

Conference Paper

Physical Factors Affecting Access to Public Park in Areas of Unrest: A Case Study of Yala Municipality, Thailand

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Abstract

This research aims to study the physical factors affecting public park access in the unrest area, Municipality of Yala, Thailand. The sample consisted of 392 park users, covering 8 park sites. The data were collected from January to March 2018. The research found that the highest number of respondents in the park was found in the working age group of between 23 and 60 years old, with most studying at the undergraduate level. These respondents used the park for exercise (50.5%), relaxation (32.7%), and both activities (16.8%). The most frequent periods spent at the park were the 5-6 pm for exercise (51.52%) and rest (53.09%), with the length ranging from 30 to 60 minutes. The most favorite day is Saturday for leisure (66.67%) and exercise (57.22%) with the most popular park for exercise and relaxation being the Yala Municipality Youth Center and Chang Puek Park, respectively. This study also suggested that the most important factors are the distance (79.17%) and accessibility (80.41%) and that there is a high likelihood of exercising in Yala municipality, irrespective of its condition.

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1. Introduction

A public park is a part of green space in the city which is an important factor for the population. It is to provide an area for recreational activities to relieve the stress of work and improve the quality of life of the people in the city. And also not only providing the essential needs, convenience and security and public utilities, but establishing a public park and green spaces are also crucial for the population. It is as important as developing other significant factors, especially enhancing the health, sanitation and the quality of life [12]. From the concept of a public park in the city, leading towards the establishment of green spaces in the city; affecting major cities in different countries to develop and designed to have green areas. This is an essential factor that every town

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needs. Such as Philadelphia city of the United States; creating more green spaces to support the number of peoples who relocate more and more to the city [8]. Major cities around the world try to set a rule to identify green space area that is essential to the city, inside law, terms, rules and other regulations of the city. In order to enforce cities to have green space in the city for the population's usage. For example, the United States sets to have 40sqm of green space per 1 population. England; 25sqm per 1 population. Japan; 5.4sqm per 1 population. Singapore; 10.9sqm per 1 population. And the world's sanitation organization sets the green space to 9sqm per 1 population. Which is a standard that most developing countries use to create green spaces inside the city [3]. For Thailand, green areas included in the environmental and urban management plan at 5sqm per population [7].

However, the problem for the green space area in Thailand is that there is a lack of space compared to the number of population's need. Green spaces in the inner city of Bangkok in 2009 consist of 100,000sqm or equals to 2.11sqm per 1 population, which is lower than the aim that Bangkok set for 4sqm per population following the Master plan of green spaces of Bangkok (2003-2027). Furthermore, major cities of Thailand such as, Khonkhaen which gives importance to studying ways to develop green areas in the community. They founded that except for the lack of green areas, the lack of usage, invading and the expansion of the city are also affecting the green area management [7-11].

Yala, is a major city which is designed from the new concept of building a city. At present, it consists of 16sqm per 1 population of green areas. 87% of the green spaces are in the care of Yala's local government, 8 locations spread around the city, which takes up to 753,531sqm. In the past 20 years (1995-2016), the population in the city of Yala has increased 1.5 times. And they are also involving those who come to work due to Yala, being the center of government center that takes cares of the 3 southern provinces (Pattani, Yala, and Narathiwat). Affecting it to expand and the basic needs or the populations also grows in every factor including the public park area. Yala is the only city in the southern province without a beach. Hence public parks are important to the community to use as an area for exercise and recreational activities. Leading to a saying that "Yala is a city with good weather, good food, and people exercise" [14-15].

Even though Yala have been under unrest situations since 2004 till present, in a total of 13 years, that has been affecting the daily routine of the populations in Yala. Including using their free time for recreational activities in the public park. However, those living in Yala's city still uses the public park. Those who access the park are which group? Do they access the park for what benefits? How do they practice, so there is safety in life?

And what are the physical factor that affects the decision of the people going to the public parks? Therefore, the main objective of this study is to study the physical factor that affects the conclusion of the people to access the public park. This information from the study will be beneficial towards the planning and actions of the concerned department, for the quality of life of the people in Yala city.

2. Literature Review

2.1. Concept of creating a park area

The park is part of a green area in the city, after the Industrial Revolution, Ebenezer Howard an English writer wrote a book called Garden Cities of To-Morrow in the year 1902. In the book, it states about designing the city in the aspect of a park for urban residents to use as a mean of rest [1]. The Krupp Company in Germany has adopted the idea of creating a park in the city to use It as a place of rest and activity for laborers working on the outskirts of Essen, as the company is concerned about the mental health state of laborers. Later the concept of a park in the city was accepted and used to design park and rest area for activities for urban residence to satisfy their lifestyle such as the area of Wellwine in London, England [2].

The Idea of creating a park in the city led to many cities in various countries develop- ing and designing green areas as a necessity for every city. For benefits for those who came to rest and live, Recreational activities and the improvement of the quality of life of the city, such as the city of Philadelphia. The fourth largest city in the United States has developed the Independent Mall and Delaware Riverfront area to create more green space in the city [8].

2.2. The green area in the city of Thailand

Implementing Green Urban concepts used in Thailand, it is stated in the National Economic and Social Development Plan No.8 (1997-2001) as a first edition. It is specified regarding the environmental management plans in the community and green areas in the city. For the government to set policies and guidelines to achieve a green area proportion to the number of people and the growth of the community. Additionally, to create a beautiful landscape, by setting the green area with 2 concerns. First to assign an area for conservation and public space in the city. Secondly to use government lands that are not fully used and use it as an open space for citizens [13]. In the capital such

as Bangkok, green area in the inner city of the year 2009 only has a green space of around 100,000sqm or equivalent to 2.11sqm per population [3].

Yala municipality is a city that was designed using modernism, Phraya Kiatkit Wicarn the mayor of Yala at that time (1937-1945), had designed city starting by settling down and used a stone for a symbol which later became the center of the city and later the city pillar of the present. Then began to design the city as a compass of three as government area, other areas used a chess board as a design for the commercial sector. When designing the city first came the importance of green space and public areas as they created Pipitpakdee road and planted Pradu trees on the traffic island of each side. They also implemented bike lanes and walking path while also creating a public park to use as a playground. The old football field in front of the former municipality office in the present time being Yala Municipality Youth Center still holds the same intention and also created 8 more including. That are Khuan Muang park, Sanam Rongphithi Chang Puek park, Ming Muang park, Sri Muang park, BanRom park, Youth Center Yala Municipal, Caru Pattana Stadium park, and Liap Thang Rotfai park has 753,531sqm, with a green area of 16sqm per population and over 87% of the green area of Yala is a park [14-15].

2.3. Factors affecting the use of public parks in urban areas

The utilization of public space in Thailand is related to the population such as economic and social status, taste and lifestyle in urban area have a role in utilizing the open space. For example, the lifestyle and context of urban citizens of Nakorn Pathom a large city, even though they do not have enough public space but citizens in the area utilizes other areas for rest such as religious place, educational place, and shopping center. Also, the population of Nakorn Pathom mostly choose to rest and relax in private spaces rather than public space [10].

Factors that affect the utilization of public space are income, occupation, education, and age. These are what make the difference and influence the use of public spaces. To satisfy their own needs citizens are glad to donate money, items, and labor, but in reality, the government does not allow for much participation from the public and unable to satisfy them.

Newly created public space to satisfy the public need should be used as an exercise and recreational areas as a priority. Should also include equipment enough for general use while considering the safety whether in light, mingling and not allowing the homeless to use the area. Furthermore, the public should be allowed to offer their opinions,

this will be useful in developing the areas to meet the real needs of people who come to use the public space [10].

3. Methodology

3.1. Study area

The study area is in the park in Yala 8 total area of 752,000 square meters, including (see Figure 1)

- (1) Khuan Muang park, The area of about 331,200 square meters.
- (2) Chang Puek park, The area approximately 112,200 square meters.
- (3) Ming Muang park, The area of approximately 14,000 square meters.
- (4) Sri Muang park, The area of approximately 207,142 square meters.
- (5) Ban Rom park, The area of about 1,789 square meters.
- (6) Yala Municipality Youth Center has an area of approximately 40,000 square meters.
- (7) Caru Phatana Stadium park has an area of approximately 33,600 square meters.
- (8) Liap Thang Rotfai park has an area of approximately 13,600 square meters.



Figure 1: Location of Public parks in Yala Municipality.

3.2. Population and sampling

The study population is the 61,213 people living in Yala Municipality, 32,221 were female and 28,992 were males (as of March 2016).

The sample consisted of 392 users of the park. The sample size was determined using the Krejcie and Morgan method (see Equation (1))

$$n = \frac{X^2 NP(1 - P)}{e^2(N - 1) + X^2 P(1 - P)} \quad (1)$$

3.3. Data collection

The data collected in this study was a questionnaire using the method of simple sampling. It tries to cover the people who access the park at all ages, including childhood, adolescence, working age and the elderly. Period of collection between January and March 2018. Statistics used in data analysis are descriptive statistics: frequency, percentage and standard deviation.

4. Results and Discussion

4.1. Population characteristic of people who used public parks

The sample of this study, who used the park service, was 57.40% male and 42.60% female. Most of them were working age people aged 23 to 60 years, accounting for 54.08%. Most education being undergraduate 33.67%, and primary occupation being students accounted for 32.10%. The majority of park visitors used exercise activities, 50.5%, leisure activities accounted for 32.7%, and both activities accounted for 16.8%.

The study indicated that Samples also selected different parks. A popular female choice was Chang Puek park. On the other hand, males favor the Caru Phatana Stadium park. Considering the age group, it was found that adolescents aged 15-21 preferred to use the Ming Muang park. The working class is favorite at Chang Puak park. The elderly are more likely to use the service at the Yala Municipal Youth Center [5].

4.2. Activities of people who used public parks

The activities of people who access the park in Yala Municipality can be divided into 2 types: exercise and recreation.

People who come to the park for exercise, the most popular type of sport was running, followed by football (24.24%, 21.59%) (see Table 1). Most of the samples used motorcycles to travel to the park, secondly being bicycle (51.14%, 25%). The time spent exercising is 5-6 pm, followed by 6-7 am (51.52%, 18.18%), which is the evening after work and morning before work. And most of the time it takes about 30-60 minutes and 1-1.30 hours to play sport subsequently (45.83%, 31.44%).

The most commonly used method for traveling is a motorcycle which is convenient and flexible to travel and find parking space. But it is vulnerable from terrorist attack compared to a car. People who use the park service will choose not to access during daybreak or late at night and not spend too much time to avoid the risk of being attacked by terrorists in the area.

The number of days too for exercising is 7 days a week, and the lowest being 3 days a week (21.97%, 15.15%) [4]. The most frequent day of service is Saturday following by Friday (66.67%, 62.88%). The most popular park for exercise is Yala Municipality Youth Center Secondly, Caru Phatana Stadium park (42.05%, 28.41%). It is noteworthy that people who exercise in the park exercise every day. Or use every other day which follows the guideline of exercising correctly.

For recreational activities, it was found that people used the park service to meet and chat, followed by eating and drinking (56.19%, 29.90%) (see Table 1). Most access the park by motorcycles, followed by walking (59.79%, 17.53%). The most frequently used time was 5-6 pm, followed by 4-5 pm (53.09%, 23.71%). The most duration for activities were 30-60 minutes and 1-30 hours respectively (44.33%, 23.20%). The frequencies for park services were 2 days per week, followed by 1 day a week (30.41%, 19.59%). The most frequent service days were Saturday then Friday (57.22%, 55.67%).

Interestingly the time that most people access the park for recreation is 5-6 pm, which is the same time as those who came to exercise as it is not too dark. Also, the vehicles mostly used to travel to the park are motorcycles. Which they need caution in moving as well. People in the three southern border provinces, the unrest area, will choose the time to leave the house after sunrise (about 6 am) and return home before sunset (about 6 pm), as it is a time when people feel it is safe. The visibility is clearly visible all around.

4.3. Physical factors affecting access to park services

Physical factors affecting access to the park for exercise and leisure purposes found that the site was close to home and easy access are the most influential.

TABLE 1: Activities of people who used public parks.

Activities of people who used public parks	n	Percent
Exercise		
1. running	64	24.24
2. playing football	57	21.59
3. walking	51	19.32
4. cycling	28	10.61
5. fitness	12	4.55
6. playing sepak takraw	6	2.27
Recreation		
1. sit and rest, meeting and chatting	109	56.19
2. eating and drinking	58	29.90
3. play the playground	9	4.64
4. fishing	9	4.64

The physical factors that affect the choice of a public park for exercise are near home and easy access (79.17%). The second reason is a beautiful place and tidy (42.42%) and the third is convenient (42.05%) (see Table 2). There are other studies found the proximity of home can affect access to public parks for exercise [9-12]. The park is located not far from the residence. Most of Yala city dwellers use motorcycles (51.14%), followed by bicycles (25%) because they are convenient and quick to travel in the city. And the park in Yala municipality has a tiny parking area.

The physical factors that affect the choice of parks for recreation are proximity to home (80.41%). The second reason is a beautiful place (48.45%) and there are pavilions and chair (34.54%) (see Table 2). There are other studies found that the locations near home can affect access to park services for recreation [6-12].

Since the park is located not far from the residence, to make a trip to the park service used mainly motorcycles and to walk. It is a convenient and fast way to travel in the inner city and among those who choose to walk it shows the location of the park near their home, making it easy to walk to the service because the incentives for access to the park are limited. If the lawn is far away, it may be a barrier to accessing the service. Moreover, in the case of Yala an area of unrest, people who came to use the service of 8 parks priorities safely. The traveling to parks in short distance could reduce the risk from terrorist.

TABLE 2: Physical factors affecting 8 public park services in Yala municipality.

Physical factors affecting public park service	Percent	S.D.
Exercise		
1. near homes easily accessible	79.17	0.41
2. beautiful place and tidy	42.42	0.50
3. parking is convenient	42.05	0.40
4. good weather	32.58	0.49
5. quiet place No noise	31.06	0.34
Recreation		
1. near homes easily accessible	80.41	0.40
2. beautiful place and tidy	48.45	0.50
3. there are pavilions, chairs, lounge chairs	34.54	0.48
4. parking is convenient	32.99	0.32
5. good weather	30.93	0.47

5. Conclusion

At present, even though Yala is in an unrest situation, the people still access all the 8 public parks frequently in working days and weekends. The population uses the park to exercise and have recreational activities. They access the park by motorcycle, bicycle and walking to the park, due to the location of each park is not far from their accommodation. However, under the unrest situations, the population has to take care and be cautious when traveling. They choose to access the park while being the safest time, not too early in the morning and not so late in the evening. Which they are adapting to the current situation to have a regular routine. Tourists and visitors can still see the ways of Yala's population as "Yala is a city with good weather, good food and people exercise."

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