

# The Impact of Tourism on the Physical Landscape of Vang Vieng Town<sup>1</sup>

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## Abstract

This article presents the results of a study on the impact of tourism on the physical landscape of Vang Vieng town. A mixed-method research methodology was used, including a quantitative research method by conducting a questionnaire survey, a qualitative research method by using in-depth interviews and observation, and an interpretation of satellite images. The study found that Vang Vieng is one of the main tourism towns in Lao PDR. It is located on the route between the capital city of Vientiane and the World Heritage Town of Luang Prabang. Tourism in Vang Vieng has been established only recently, but it has expanded rapidly and has brought many changes to the town. Tourism has influenced physical landscape changes in Vang Vieng, including changes in land use, urban edges, paths, and districts. Tourism has also brought about changes in characteristic dwellings and open spaces of the town.

**Keywords:** impact of tourism, physical landscape, Vang Vieng

## บทคัดย่อ

บทความนี้นำเสนอผลของการศึกษาวิจัยเกี่ยวกับผลกระทบของการท่องเที่ยวต่อภูมิทัศน์ทางกายภาพของเมืองวังเวียง โดยใช้วิธีการศึกษาวิจัยแบบผสมวิธี ได้แก่ การวิจัยเชิงปริมาณโดยการเก็บข้อมูลด้วยแบบสัมภาษณ์ การวิจัยเชิงคุณภาพด้วยการเก็บข้อมูลเชิงลึกและการสังเกต และการแปลข้อมูลภาพถ่ายทางอากาศจากดาวเทียม ผลการศึกษาพบว่า เมืองวังเวียงเป็นเมืองท่องเที่ยวหลักแห่งหนึ่งของ สปป.ลาว มีที่ตั้งอยู่บนเส้นทางระหว่างนครหลวงเวียงจันทน์และเมืองมรดกโลกหลวงพระบาง การท่องเที่ยวในเมืองวังเวียงเพิ่งเริ่มต้นมาไม่นาน

แต่ได้ขยายตัวเร็วส่งผลให้เมืองวังเวียงมีการเปลี่ยนแปลงไปมาก การท่องเที่ยวมีอิทธิพลต่อการเปลี่ยนแปลงภูมิทัศน์ทางกายภาพของเมืองวังเวียงเป็นอย่างมาก เช่น การเปลี่ยนแปลงในด้านการใช้ประโยชน์ที่ดิน ขอบเขตของเมือง ถนน และย่าน นอกจากนี้การท่องเที่ยวยังได้เปลี่ยนแปลงลักษณะที่อยู่อาศัยและพื้นที่ว่างของเมืองอีกด้วย

**คำสำคัญ:** ผลกระทบของการท่องเที่ยว ภูมิทัศน์ทางกายภาพ เมืองวังเวียง

## Introduction

Tourism is a key approach to developing the economy, society, culture, and environment. Many countries give precedence to tourism and encourage tourists to visit their cities, villages, and local communities. The main reason for tourists to visit the countryside is to experience the rural atmosphere and lifestyle which differs from their own. Conversely, many people living in the countryside would like their own towns to be as modern as big cities. Modernization, however, successively destroys the environment that illustrates the indigenous characteristics of a place and brings about new facilities and environment (Charoenchai, 2002); consequently, the physical landscape is constantly changing. Vang Vieng, for example, a town in a rural area of Lao PDR has become a tourist site that is well known to both domestic and foreign tourists. The town has changed greatly because of the combined effects of the increased number of tourists each year, the construction of facilities, and the services provided for the tourists (Thongyou et al., 2014). This study emphasizes the physical landscape changes Vang Vieng caused by the development of tourism.

## **Methodology**

This study of the physical landscape changes in Vang Vieng consists of a document survey, field observation, interpretation of satellite images, comparison of pictures, and interviews with local people who have lived in Vang Vieng since 1995 until present. A total of 34 key informants were purposely selected from various stakeholders for in-depth interviews, including village heads, tourism entrepreneurs in 7 villages in Vang Vieng municipality and scholars/technicians. A questionnaire survey was conducted with a sample of 317 households out of a population of 1,803 households living in Vang Vieng, based on Krejcie and Morgan (1970) Sample Size Table. The conceptual framework is a combination of the concepts of Kostof (1993) and Lynch (1960), focusing on land use, urban edges, paths, district, and open spaces.

## **Overview of Vang Vieng**

Vang Vieng is a district of Vientiane province located in the north on National Highway No. 13 North (NHN 13), about 156 km from the capital of Vientiane. More than two-thirds of the district area is mountainous, consisting mostly of limestone mountains and cliffs of various shapes and sizes. The average annual temperature is 26.7 degrees Celsius. There are two seasons; the dry season is from October to April and the rainy season from May to October. The average annual rainfall is 1,67 mm. Vang Vieng district can be accessed only by using Highway NHN 3, which has buses available every day.

Important elements in attracting visitors are natural resources, such as the Xong River, which is the main river of the district and has the

capacity to support various tourism activities. Other important tourism resources are the more than 30 caves, of which over 20 have been opened to visitors. Apart from this, good weather, a beautiful landscape, an attractive culture and lifestyle of local people maintaining their fine traditions and uniqueness have increased the potential of Vang Vieng district for tourism. It should be noted that there are several other natural tourism resources located close to the main road (NHN 13) that are easily accessed by tourists.

Vang Vieng district is located on the route between the capital of Vientiane and the World Heritage Town of Luang Prabang, making the area ideal for welcoming tourists and those who are travelling between the two cities in increasing numbers every year. The town of Vang Vieng has developed dramatically with a number of infrastructure support systems. Currently in the municipal district, there are 97 hotels, guesthouses, resorts, and bungalows providing 1,600 rooms which can accommodate up to 2,400 people per day. Moreover, there are 83 shops and restaurants with a seating capacity of 2,100 seats (Vang Vieng District Tourism Office, 2012). Therefore, each day there may be more than two thousand visitors in the town.

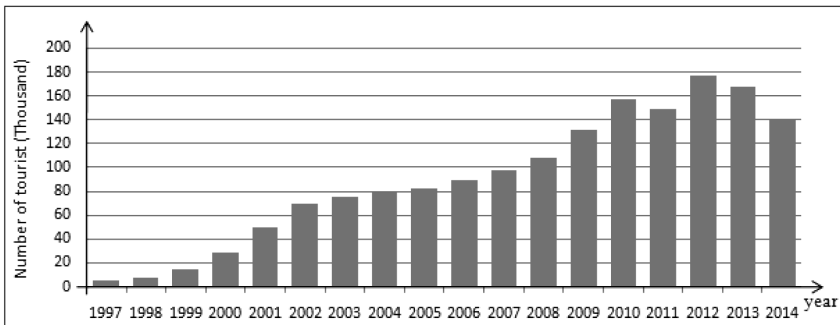
### **Development of Tourism in Vang Vieng**

Prior to 1986, Laos was a closed country. There were few foreign tourist arrivals. Most travel to Vang Vieng was carried out to visit relatives or friends or for non-business reasons. Infrequently, some foreign visitors paid a visit in their role of country representative or representing international organizations, most of whom were from the former socialist countries (Phabouddy et al., 2010). Apart from this, access to Vang Vieng was inconvenient as the road system was not able to connect routes in the local areas.

The growth of tourism from 1986-1998 began in 1986, when the Lao PDR government implemented an open-door policy to welcome foreign investment and changed the former socialist economic management into a free market-oriented management mechanism. This change enabled foreign investors and visitors to start travelling to the Lao PDR. In 1989, the Lao authorities announced the opening-up of the country and officially welcomed foreign visitors (Yamauchi and Lee, 1999). In 1995, the importance of tourism was realized when the National Assembly of Laos identified the tourism industry as one of the priority action plans of national development. Investment in infrastructure development was increased and travel by car began to expand for travelers between Vientiane and Luang Prabang, a city that attracts a great many foreign tourists, which lead to the expansion of the tourism industry. Therefore, with its location on the national highway connecting the two cities, Vang Vieng's indigenous residents have had ample opportunity to advertise and develop their district as an en-route stopping place for travelers, resulting in its becoming one of the most significant, popular, and charming tourist resources in Laos.

In 1994, the first tourism service was implemented in the Chang Cave area by tourist service entrepreneur Seng Phanit from Vientiane. Subsequently, he started to develop natural tourism at other tourist sites and built up various facilities. In 1996, there was only one hotel along with 12 guesthouses in the municipal district. Data collection of visitors travelling to Vang Vieng began in 1997 and found that there were only 4,468 visitors (not including those who did not stay in lodgings). By the following year, 1998, the number of tourists had increased by 50 percent to 6,694, which was considered exceptionally high when compared to the previous year.

Development of tourism from the year 1999 up to the present is the period since the government of Lao PDR announced the Visit Lao Year Festival which has enabled tourism to grow dramatically. For instance, the increase in the number of visitors, accommodations, restaurants, shops, and other services at tourist resort sites and other facilities has been very noticeable. In just one year, from 1998 to 1999, the visitor numbers more than doubled as foreign tourists visiting the district grew to 14,436, while in 1998 there had been only 6,694 visitors.



**Figure 1.** Number of tourist arrivals in Vang Vieng, 1997-2014

**Source:** Vang Vieng District Tourism Office (2015)

Despite the expansion of tourism resources in 1999, there were only nine caves open for tourist services. By 2014, 27 caves were open to tourists. Apart from this, there are five cultural tourism resources and two agricultural tourism resources. At the same time, the level of accommodation has increased in the town which now has 99 hotels, guesthouses, resorts, and bungalows. A large number of restaurants and various housing units provide tourist services. Visitor numbers in 2012 had reached 177,191. Factors that assisted tourism in Vang Vieng in expanding dramatically after the Visit Lao

Year Festival have been the government's massive investment in infrastructure development, particularly the construction of the electric town network from the Nam Ngum Hydropower System, water supply systems, improvements to roads and transport, and the establishment of an agency responsible for the direct administration of tourism. As for the private sector, it has invested in the development of accommodation facilities, restaurants, and other services for visitors. However, in 2014, the number of numbers decreased to only 140,071 (figure 1).

### **Physical Aspects Impacts of Tourism**

From the study of sample participants, it was found that there were both positive and negative impacts on the community associated with tourism development in Vang Vieng district. These impacts are discussed below.

Impacts on the environment: on the positive side, 62.5 – 75 percent agreed that tourism encourages local people to develop the landscape in the municipality and there is investment from the government in roads, water-distribution canals, electric town network, town hydrant water and garbage disposal, and the creation of sites as tourist attractions. However, local people were concerned about waste disposal, polluted water, and the cleanliness of the town.

The negative impact: 56.25 percent indicated that tourism causes invasion of public natural sites for the purpose of building accommodations, restaurants, and beer bars. Other problems are tall buildings that obscure the surrounding scenery and overcrowded buildings. In the study, 37.5 percent stated that tourism caused polluted water and garbage discarded by tourists, entrepreneurs, and the community into the Xong River. The survey confirmed

the report of Serey et al. (2010). Moreover, 37.5 percent agreed that loudness from tourist activities affects local people.

## **Changing Physical Landscapes in Vang Vieng Town**

### **Changing Land Use**

Before the expansion of tourism in Vang Vieng, there was not much variety in land use. The land was mainly used for residency and government agencies, and there were many vacant areas. The areas in use were not crowded and were only occupied by important sectors such as markets, bus stations, and government agencies, which were located in the center of the town. After the expansion of tourism, land use changed. Some markets, bus stations, and government agencies were moved out from the center of the town because of the increased density. However, 56.25 percent of the sample group agreed that vacant land had been utilized to generate additional income streams. Most of the land in the town was used for tourism services, such as hotels, resorts, restaurants, Internet cafés, rental car shops, tour guide shops, etc. The density of area usage is increasing every year, causing activities that need a considerable amount of space to move out from the center of the town. For example, markets (moved in 2007), and bus stations (moved in 2008) moved to the north of town two kilometers away from their former location. Meanwhile, some government agencies moved from the center of the town to the new development zone which is three kilometers away. These examples of the area being used are caused by the fast growth of the town which is related to the factors of tourism (Serey et al., 2010). Basic infrastructure was developed significantly in the town zone.



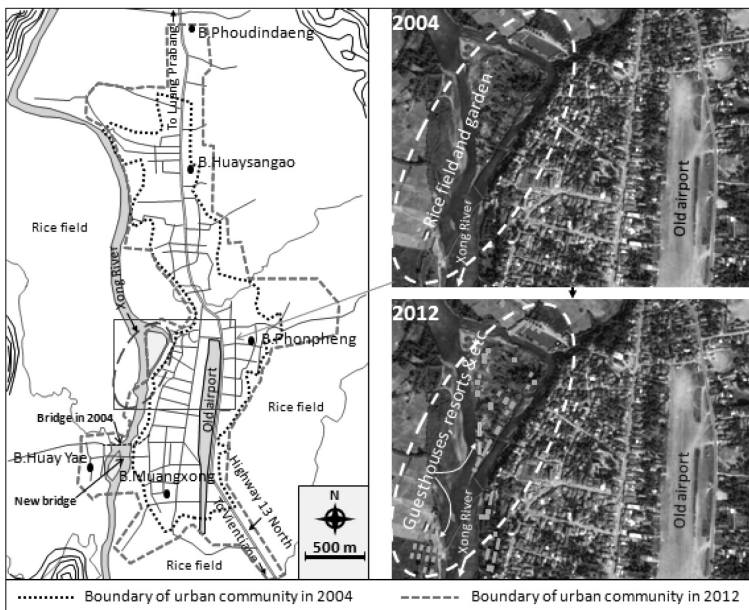
The research found that in 2005, the area used for resorts, restaurants, and tourist services was not extensive and it was mainly in the vicinity of Savang village. However, in 2012 the area used for tourist services was much greater and Savang village became very crowded. Some businesses even trespassed on to the Xong River bank and expanded to nearby villages, to the main roads, and on to small streets.

### **Edges**

Figure 2 (below) shows edges or boundary of urban community in Vang Vieng in 2004 and 2012. According to the map of 2004, the west boundary of Vang Vieng town was on the east bank of the Xong River. There was space between houses and the river banks where a riverside walkway for sight-seeing was planned. In the east, Vang Vieng town covered the area of Phonpheng village located next to rice fields and in the south, it covered the area of Muangxong village which was also next to rice fields. The town also covered the area of Huaysangao (figure 2) in the north. The expansion of modernization has been caused by tourism, as shown by the large number of hotels, guesthouses, restaurants, and tourist service stores. In 1996, there were 13 guesthouses and five restaurants in the municipality. In 2012, the number rose to 97 guesthouses and 83 restaurants and the increase in construction to facilitate tourism resulted in the expansion of the town boundaries.

In 2012, the town was broadened to cover the land on the west bank of the Xong River where villages such as Huay Yae are located. Moreover, more resorts, guesthouses, and tourist service stores were established on Don Klang Island and on the west bank of the Xong River. This is how the west boundary, which originally ended on the east bank of

the Xong river, has expanded to the west bank. Fortunately, the south and east boundaries have not changed drastically, but only the area of residence that stretches to and reaches the rice fields. The north boundary seems to stretch from Huaysangao village to Phoudindaeng village, where the administrative office was moved. In addition, the fresh market and the bus terminal were also moved to the north.

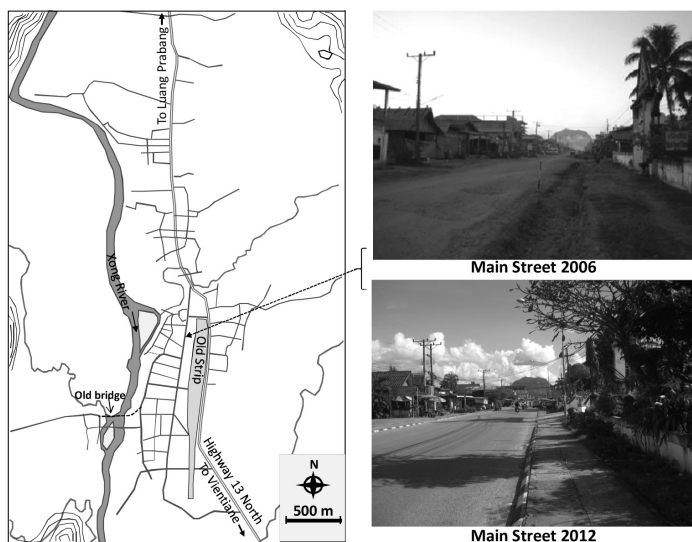


**Figure 2.** Edges or boundaries of the urban community in Vang Vieng.

## Paths

The infrastructure in Vang Vieng has not changed much over the past decade. There are three main streets: National Highway No.13 North in the east, the street through the heart of town, and the street along the Xong River. Various alleyways connect the three main streets. Those streets and alleyways were

widened and tarred. Lights have been installed along the roadside where there are walkways and drains. This development can be seen especially in the center of town.



**Figure 3.** Path network and the changes in the main street in Vang Vieng town

## District

The urban community consists of two districts: downtown and the outskirts. Downtown or the business zone stretches from Samosorn Road to Wat Thad and covers the streets through the Xong River side. Here are lodging businesses, hotels, shop-houses, restaurants, and other service business shops to serve the tourists. The land use in the business zone is crowded, compared to other zones. Further, it is very crowded along the roads and lanes. The architecture of the dwellings is modern, emphasizing function and utility rather than aesthetics. These structures are made from cement, bricks,

steel, and wood. The houses in this zone are separated as the hospitality business zone, the businesses that feed families.

In the outskirts, the land is mainly for dwellings and government offices. The dwelling architecture is a vernacular architecture, in which the ponds and courtyards are in the local style and are in front of the house. Further, a kitchen garden is also planted within the house compound. The houses and structures are wood or half-cement and half-wood. The roof is of galvanized iron or tiles. Housing in this area is not crowded compared with the urban zone. In addition, there are some government places that cannot be categorized into districts because they are scattered around the Song riverbank and on the south side of the community.

### **Open Spaces**

An old strip that lays in the north-south direction, located almost in the center of the community is the main open space for urban residents. People in Vang Vieng town usually get together here for activities such as weddings, market fairs, morning and evening exercise, driving lessons, celebrations of special national and international days, and any other activities which require space for many people. This public open space is approximately 100 meters wide and 1,500 meters long. Currently, however, the south of this space is occupied by some invasive construction.

Along with the old strip, the fields at various offices such as the police station, primary schools, secondary schools, and vocational schools are important open spaces for the town. They are used by local people to participate in recreational activities, such as football, volleyball, and petanque in the evenings. These open spaces have hardly changed.

The open space that is most drastically changed is on the east bank of the Xong River. In 2004, the walkway had a width of 10-15 meters, lying along the Xong River, was open space with a few buildings. The administrator had a plan to build a walk way along the river to benefit sightseeing at the Xong River and the parallel limestone mountains. However, two to three years after that, buildings, hotels, guesthouses restaurants and tourist service stores were built to accommodate the tourists. Currently, the open space along the Xong River is barely visible. Furthermore, open spaces surrounding local people's houses have been turned into places of business such as guesthouses, restaurants, stores, massage parlors, internet cafes, motorbike/ bicycle rental services, tour guide companies, and other kinds of business. Therefore, the town is packed with buildings and other construction.

### **Houses and Buildings**

The growth of tourism has affected the housing styles in Vang Vieng town. Before 2000 most of the houses in the town were made of wood, or wood with partial bricks and cement, having one storey or maximum two stories, with galvanized iron roof. Most of the houses have open ground spaces and surrounded by fences. Those who lived in the houses were family members. A very small number of buildings were used for other purposes, mostly for providing services to the communities, such as food shops and groceries. With the growth of tourism and rapid development of the town, more buildings, shop houses, row houses, guesthouses, apartments and hotels were constructed. Most have at least two and three stories, are made of cement, and have more modern architectural styles (figure 4). Because these new buildings were built adjacent to each other, open ground spaces and fences have nearly disappeared. Houses of local people and tourists, as well as service buildings have become all jumbled together.



**Figure 4.** (1) Old architecture and (2) modern architecture in Vang Vieng Town

## Conclusion

When talking about Vang Vieng, most people, including Laos and foreign tourists, will think of a land with a stunning landscape: limestone mountains laid out in descending levels in the background, as well as the Xong River running along limestone cliffs located in a north-south direction. However, not many people realize that the landscape of the town itself also plays an important role in attracting the tourists. The researcher believes that tourism not only helps Vang Vieng's economy to grow and the standard of living for local people to increase, but it also causes Vang Vieng's physical landscape to change. While the changes in the physical landscape are advantageous, there are also some points that need improvement. That is, before tourism expanded, the town boundary ended on the east bank of the Xong River and covered a small number of villages. However, due to the expansion of tourism, the boundary has sprawled to cover Huay Yae village on the west bank of the Xong River, and covers most of Phoudindaeng village north of the town. Fortunately, the west and south boundaries have not been extended much, but some of the rice fields along No. 13 Road in Muang Xong village have been built upon as beer bars and houses. Although the three

main roads connect villages in this town, there is still very little development of small alleys; most of them are narrow and coated with laterite.

The most drastic change, however, can be seen in the use of land, especially in the area of Savang and Vangvieng villages. Both are in the heart of the town where the land is fully occupied and there are many tourism activities. Along the Xong River, the land that used to be unoccupied or used for kitchen gardens has been turned into guest houses, resorts, restaurants, beer bars, etc. This brought about commercial districts in Savang and Vangvieng villages and the area on the east bank of the Xong River where there are modern houses. Apart from these areas, the use of land is sparse; most of the land is used for houses, which are still in the indigenous style and government offices. There is some unoccupied space. The dense use of land in the town drives away activities that require a large space to the outskirts resulting in urban sprawl.

This study has shown that tourism is an important factor which has an impact on the physical landscape of the Vang Vieng town. We therefore recommend that local government should implement urban planning and land use controls by establishing development zones and conservation and recreation zones. This urban plan should respect local architecture, socio-economic and cultural situation, human environment and natural environment, to assure Vang Vieng town's sustainability.

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