sustainable Tourism of Geopark of Satun UNESCO Global Geopark.

Component	Sub-Component	Source
1. Transportation	<ul style="list-style-type: none"> - Transportation from origin to Satun Geopark - Transportation network in Satun Province and nearby - Transportation from Satun Geopark to Langawi Island, Malaysia 	Zouros N.,Valiakos I. (2010),Lewis T.O. Cheung (2014), Piboonrunroj and Disney ((2012
2. Amenities	<ul style="list-style-type: none"> - Accommodation - Restaurant - Primary healthcare and hospital - Public service - Travel service provider 	Zouros N.,Valiakos I. (2010), Lewis T.O. Cheung (2014)
3. Geological Resources and Landscape	<ul style="list-style-type: none"> - Territory and natural beauty and ecological value - Nature - Cultural heritage - Landscape design around geopark site 	Zouros N.,Valiakos I. (2010), Petrick (2014)
4. Environmental management	<ul style="list-style-type: none"> - Water supply - Electricity supply - Waste disposal - Air pollution control 	Zouros N.,Valiakos I. (2010), Petrick (2014)