Local Wisdom of *Miang* Lifestyle and Community for Sustainable Development in Northern Thailand

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Abstract: *Miang* or fermented tea leaf has been a part of the Mae Kampong community, one of northern Thailand’s famous tourist attractions, for a long time. Although the demand and popularity of *Miang* are decreasing, *Miang* is still important to the community lifestyle in various ways. Thus, this study aimed to investigate *Miang* consumption behavior, lifestyle, and wisdom in the Mae Kampong community, which would lead to sustainable development. The study involved a cross-sectional survey and a qualitative study. The research was done in Mae Kampong Village, Mae On District, Chiang Mai, Thailand. A total of 335 participants participated; 60.9% were female with an average age of 61.3 ± 12.2 years old. In all, 93.7% of the participants consumed *Miang* daily, mostly as a snack (86.5%). Consuming *Miang* as a staple food and beverage were less common. Furthermore, only 2.5% of the participants considered *Miang* as medicine. *Miang* is also the primary source of income and a tourist attraction. Additionally, *Miang* is an item in religious and local rituals. The *Miang* culture and the local lifestyle are bonded deeply as a sustainable economy, society, and environment. The wisdom in *Miang* culture encourages a better quality of life for the Mae Kampong community.

Keywords: *Miang*; local wisdom; lifestyle; sustainability; health; physical activity

1. Introduction

*Miang* or fermented tea is made from leaves of Assam tea or *Camellia sinensis* var. *assamica*. *Cha Miang* is the fresh Assam tea that is naturally grown in the mountain terrain from 450 to 1500 m above sea level [1]. The cultivation of *Cha Miang* dates back to the 13th century in the Lanna Kingdom, including Thailand, Myanmar, the Lao People’s Democratic Republic, and the People’s Republic of China. The Lanna civilization is one part of Thailand that covered most of northern Thailand. *Cha Miang* requires a specific process of cultivation and environment. The high mountain terrain in northern Thailand is the perfect environment for *Cha Miang* cultivation. Thus, most of the northern part of Thailand, such as Chiang Mai, Chiang Rai, Nan, Phrae, Mae Hong Son, and Phayao, grow *Cha Miang* [1]. The knowledge and wisdom of *Miang* was passed throughout northern Thailand by the Khmu, Lua, and H’tin ethnic groups who lived in the previous Lanna Kingdom and preserved the culture since the age of Lanna civilization [1].

*Miang* became a vital part of the northern Thai lifestyle, especially in the high mountain terrain. *Miang* is considered as a staple food and snack; people would chew *Miang* along with smoking or drinking. Aside from the daily consumption of *Miang*, the tea is also...
recognized as a welcome item to offer guests and offering in religious rituals like funerals or worship rituals [1–3]. The other critical perspective of Cha Miang for the northern community is as a career. Cha Miang cultivation is the primary income source of northern people; they grow, ferment, and sell Miang in the local market. A Cha Miang farm, or as the locals call "Suan Miang", is a highland forest, hillside, or slope used to grow Cha Miang. Cha Miang can be found in the forest along with other wild plants [3]. Villagers and farmers wake up early to harvest Cha Miang leaves in the mountain areas. The harvesting can take from a couple of hours until sundown. Then Cha Miang leaves goes through the process of fermentation, starting by tying Cha Miang leaves in a small bundle with a bamboo strip and steaming for 1 to 2 h. Then, the bundle is moved to a fermenting container and left for five days to years, depending on the recipe. The longer the fermentation, the sourer the Miang will be [1,3,4].

The culture of using Miang as medicine to promote health is not sufficiently supported. However, one study reported that the Miang possesses antioxidant, antimutagenic, anticarcinogenic, and antimicrobial effects [1]. Therefore, Miang is not only healthy but also plays an important role in some local northern Thai cultures, lifestyles, and economic systems.

In the past, chewing Miang was most common among the elderly, less common among the middle-aged, and infrequent among the young [5]. On the contrary, Miang has become less popular in the current generation, but the demand is still high in some areas of northern Thailand. Chiang Mai Province comprises one of the largest Cha Miang cultivation areas in Thailand [1]. Mae Kampong Village is located in Mae On District, Chiang Mai, and is one of the villages that cherishes Miang and has preserved the culture since ancient times. Mae Kampong is a suburban village over 50 km away from the city and 1300 m above sea level. For over a century, the first generation of the Mae Kampong community has sought the ideal place for Cha Miang cultivation and to form a community [6], as shown in Figure 1.

Figure 1. Mae Kampong village, Cha Miang forest, and Cha Miang leaf salad.

Mae Kampong Village is famous for Miang production [6], as shown in Figure 2. The community consumes Miang as a staple food and snack, offers it in rituals, and makes a living by Cha Miang cultivation. Thus, Miang has long been part of the Mae Kampong daily life and economy, but in 1981, His Majesty King Bhumibol Adulyadej the Great visited the village and established two projects that would change the life of Mae Kampong villagers. The first project was the Huai Hong Khrai Royal Development Study Center to conserve water sources and improve people’s quality of life in the watershed area [7]. The second project was Teentok Royal Project Development Center, a project dedicated to
promoting agriculture, including Cha Miang cultivation, and to provide the opportunity to earn income from farming [8,9].

Figure 2. Traditional Miang production process by local wisdom in Mae Kampong Village.

Furthermore, in 2002, the Mae Kampong community was granted community development support from the government, and the ordinary agricultural-based village became a destination community for recreation and tourism [9]. Furthermore, Mae Kampong Village is also known for its homestays, which have received many rewards such as Thailand Homestay Standard and Green Innovation in Chemical Analysis with Local Wisdom [10,11]. Since Mae Kampong became Chiang Mai's well-known tourist attraction [12], tourist-related Miang activities emerged and increased local economic growth [6,9]. Currently, Miang is an essential part of Mae Kampong’s economy and has increased the overall income of the villagers from both Cha Miang cultivation and Miang related businesses. Moreover, the Cha Miang forest creates balanced agroforestry by conserving soil moisture and protecting natural water sources [3].

This study aimed to investigate Miang consumption behavior, lifestyle, and wisdom of the Mae Kampong community, which leads to sustainable development. Therefore, a cross-sectional and qualitative study was conducted to survey and gather in-depth information about Miang consumption behavior in the Mae Kampong community, Chiang Mai Thailand.

2. Materials and Methods

The study was composed of two different attributes, a cross-sectional study and a qualitative study. The cross-sectional study was conducted by researchers using a survey, and the qualitative study was conducted using a structured in-depth interview of participants until the required information was obtained, as shown in Figure 3.

The study protocol was approved by the Human Ethics Committee of the Faculty of Pharmacy, Chiang Mai University (No. 26/2016, Date of approval 29 April 2016). Furthermore, all participants consented to be interviewed and were informed about the study protocol.
2.1. Cross-Sectional Study

The population of this study comprised residents in Mae Kampong Village, Mae On District, Chiang Mai, Thailand. The eligible criteria were at least 18 years old and residing in Mae Kampong Village from 2016 to 2017. Of 418 Mae Kampong villagers, 335 participants were recruited for the research [13].

The required information was obtained by interview, conducted by approximately 20 interviewers. Before the actual interview, the interviewers were briefed and trained to perform unbiased interviewing. The interview was conducted by interviewers who read the questions out loud for the participants and wrote down the answers. The interview questionnaire was composed of 3 parts. Part 1 consisted of general information such as gender, age, address, and education. Part 2 included health behavior, for instance, smoking status, drinking status, underlying disease, and diet. Finally, the last part comprised Miang consumption, for which all the questions were multiple choice with open questions to allow participants to express their opinion, experience, and perspective completely.

STATA, Version 14 was used to analyze descriptive data: frequencies, percentages, means, and standard derivations.

2.2. Qualitative Study

The qualitative information of Miang consumption was gathered from randomized villagers from the cross-sectional study above. The eligible criteria for participants to be included in the qualitative study were consenting to provide information and consuming Miang daily. Of the 335 participants in the cross-sectional study, 10 to 15 participants were estimated to provide sufficient data until the researchers concluded that no new information or themes were discovered.

A structured in-depth interview and audio recordings were used to conduct the qualitative study. The audio recordings were converted to text, and the participants’ answers were confirmed. The interview concepts were to capture the essence of a Mae Kampong villager’s lifestyle, health profile, sickness, and wellness and how it related to Miang. The story behind the use of Miang and how it became a tradition in the village were also part of our focus. Furthermore, as Miang consumption behavior differs from the past, the reason for changes was one of the interesting points.
As for interview validation, the questions and their content were reviewed and validated by professional counselors. The acquired information was analyzed using content analysis to describe the in-depth perspective of the participants.

3. Results

3.1. Cross-Sectional Study

Of 335 participants, 131 (39.1%) were male with an average age of 61.3 ± 12.2 years old. Over 79.6% of participants were married. The education level of the participants was mostly primary or below (69.2%), and 38.8% worked as a freelancer occasionally depending on an employer. The monthly income of the participants ranged from less than 3000 to 10,000 THB (Table 1).

Table 1. Characteristics of participants (n = 335).

| Characteristic                              | Total | Percentage |
|---------------------------------------------|-------|------------|
| Gender                                      |       |            |
| Male                                        | 131   | 39.1       |
| Female                                      | 204   | 60.9       |
| Mean age (years) (n = 315)                  | 61.3 ± 12.2 |          |
| Status (n = 304)                            |       |            |
| Single                                      | 29    | 9.5        |
| Married                                     | 242   | 79.6       |
| Divorced/separated                          | 18    | 5.9        |
| Other *                                     | 15    | 4.9        |
| Education (n = 325)                         |       |            |
| Illiterate                                  | 45    | 13.9       |
| Primary or below                            | 225   | 69.2       |
| High school                                 | 42    | 13.0       |
| Diploma/Vocational/Bachelor’s degree or higher | 13 | 4.0       |
| Occupation (n = 309)                        |       |            |
| Agriculturist                               | 94    | 30.4       |
| Freelancer                                  | 120   | 38.8       |
| Government official or private sector employee | 6 | 1.8       |
| Unemployed                                  | 68    | 22.0       |
| Other *                                     | 21    | 6.8        |
| Monthly income (THB)(n = 307) **            |       |            |
| <3000 (96.15 USD)                           | 143   | 46.6       |
| 3001–10,000 (96.19–320.51 USD)              | 130   | 42.4       |
| >10,001 (320.54 USD)                        | 34    | 10.4       |

* Other occupations included merchant, housewives, and homestay owner. ** Exchange rate: 31.20 THB to 1 USD, according to the exchange rate, Bank of Thailand on 30 April 2021 [14].

According to the participant’s health profile, smoking and drinking status mainly comprised never smoking (62.3%) and never drinking (58.9%). As for smokers, most used roll-your-own cigarettes. Some of the participants had hypertension (35.1%) and diabetes (21.3%); some participants were on medication (58.5%). The top three medications were for diabetes, hypertension, and dyslipidemia. While over one half of the participants were on medication, only 17.7% used supplements. The supplements that had been used frequently were vitamins, nutritional supplements, and calcium supplements. As for herbal supplements, only 30.8% used them, and the herbs came from shops, folk healers, were produced from their garden, or were from foraging. Over 59.9% of the participants exercised, mostly by walking. For instance, Cha Miang farmers had to walk around, watering and tending the farm crops, and foragers had to walk through countless mountains on foot. The main diet of the participants was a home cooked meal (97.8%) instead of dining out/take out (1.2%) (Table 2).

Participants preferred to integrate Miang into their diet and used Miang as a snack (86.5%), staple food (35.5%), and beverage (13.2%). The main reason that participants in
Mae Kampong consumed *Miang* was to relax, as they claimed *Miang* could make you relax (Table 3).

### Table 2. Participant health profile.

| Variable                              | Total       | Percentage |
|---------------------------------------|-------------|------------|
| Weight (kilogram; n = 310)            | 53.9 ± 10.9 |            |
| Height (centimeter; n = 293)          | 155.4 ± 8.3 |            |
| Smoking status (n = 318)              |             |            |
| Never smokers                         | 198         | 62.3       |
| Active smokers                        | 70          | 22.0       |
| Ex-smokers                            | 50          | 15.7       |
| Drinking status (n = 316)             |             |            |
| Non-drinkers                          | 186         | 58.9       |
| Active drinker                        | 79          | 25.0       |
| Ex-drinkers                           | 51          | 16.1       |
| Underlying disease * (n = 328)        |             |            |
| Diabetes or hyperglycemic             | 70          | 21.3       |
| Dyslipidemia                          | 28          | 8.5        |
| Hypertension                          | 115         | 35.1       |
| Cardiovascular diseases               | 8           | 2.4        |
| Depression/anxiety disorder           | 8           | 2.4        |
| Other **                              | 71          | 21.7       |
| Medication use (n = 318)              |             |            |
| None                                  | 132         | 41.5       |
| On medication                         | 186         | 58.5       |
| Supplement use (n = 311)              |             |            |
| None                                  | 256         | 82.3       |
| On supplements                        | 55          | 17.7       |
| Herbal use (n = 318)                  |             |            |
| None                                  | 220         | 69.2       |
| Use herbs                             | 98          | 30.8       |
| Exercise (n = 317)                    |             |            |
| Did not exercise                      | 127         | 40.1       |
| Exercise                              | 190         | 59.9       |
| Diet (n = 323)                        |             |            |
| Home cooking meals                    | 316         | 97.8       |
| Eating out/take out                   | 4           | 1.2        |
| Other                                 | 3           | 0.9        |

* Participants could answer more than one option. ** Other underlying disease such as bone and joint disease, gastrointestinal disease, allergy, and chronic muscle pain.

### Table 3. Daily *Miang* consumption.

| Variable                              | Total | Percentage |
|---------------------------------------|-------|------------|
| Do you consume *Miang* daily? (n = 334) |       |            |
| No                                    | 21    | 6.3        |
| Yes                                   | 313   | 93.7       |
| What do you consume *Miang* as? * (n = 318) |       |            |
| Snack, e.g., Sour Miang or Sweet Miang| 275   | 86.5       |
| Staple food, e.g., Miang salad, concentrated Miang juice | 113 | 35.5 |
| Beverage, e.g., Miang tea             | 42    | 13.2       |
| Medicine                              | 8     | 2.5        |
| Healthy baked goods                   | 1     | 0.3        |
| Why do you consume *Miang*? * (n = 318) |       |            |
| Use Miang as a snack                  | 220   | 69.2       |
| Use Miang as a staple food            | 80    | 25.2       |
| Use Miang to relax or energize        | 160   | 50.3       |
| Use Miang to relieve thirst           | 65    | 20.4       |
| Use Miang as medication               | 9     | 2.8        |
| Other **                              | 19    | 6.0        |

* Participants could answer more than one option. ** Other such as having something to chew on or religious-related reason.
3.2. Qualitative Study

The researchers were able to recruit 15 participants who used Miang daily for the qualitative study. Miang was consumed as a staple food, but it could also be processed to other products such as Miang healthy baked goods or Miang gummies. The more we investigated Mae Kampong villagers’ lives, we found that Miang was more than a diet; it had local wisdom and stories behind it.

3.2.1. Miang Consumption Behavior of Mae Kampong Villagers

The history of Miang came a long way from the wisdom and tradition of the Mae Kampong community. Each part of Cha Miang was used as a staple food and processed in other condiments. “The shoot was used to make a salad, or the bud was brewed into tea. Also, the larger leaves could be processed into Cha Miang tea pillows; we did not throw the larger leaves away. We made Cha Miang tea pillows at local temple gatherings, and people used them in cars for display.” (Ms. A)

“In our village, only the elders chewed Miang. Most people cooked Cha Miang leaves by deep-frying, in salads, and as a paste.” (Ms. K)

People rarely used Miang as medicine, but Miang can be used as an energizing herb. “But as long as I know, Miang contains caffeine, which is the same substance you can find in coffee, but most people prefer coffee over Miang.” (Mr. M)

“I ate Miang for 5 to 6 years. It was part of my main diet. Whenever I was tired or could not sleep, I would chew Miang, and many of the symptoms would go away. Whenever I ate Miang, I felt awake and energized. Cha Miang comes in different types of products; the leaves can be made into tea pillows, and when you felt tried, you just sleep on that pillow.” (Ms. J)

3.2.2. Miang Lifestyle and Wisdom in Mae Kampong

The interviews showed that Miang played a significant part in the Mae Kampong community for all ages, especially during their meals or by consuming it while smoking. Furthermore, Miang also had its role in the religious traditions in the Mae Kampong community.

“When I was born, my parents had to eat Miang right after they finished their meal. They also put it in their mouth while they smoked, just like a lollipop.” (Ms. A)

“Miang and smoking are inseparable. If you smoke, you had to have Miang, and if you eat Miang, you have to smoke because the unique scent of the cigarette paired well with the sourness of Miang, perfectly!!! But, since I quit smoking, I did not chew Miang that much. I mean, sometimes I had it but not very often. The fresh Cha Miang leaves have an aroma, so I ate them, but when I ate Miang, I meant really ate them, did not chew and spit. Sometimes if the leaves were too old, they become rough and hard to chew, so I spit it out, while the young leaves were still chewable.” (Mr. M)

“The elders eat Miang because they feel it makes them calm and relaxed. Also, Miang can get rid of the fishy odor when you have fish in your meal. But as for using Miang to cure disease or sickness, I have never heard of it. As far as I know, Miang is a part of ritual items. Miang and roll-your-own cigarettes are an item in some traditional or religious rituals. It was considered quite special and important to the lifestyle of the people in an older time.” (Ms. H)

Moreover, Miang is associated with the Mae Kampong villager’s career. Harvesting Cha Miang in the wild was once the main career associated with Miang. Even though the pay rate was low and people in the village tended to go for the tourism business, harvesting Cha Miang was still one of the main incomes in some families to guarantee their living’s sustainability.

“It (Cha Miang harvesting) is our original career. We still believe that even though it paid less than the tourism business, it was sustainable when we had no tourists. This career is still there. Today, people might travel a lot, but we will lose everything when people travel less, and we are without Miang. We need a backup plan.” (Mr. C)
“Even though we did not get a lot of money making a living of Miang, we could save. It was not like once we harvest Cha Miang, we sell it. We have to ferment the leaves for over a year. When the time comes, and fermented Miang is ready, we sell it and gain some amount of money for saving.” (Ms. F)

The more money made in the tourism business, the more it costs. Even though it was more profitable than Cha Miang harvesting, Mae Kampong villagers might become more in debt if they chose only to do tourism business for a living.

“The old philosophy of Miang was harvesting, buying, selling Miang, and creating savings out of the money we got from Miang. These past two years, we had homestay and tourism business, and when I went out for Cha Miang harvesting, just about noon, the village chief called me. Some tourists wanted to book the homestay, and I had to rush to the homestay and clean it. The money I made from the homestay business was good, do not get me wrong, it was not as reliable as the money I made from Cha Miang cultivation. Tourists come and go, depending on the season, but Miang is always there. We can be sure of the money, and we can make from it each year.” (Ms. F)

Mae Kampong villagers were trying to preserve their unique culture and tradition. Still, due to multiple variables and factors, including the decreased demand for Miang, villagers were getting older, and the younger generations paid less interest to pursuing and continuing this culture. In addition, the changes in the Miang culture were due to the complications of the Miang making process, the time and effort used in the process, combined with the shift in social structure, which caused villagers to choose another career instead of making Miang.

Nevertheless, the Mae Kampong community still strongly believed in their Miang culture and Miang making career to be a sustainable way of life and provide the money they needed. “Right now, Miang is our main way to make a living; tourism is a side business. I do not believe that it will remain profitable for the rest of my life. My family comprises farmers, and sure, it has its ups and downs. Even though the Miang demand is decreasing, I will not clear the field. Miang is my backup plan.” (Mr. C)

Miang might not grant you a fortune, but the Mae Kampong community was still able to stay content with their life. The sustainable way of life was key to their wisdom. “You see, we as farmers will not be rich, but we can still support our family and continue on with our life. Just like our former king, King Bhumibol Adulyadej, said. Even though our country has the sufficiency economy philosophy, we also have to be self-sufficient.” (Mr. Z)

Miang runs in the Mae Kampong villagers’ veins. The culture and wisdom are passed from generation to generation, and the community hoped it would continue. “Well, I think it (Miang culture) will continue in this village for a long time because our ancestors preserved it, and when it comes to our time, we cannot ignore it. The new generations in this village will be educated about Miang, no matter where you have been.” (Mr. C)

The tradition of chewing Miang might change over time, but the other products of Cha Miang are still relatable such as Cha Miang tea, Cha Miang tea pillows, cosmeceutical products, or healthy baked goods. “Our village chief said that he did not want the Miang culture to fade through time. We have maintained this culture since the time of our grandparents. If outsiders or tourists ask about our village culture, we need to present our Miang and coffee culture; we have to know it.” (Ms. J)

4. Discussion
4.1. Miang Consumption Behavior in Mae Kampong

This study discovered that over 93.7% of Mae Kampong villagers consumed Miang daily. Chewing Miang as a snack was a habit of elders in the village. Since most of our participants were elderly, with an average age of 61.3 years old, the most popular way to consume Miang in this study was to chew it as a snack. The elders in the Mae Kampong community claimed that Miang could wash out fishy odor and clean their pallets after meals. Moreover, Miang seems to be an energizing snack throughout the day. Aside from snacks, Miang was consumed as a staple food and beverage, which is preferred among younger
generations. The newer generation preferred to use Cha Miang leaves as an ingredient in a meal instead of directly chewing it, for example, Cha Miang leaf salad, tempura, concentrated Miang juice, or Cha Miang leaf tea. Miang might be an old culture in the opinion of some, but the nutritional value and benefits of Miang unquestionably satisfied people who seek an alternative healthy diet [15]. Thus, Miang constitutes a crucial part of the Mae Kampong community and integrates perfectly in their lifestyle to achieve the third of the sustainable development goals: ensure healthy lives and promote well-being for all [16].

Although Miang is considered a herb, it is not frequently used as medicine. About 2.5% of participants used Miang as medicine. Similar to the rationale of using Miang, 2.8% of Mae Kampong villagers used Miang to cure diseases. Mae Kampong folk medicine and doctors did not study or use Miang to cure or prevent disease. However, studies [1,17] showed that Cha Miang contains chemical constituents like caffeine and polyphenol. The dried tea leaf of var. assamica contains from 2.67% to 5.46% caffeine, higher than the Chinese or Japanese strain (var. sinensis). In addition, Cha Miang (var. assamica) has 2 to 3 times higher amounts of caffeine than coffee [18]; this explains why Mae Kampong villagers enjoy Miang as an energizing snack and beverage. When the leaves pass through the process of steaming, the amount of caffeine is lowered. On the other hand, if the leaves pass through fermentation, the amount of caffeine could increase up to 6.0% of dry weight [19]. Caffeine is a stimulant causing vigorous activity, and it resolves drowsiness [20]. This result explained why Mae Kampong villagers used Miang as an energizing snack. Furthermore, a study [1] showed that the polyphenol found in Cha Miang leaves has antioxidant, antibiotic, antimutagenic, and even anticarcinogenic properties. Researchers were working on finding the curative properties of Cha Miang or wheatear. It can be processed as other health products to increase value, for instance, cosmeceutical products or healthy baked goods [15].

4.2. Miang Lifestyle and Wisdom in Mae Kampong

Mae Kampong villagers had a prevalence of depression (2.4%) and dyslipidemia (8.5%) that was less than average Thais with a similar average age of 45 to 69. According to the 2014 Thai annual health survey [21], the prevalence of health issues of Thais at this age range included cardiovascular disease (1.7–3.7%), depression (3.0–9.0%), diabetes mellitus (12.1–19.2%), hypertension (32.7–48.4%), and dyslipidemia (50.4–53.3%). However, the health conditions of Mae Kampong villagers were acquired through interviews without official medical records. Even though Mae Kampong villagers did not consider Miang as a medicine, they managed to stay healthy because of Miang related health behaviors. Cha Miang harvesting made the villagers wake up early, hike across countless mountains far from the village, and harvesting Cha Miang in vast fields. The physical activity among the 59.9% of Mae Kampong villagers who exercised daily from Miang harvesting promoted Mae Kampong villagers’ health. Although Miang might not directly affect the health of Mae Kampong villagers, Miang still had impacts on the villagers’ health and well-being, as mentioned in the third goal of the sustainable development goals.

Miang also played an essential role in Mae Kampong tradition, religious beliefs, and rituals. Aside from being edible, Miang can be seen as an offering during religious rituals or welcome snacks. Because Mae Kampong has become one of the tourist attractions, homestay businesses and rental houses are the community’s primary careers, along with running cafés and ziplines [9]. Despite the booming travel business, the community still wants to preserve the Miang culture. As a result, the Mae Kampong community has fused the Miang culture with tourism by creating a nature and history tour. The tour is run by Mae Kampong villagers exploring the Cha Miang farm, the fermentation house, Cha Miang and Miang products stores, and tourist-related Miang activities. The goal is to show the tourists about sustainability and connection to Miang and how much it means to the community.

Furthermore, the community established the Villager–Forest–Miang Museum to preserve the Miang culture. Currently, Miang demand and manufacturing fluctuates, but through the tourist-related Miang activities, Miang culture and business could be sustained.
and continue growing [6]. Thus, the Mae Kampong community has embraced Miang as part of its culture from the past, corresponding to the first and eighth goals of sustainable development: to end poverty in all its forms everywhere and promote sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all [17].

Miang also plays an important role in the sustainability of terrestrial ecosystems. Cha Miang forest exhibits biological diversity and other plant and wildlife species, indicating the abundance of the forest [3]. As a result, the Mae Kampong community water resources and healthy environment fit the fifteenth goal of the sustainable development goals: protect, restore, and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss [17].

This study showed that the Mae Kampong community was turning towards the tourism business and, on the other hand, paid less attention to the Miang business. The rationale why villagers turned to pursue the tourism business was that the number of Cha Miang farms has reduced the demand on Miang over time and generations. Additionally, the superior income and lesser physical workload of the tourism business, the complicated method of Miang manufacturing, and the social conditions that obligate younger villagers to work outside the village have influenced these changes.

Although the tourism and homestay businesses were more profitable than the Miang business, part of the Mae Kampong community still insists on continuing the Miang culture and tradition and has turned them into a career. The high season of Chiang Mai is from December to February. In this period, traveling is the primary source of income for the villagers, but during the low season when the business is stagnating, Miang is the way for villagers to make their living. Miang is an alternative source of income if any unexpected event occurs. For instance, the COVID-19 pandemic affected countless lives worldwide during this challenging time when people were quarantined and afraid of going outside [22,23], let alone traveling. The COVID-19 pandemic caused a sudden stop to tourism in the Mae Kampong community. As a result, the number of tourists and income drastically decreased, affecting the villagers and their tourism business. As for the Miang community, farmers could continue farming because Cha Miang could still be harvested despite the pandemic. Cha Miang requires just clean water and nutrients from the soil; no advanced agricultural technology is needed [3]. Furthermore, Cha Miang can be harvested only four to five times a year, from January to April, May to July, August to October, and November to December [1–3].

As the sufficiency economy philosophy of His Majesty King Bhumibol Adulyadej the Great described, the potential and capability of people to work and fulfill their needs during unexpected events are achieved by self-immunity or the capability to cope with adverse consequences caused by unpredicted events [3,24]. The similarity of the sufficiency economy philosophy and sustainable development goals are the ultimate goals to develop and create equity among social, economic, and environmental factors [25]. Additionally, the sustainability of Miang culture may tempt the newer generation to become part of the Miang community in their hometown.

Our study illustrates sustainable development in northern Thailand from local issues to global impact. Moreover, the researchers pursued the interviews on foot in Mae Kampong Village, Chiang Mai, Thailand. We also caught a glimpse of the wonderful and extraordinary wisdom existing in the community. We were honored to be welcomed with such a warming and endearing atmosphere by the villagers. The strength of this study was the authentic knowledge of the Miang culture, tradition, and community.

However, the study encountered some limitations. Firstly, the researchers could not interview all the villagers in the Mae Kampong Village because some were working and studying outside the village during the interviews. Secondly, the information gained from interviewing the villagers, the data interpretation, and essence might vary for each interviewer. However, this study attempted to narrow this limitation by preparing the interviewers to achieve the same standard in each interview. Finally, the results of this
study explicitly represented Mae Kampong’s unique community, society, and lifestyle. If there were to be an adaptation or interpretation for further investigation, please note that the results might differ from this study. Further research of the association between Miang and the health profile should be conducted using the national healthcare database.

5. Conclusions

The local wisdom of the Miang lifestyle and community for sustainable development in northern Thailand is dedicated to investigating Miang consumption behavior, lifestyle, and wisdom of the Mae Kampong community, which contributes to sustainable community development. The people in the Mae Kampong community, Chiang Mai, Thailand, mostly consumed Miang as a snack because most villagers were elderly and have enjoyed chewing Miang as a snack for a long time. Miang in the diet and beverages was less commonly found in the Mae Kampong community. Only a few of the villagers considered using Miang as medicine or herbal supplement. More than edible and medicine, Miang was also an offering in many religious and local rituals. The economic situation in the village evolves around Miang, such as Cha Miang cultivation and tourism, and it has become the primary source of income in some households. The ecosystem is sustained, and the water sources are preserved by the Cha Miang forest. Miang has become the soul of the community’s culture, economy, environment, and lifestyle. The sustainable development of Miang supports and encourages Mae Kampang villagers’ growth and sustainable quality of life. The history and wisdom of Miang have come a long way, and the community continues to cherish and preserve the Miang culture for the next generations and the future. Although Cha Miang is unique in Mae Kampong Village and not widely cultivated, people’s willingness in the community and the eagerness to learn and adapt to the modern world can be an example for any community with their own culture and lifestyle. The Mae Kampang Villagers used the old existing culture that might be neglected and turn it into a sustainable community-based local wisdom, or as Thai citizens know it as the sufficiency economy philosophy, which is ready to walk alongside the constantly shifting world.

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Data Availability Statement: The data presented in this study are available on request from the corresponding author.

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References

1. Khanongnuch, C.; Unban, K.; Kanpiengjai, A.; Seanjum, C. Recent research advances and ethno-botanical history of Miang, a traditional fermented tea (Camellia sinensis var. assamica) of northern Thailand. J. Ethn. Foods. 2017, 4, 135–144. [CrossRef]

2. Sasaki, A.; Takeda, S.; Kanzaki, M.; Ohita, S.; Peechaphany, P. Population dynamics and land-use changes in a Miang (chewing tea) village, northern Thailand. Tropics 2007, 16, 75–85. [CrossRef]

3. Sampanvejsobha, S.; Thепpakorn, T.; Winyayong, P.; Eungwanichayapant, P. A Study on the Current Status of Tea in Thailand; Thailand Research Fund: Bangkok, Thailand, 2008. (In Thai)

4. Okada, S.; Daengsubha, W.; Uchimura, T.; Ohara, N.; Kozaki, M. Flora of lactic acid bacteria in Miang produced in northern Thailand. J. Gen. Appl. Microbiol. 1986, 32, 57–65. [CrossRef]

5. Harada, K. The village in transition: Development and cultural, economic, and social changes in Mae Kampong Village, Chiang Mai, Thailand. In Proceedings of the International Conference on Science, Technology, Humanities and Business Management, Bangkok, Thailand, 29–30 July 2016; Chiang Mai University Press: Chiang Mai, Thailand, 2016.

6. Department of Tourism; Ministry of Tourism and Sports. Thailand Homestay Standard; CUprint: Bangkok, Thailand, 2015.

7. Tienthavorn, T. Transformation of Cultural Landscape through Resilience Lens: A Case Study of Mae Kampong Village, Chiang Mai, Thailand. Nakhara J. Environ. Des. Plan. 2019, 160, 85–100.

8. Department of Tourism; Ministry of Tourism and Sports. Thailand Homestay Standard; CUprint: Bangkok, Thailand, 2015.

9. Chiang Mai University [Internet]. Chiang Mai University: Chiang Mai. Available online: https://sdgs.cmu.ac.th/en/ (accessed on 8 May 2021).

10. The Bureau of Registration Administration [Internet]. The Bureau of Registration Administration: Pathum Thani. Available online: https://stat.bora.dopa.go.th/stat/statnew/statMenu/newStat/home.php (accessed on 2 May 2021).

11. Ministry of Tourism and Sports [Internet]. Ministry: Bangkok. Available online: https://thailandtourismdirectory.go.th/en/ (accessed on 8 May 2021).

12. Ministry of Tourism and Sports [Internet]. Ministry: Bangkok. Available online: https://thailandtourismdirectory.go.th/en/info/attraction/detail/itemid/297 (accessed on 8 May 2021).

13. The Bureau of Registration Administration [Internet]. The Bureau of Registration Administration: Pathum Thani. Available online: https://stat.bora.dopa.go.th/stat/statnew/statMenu/newStat/home.php (accessed on 2 May 2021).

14. Bank of Thailand [Internet]. Bangkok: Daily Foreign Exchange Rates. Available online: https://www.bot.or.th/english/financialmarkets/_layouts/application/exchangerate/ExchangeRate.aspx (accessed on 30 April 2021).

15. Chiang Mai University [Internet]. Chiang Mai University: Chiang Mai. Available online: https://rdpb.go.th/th/ArticleDetail/10414655-0f19-4c78-a391-fcc460a04e8 (accessed on 2 May 2021).

16. Department of Economic and Social Affairs [Internet]. United Nations: New York. Available online: https://www.un.org/development/desa/en/publications/development-indicators/annual-report/2016/financialmarkets/_layouts/application/exchangerate/ExchangeRate.aspx (accessed on 3 May 2021).

17. Tea and Coffee Institute of Mae Fah Luang University [Internet]. Mae Fah Luang University: Chiang Rai. Available online: https://teacoffee.mfu.ac.th/tc-tea/coffeeknowledge/tc-tea.html (accessed on 8 May 2021).

18. Bouphun, T.; Wei, X.; Dan, W.; Zhao, R.; Qi, Z. Dynamic Changes in Chemical Constituents during Processing of Miang (chewing tea) village, northern Thailand. Tropics 2007, 16, 75–85. [CrossRef]

19. Takeda, Y. Differences in Caffeine and Tannin Contents between Tea Cultivars, and Application to Tea Breeding. J. Gen. Appl. Microbiol. 1986, 32, 57–65. [CrossRef]

20. Phromrukachat, S.; Tiengburanatum, N.; Meechui, J. Assessment of active ingredients in pickled tea. JARQ 1994, 28, 117–123.

21. Sampanvejsobha, S.; Theppakorn, T.; Winyayong, P.; Eungwanichayapant, P. A Study on the Current Status of Tea in Thailand; Thailand Research Fund: Bangkok, Thailand, 2008. (In Thai)

22. Centers of Disease Control and Prevention [Internet]. CDC: Washington. Available online: https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/social-distancing.html (accessed on 14 May 2021).

23. Okada, S.; Daengsubha, W.; Uchimura, T.; Ohara, N.; Kozaki, M. Flora of lactic acid bacteria in Miang produced in northern Thailand. J. Gen. Appl. Microbiol. 1986, 32, 57–65. [CrossRef]

24. Janmaimool, P.; Denpaiboon, C. Rural Villagers’ Quality of Life Improvement by Economic Self-Reliance Practices and Trust in the Philosophy of Sufficiency Economy. Societies 2016, 6, 26. [CrossRef]

25. Office of the National Economic and Social Development Council [Internet]. NESDC: Bangkok. Available online: https://tinyurl.com/dpz7texd (accessed on 14 May 2021).