

MANAGEMENT GUIDELINES FOR URBAN PUBLIC PARKS: A CASE STUDY OF LUMPINI  
PARK, BANGKOK, THAILAND

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ในกรุงเทพมหานครเป็นทั้งเมืองหลวงและเมืองศูนย์กลางของประเทศในทุกๆด้าน จึงมีความเป็นเอกนครหรือเมืองโตเดี่ยวสูงมาก ย่อมมีส่วนดึงดูดทั้งทรัพยากรการลงทุนและผู้คนจากพื้นที่อื่นๆ เข้ามาอย่างหลีกเลี่ยงไม่ได้ การเพิ่มขึ้นของจำนวนประชากรที่มากเกินไป ก่อให้เกิดปัญหาความแออัด สุขภาพจิต มลพิษทางอากาศ และปัญหาอื่นๆที่เกี่ยวข้อง แม้ภาครัฐจะประสบความสำเร็จในการเพิ่มพื้นที่สวนสาธารณะเพื่อเป็นที่พักผ่อนหย่อนใจและเป็นปอดให้ประชาชน แต่ยังมีบางปัจจัยที่ขัดขวางการพัฒนาเมืองอย่างยั่งยืนของกรุงเทพมหานคร เพื่อเป็นการสำรวจปัญหาและแนวทางการจัดการที่เหมาะสม การศึกษานี้จึงเลือกสวนลุมพินีเป็นพื้นที่กรณีศึกษาโดยใช้ระเบียบวิธีวิจัยทั้งเชิงปริมาณและเชิงคุณภาพ ทำการสัมภาษณ์กึ่งโครงสร้างกับผู้มีส่วนเกี่ยวข้องกับสวนลุมพินี จำนวน 202 คน เป็นผู้บริหารจากภาครัฐ 2 คน ศึกษาพฤติกรรมและสำรวจความคิดเห็นของประชาชนทั้งผู้ใช้และไม่ใช้บริการสวนลุมพินี ผลการศึกษาพบว่า ผู้ตอบแบบสอบถามส่วนใหญ่เป็นผู้ที่ทำงาน นิสิต นักศึกษา และ/หรือ ผู้ที่พักอาศัยในคอนโดมิเนียมที่ไม่ไกลจากสวนลุมพินี สามารถเดินทางไปได้โดยสะดวก ซึ่งส่วนใหญ่เดินทางมาสวนลุมพินีโดยใช้ขนส่งมวลชนหรือเดินมา ดังนั้นเหตุผลหลักของการเลือกใช้บริการสวนลุมพินี คือ ท่าเลที่ตั้งและความสะดวกในการเดินทาง รองลงมา คือ การบริการและสิ่งอำนวยความสะดวก รวมทั้งยังมีความต้องการให้เพิ่มเติมระบบรักษาความปลอดภัย และเพิ่มการดูแลความสะอาดห้องน้ำ อย่างไรก็ตามผู้ตอบแบบสอบถามบางส่วนกลับรู้สึกอึดอัดกับระบบตรวจความปลอดภัยรายบุคคลที่มีความหละหลวม ส่วนประเด็นนโยบายกับการปฏิบัติระดับเจ้าหน้าที่ของรัฐ จากการสัมภาษณ์ผู้บริหารภาครัฐที่เกี่ยวข้อง 2 คน ให้ความเห็นตรงกันว่า ภาครัฐให้ความสำคัญสวนสาธารณะ โดยเฉพาะสวนลุมพินี จัดสรรงบประมาณให้เพียงพอ แต่ประสบปัญหา บุคลากรที่มีทักษะ และปัญหาการปล่อยเสรีให้ประชาชนเข้ามาใช้ประโยชน์พื้นที่ ปรากฏว่ามีบางกลุ่มเข้ามาแสวงหาผลประโยชน์ มีการเรียกเก็บค่าสมาชิก ซึ่งขัดกับวัตถุประสงค์หลักของสวนสาธารณะ นอกจากนี้เจ้าหน้าที่ดูแลสวนลุมพินียังประสบปัญหาหนักใจเรื่อง การไม่ให้ความร่วมมือของผู้ใช้บริการบางคน ที่พกพาสิ่งของอันตรายเข้ามาในสวนสาธารณะ โดยอ้างสิทธิ์ว่าสวนสาธารณะ ทุกคนมีสิทธิ์เข้าใช้บริการ เจ้าหน้าที่ไม่มีสิทธิกีดกัน เป็นต้น ซึ่งปัญหาเช่นนี้ต้องได้รับการแก้ปัญหาระดับนโยบาย และการบังคับใช้กฎหมาย ดังนั้นรูปแบบที่นำเสนอในการศึกษานี้จึงมุ่งเน้นความสำคัญของระบบการทำงานที่เอื้อซึ่งกันและกัน ส่งเสริมการเพิ่มอำนาจในควบคุมดูแล ลดช่องว่างที่เกิดขึ้นในระบบการทำงาน และส่งเสริมการให้ความรู้แก่บุคลากรและสร้างสภาพแวดล้อมที่เอื้อต่อการมีส่วนร่วมของผู้ใช้สวนลุมพินี เพื่อการจัดการสวนสาธารณะที่ยั่งยืนต่อไป

## 5987511020: MAJOR ENVIRONMENT DEVELOPMENT AND SUSTAINABILITY

KEYWORDS: MANAGEMENT, LUMPINI PARK, URBAN PUBLIC PARK

NAPAT SUWANNAPUK: MANAGEMENT GUIDELINES FOR URBAN PUBLIC PARKS: A CASE STUDY OF LUMPINI PARK, BANGKOK, THAILAND. ADVISOR: SUWATTANA THADANITI

Bangkok is the capital city of Thailand. It is one of the most primate cities in the world. Bangkok also the center of the country in all areas, being a major source of work and attracts people from across the country, which resulted as population overgrowth, mental illness, pollution, rapid urbanization, and the like. Even though the government succeeds to increase public parks area to be recreation and a lung for the urban dweller's life, but the inconsistency between rules and practices in park management is one of the key factors that hinder Bangkok's sustainable development. In order to explore the problems and recommend the management approaches, this study was chosen Lumpini Park as a case study area by using both quantitative and qualitative research methods. The study was conducted semi-structured interviews with 202 people; 200 respondents consisted of park users and non-park users, and two respondents was the executive from the government sector. The research studying in the behavior and surveying opinions of both users and non-park users. The findings found that most of the respondents are working people, students and/or residents of condominiums not far from Lumpini Park that can travel to the park easily, and mostly travel to the park by using public transportation or walking. Therefore, the main reason for choosing to use Lumpini Park is the location and ease of travel, followed by service and facilities. Furthermore, there are also demanding for additional security systems and increase the cleanliness of the toilet. However, some respondents felt uncomfortable with the lack of individually security systems. For the policy issues and practices at the government officials level based on the interview with two relevant government executives, it was agreed that the government places importance on parks, especially for Lumpini Park which has sufficient budget allocated. However, experiencing the lack of skilled employee and the problem of the liberation of people to use the area, which contrary to the primary purpose of the park. In addition, the staff at Lumpini Park are also facing a serious problem of not being able to cooperate with some users that carry dangerous goods into the park area by claiming that everyone has the right to access the park service and the authorities do not have right to exclude, and the like. Such problems must be resolved at the policy level and law enforcement. Therefore, the proposed model highlighted the need for the supportive system, leveraging policy opportunities, minimizing structural barriers, and promoting education, and training to create an enabling environment for user participation in responding to urban public park management.

Field of Study: Environment Development and  
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Student's Signature.....

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## CHAPTER 1

### INTRODUCTION

#### 1.1 Rationale and Statement of Problem

Bangkok is the capital city of Thailand. It has experienced continued growth in all aspects -- physical, economic, and social. Being a major source of work, it attracts people from across the country, causing congestion, depletion of natural resources, and rising pollution. These have impacts on quality of life and health of Bangkok residents both directly and indirectly.

So “land and open space for recreation and preserving environmental quality” which is an essential factor in human life, social and environmental solutions (Pope D., 2015) is necessary to urban dwellers for recreations after work or relieving from the tension of congestion. While Bangkok, is the economic and transportation hub of the country, the 11<sup>th</sup> National Economic and Social Development Plan (2012 - 2016), aims to increase GDP by at least 3.0 percent per year. They also aim to increase the competitiveness of the country's economy, these cause to the government launched their secondary mission and formulated policies for economic development based on capitalism to make use of natural resources in the country with maximum efficiency. Therefore, the role of the public park was debased and replaced by other public areas that help in the new recreation such as shopping malls. Which can be reflected by Bangkok has an urban public park area per population in the estimation just only 0.70 square meters per person or about 0.434 rai per 1,000 persons<sup>1</sup> while the international standards said that the proportion of public park to urban population should be 15 square meters per person (AWGESC, 2017).

This information showed that the urban dwellers in Bangkok were experiencing a shortage of green space for recreation or urban public park radically and insufficient to meet the needs of its people. Thus, a public park which considered as a type of land for recreation should be more prepared. On the other

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<sup>1</sup> According to the population database of Civil Registration Office in 31/12/2017, there were 5,682,415 people

hand, the increase of public park area also facing with the significant problem due to the price of land in Bangkok is expensive, which caused to the difficulty for the government to promote sufficient public park, and it also requires a huge of the budget.

Moreover, the problem of primate city in Bangkok, which known as 'The Classic Primate City' (**Ishak-ISEAS, 2005**) resulted as population overgrowth in this city, mental illness, pollution, rapid urbanization, and the like although many types of research show that population dynamics in Bangkok have a lower population growth rate. (**National Statistical Office, 2014**), the primate city of Bangkok will continue due to the attraction of people and resources from the past. These will make the problem of primate city getting worse (**Tangchonlathip, 2007**). Therefore, the management of parkland to its highest efficiency is necessary and should become the priority that local government has to manage in order to meet the needs of people in all aspects and help to boost the economy and become to the framework for urban development in line with overall social context.

When considering the urban public park that plays a vital role for urban dwellers in Bangkok with the key for urban residents to enjoy the public green spaces as the UN's Sustainable Development Goals (SDGs) suggests. This essential prerequisite makes Lumpini Park as a suitable case to be studied. Lumpini Park, located at the center of Bangkok, is close to several convenient public transportation systems, including two subway stations, two sky train stations, and many bus routes. As a result, Lumpini Park is highly accessible for Bangkok dwellers to reach. Furthermore, Lumpini Park also occupies 576,000 sq.meter, just secondary from Suan Luang Rama IX Public Park and Wachirabenchatat Park in Bangkok area. However, Suan Luang Rama IX Public Park is located in the southeastern outskirts of Bangkok, making it is accessible uneasily. Moreover, the active park users also more than 13,000 peoples, and have various uses in this area. Therefore, being indicative in both accessibility and area, Lumpini Park is selected to study and the management practice behind for this research (**Public Park Office, 2017**).

On the other hand, the management in Lumpini Park still experiencing the difficulties because of many factors such as; lack of integration in government

agencies (both planning and operational levels). Furthermore, park management in related agencies still not unity, have a misunderstanding, and insufficient funding (Ruthirako, 2013). As a result, the government can not manage the urban public park properly; some park users were dissatisfied with the management of Lumpini Park, such as lacking light and unsafety (Sompong, 2016).

For this reason, it is important to study the satisfaction of Lumpini Park users, which can reflect the attitude and the related factors affecting user satisfaction toward the management of Lumpini Park. To apply for a way to improve, develop, and resolve the problems of a public park and also encourages responsible agencies to see the importance of this issue. Together, they will develop the Lumpini Park as a place of recreation that can serve the needs of people in the future.

### **1.2 Research Question**

(1) What are the factors that affected the use of the urban public park by urban dwellers in Bangkok?

(2) What are the current management practices by the BMA's Public Park Office?

(3) What are the best management practices that should be implemented by the BMA's Public Park Office?

### **1.3 Research Objective**

The objective of the research was to:

(1) To study the activities of park users and their opinion towards urban public park management policies and practices.

(2) To study the current policies and practices regarding urban public park management.

(3) To propose a recommendation for the improvement of urban public park management to relevant agencies.

#### **1.4 Expected Outcome**

(1) Understanding the factor related to the use of an urban public park in an urban city.

(2) Understanding the problem of current public park management.

(3) Help BMA's Public Park Office and relevant agencies to find a suitable way to improve the urban public park management.

#### **1.5 Scope of the Study**

##### **Content**

The first part deals with concepts and principles relating to park management in terms of theoretical, and management practice. The second part discusses how to manage parks and summarizes the best management practice.

##### **Samples**

As research tools, the researcher applied the review of papers, concepts, theories, and also case studies and "in-depth interviews" to collect data from executives and those who were involved in formulating park management policies. The sample size consisted of two informants from Bangkok Public Park Office.

In this research, a questionnaire was also employed to survey the activities of park users and their satisfaction level towards urban public park management policies and practices in the Lumpini Park area. The questionnaires were used with Simple Random Sampling with 200 population at 90% confidence level (Yamane, 1967).

##### **Duration**

The research was carried out over eight months, from November 2018 to July 2019.

#### **1.6 Limitation**

In general, since the study is investigating in both questionnaire survey and in-depth interview in term of Lumpini Park use, these are difficult to draw a more



general conclusion on the use, interaction, and perception of urban public parks. The study should draw more in general conclusions by investigating the case study area and compare with two or more cases to help understand the macro-level of the general role of an urban public park, its effect to the urban dwellers, and the development of urban park management

Time has also been a considered limitation in this study. Since the fieldwork took place over two weeks only. The researcher had a tight plan for data collection. Although the fieldwork study was conducted as planned, it would have been more optimal to stay in the case area for a longer time. Also, it should have more opportunity to visit the case area in a different period, season, or another year, but due to the limited time, it has not been possible. Moreover, the collected data are also sought more representative by asking more local people to different events because of the Yamane equation that is required more than 400 samples.

The data collection method is important to be aware of when using the qualitative method. According to the data collection method, the sampling will be held only at daytime around 08:00 a.m. to 06:00 p.m. and conducted only on the weekdays time, also the questionnaire survey only asked for the residential area, while it should be included the workplace area. These things could be considered as a source of misunderstanding when analyzing it. In addition, it is also essential to consider the uncontrol factor, where the respondent might act differently than usual due to the situation, natural interruptions by neighbors, children as well as one unconscious person who was skeptical about the situation.

When doing semi-structured interviews, the researcher did not have the chance or the approval to record them or asking the question outside the script. These can also be considered as a source of dodges questions, error at some parts, or message missing. Furthermore, the researcher can only access to the lower-level governor, which should be considered as a source of not covered details.

## 1.7 Definition

**1. Policy**, by definition, is an action which employs a governmental authority to commit resources in support of a preferred value (Considine, 1994). It is also a proposal for the implementation of individuals, groups, or governments within a single environment, which have the same barriers and opportunities, in order to achieve their goals. In this study, the policies are defining as a 'Park Management Policy.'

**2. Policy Implementation**, as a general concept, can be defined as the third stage of the policy cycle, which means a process after the passage of a law, and the action will take place to put the law effect or solve a problem.

**3. Urban Public Park** also known as a municipal park or a public park, is a park in cities and other incorporated places to offer recreation and green space to residents of, and visitors to, the municipality. The design, operation, and maintenance are usually done by government, typically at the local level, but may occasionally be contracted out to a park conservancy, friends or group, or private sector company. In this research, the urban public park will refer to Lumpini Park.

**4. Park management** refers to the managing services, and facilities as well as educating the users. Besides, it also includes the preservation of natural resources and the environment in the park. In this research, the analysis considers four factors: environment, facilities, organization, and park usage.

**5. Users' satisfaction** is generally understood as a feeling of the persons towards something or related factors. Satisfaction occurs when persons get what they want or achieve their goals. In this research, users' satisfaction means the satisfaction level of Lumpini Park users

## CHAPTER 2

### LITERATURE REVIEWS

Many studies have already proven that urban parks and green spaces can provide multi-dimensional benefits to society. These benefits range from financial returns and cultural preservation for environmental improvement, to tangible economic values and intangible quality of life (Jim, 2000); (Pen˜alosa, 2001); (Kimmel, 2002); (Power, 2002); (Schenker, 2002); (Schwartz, 2002); (Swanwick, 2003)). Thus, the provision of open spaces in urban areas, particularly parks and green spaces, is essential for the betterment of its residents and achieving sustainable urban development (Chiesura, 2004).

Urban parks may have got intense recreational impacts due to the increasing demand of the population. Park managers need to achieve three objectives: i) Provide recreational experiences that satisfy park users; ii) protect the environment; and iii) conserve the public park resources (Torkildsen,1986).

However, park managers' obligation to maintain a balance between park resources and user experiences had been burdensome due to various factors, for example, pollution, compact space often provided, pressure from other land uses, and the like (Budruk & Manning, 2006).

Therefore, it is necessary to study the meaning, classification status, development, and the role of public parks to help better understand and analyze the overall problem for the effective management of the public parks. The details are as follows:

- 2.1 Concept of Urban Public Park
- 2.2 Concept of Satisfaction
- 2.3 Concept of Recreation
- 2.4 Concept of Public Park Using Behavior
- 2.5 Concept of Public Participation
- 2.6 Relevant Literature Reviews
- 2.7 Conclusion

## 2.1 Concept of Urban Public Park

The urban public park is a public open green space provided, maintained or set aside by the government typically on the local level, for recreation, enjoyment or assembly of the people in the local communities or cities. Urban public parks come in different scales; ranging from private backyard gardens to more extensive urban landscapes such as parklands or greenbelts. (Kitha & Lyth, 2011)

Witteck (1974) provided the meaning of a public park as “open space with a beautiful landscape as it can be. It is a peaceful place, intended for relaxation, fatigue, and use as a meeting place. The park consists of various plants, lawns, ponds, fountains, resting statues, and courtyards”.

Promtasarn (2000) defined urban public park as the area provided by the state and local government to their people for relaxation, recreation, reduction of fatigue or tension caused from daily tasks, by walking, leisure, reading, exercise, sports, and other activities without charge. They have beautiful gardens and facilities to serve people, which can be accessed at any time.

Based on the previous definitions, the meaning of ‘urban public park’ can be concluded as the place that government or local administration created/ provided for recreation for the general public. They offer activities for human recreation in a cost-free manner. They are managed by the relevant local government agencies followed by the state’s mission to provide a public service for the welfare of the people in the area and at the same time to preserve the quality of the environment.

### (A) Role of Urban Public Park in Thailand

The section reviews literature discussing the degree to which urban public park make a valuable contribution to its community environmentally, socially, and economically. The focus will be mainly on ecosystem services.

#### (i) Ecosystem Services

An urban public park is beneficial to city ecological environment. It acts as an oasis amid the urban sprawl of concrete jungles. The role of the urban public park on the ecosystem services are as follows (Sompong, 2016; Trewakul, 1992).

- **Carbon Emission Reduction:** Urban parks that include a vast area of vegetation, natural reserves, wetlands, and reservoir, help create human and energy-

efficient cities that are the best hope to mitigate climate change and global warming. Carbon dioxide, the most voluminous greenhouse gas and the main culprit of global warming, are deposited in the atmosphere primarily by burning fossil fuels, which is a function of urbanization and global industrialization. Every tree, especially those with mature size, and vegetation minimize the number of greenhouse gases, by absorbing carbon dioxide and pollutants as a part of their photosynthesis process. This process absorbs nearly 30 percent of the 10 billion metric tons of carbon dioxide emissions released each year (Frinzi, 2016). While all living plants absorb carbon dioxide, large size trees with extensive roots structure or biomass sink carbon dioxide and pollutants significantly more than their small counterparts.

- **Reduce temperature and Heat built up:** Statistically, the air temperature in the cities packed with concrete building and power plants has more heat built-up than the countryside. Sometimes, the temperature difference can be up to 6 to 8 degrees. Parks and green infrastructure offset these warming effects on cities, through the shades they cast and moisture loss from their leaves, making the weather cooler. The process of adding humidity to the air or evaporative cooling sinks in heat built-up on a concrete wall or attic temperature. In turn, it saves the city's annual energy consumption and carbon dioxide emission from burning fossil fuels.

- **Pollution Alleviation:** Urban trees and shrubs ameliorate air quality by absorbing gaseous pollutants and trapping airborne particulates (PM) that cause respiratory problems and corrode and damage buildings. Tree canopies, garden vegetation, grassy areas, and other green spaces in parks also capture and filter rainwater, reducing the amount of oil, salt, and pollutants flowing from roads and lawns into nearby waterways. Urban development also threatens acoustical environmental quality. Those audible annoyances come from traffic on the roads, rails and air, industrial estates, construction, and social activities. Dense forest and vegetation in urban parks can help to abate the noise pollution. On a landscape-scale, parks also conserve vulnerable coastal line and flood-prone areas, thus, reducing the loss of human and wild species from storms and surges.

- **Natural Habitat Preservation:** Urbanization and Global Industrialization depletes wildlife natural habitats and biodiversity. Parks of all sizes play an important

role in preserving and supporting healthy environments. Protected natural lands with large trees, ecological reserves, wetlands, and other green area increase habitat connectivity, as they provide ecological functions, shelter, and habitat to other species resulting in positive consequences to the environment. Natural landscapes with water sources and a diversity of native vegetation, thus, are vital to conserve the richness of biodiversity across multiple taxa and preserve regional ecosystems amid growing cities

#### **(ii) Economic Services**

- **Economic gain:** Cities are economic entities. Urbanization and the growth of cities hold the economic key to the future of the global economy. Nations that foster livable cities that support vibrant populations and highly skilled workforces will be winners in the intensely competitive global marketplace of the future. However, one of the most important but least recognized essentials to an attractive and healthy urban environment is a ‘well-designed and well-maintained network of city parks’—an essential component of any city’s infrastructure. Urban greening generates economic benefits to local authorities, property owners, city-dwellers and business owners through increased residential and business property values with proximity to green spaces (hedonic value) and correspondingly increased tax assessments namely property tax and sales tax. Parks and open green spaces are also critical to workforce development, particularly green career tracks, as the green industry is undeniably one of the fastest-growing segments of the global economy. Parks make our cities sustainable, livable, and vibrant.

- **Significant Economic Savings:** As an essential component of a city's infrastructure, parks produce measurable health, environmental, and community savings. By far, the most obvious savings come from the use of the city’s free parklands and green spaces as they offer free recreation opportunities, offsetting any purchase in the marketplaces. Citizens devoted to revitalizing their neighborhood parks create safer communities, reining in the costs associated with public services such as fire and police protection, prison, correction facilities, and rehabilitation services. For the largest 85 cities in the country with a total population of 57.2 million, the health savings from parks is an estimated \$3.08 billion. The

environmental savings are significant as well. Trees and vegetation in urban parks offer lower cost, natural solutions for addressing stormwater runoff and air pollution. One major city, Philadelphia, experienced \$16 million in annual public cost savings as a result of stormwater management and air pollution reduction, according to a 2008 report by the Trust for Public Land Center for City Park Excellence (*Trust for Public Land Center for City Park Excellence, 2008*)

### **(iii) Community**

#### **- Health and Lifestyle Services**

Buzzing cities are epicenters for chronic and non-communicable physical and mental health issues. Researches show that through lifestyle enhancement, green space in an urban area can help address public health challenges. According to the World Health Organization (WHO), physical inactivity and work-related chronic stress are major public health risks. However, people living near parks or green open spaces have greater opportunities to be physically active by running, walking, or participating in other heart happy activities. The studies show that adopting an active lifestyle reduces stress, obesity, and may even lower the risks of heart disease and diabetes—making a case for the great outdoors is a gateway to better health. Furthermore, with the presence of large open spaces in urban areas, young people exposed to the joys of outdoor activities resulting in lower stress level, improved physical and emotional health, less hyperactivity, and stronger immune systems. Ultimately, it also can help mold future generations into individuals who are concerned about the environment, and therefore are committed to revitalizing and enhancing the urban park system. (Ref)

### **(iv) Social Services**

**- Social Cohesion:** Well-maintained parks promote community engagement and civic pride. Neighborhood parks attract and connect individuals of all ages and ethnic backgrounds who share a vision for the betterment of their surroundings. Not only, well-managed parks empower stronger community involvement but also neglected public spaces can become vital community assets where residents, civic groups, and city leaders come together to interact and foster community attachment. Whether transforming vacant lots to community gardens, planning for a

future park, or beautifying existing public green spaces, parks provide opportunities for people to take ownership of their community and the important locality where people from various backgrounds, ethics, race, and religions fruitfully share their everyday life. Parks also control urban sprawl and reduce crime, creating safer communities. Research shows that there is less crime in residential areas close to parks, in part because these green spaces are frequent gathering places for community members. As the community becomes more closely, these urban setting can encourage the sense of community ownership and empowerment. Community members will be on the look-out for one another's wellbeing.

#### **(v) Education**

- **Improved overall learning abilities:** Access to parks provide children with learning opportunities that are crucial to their future success and healthy development. Most of today's youth in major cities are less connected to nature than ever before. Free time outside home-ground playing and exploring their natural surroundings has been replaced with more significant interaction with the digital world. In many communities, children do not have access to well-managed parks that are clean and safe. The impact on children is excellent—their creativity and capacity learn to suffer. Moreover, for many children, traditional classrooms and far-away residential camp in the countryside are no longer active settings for learning and conducting urban environmental educational activities. Parks in urban settings enhance the classroom experience by teaching children how to interact and cooperate with their peers as well as critical life skills for academic and professional achievement. Exposure to the outdoors improves analytical thinking, making students better problem-solvers in math and science. The hands-on learning experience provided through city parks is especially critical during the summer for children who would not otherwise have access to free resources, narrow down the educational achievement disparity among socioeconomic groups. These opportunities have also been especially beneficial in the educational development of children with Attention Deficit Hyperactivity Disorder and other learning disabilities (**Nicole, 2008**).

- **Educational opportunities in Conservation and Preservation:** City parks are valuable resources offering numerous educational programs that bring together



community members of diverse ages, ethnic backgrounds, and economic status to learn from one another. Through park-based programs, children and their families become active participants in community development, citizenship, and democratic processes. While all residents gain knowledge about parks' value, youth especially build leadership skills and become more involved in civic life, while gaining greater cross-cultural understanding. These local green spaces prepare them for life-long environmental stewardship. Parks protect and conserve artifacts, ecosystems, and places of historical and cultural importance. If not for parks, treasured pieces of history and culture would be lost or forgotten. They are repositories for our shared heritage (Rattanaubon, 2003).

**(v) Others**

The urban public parks camouflage unwanted or ugly landscapes and alleviate urban sprawl. They also serve as a place that stimulates imagination and ideas as the city-dwellers take time off their busy schedule and step outdoors to enjoy the serenity of parks amidst of bustling urban setting. Parks also serves as a venue for cultural events, music festivities, and charity events adding colors to a monochrome routine life of the urbanites.

**(B) Key Components of Urban Parks**

The Trust for Public Land held a conference in 2003 in which 25 experts convened to discuss critical questions and components of cities and urban park networks (Harnik, 2003; Shing, 2006). The two-day conference laid out “seven broad measures of an excellent city park system” were determined (Harnik, 2003). They included

1. A clear expression of purpose
2. Ongoing planning and community involvement
3. Sufficient assets in land, staffing, and equipment to meet the system's goals
4. Equitable access
5. User satisfaction
6. Safety from physical hazards and crimes
7. Benefits for the city beyond the park boundaries

These measures define a standard for urban parks for larger cities around the country and highlight what data should be considered necessary in the decision-making process for urban parks systems and connect them to overall city networks.

### **(C) The Characteristics of Urban Public Park**

According to the landscape architectural relationship and the theory of green space management of the city.

#### **(1) Classification of urban parks based on physical characteristics**

This classification considers the location of the parks, urbanization or expansion of the city, and its population settlement and the environment. Based on physical characteristics, urban public parks can be divided as follows:

1.1. Parks in the Central Business District (CBD): This type of parks are located in the area of economic and cultural importance. They are found in the inner area of the city, which is surrounded by its physical expansion in the form of buildings.

1.2. Parks in transition zone: This type of parks are located around the metropolis, next to the inner city area. In other words, they are found in the interconnected area of the inner city (middle zone / urban fringe), which is responsible for the commercial sector expansion and used as a residence by the people who move to the inner city for work.

1.3. Parks in the sub-urban zone (Commuter Zone): This type of parks are located in the outskirts of the city, most of which are still occupied by agricultural land use, with occasional urban encroachment. Such parks usually have a large area and have a unique natural landscape.

#### **(2) Classification of urban public parks in Bangkok**

##### **(2.1) Classification based on services.**

This classification considers the lifestyle of the people who access the parks. Based on services available, urban public parks can be divided into five categories **(Public Park Office, 2001;(Dutsadeeprasert, 1996))**.

i) Public parks: Public parks are a type of land that is very important for the life of the city. Bangkok has parks that provide recreation to people of all ages for

free and can access at any time (Land of Government). The area is 20 rai or more. Park attributes include a wide range of activities such as relaxation and fitness.

ii) Pocket parks: Utilizing vacant spaces left in the process of urban development, this type of parks is not intended for relaxation. Such parks provide a more refined decoration because the area they occupy is small and not conducive to any activity. Neither their access nor the environment is suitable for leisure.

iii) Semi-public parks: This type of parks such as zoos (state enterprises) is made for relaxation, education, and conservation. However, people use these parks more for relaxation and less for education and conservation.

iv) Private parks: These are private amusement parks, which serve as another source of recreation in Bangkok. Their essential feature is such that people have to pay for access to the service.

v) Sports stadiums, golf courses, and racecourses: These are open areas of the city for specific purposes, which are also beneficial to its environment. However, users must pay the fee for using the services.

## **(2.2) Classification by Bangkok Public Park Office**

When considering the nature of the public park area and its hierarchy (park space, service radius), Bangkok Public Park Office (2001) classifies urban public parks into seven categories as follows:

i) Small parks (pocket parks, mini-parks, tot lots): Parks with an area of less than two rai, a radius of about 1 km, and distance of about 5-10 minutes from the residential area and are used as a playground, fitness center, and meeting place falls into this category.

ii) Neighborhood parks: Having an area of less than 2-2.5 rai and radius of around 1 - 3 km, these parks are meant for residents in the neighborhood and possesses more facilities than the first level of parks described above.

iii) Community parks: This type of parks have an area of not over 25-125 rai and radius of around 3 - 8 kilometers. They contain more facilities than the first and second level of parks, providing recreation and many other services.

iv) Medium-sized parks or district park: This type of parks have an area of not over 125 - 500 rai and radius of more than 8 kilometers. Serving both pedestrians and people from remote areas, they are equipped with public transportation or private car park and other facilities such as picnic spots, multipurpose yards, ponds, streams and abundant flower gardens, which are not available in park levels 1- 3.

v) City parks: This type of parks have an area of more than 500 rai. Their service radius was serving around the city's influence zone. They also have a wide range of activities zone, including courtyards, to hold events.

vi) Street parks: Street parks have a width of more than 3 meters having the unlimited length of trees on both sides and abstaining the walkway at the center of the path. This type of parks can further be divided into three types: garden or bike paths, central island parks, and crossroads parks.

vii) Special garden or individual purpose parks: Examples of such type of parks include sports parks, historical parks, and cultural parks, which have a specific purpose and limited areas.

### (2.3) Urban Public Park in Bangkok Overview

Currently, there are 31 public parks around the whole Bangkok metropolitan. Their opening year, areas, and types according to area size are shown as follows

No.	Park name	Opening year	Area size (m2)	Type*
1	Lumpini Park	1926	576,000	D
2	Saranrom Park	1960	36,800	B
3	Thon Burirom Park	1968	101,280	C
4	Phra Nakhon Park (Lat Krabang Park)	1974	80,000	C
5	Suan Luang Rama IX Park	1980	800,000	E
6	Chatuchak Park	1980	248,226	D
7	Nong Chok Park	1987	56,800	C

8	Benchasiri Park	1992	46,400	B
9	Rommaninart Park	1993	47,888	B
10	Queen Sirikit Park	1996	315,060	D
11	Serithai Park	1997	560,000	D
12	Santiphap Park	1998	32,320	B
13	Wachirabenchatat Park	1999	600,000	D
14	Public Park in Commemoration of the King's 6 <sup>th</sup> Cycle Birthday	2000	46,400	C
15	Santi Chai Prakan Park	2000	13,600	B
16	Benchakitti Park	2004	208,000	D
17	Chaloem Phrakiat Kiakkai Public Park	2005	16,000	B
18	Rommanee Thungsikan Park	2005	25,096	B
19	Thawiwanaom Park	2005	86,400	C
20	Ram Indra Sport Park	2005	94,544	C
21	Suan Luang Rama VIII Park	2005	38,400	B
22	Phanphirom Park	2006	22,400	B
23	Maha Chakri Sirindhorn's 50th Birthday Park	2008	32,196	B
24	Her Majesty the Queen's 60 <sup>th</sup> Birthday Park	2008	83,876	C
25	Wanadharm Park	2009	61,212	B
26	Nawaminpirom Park	2010	121,757	C
27	Nakharapirom Park	2010	6,280	B
28	Bueng Nam Latphrao 71 Park	2011	33,600	B

29	Sirintorapusapan Park	2011	4,864	B
30	Public Park for the 80 <sup>th</sup> Anniversary of the King	2012	33,600	B
31	Public Park of King Bhumibol of 80th Birthday Anniversary	2012	28,064	B

*Table 1 Public Parks in Bangkok*

\* A=Pocket Park, B=Neighborhood Park, C=Community Park, D=District Park, E=City Park (Public Park Office, 2013)

Eighteen among the current 31 parks, as Table 2.1 shows, were constructed after 2000. Nine parks came into being from 1980 to 1999. Before 1980, there were only four public parks in Bangkok. Namely, Bangkok residents did have very few parks for recreation a few decades ago. In terms of the public park area, Suan Luang Rama IX Park is the only one that reaches the size of a city park. However, Suan Luang Rama IX Park was opened in 1980; before this city park, Lumpini Park, opened in 1926, has served to be the most abundant public green space in Bangkok for more than half-century.

Therefore, even Suan Luang Rama IX Park and Wachirabenchatani Park (Rot Fai Park) occupy larger areas, Lumpini Park's size still stands out among other newly constructed parks.

## 2.2 Concept of Satisfaction

A comprehensive definition of satisfaction in terms of pleasurable fulfillment is given by **Oliver (1997)**: "...Satisfaction is the consumer's fulfillment response. It is the judgment that a product or service feature, or the product or service itself, provided (or is providing) a pleasurable level of consumption-related fulfillment...". According to an exhaustive review by **Yi (1991)**, satisfaction may be defined in two primary ways: either as an outcome or as a process. The first approach defines satisfaction as a final situation or as an end-state resulting from the consumption experience. The second approach emphasizes the perceptual, evaluative, and psychological process that contributes to satisfaction. Although different approaches to defining users' satisfaction may be found in literature, the most popular ones are based on the fulfillment of users' expectations. Satisfaction is a standard of how the offered "total" product or service fulfills customers' expectations (**Gerson, 1993; Grigoroudis, 2010; Hill, 2007; Oliver, 1997; Vavra, 1997; Yi, 1991**).

Moreover, **Kotler (2000)** focused on the feelings of persons receiving the desired things or the repulsiveness of the experiments. If they get suitable things that meet their expectations, the users or customers will be satisfied. **Wallerstein (1971)** defined satisfaction as an emotional satisfaction that is related to one's feelings toward the things that meet their needs or expectations.

In conclusion, satisfaction refers to the good feeling or good attitude of a person, which is caused by the response that he/she wants to feel good in it. Conversely, if the demand is not fulfilled, unhappiness arises. Whether satisfaction with the use of a service in an organization occurs or not depends on the nature of the service and its perceptions from different dimensions. There are several ways to measure service satisfaction as follows:

1) Questionnaire survey: This is one of the most widely used methods of determining the level of users' satisfaction requesting responses from a group of people who are able and willing to. The responses could be in the form of an independent answer or comments. Questions may be asked about satisfaction with various aspects of service that an agency is providing, such as the nature of the service, service station, or personnel matters.

2) Interviewing: This is another method of measuring the level of users' satisfaction. The quality of answers depends on the techniques and expertise of the interviewer to motivate the respondents to answer the questions. The interview method is proved effective, as well as economical.

3) Observation: This is another method of knowing users' satisfaction level. In order to obtain correct results, it is a must to have a framework.

Hence, measurement of the level of satisfaction of service users can be carried out in several ways. However, the choice of a method to be used depends on the convenience, suitability, and the purpose of the measurement so that valid and reliable results can be obtained.

## **2.3 Concept of Recreation**

### **2.3.1 Receptions**

Receptions are critical human activities defined as activities that directly provide physical, mental, or emotional benefits of the participants, which are activities the participant voluntarily do while these activities will also benefit the society as well. Recreation has essential characteristics as follows (**Suchet Chetamasm, 1982**).



- 1) Recreation must be an activity. In other words, it must be an action where any body parts or muscles move.
- 2) Participation must be voluntary without being forced.
- 3) Any recreation activities must be in free times or any time other than being occupied by other businesses.
- 4) Must directly satisfy or relax the participants.
- 5) Must be activities acknowledged by society and not immoral activities such as gambling or drinking alcohol.
- 6) Recreation activities must not be held as a profession such as professional sportsman. Recreation is the time humans can truly relax their mind and body, which could be done by doing their favorite activities. There are many recreational activities such as listening to the radio, watching movies, listening to music, and mountain hiking and most of them are up to the satisfactory of the participants rather than the importance of their physical benefit. Recreational activities could be done in many places, including homes, workplaces, and public parks, depending on the objective of each person **(Ueamporn Wisommai, 1984)**.

Recreations are activities done in a free time where participants voluntarily participated and were entertained by such activities and are very emotion-related in term of psychology as well. There are many types of recreation activities, depending on the attitude of the participants. In other words, if any participant voluntarily participated in any activities and had their stress reduced, such activities could be said as a recreational activity **(Phongphaibun Silavarawet, 1985: 23-24)**. From the definitions of recreations, it could be summarized that any actions that are not related to works while also made people feel less stressed, relaxed, entertained, getting healthy, and were voluntarily participated, those actions are considered recreations. These created many resting places, such as public parks in many areas.

### 2.3.2 Types of human recreation

From the types of human recreation, it could be separated into two groups **(Ueamporn Wisommai, 1996)**

- 1) Passive recreation is the activity that was not exercising but is relaxed and relieves tiredness such as sightseeing, being among nature, listening to music in public parks, and looking at animals in the zoo.
- 2) Active recreation is the activity that required exercising, such as walking, jogging, biking, sailing, or playing sports.

### 2.3.3 Types of human recreation activities

Passive and active recreations could be divided into many activities, both in the public parks or in the designated areas, to see the full image of recreation activities **(Klongwessa, 2008)**.

- 1) Exercise recreational activities are activities that encourage a reduction of stress, including soft exercises such as Tai Chi and medium exercises such as biking and walking. Some recreational exercise activities are also including competing and challenging exercises such as football, takraw, and basketball.
- 2) Mind relaxing recreational activities are mostly made independently, such as meditation, walking, and sitting. Mostly done in the public parks along with other unrelated people but could create a private environment as well.
- 3) Social, recreational activities are activities that were done by two people and over. Most activities are done in public parks to satisfy social needs.
- 4) Learning recreational activities are based on curiosity and adventurous traits of humans. In the past, these activities are only interested by academic field until US National Park Service had studied the systems in their national parks and published *Interpreting Our Heritage* in the year 1960, gaining more popularity from many tourism places.

- 5) Competitive recreational activities are based on the competitive trait of humans in both small and large groups, including physical sports that required body movement and mental sports such as board games. These competitive recreational activities could also be motivated by the need for acceptance as well.
- 6) Hunting recreational activities are based on when humans have to hunt animals to survive, leading to hunting games for nobles in medieval Europe. Currently, hunting animals are illegal, but these hunting activities could be seen in many forms such as fishing or collecting items as well.

#### 2.3.4 Benefits of recreation areas

Recreation areas create many benefits in terms of both service and recreation. Moreover, the benefits of recreation activities could be classified into 6 groups as follows (**Pawayon, 1992**).

- 1) Health: Good health is essential. Therefore, health development by encouraging people to participate in recreational activities for health is necessary.
- 2) Mind: Each day, people live under crowded, rushed, and the polluted environment because of the growth of the town, inducing stress and tiredness from their works and daily life. Therefore, being close to nature would help them feel happy, relaxed, and secured.
- 3) Economy: Recreation is an important element for the tourism industry and is a big business that helps to create jobs and spread income for each group of people in society. Moreover, recreation also related to many other businesses such as logistics, communication, food and beverage, and souvenirs. These businesses, as mentioned above, are affecting the economy at any level, both direct and indirect.

- 4) Social: For the government to be able to prepare and develop recreational areas as well as related facilities would allow people, especially teenagers, to use their free time for recreational activities as much as they want.
- 5) Culture: Recreational activities allow participants to learn and experience nature, history, culture, and also national heritage as well.
- 6) Education: Every recreational area is comparable to a natural laboratory that allows everyone to learn about nature by themselves. Moreover, the recreational area could also be used as important research areas as well.

## **2.4 Concept of Park User Behavior**

### **2.4.1 Factors affecting the decision of choosing recreational activities:**

Choosing a recreation activity to do is highly connected to the psychological background of humans, which could have the differences classified as follows Age (Klongvessa, 2008):

1) The difference in age is the most accessible aspect to be observed and could be summarized as follows:

(i) Small children - Have meager physical abilities, they could only clumsily walk or run, have limited movement, have limited confidence, needs high security such as the need to have familiar people around when in unfamiliar places, have short concentration, very curious, and are trying to learn how to move their bodies according to their environment.

(ii) Older children: Beginning to interest in small social groups, have friends in the same age, playing within the group, adventurous, and very curious.

(iii) Teenagers: Have unique interests and have their personal worlds, wanting to be themselves while also want acknowledgment of friends, trying to stay away from adults, beginning to seriously study and awareness of the

importance of education for their future, beginning to seriously think about their future, and have quick thinking and maneuvering abilities.

(iv) Early working age: Have a scheduled life, have more ordered life and more responsibilities, have more stress, friends are still important but less than in their teens, might be the time to create their family and standings, would still playing sports if they have the foundations, and need acknowledgment from society.

(v) Working-age: Similar to the early working age, but they might have more family burdens and need time to be with their family. In this age, the differences between standings are clear.

(vi) Adult to old age: Getting slower and want more solitary. However, their needs for security would come back higher as they age like then they were small children. They want to be taken care off, want friends, and have more free time.

2) Gender: In terms of gender, females use public parks less than males and would use for meeting with other people rather than playing sports, while males would come to the park individually more than females.

3) Experience: Choosing a recreational activity is depending on experience and practices. Therefore, predicting the activity, each person would do could be predicted from their experience as well.

4) Needs: Psychological and physiological needs of humans are affecting how they choose their recreational activities as well. The prediction of recreational activities for the target groups could be predicted by their overall needs. If the needs are clear, the prediction could be made easily as well.

5) Personalities: It is believed that the personalities of each person affect how they choose recreational activities as well. There is an observation of popular sports

in each country and noticed the connection between sports and personalities of people as well.

6) Trending: Human lifestyles change from era to era; their lifestyles change according to the trending of that current era. Therefore, the construction of public parks and equipment also depend on current trending as well.

#### **2.4.2 Factors affecting the decision of using or not using Public Park**

Preparation of public park and recreation projects require good planning and must consider the behavior of users will, but some people would still not use them. The factors for them to use and not use the public parks are as follows (**Klongvessa, 2008**).

- 1) Public park accessibility and transportation: Each public park has its own service area, which could be identified from the accessibility of the park. Anyhow, other than time used for accessing the park, transportation convenient and environment also help increase or decrease its service area as well as seen in some public parks with lower users than it should be, which might be caused by obstacles and inconvenience of accessing the parks.
- 2) Ignorance of what was interesting: This might be strange for local people to not aware of nearby parks or recreational area. Because people are not aware, there is a lower number of users than it should be, some may aware but not fully aware of how interesting the park is as well.
- 3) Activities in the park: The objective of public parks are to be used as a recreational area and breathe clean air. Because the needs of each person are different depending on their preference, public parks should have their recreational areas designed according to those preferences. Because the lifestyles of people change in time, activities within the park could help brighten their days and attract them more.

- 4) Park declination: Many public parks are declining because of the lack of long-term maintenance and playthings that lack maintenance may be dangerous to children. Declination of the park affect the number of park users and in turn, would be filled with homeless people and criminals. The problems
- 5) that occurred are not only its attractiveness but also its security as well.
- 6) Security: Public parks where people could freely enter and exit may cause insecurity because dangers could be in the park any time. Therefore, securities are necessary for the image of the parks, especially in blind spots. The security of the parks may be done by staff patrol, limited entrance and exit, and enough light.
- 7) Attractiveness: Attractiveness is not only about the image of the park but also includes the activities and promotion for that park as well. This may increase by creating new foundation and behavior for users such as encouraging people to play sports in their free time or promoting recreational activities for working-age more such as aerobic dance and healthy exercise. These will help attract more people as their preferences changed. The image of the parks also affects the number of people, as well as people, would like to come back more if the parks are beautiful, which usually are from the balance of light, clean air, and other factors.
- 8) Size and shape of the park: From the study of Marcus & Francis (1990), it was found that the size of the park will affect people who would use it. If the park is too narrow, people might feel uncomfortable and could not find the place they feel secure. If the park is too broad, normal activities may not work well. Therefore, proportions and location of the park are connected to the comfortableness of the users too.
- 9) The holding of the park: Public parks are intended for many people and not for any specific person as well as for someone to hoard the park permanently. The holding of the park may be occurred by placing a personal

chair or frequently dry clothes in the park. These things cause problems for other people and make them not want to use the park anymore as they feel that parts of the park have its owner.

## 2.5 Concept of Public Participation

### 2.5.1 Definition of public participation

Public participation is an important step and process affecting the success of each project of the government and the acknowledgement of people and the feeling of ownership in people as well. The participation of people has many definitions from many academicians as follows.

**Burigul** mentioned that participation in the process people has the chance to input their opinions and participate in each project that would affect their daily life as well as using their opinions in determining the policies of the government. Participatory of people could be done in two ways, including official and unofficial participation, including sharing information between stakeholders and promoting the unity of the society.

The participation will improve the quality of decision making, reduce costs, create unity, easy to follow, preventing the worst-case scenario, and help to learn concerns and values of people as well as improving their creativities.

Office of the Public Sector Development Commission (2) classified public participation as follows.

1. Public participation is the process in which people or stakeholders could be part of the process of administration including learning of management processes, expressing opinions, propose problems and needs of the community and the local region, think of solutions, making decisions, and following up the processes while also benefit from the development of each project.

2. Public participation is the relationship process between people and the government to create mutual understanding and to develop policies and public



services for the benefit of the people and satisfy their demands more. The process focuses on the process that allows people to make decisions together with the government. The process of public participation in the method the government, public, and stakeholders could learn and understand public policies together while also discussing and finding the best possible solutions every side acknowledge and has the least negative effect.

3. Public participation is the process people and any stakeholders solving complicated problems together peacefully, and the decisions would be acknowledged or unanimous with the decision of the society while also using every opinion of everyone to determine the decisions and policies.

**Orathai Kokpon** mentioned that public participation changes according to the context of society and politics in the past. Public participation usually means political participation. However, in the present, people prioritize direct democracy more, widen the definition of public participation. Public participation means the opportunity for the public to determine policies, management, and decisions of the local governmental departments. Anyhow, public participation must allow freedom of thought and must be consistent from the beginning to the end, not just once. The processes are as follows.

- (1) Create self-awareness and count that as their responsibility as a part of their community of society.
- (2) Discussing the problems and prioritize the importance of each objective together.
- (3) Plan activities or projects together while dividing up the works in terms of finance and procurement of fund while appointing a supervisor as well.
- (4) Let people voluntarily participate in their abilities.
- (5) Following up and assess the problems together while solving the problems in the entire length to reach the objectives of the project.
- (6) People would benefit from their participation.

Public participation must consider three essential conditions, including the voluntary of participants as it would make them feel like being a part of the development, the fairness of participation, and the ability of participants. Public participation must not create by forcing people with higher ranks as well. When considering the definition from the international organizations, individuals who have development roles both domestic and foreign, and academicians who are mentioning public participation, they agree that the first step of public participation is the morale of people if they will fully help their community to solve their problems or not by planning and solving problems as well as benefit from the activities as well.

### **2.5.2 Forms of public participation**

Academicians and those who have studied on public participation had mentioned the forms of public participation as follows.

United Nations (4) has compiled the forms of public participation as follows.

- 1) Natural participation: The participation was done voluntarily by people grouping together without any influence from the outside.
- 2) Guided participation: The participation done by the opinions or comments of the government, which is a normal form for developing countries.
- 3) Forced participation: Directly managed by the policies of the government and officials. While the effect of this public participation may be immediate, its effect did not persist in the long term as it was not supported by participants.

**Twinwadee Burigul** has compiled the forms of public participation into 3 forms as follows

- 1) Must have a clear goal or objective: Goals and objectives must be clear for people to decide if they should participate or not.

- 2) Must have a target activity: To make people participate, types of activities must be determined.
- 3) Must have a target group: While it is necessary to determine the target group, this was usually automatically determined when the project had determined the objectives.

Considering the opinion that international organizations, academicians, and researchers have discussed, the forms of participation could , into two forms.

1. Voluntary participation.
2. Guided or forced participation.

Therefore, conditions of participation are varied by many factors.

### **2.5.3 Conditions of public participation**

There are many factors affecting the decision of participating, either voluntary or forced or guided.

**Cohen. J.M. and Uphoff** suggested that environmental context or conditions are including: i)Project characteristics, which were considered from the complication of technologies, required resources, benefits, connectivity, flexibility of administration, and coverage of management, ii) Project environment including physical, biological, economic, political, cultural, and historical factors.

United Nations suggested basic conditions of public participation as follows: i) the government must first acknowledge the public participation and contain this principle in each of their plan or policy. ii) People must have basic ability to be representatives to negotiate for benefits with other people. iii) People must have innovative freedom to determine their own activities in their local area. iv) People must have the circulation of news and new information, especially principles and philosophies of technique development, resource management, and administration

knowledge. v) People must have the equipment, though, and technique support, especially in the beginning period.

**Twinwadee Burigul** mentioned 3 basic conditions of participation of development as follows: 1) Must have freedom, which is the freedom of voluntarily participate without being forced to in any case. If it was so, that was not public participation. 2) Must have fairness as those who participate will have the same rights as others. 3) Must be competent enough to participate. If the activity is too complicated and people could not follow, that activity was not public participation.

When considering the suggestions of many academicians both domestic and foreign regarding the conditions of public participation, the participation must be voluntary, and people must have an attachment of their local, lifestyle, and culture to be motivated to help to find solutions for their community.

#### **2.5.4 Process of public participation**

Academicians and those who have researched on the topic of public participation had mentioned on the process of public participation as follows.

**WHO and UNICEF** had suggested 4 processes of public participation as follows: 1) Planning: People must participate in planning and analyzing of problems while prioritizing the objectives as well as determining resources and how to assess. Most importantly, they must decide for themselves. 2) Progressing: People must participate and responsible for the management of resources and finance. 3) Application: People must apply the activity as effective as possible to improve self-sufficient and social control. 4) Benefit: People must fairly share the benefits of the activities among their community. This could either improvement or objects.

**Orathai Kokpon** sees that public participation is the key to success and success factors that should be in design and administration of public participation are the 4S, including.

1. Starting Early: Public participation must be proceeded before deciding. The failure of public participation in the past was caused by the government starting late after it was decided or have other obligations which could not be changed or after a dispute. Anyhow, listening to opinions before deciding does not mean it could be done a day or a week before the decision. Time is also reflecting the sincerity of the government, so they ought to give enough time for the community to express their opinions.

Moreover, letting people participate since the start allow them to thoroughly ponder on more appropriate alternatives or solutions and would be used as data for the development of the project. The administration of public participation should allow people to participate since the start to let them ponder on the necessity of the project in its basics such as in the case of building a power plant or garbage dump where the government ought to discuss with the people on the necessity of the power plant or the garbage dump.

2. Stakeholders: Any stakeholders, direct or indirect, should participate. For direct stakeholders, they might be the first to require the information or discussion, and the responsible departments must prioritize them while being careful not to target the wrong stakeholders as each stakeholder were not equally affected. There are many instances that the stakeholders were mistaken to be in the same group while in reality, there are many groups of stakeholders. The administration must make sure that every stakeholder has the opportunity to participate, including determining the time where people could listen and express their opinions or using local languages as well as providing the convenience of participating as well as trying to get in touch with disadvantaged members of society, including poor people, women, elderly, and children.

3. Sincerity: Public participation is a delicate process and the relationship between the responsible departments and the people are very important for the success of the project. The governmental departments authorized for the administration of the project must administrate seriously, transparently, sincerely,

have no bias, respect each other, and always communicating two-way, especially in terms of supplying enough information, to answer the question of the stakeholders as well as informing the progress of the project to reduce the doubts. The departments must let the public participate since the start as well as listening to their opinions and use them as data necessary for decisions as these data are the fundamental of trust between each other, leading to better cooperation, understanding, and communication.

4. Suitability: Suitable techniques or forms of public participation must be considered from type and size of the project while regarding the appropriateness, variety, difference of area, stakeholders, difference of culture, society, and values, level of interest, ability or readiness of people, and the limitation of the responsible departments such as time, personnel, and budget. The success of participation depends on the ability to analyze situations and choose suitable public participation. Creative public participation must include many secondary processes, both official and unofficial. Moreover, the exchange of news and facts is a crucial factor for the discussion on the public participation that has no best solution and would require to adapt according to the situation such as public issues that requires public participation as well as the participation of stakeholders on subjects including norms, culture, and context of economy, social, and political that affect the process of public participation.

#### **2.5.5 Promotion of public participation**

**Office of the Public Sector Development Commission** had suggested important motivation principles that would ensure the success of public participation as follows.

- 1) Leadership in building confidence, faith, and cooperation, which requires strategic vision, honesty, and scarification for the mass.

- 2) Creating a strong value in working together to create real friendships.
- 3) Constantly develop and improve the works to constantly adapt to the current situation.
- 4) Creating a member database to coordinate and interact with each other.
- 5) Creating communication methods to exchange information.

### 2.5.6 Process for public participation

**Govit Puangngam** suggested the process for public participation as follows.

1. Discuss Participation in the discussion on the project plan to listen to the opinions of people.
2. Debate: Opportunity to debate the pros and cons of the project, especially for stakeholders, both positive and negative.
3. Advise: Advise and suggest people participate as one of the committees of the project as well to ensure their understanding of the matters.
4. Survey: An opportunity for participants to express their opinions on the matter thoroughly.
5. Coordinate: Allow people to participate since the selection of the committees for administration.
6. Field trip: Allow people to survey for facts in the operation area before making a decision.
7. Interview: Talk to the stakeholders about their opinions and demands.
8. Public inquiry: Allow any group of people to express their opinions on the policies, regulations, and rules affecting the public in total image.

9. Demonstrate: Use every technique to communicate and spread information to let people know and motivate them to participate.

10. Report: Allow people to review and reflect the decisions of the project again to make changes in time if need be.

From the study on concepts and theories on public participation, the important conditions of public participation are their readiness, voluntary, and attachment of the local, lifestyle, culture, and their eagerness. However, most failure of the governmental projects are mostly caused by problems and obstacles that were not participated by the people, which might be caused by their lack of awareness and sense of public and environment responsibility, or the old administration that was not decentralized and officials might think that people are only benefiting from the projects and they could use their authority to solve the problems.

## **2.6 Concept of Public Park Management**

When the characteristics of planning to manage a recreational area in a community are considered, they should be consistent with the actual usage behavior that will be derived from the analysis of the characteristics of the user group, with emphasis on various matters related in terms of usage, aesthetics, and investment as well. Which, if considering public areas such as the case of parks, it would be found that the characteristics and good functions of the park should be able to respond appropriately in various matters as follows:(Rutledge, 1986:15-33)

1. The relationship of each area should be appropriately related to each other, such as a relaxation area and exercise area, which corresponds to the consideration of the use of space for activities in the park. It has been found that zoning and circulation planning is very helpful. Good zoning will enable appropriate distribution of activities, prevent conflicts between activities, and users can use the full potential of the land, allowing them to enter each part of the project well; while



placing a good circulation system allows users to easily enter the activity and do not feel confused in direction in the area (Nirubol Klongwessa, 2000).

2. There must be sufficient quantity or sufficiency of the living space or sufficient equipment. For example, the stadium area should be prepared, including equipment in the garden to be sufficiently. It can be determined by considering the size, proportion, and adequacy, which must be consistent with the number of people and the nature of the activity (Nirubol Klongwessa, 2000). Important elements in using the park are the number of needs of each activity and the size of the equipment that must be used in the activity. Some activities have a standard size as a criterion to perform, such as the size of the car park, while some activities have non-normative criteria, such as the size of the child play equipment/ toy, and some activities are not fixed in size, but there will be the recommended size that comes from the result of observation and records of statistics, in which when used, it must be adjusted to suit the situation, such as the distance that the user feels far. In the design of the area, care should be taken to carefully use the information in order to achieve complete results and not cause problems later. There is one thing that is often unpredictable in the park, which is the size of the group of users, which will cause the atmosphere of the area to deviate from the anticipation, so the designer must not forget to consider that the group of people is considered an element of landscape architecture.

3. The design must concern the capacity to accommodate every group of people. This means all ages or personal and social status.

4. Piracy of those who come to relax shall be considered because, in general, the nature of people often needs personal space for relaxation.

5. There should be a relationship between the area that will be used with the original condition or the area that will be used for other purposes, which means merging, aligning and taking into account the original area condition.

6. The relationship between the park and the surrounding environment should be considered. The park should be cut off from the environment or the

condition of buildings that are chaotic and create continuity with buildings or places that are valuable to create a good feeling.

7. The design must give the user the impression and good memories of the place in the park. It must give the user a good feeling or to remember the appearance or atmosphere that is evident in the park.

8. Factors that create a good sense of park use should be taken into account, such as personal characteristics, user society, beauty, atmosphere, attitude towards the park in cleanliness, orderliness, density of park users, feeling safe in the garden, which takes into account the safety of users, safety from accidents and safety from people, users of shared spaces, considering visual and air pollution. In the area of the park, it should be in a comfortable state, including the sun, wind, and heat. Park should be set up to include areas of shade and light appropriately. The overly crowded parks will cause discomfort to users during the evening to the night. At that time, users will be more satisfied with the open space. However, it requires careful consideration in order to achieve the appropriate characteristics (Nirubol Klongwessa, 2000).

9. It is essential for consider the layout, design of living space and behavior by having to arrange the area to be suitable for each use area by emphasizing the consistency between user behavior and the layout of activities within the park which is to deal with the condition of the activity (Nirubol Klongwessa, 2000). In this regard, landscape architecture is a public work that requires planning for the conditions that are suitable for the activities that will occur, which must be predicted which activities require the conditions of the area, such as resting conditions should have shade, not in place that can be targeted by others' eyes. If it is a park that has a relatively high density of users, it is necessary to create small areas. The construction of a bathroom in a public landscape architecture often uses the creation of various spaces with the ground plane, such as changing the level, changing the floor material with a wall plane such as hills, tree trays, equipments such as seats, table sets, etc. Observation and interest in users' behavior will help to get works done appropriately.

10. Distribution of living space, the design of the park should be planned for the living area of the stadium or exercise area separated from the rest area in order to suit the behavior of users.

## 2.7 Relevant Literatures

This chapter presents a summary of several articles related to this study topic. The key concepts of the urban public park management model, sustainable park management, and public park user surveys are further emphasized.

**(Thomas, 2005):** This research objective aims to set the privatization process and outlining alternative models for the management of the public park. This research concluded that many management policies such as the user fee program and public-private partnerships are simple steps to the privatization and renewed appreciation of the social role on public park management agencies is essential to preserve the conservation gains of the two previous centuries. This research also provided the five management models for parks and protected area as follows: Fully public model, Public utility model, Outsourcing model, Private ownership model, Fully private model. According to Bangkok' current situation, the public park was running by the fully public model. Under this model, park management is considered to be a legitimate governmental function that should be fully funded through taxes. Decision-making is the responsibility of agency personnel but occurs with substantial public involvement, is subject to legislative oversight, and transparency is legally required. Agency finances also are open to public scrutiny. Its major advantages include having the parks available for use by all the public at little or no direct cost, inclusive decision-making, and the ability to undertake non-economic (unprofitable) goals such as the preservation of biodiversity or ecosystem integrity. But criticisms of the public model have been that it requires non-users of park services to pay through taxes and that bureaucrats lack incentives to control costs and are not quick to respond to changing public demand.

**(National Park Service, 2007):** This report looks at best management practices that used at a variety of urban parks in US parks and international locations. The information presented in this report is based on information collected through

site visits, and all study sites have one or more similar features to the National Mall as follows: status as a national capital or a major metropolitan area, interest in maintaining landscape quality despite high levels of use, large recurring and one-time events, have a freedom of expression activities, complex maintenance, and events programs. Moreover, this research found that fostering a sense of pride in employees is a critical component of a successful management program and can be achieved by streamlining hiring practices and developing staff, linking day-to-day operations to landscape quality standard goals, creating maintenance zones, and use of sustainable management practices is an emerging best practice.

**(Hiwasaki, 2005):** This research aims to overview the sustainable management of national parks in Japan. The study provided the advantages of and disadvantage of the zoning and regulation system used in the current management in Japan. Although resource conservation under this system has been problematic, it has advantages, especially in terms of community participation. This article demonstrates that in order to reach the system's potential, the public participation is necessary and park authority must act as coordinator of stakeholders and facilitator of bottom-up approaches to decision-making. In order to do that, identifying the various stakeholders in park management and defining the “local community”; clarifying the roles and responsibilities of each stakeholder is required. These steps will enable the park authority to address the challenges facing Japan’s complex system of conserving natural resources and move towards sustainable management of natural resources in Japan.

**(Ruthirako, 2013):** This study identified that sustainable management of green spaces in urban areas depends on various stakeholders in both local, national, and international levels. Hence, actions should be implemented at three levels: i) operational, ii) strategic and iii) policy levels. Moreover, the factors that responsible for successful planning and management of green areas included by the participation in green spaces used, the adaptation of the green space use; serious involvement of the local administration, community participation, and etc.

**(Fletcher, 2003):** This research objective aims to determine manageable correlates, or predictors, of visitor satisfaction. Multiple regression analyses revealed

that 34% of the variation in visitor's satisfaction was predicted by ratings in just two categories: park maintenance and park personnel. Park managers who concentrate their efforts on these two manageable and demonstrably important features of the park experience— by assuring maintenance and cleanliness of the park and by training employees and their behaviors —can produce measurable and documentable increases in visitor's satisfaction.

**(Oguz, 2000):** This research focuses on three parks in Ankara for survey and evaluation purposes. In order to analyze the use of the parks, a literature survey and a questionnaire survey were carried out together. The former described the distributional structure of the parks, whereas the latter explored the characteristics of park users, and their satisfaction reported problems and requirements. The findings suggested that each park use had its own characteristics, although there appeared to be some similarities in the uses of parks studied and recommendations for future planning were suggested accordingly.

**(Sawangjaroen, 2017):** This research evaluated the current situation of accessibility for persons with disabilities and the elderly at Lumpini Park focusing on outdoor environment. The objective was to suggest design guidelines for improving the park according to the Universal Design concept. It was found that Lumpini Park has many amenities for persons with disabilities and the elderly, but they remain ineffective. For the design, the guidelines should emphasize to link the outside access to inside and develop circulation system inside the park. Furthermore, the improvement of the related elements for convenience and safety, such as entrance, information center, parking, bus stop, is also needed. The improvement also should be based on five principles: 1. Linkage of itinerary 2. Connecting all activity areas 3. Accessibility 4. Loop systems for circulation, and 5. Convenient to use.

**(Sompong, 2016):** The objectives of this research were to 1) study the generality of Lumpini Park; 2) analyze services and people's behavior in the area; 3) suggest improvement and development guidelines for the park. The results showed that people who visited the park both at weekends and weekdays were highly satisfied with the shady area that

is provided (the average value was more than 2.5). However, the demand for light, safety policy, trash receptacles, deserted area development, and park design improvement to suit all sorts of visitors were considerably high. Thus, the improvement and development guidelines for Lumpini Park focused on the physical conditions of the park.

## **2.8 Conclusion of Literature reviews**

The objective of this study is to understand the role of Lumpini Park and the type of usage by the Lumpini Park visitors for recommending the management guidelines and any suggestion to improving the potential and physical value of the Lumpini Park. Therefore, it is necessary to understand the definition, meaning, and their significance, which can be starting by study the concepts of urban public park and recreation. For the concept of the urban public park, it can be summarized that the urban public park is the place that government or local administration created or provided for the purpose of recreation to the community. They offer activities for human recreation in a cost-free manner. They are managed by the relevant local government agencies followed by the state's mission to provide a public service for the welfare of the people in the area and at the same time to preserve the quality of the environment. In addition, the concept of satisfaction also concluded that satisfaction refers to the good feeling or good attitude of a person, which is caused by the response that they want to feel good in it. Conversely, if the demand is not fulfilled, unhappiness arises, then they will feel unsatisfied. Whether satisfaction with the use of a service in an organization occurs or not depends on the nature of the service and its perceptions from different dimensions.

From the study in various concepts and related research, it can be summarized that to prove the role of urban public park and the use patterns should be discussed in the phenomenon that occurs within the area from the behavior of the users who came to use the Lumpini Park services. Which use the duration of park usage to determine because of Lumpini Park has activities throughout the opening hours every day. However, the management of Lumpini Park should be discussed with the relevant authorities. In order to understand the nature, methods, and the

operations that implemented to the park management. Therefore, the questionnaire, observations by recording activity patterns and executive interviews are sufficient to explain the context in this study;

## CHAPTER 3

### RESEARCH METHODOLOGY

#### 3.1 Research Design and Method

The present research gathered both qualitative and quantitative data, employing a combination of methods, including a desk review, field visit, focus group discussions (FGD), and a questionnaire survey.

As a desk review, secondary data about the concept of a sustainable urban public park, park management process, behavioral management, and users' satisfaction were studied and analyzed in-depth in order to find out factors that affected park users' satisfaction. The review also gathered relevant data from concerned government agencies relating to the park management plan, their obligation and the implementation of urban public park policies, and the like.

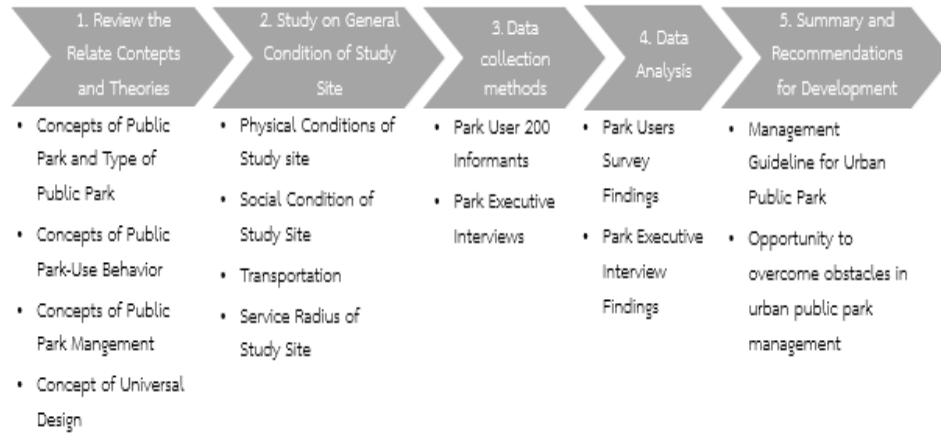
A field visit to Lumpini Park in Bangkok, which was the study area of the present research was carried out for a better understanding of the information and data obtained from the desk review. During the field visit, FGDs were held with the park visitors. Moreover, a self-administered questionnaire survey was conducted.

The FGDs followed the eight-stepped disciplined decision-making process (**Baker ,2001**), which is simple, clearly defined, transparent, and easily accessible, and participatory for all the parties involved. The decision-makers were engaged in in-depth discussions to encourage opinion sharing in the group from the aspects they were familiar with or experienced and specialized in, as suggested by **Ozer (1999)**.

Using a checklist, Likert scale, and open-ended questions, the questionnaire was designed and developed to collect data from the park users about the accuracy and applicability of urban public parks in Bangkok as well as devise recommendations for the further improvement. The data collected were both quantitative and qualitative (**Bhuiyan, 2011**). They were synthesized and analyzed by using descriptive statistics and coding methods (**Bernard, 2013**) to draw findings that will benefit future researches. Research procedure includes 5 steps: 1) reviewing related literature and theories, 2) study on the generality of Lumpini Park, 3) data



collection methods, 4) data analysis and 5) summarizing the result and purposing development guideline. **(Figure 1)**



*Figure 1 Research Procedure*

3.2 Conceptual Framework

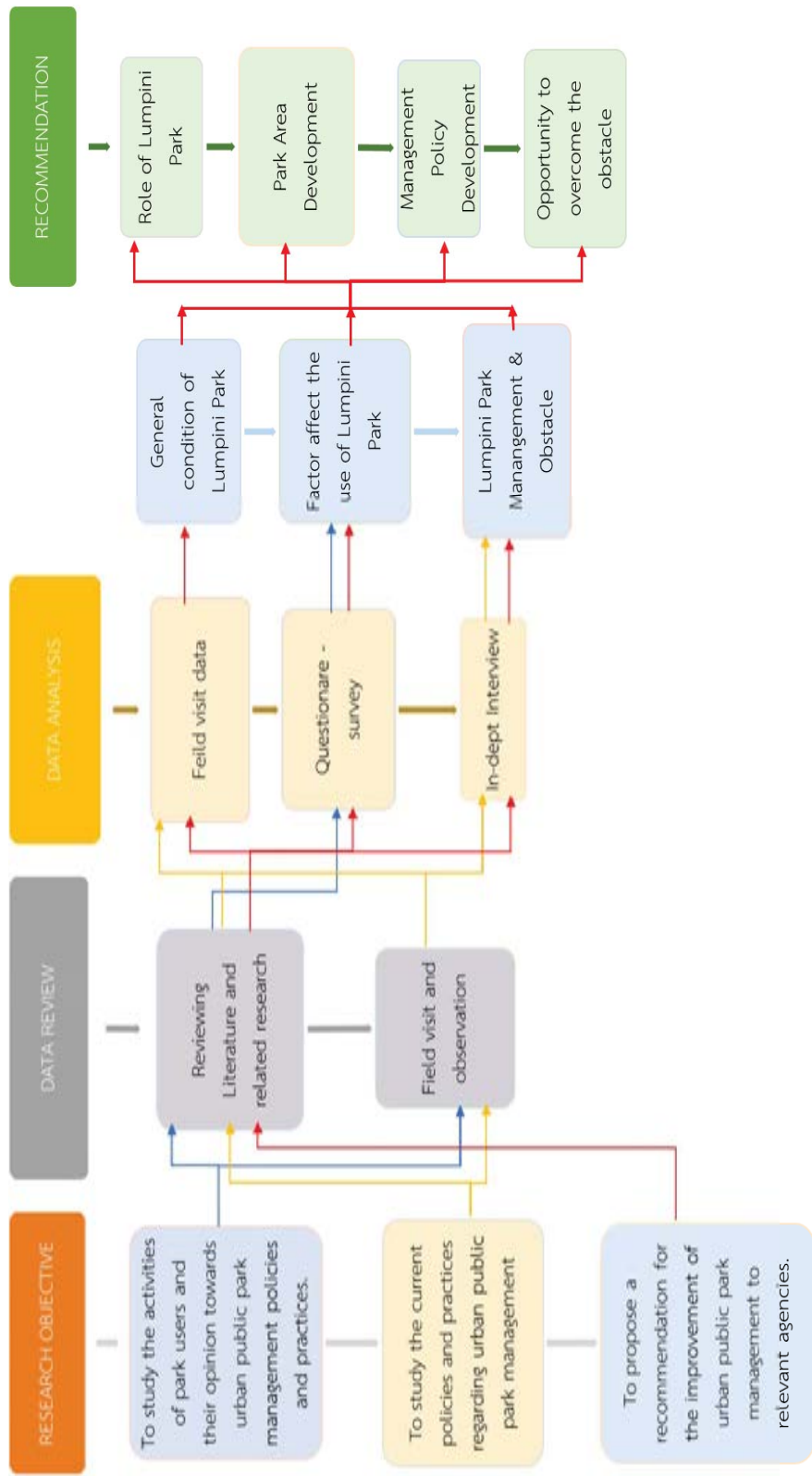


Figure 2 Conceptual Framework

### 3.3 Sampling Process

1. To determine the population and sampling size, “Yamane equation” (Yamane, 1967) was used with 90 percent confidence level (according to 15,000 park users from public park information, 2018). The calculation formula of Taro Yamane is presented as follows.

$$n = \frac{N}{1+Ne^2}$$

where n is a sample size

N is a population size

e is a level of significance such as

If confidence level is 99%, level of significance will be 0.01.

If confidence level is 95%, level of significance will be 0.05.

If confidence level is 90%, level of significance will be 0.10.

If determine the confidence level 90%,

$$n = \frac{49,121}{1+49,121 (0.10)^2}$$

$$n = 100 \text{ (rounded)}$$

According to the sample size that has already been calculated that there are 100 samples. The researcher desire to determine the sample groups into two groups; i) first group which contain 100 samples is the Lumpini Park user who using the Lumpini Park while doing the survey. And the sampling also provides the differences in park usage and opinion in each period of time. ii) second group also contain 100 samples which is the another people who did not go to use Lumpini Park but live or using the surrounding area within 8 kilometer radius around the Lumpini Park.

2. Interviewing executives of the Bangkok Public Park Office. The interviews were conducted with two park executives, the first park executive is the Lumpini Park executive, and the another one is Bangkok Public Park executive. These interview also using the level of the executive operation as the selection criteria

### **3.4 Research Tools**

Three types of research tools were used for this study:

**Type 1** Documentary research. This was a collection of documents that were conceptual, theoretical and related to available researches on urban public park services in Bangkok.

**Type 2** Questionnaire survey. Questionnaire survey for park users, was conducted to collect data that the researcher wanted to generate based upon the study of concepts, theories and available researches, which using the selection criteria by 100 samples is the Lumpini Park users, and the other 100 samples is the people who live around the Lumpini Park service areas. The questionnaire also uses Likert's approximation scale to analysis. The nature of the questionnaire consists of positive and negative

messages, answer in a 5-level evaluation with scoring to interpret the meaning of the questionnaire as highest levels, very high, moderate, low, and lowest levels. The questionnaire was divided into three parts:

(i) General data of the respondents: Data on sex, age, marital status, education level, and frequency of urban public parks' uses were collected.

(ii) Satisfaction level of Lumpini Park service: Information on the satisfaction level of Lumpini Park service was collected. For this purpose, closed-ended questions, in which the informants had to choose one from among the answers provided, were used. The satisfaction level will as follows.

Very Satisfied	= 5 points
Satisfied	= 4 points
Neutral	= 3 points
Unsatisfied	= 2 points
Very Unsatisfied	= 1 points

(iii) Public participation for the management: The information on public participation for the management on the development and improvement of Lumpini Park service was collected, using both close- end and open-ended questionnaire.

**Type III** In-depth interview: In-depth interviews with Park executives, were carried out using an open-ended questionnaire. The interview was divided into four parts.

(i) Questions about the satisfaction level of park executives with the management of the current urban park in Bangkok, including the problems occurred.

(ii) Questionnaire about devising recommendations for the improvement of the park.

(iii) Question about the implementation of park management policies.

(iv) Questions about the feedback from the respondents on the improvement of park management policies.

### 3.5 Project Schedule

This research's duration is 1 year period, the sequence of activities is shown below:

Time Month/Year	2018						2019						
	7	8	9	10	11	12	1	2	3	4	5	6	7
Literature review	■	■	■	■	■	■	■	■	■	■	■	■	■
Developing proposal and methodology	■	■	■	■	■	■							
Proposal defense	■												
Data collection								■	■	■			
Data analysis								■	■	■	■	■	
Writing thesis	■	■	■	■	■	■	■	■	■	■	■	■	■
Thesis defense													■
Editing thesis											■	■	■
Paper publication													■

Table 2 Project Schedule

## CHAPTER 4

### GENERAL CONDITIONS OF STUDY AREA

Lumpini Park is categorized as a district park to serve surrounding residents. It is one of important parks for people in Bangkok. Lumpini Park is located in the heart of Bangkok-Lumpini, Pathumwan District. In this chapter, the content is covered in 5 parts.

#### 4.1 Importance of the studied area

#### 4.2 The History of Lumpini Park

#### 4.3 Physical characteristic around Lumpini park area

#### 4.4 Internal Environment of Lumpini public park area

#### 4.5 Economic and Social Characteristic in the area

#### 4.1 Importance of the Study Area

Bangkok is large city where the land is used for many different purposes. There is a high density of land used in the central business area. According to Geographic Information System (GIS) of Bangkok, which conducts a study of the park's location, it is found that most public parks' location is distributed to serve communities especially in the area where there are communities clustered in both the east and west side of Bangkok. **(Figure 3)**

Bangkok has set the criteria to categorize public park into seven types- small parks, street parks, village park, community park, district park, and unique character park. Researcher uses these criteria to classify public parks according to their data rank from Bangkok's criteria, but of all these 7 types, it is found that there are only 4 types of public parks under the supervision of Environment Department which are 12 community parks, 11 village parks, 6 district parks, and 1 city park.

From the study about the importance of public parks of different types in Chapter 2, it is found that district park plays an essential role in serving in the community level because it can relate to the city community's lifestyle from the fact that it is easily accessible. This the reason that it was chosen for the study in the case of public park in Bangkok.

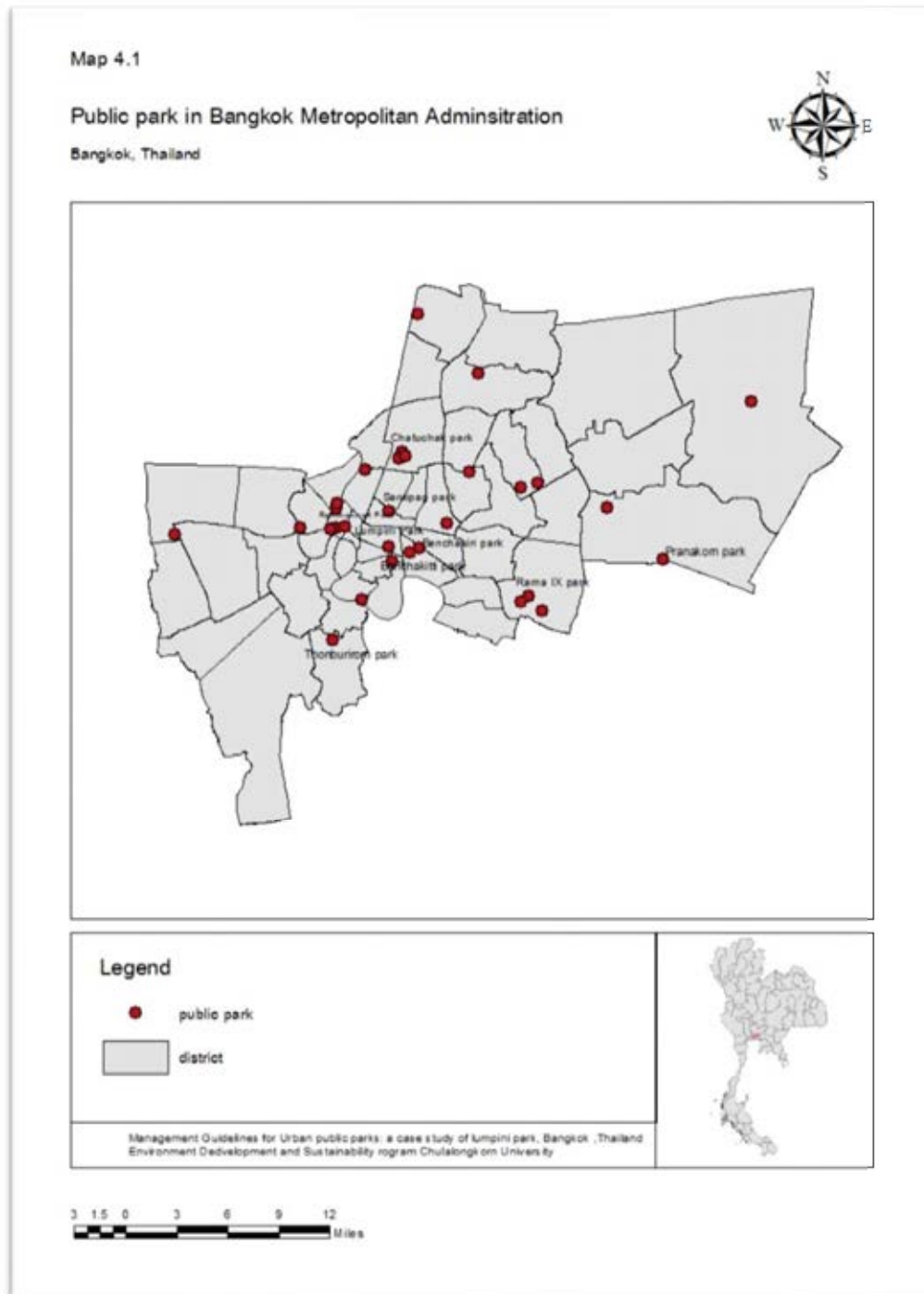


Figure 3 Public Park in Bangkok



From the analysis of Geographical Information, Lumpini Park is the only public park rank no. 1 in term of its usage. As a result, the researcher aware of the importance and interest to study about the the usage, the service and the management of this Lumpini public park.

#### 4.2 The History of Lumpini Park

Prior to the construction of Lumpini Park, this land was a property of King Rama VI (1910-1925) and was called Saladaeng Field. In the beginning of 1920s, the King planned to hold an international trade fair named Siamese Kingdom Exhibition (literally means Siam Kingdom Museum), and Saladaeng Field, a site within easy access to the city, was chosen to be the venue for this grand event (**Changkwan-yuen, 2006**), where all sorts of products and natural resources around the Kingdom were supposed to be displayed to attract domestic and international buyers.

King Rama VI's initial idea of this site after the exhibition was to turn it as a botanical garden for people's recreation and education (**Public Park Office, 2013**). Prior to the exhibition, the construction of this site was completed in 1925, and the King named this site 'Lumphini,' meaning the birthplace of Lord Buddha. However, the sudden passing-away of King Rama VI in November 1925 made this exhibition cancelled. Afterwards, King Rama VII rented 14.4 hectares of land in the south of the original site and created this part of Lumphini Park as an amusement park. As the recreational significance of Lumphini Park continued to grow, King Rama VII transferred the ownership of this land to the government, and commanded that this site can be utilized for public use only. During World War II, Lumphini Park was a camping site of the Japanese troops. After World War II, Lumphini Park was used as the site for constitution celebration and Siamese Beauty Pageant (Public Park Office, 2013).

### 4.3 Physical Characteristic

The study of physical aspect of Lumpini Park area is done in the area mainly to find out its capacity to serve different services in the area. For the analysis of the serving role of this park, the study includes location and area, traffic and accessibility, internal environment, demographic characteristic and area management.

#### 4.3.1 Traffic and accessibility

Traffic and accessibility to Lumpini Park can be done in various ways. There is the traffic and accessibility by land from different directions and different type of vehicles from the road network and transportation mode to access the area in the following details. **(Figure 3)**

1) Road network is the study of traffic direction access to Lumpini park area according to type of traffic route.

- Main road (1) Rama IV Road : two-way road with 4 traffic lanes located in the south of the area, it is the main road to access to the studied area and can connect to other important areas in Bangkok where the street isle locates the Bangkok underground (MRT) route (2) Wireless Road : two-way road with 3 traffic lanes located in the south of the studied area (3) Rajdamri Road : two-way road with 2 traffic lanes located in the west of the studied area locates the Bangkok Mass Transit System route (BTS) at the street isle.

- Secondary Road which is Sarasin Road located in the north of the studied area, which can connect to Rajdamri and Wireless Road. It is two-way road with heavy traffic as commuters usually use this route as the shortcut to connect between two main roads from time to time.

2) Transportation Mode: The transportation mode to Lumpini Park can be done in various ways.

- Transportation by private car, people can get access by private cars direct to the area from the main roads and secondary road around Lumpini park area. There is the parking area in gate 1 (Entrance of Lumpini Park School) open from 4.30 a.m. to 10

a.m. and 3 p.m. to 9 p.m. However, due to the heavy traffic, transportation by car is not convenient since the traffic is always heavy around Lumpini Park area.

- Transportation by bus, there are bus stations around Lumpini park area- these are buses from Bangkok Mass Transit Authority, BMTA and other bus service operators available all day from various routes as below

- Rama IV road- Bus no. 4 14 46 47 50 74 76 106 109 115

- Wireless road- Bus no. 13 17 62 76 106

- Rajdamri Road- Bus no. 14 15 74 77 119

- Sarasin Road- Bus no. 116

- Transportation by Bangkok Mass Transit System (BTS) Elevated double track railway, get off at Saladeang and Rajdamri station and walk directly inside the Lumpini Park

- Transportation by Metropolitan Rapid Transit (MRT) electric train of Bangkok Mass Transit for Bangkok Metropolitan Region, get off at Sillom and Lumpini Station station and walk directly inside the Lumpini Park

- Transportation by Foot: Lumpini Park is in central commercial area of the city so there is high density of various type of land use both residential buildings and office buildings. There are crosswalks and flyovers around 4 sides of the area and 8 gates all around the area making the traveling by foot very convenient.

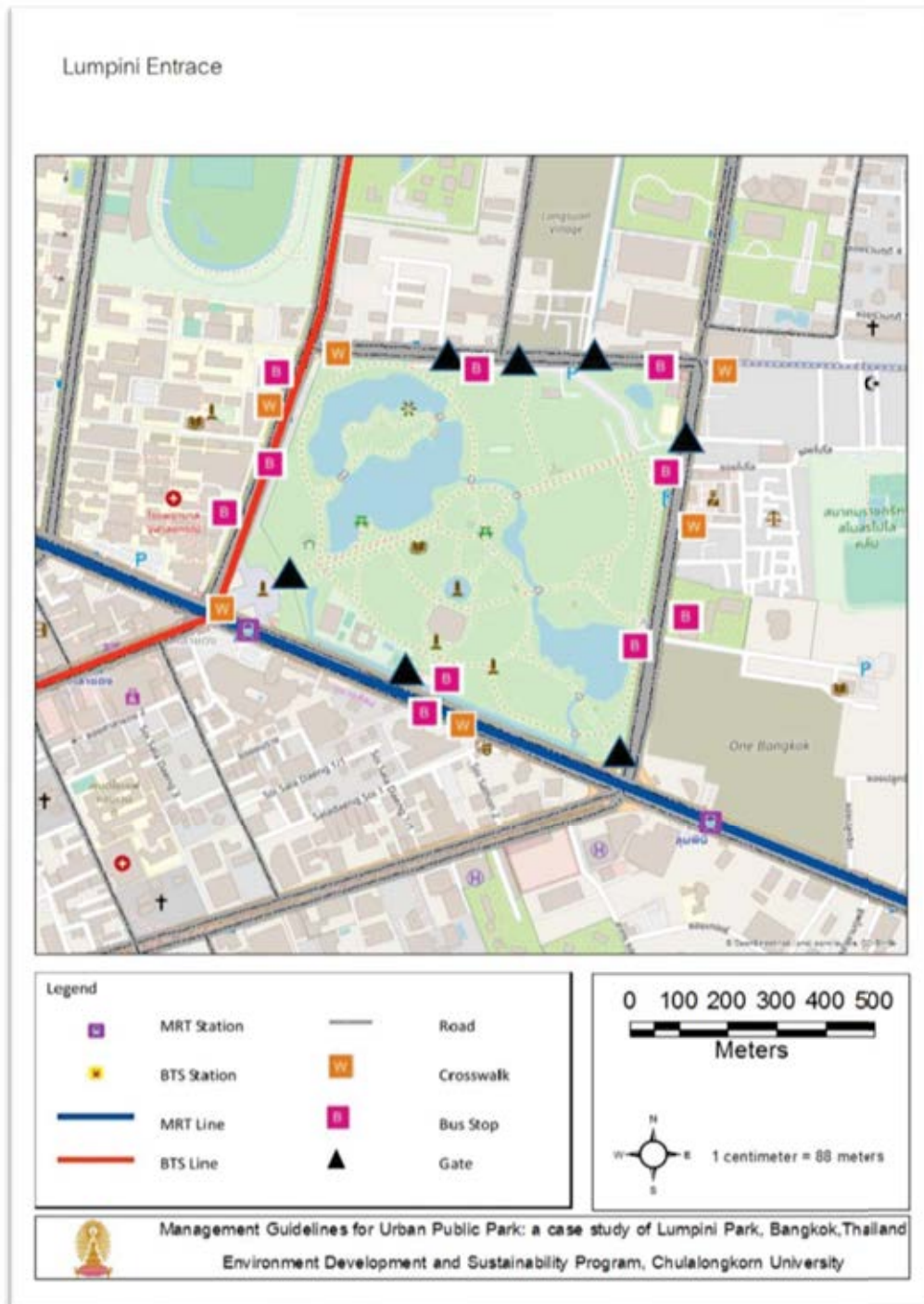


Figure 4 Accessibility of Lumpini Park

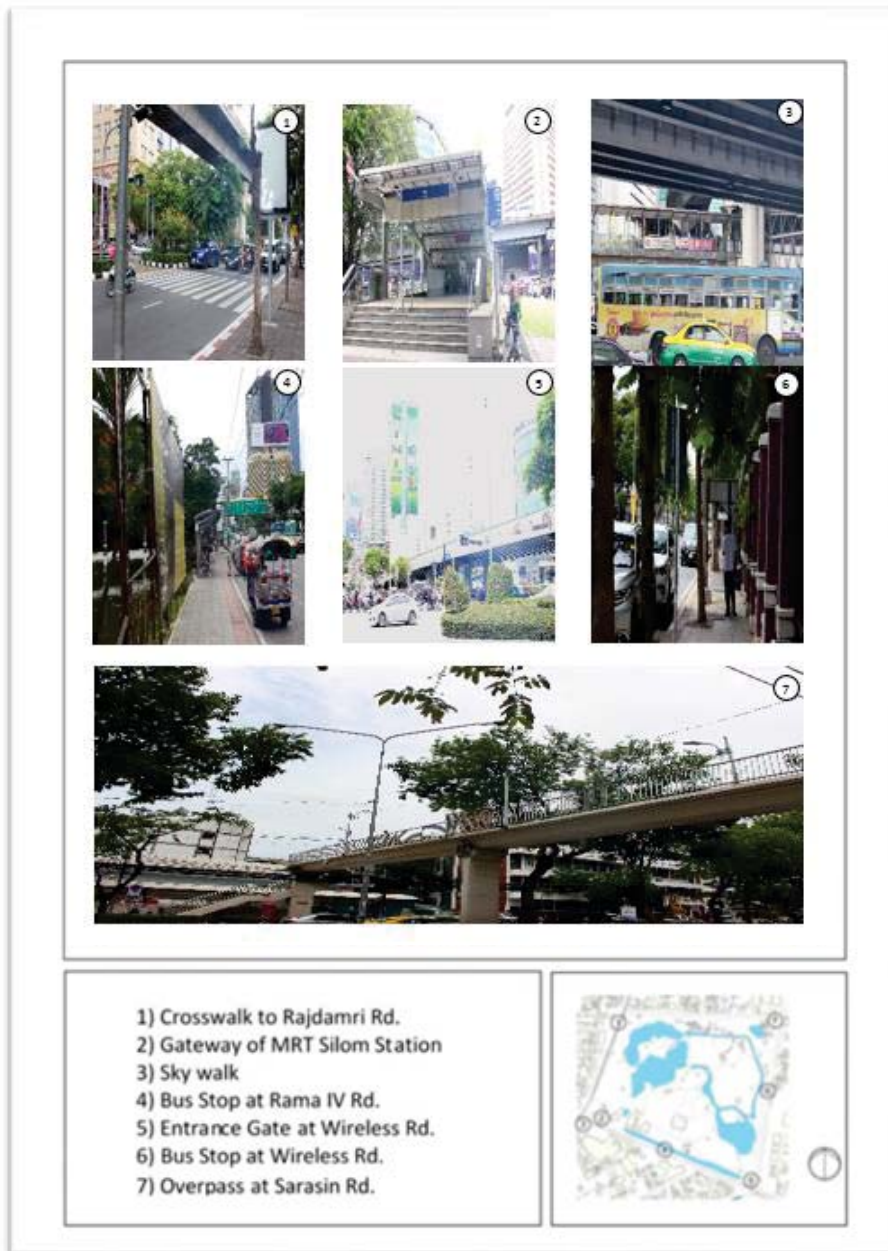


Figure 5 Accessibility of Lumpini Park



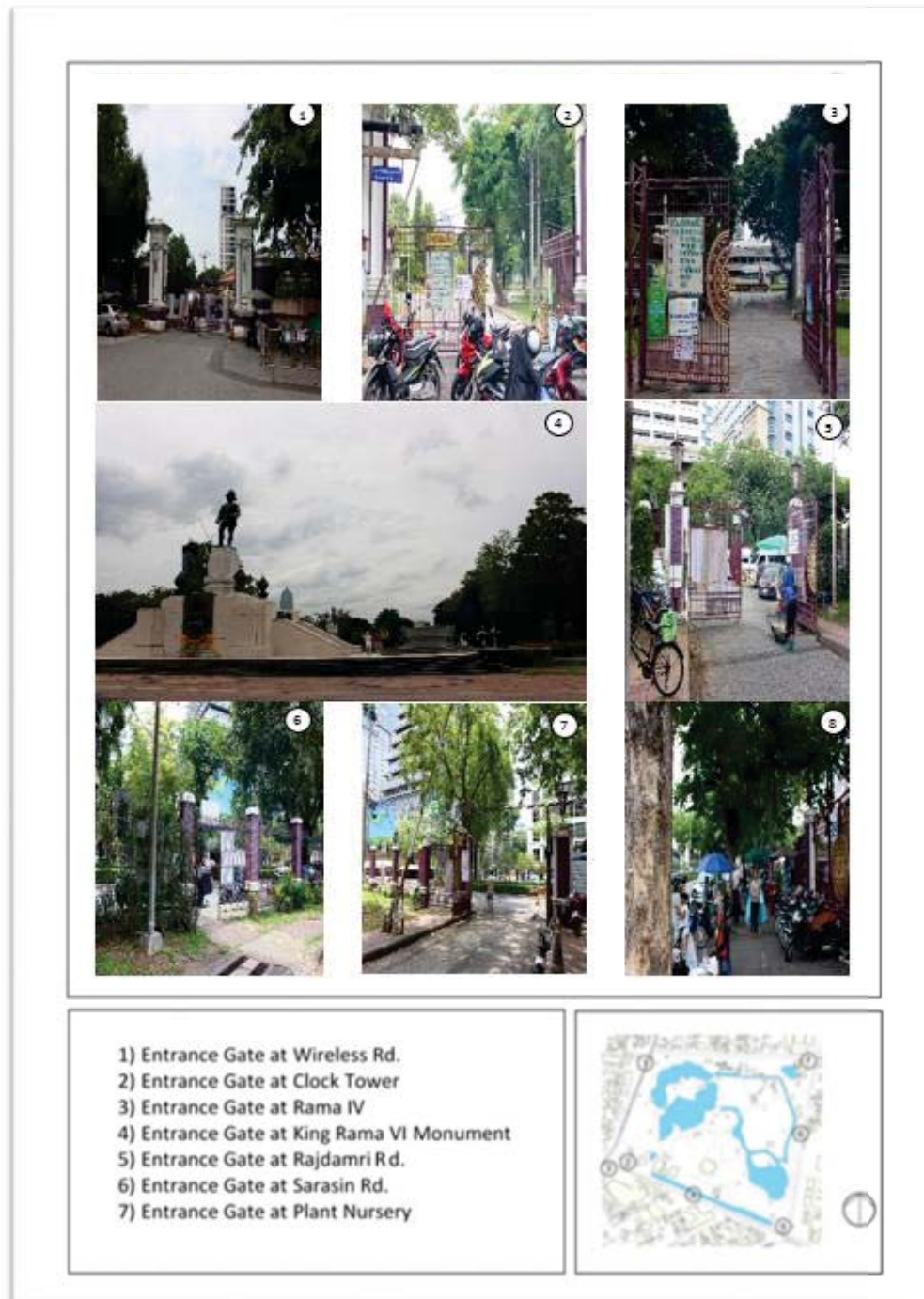


Figure 6 Entrance Gate of Lumpini Park

#### 4.3.2 Area Characteristic

Lumpini Park consists different type of areas. It is the direct and indirect factor that cause the use inside Lumpini Park. It can be divided into various areas according to the direction of the park. (Figure 7)

1) **North** - Langsuan Area- It is used for residential and commercial in the area. The residential sites are in Langsuan area and Soi Ton Son, and the commercial sites are located on the main roads which are Rajdamri, Sarasin and Wireless road.

2) **South** - Silom and Sathorn Area in the same area. There are commercial buildings and residential buildings added inside the area. Most commercial buildings situate on main road which are Rama IV Road, Silom Road, North Sathorn Road and South Sathorn Road.

3) **East** - Soi Klee Polo Area and Lumpini Night Bazaar Area. In Klee Polo Area, there are mostly residential buildings while Lumpini Night Bazaar Area is the area for commercial purposes. There are activities in the evening until night. There are shops and restaurants in the area. In addition, there is Lumpini's Metropolitan Police station there.

4) **West**- Chulalongkorn Hospital area, this area is mainly for public assistance to serve people.

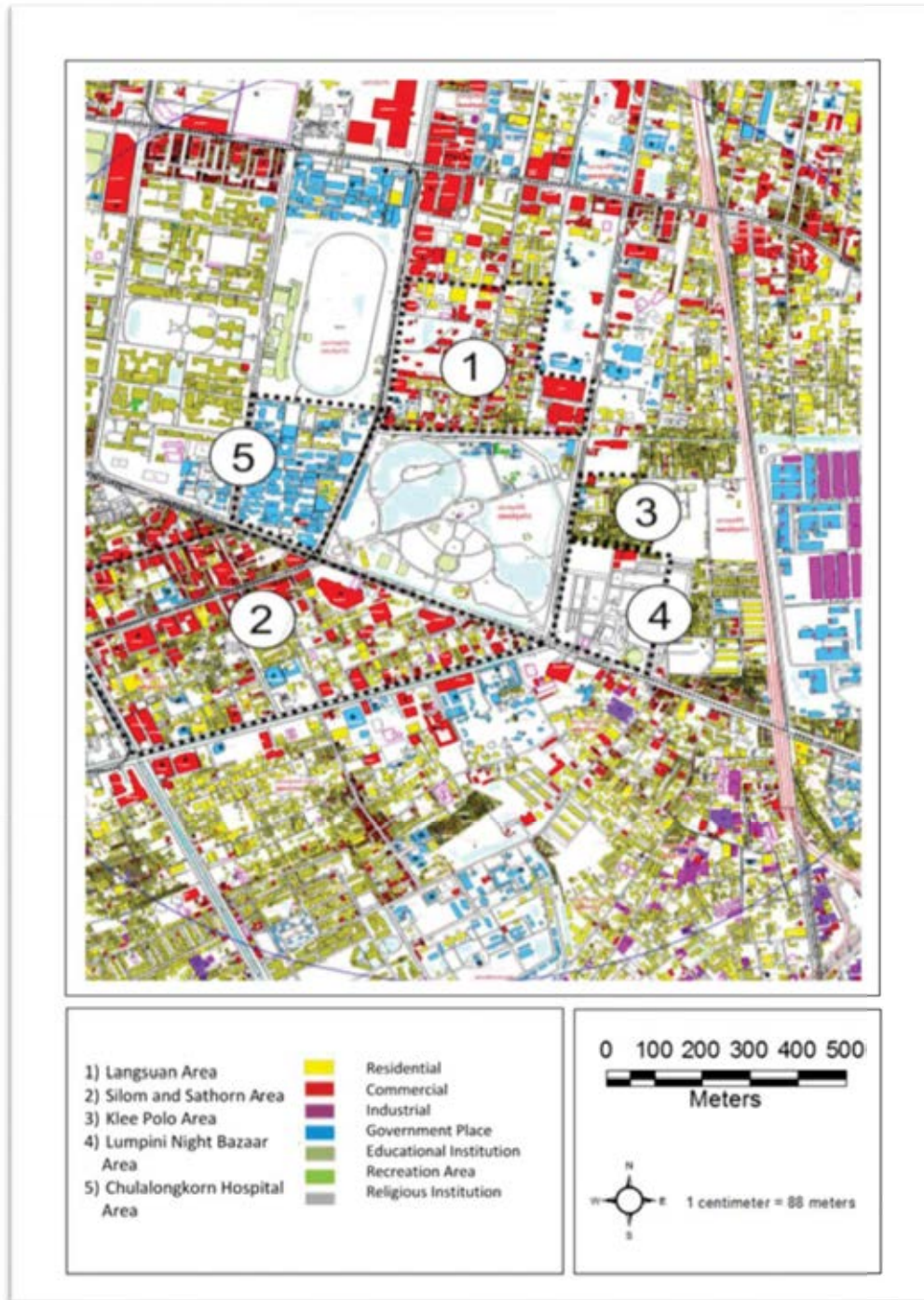


Figure 7 Land use around Lumpini Park area



#### **4.4 Internal Environment of Lumpini public park area**

The study of internal environment of Lumpini public park area plays an important role in the analysis of its role and the service in the park area because it can explain the ability of the lumpini park in serving people and the area that can sustain activities that can take place in the area and this leads to the next phase of analysis. The researcher has conducted the survey in different areas in the lumpini public park. The area is divided into 5 zones in order to analyze the form of usage according to the details of the area section in Lumpini Park. The zones are assigned as follows:

##### **4.4.1 Zone 1 Service zone and physical exercise recreation zone**

The area is the area along the south front part of the Lumpini Park on Rama IV road, this area can be accessed via Gate 2 clock tower, Gate 3 RamaIV, and Gate 4 statue of King Rama VI , zone 1 is divided in various sections. (Fig 8)

1) Open ground behind King Rama VI monument, total area of 2450 sq.meters.

2) Happy Garden (Suanhansa) Area with benches to relax and one Sala Sitting Place to relax, total area of 600 sq.meters.

3) Sport Youth Training Center (under supervision of Culture, Sports and Tourism Department Bangkok)– it is a gymnasium building for sport training and competition, there are sport fields for Takraw, and Volleyball with total area of 2,800 sq.meters.

4) Sport Youth Center (under supervision of Culture, Sports and Tourism Department Bangkok) – it is a gymnasium building for in-door sport training with total area of 1,575 sq.meters.

5) Sport Youth Center’s Swimming Pool (under supervision of Culture, Sports and Tourism Department Bangkok) – it is the building for standard short-course swimming pool, with total area of 875 sq.meters.

6) Chaloem Phra Kiat Tennis Stadium Bangkok 1 (under the supervision of Culture, Sports and Tourism Department Bangkok) 2 stadiums, total area of 1,400 sq.meters.

7) Lumpini Food Center with 16 food stalls to serve people and 2 Sala drinking stalls and 2 Sala relaxing stalls, open from 4.30 a.m. to 10 a.m., total area of 1,050 sq.meters.

8) Children playground with various child playing equipments, total area of 625 sq.meters.

9) Health Park with exercise station point and running route around this area, total area of 8,000 sq.meters.

10) Sport Equipment Area with many sport equipments for exercise, total area of 525 sq.meters.

In addition, in zone 1, there are 2 security card points and 5 toilet buildings to serve people

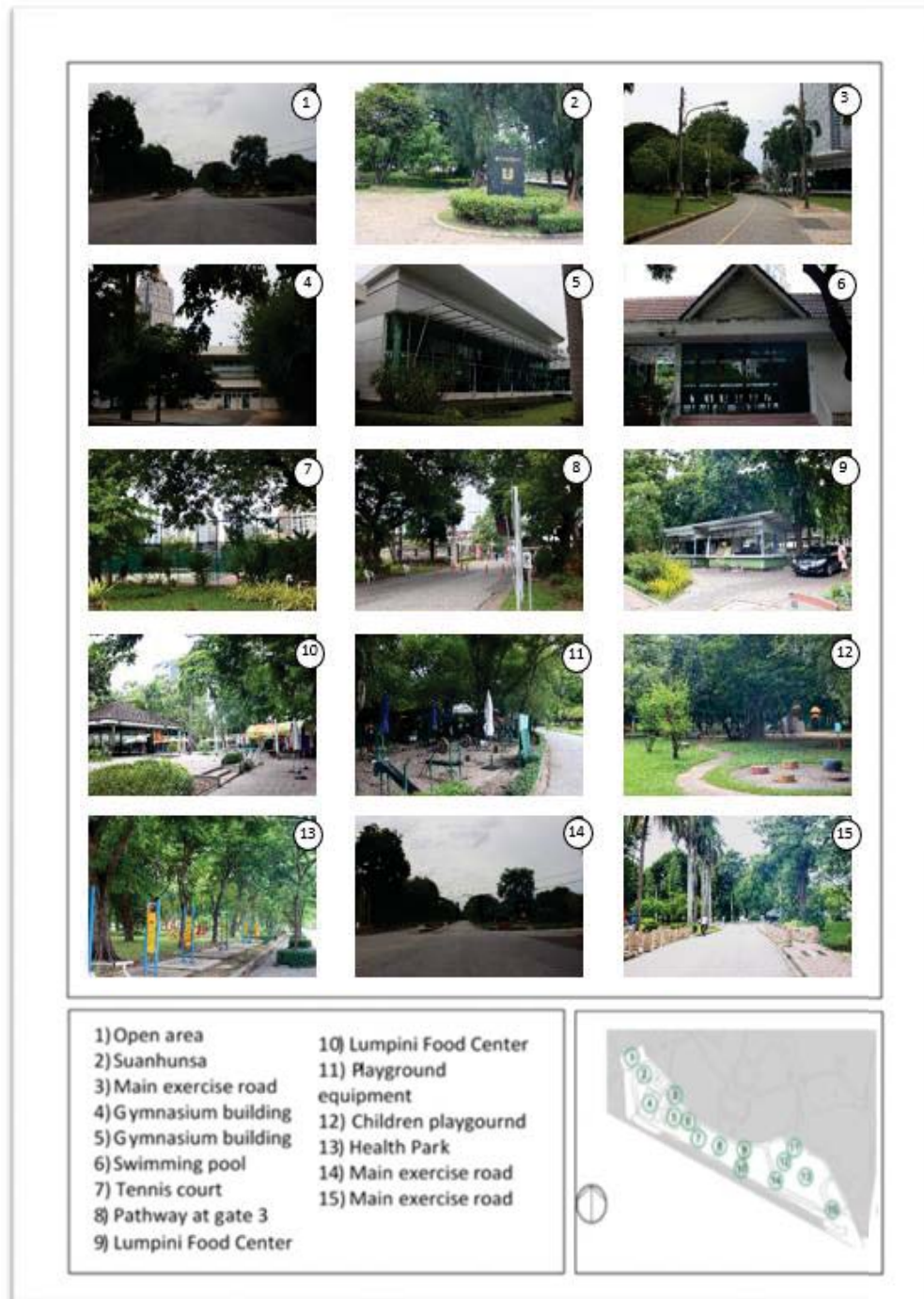


Figure 8 Zone 1 Service zone and physical exercise recreation zone

#### 4.4.2 Zone 2 Quiet Recreation and Sport Recreation Area

It is the area in the center of Lumpini Park, can be accessed from all gates, it can be divided in various sections (Fig. 9).

1) Lumpini Building (under the supervision of Culture, Sports and Tourism Department Bangkok) is multipurpose building for indoor special activities in various occasions inside the building, total area of 3,900 sq.meters.

2) Sala Samsean Electricity Authority is open space ground, total area of 128 sq.meters.

3) Lumpini Park Public Library (under the supervision of Culture, Sports and Tourism Department Bangkok) is the mix of Thai style building serve as library for people, total area of 664 sq.meters.

4) Exercise area is the area with sport equipments and tools, total area of 400 sq.meters.

5) Main entrance, the entrance from open ground area to the main entrance (Zone 1) is the area for certain activities, total area of 4,800 sq.meters.

6) Lawn around the Lumpini building. In addition, in the second area, there are 2 guardhouses and 1 toilet to serve the public.

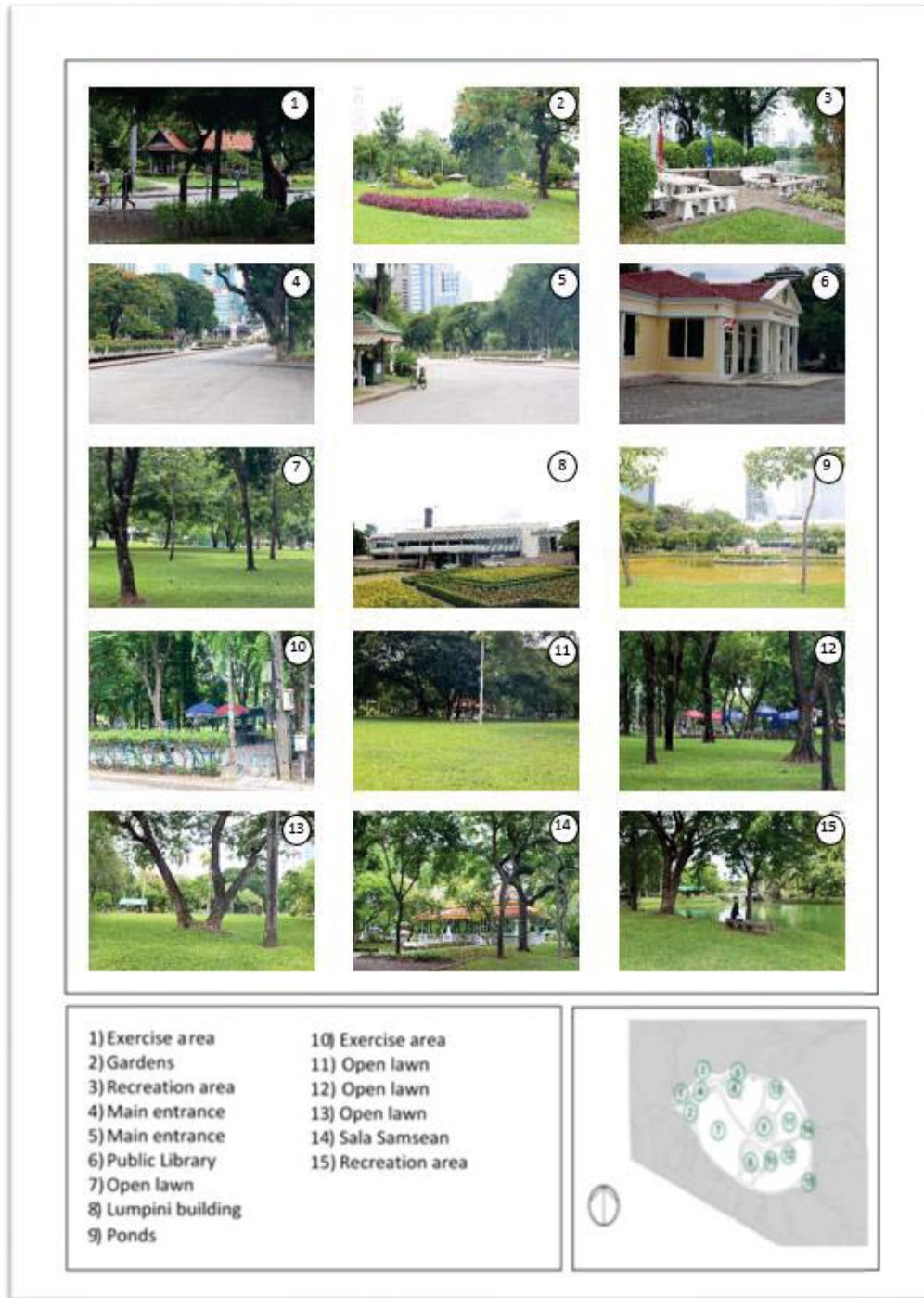


Figure 9 Zone 2 Quiet Recreation and Sport Recreation Area

#### 4.4.3 Zone 3 Quiet Recreation Area

Is the area in the west of Lumpini Park, on Rajdamri Road, can be accessed from Gate 5 Rajdamri, Gate 6 Sarasin. Zone 3 is divided in various sections (Fig. 10)

1) Floating island is the area of floating island on water with 2 bridges access to the island, it is the point with relaxing benches, grass field, running route-walking exercise, total area

2) Glass house building is one storey building, total area of 374 sq.meters

3) Sala Thai Lanna, Lanna Thai style sala of 2 sala building, total area of 120 sq.meters

4) Exercises area is the area with sport equipment and tools, total area of 225 sq.meters

5) Warm-up area the area with sport equipment and tools for warming up and stretching body for exercise, total area of 100 sq.meters.

6) Sala building for Rental swan paddle boats for paddle and rowing boat activities in the pool

7) Glass field around zone 3

8) Pool around zone 3, in addition, in zone 3, there are 3 security card points and three toilet buildings to serve people.



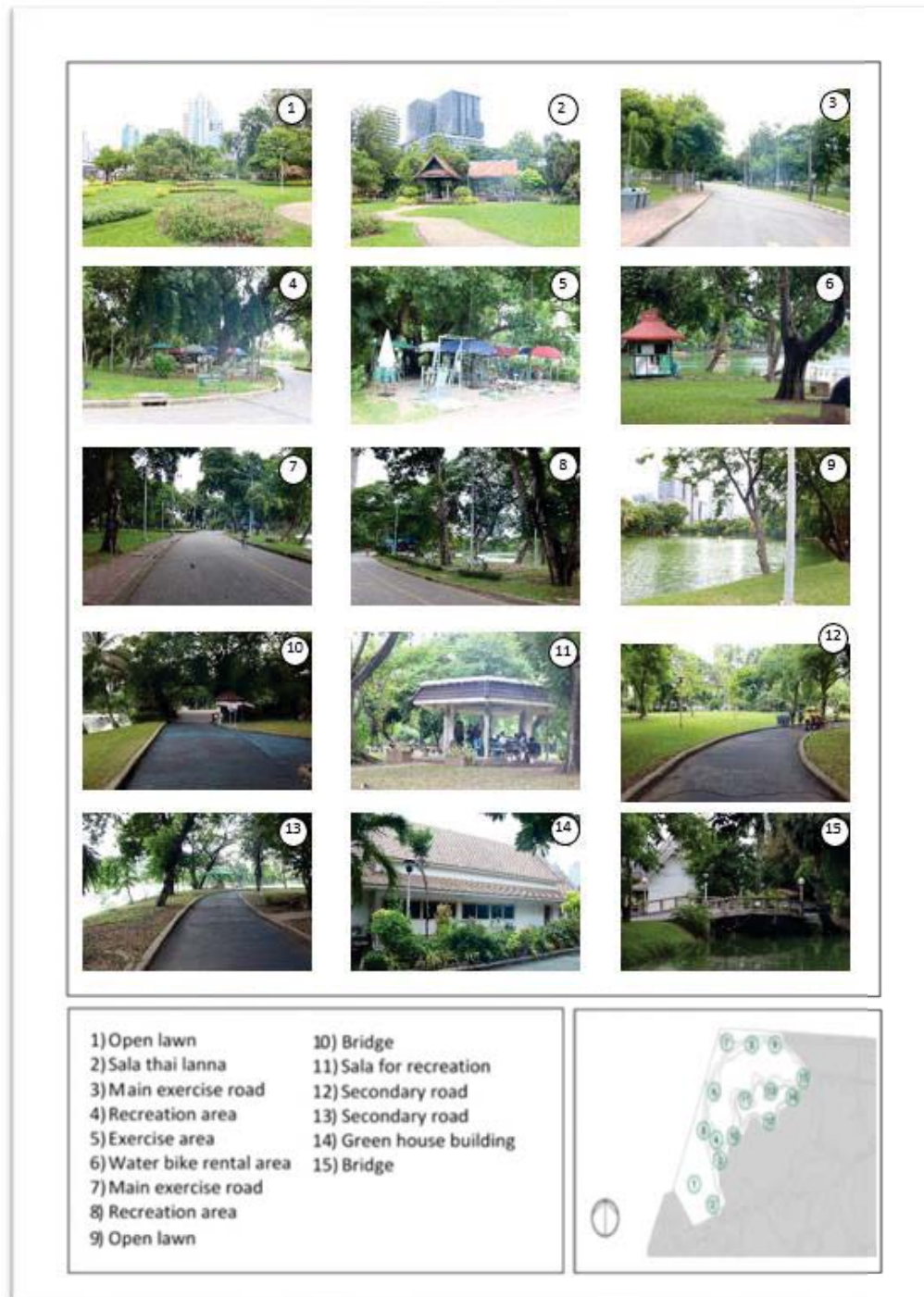


Figure 10 Zone 3 Quiet Recreation Area

#### 4.4.4 Zone 4, Hard Exercise Recreation Area

Is the area in the north and partly in the center of Lumpini Park on Sarasin Road, can be accessed from Gate 7 parking place, Gate 8 Nursery, Gate 1 Wireless Road, Zone 4 is divided in various sections (Fig. 11)

- 1) Palm Garden surrounded by traffic route, total area of 225 sq.meters
- 2) Sala Pat Leam is open space sala of 2 buildings, total area of 360 sq.meters
- 3) Elder Citizens Center (under the supervision of Health Department Bangkok) is one storey building, total area of 500 sq.meters
- 4) Smiling Sun Ground (Lan Tawan Yim) is the playground with standard size playing equipments for children (which is larger than the playground in zone 1, total area of 750 sq.meters.
- 5) Multi-purpose ground in zone 4, total area of 400 sq.meters.
- 6) Sala for the Youth is open space sala of one building, total area of 180 sq.meters.
- 7) Basketball court is one basketball standard size court, total area of 510 sq.meters.
- 8) Takraw court - one Takraw standard size court, total area of 27 sq.meters.
- 9) Sala building for Rental swan paddle boats for paddle and rowing boat activities in the pool.
- 10) Car Parking Ground served as parking space for people who come to use service in Lumpini Park area, total area of 11,400 sq.meters.
- 11) Glass field around zone 4 total area of 12) Pool around zone 4, total area of In addition, in zone 4, there are 1 security card point and 1 toilet building to serve people.



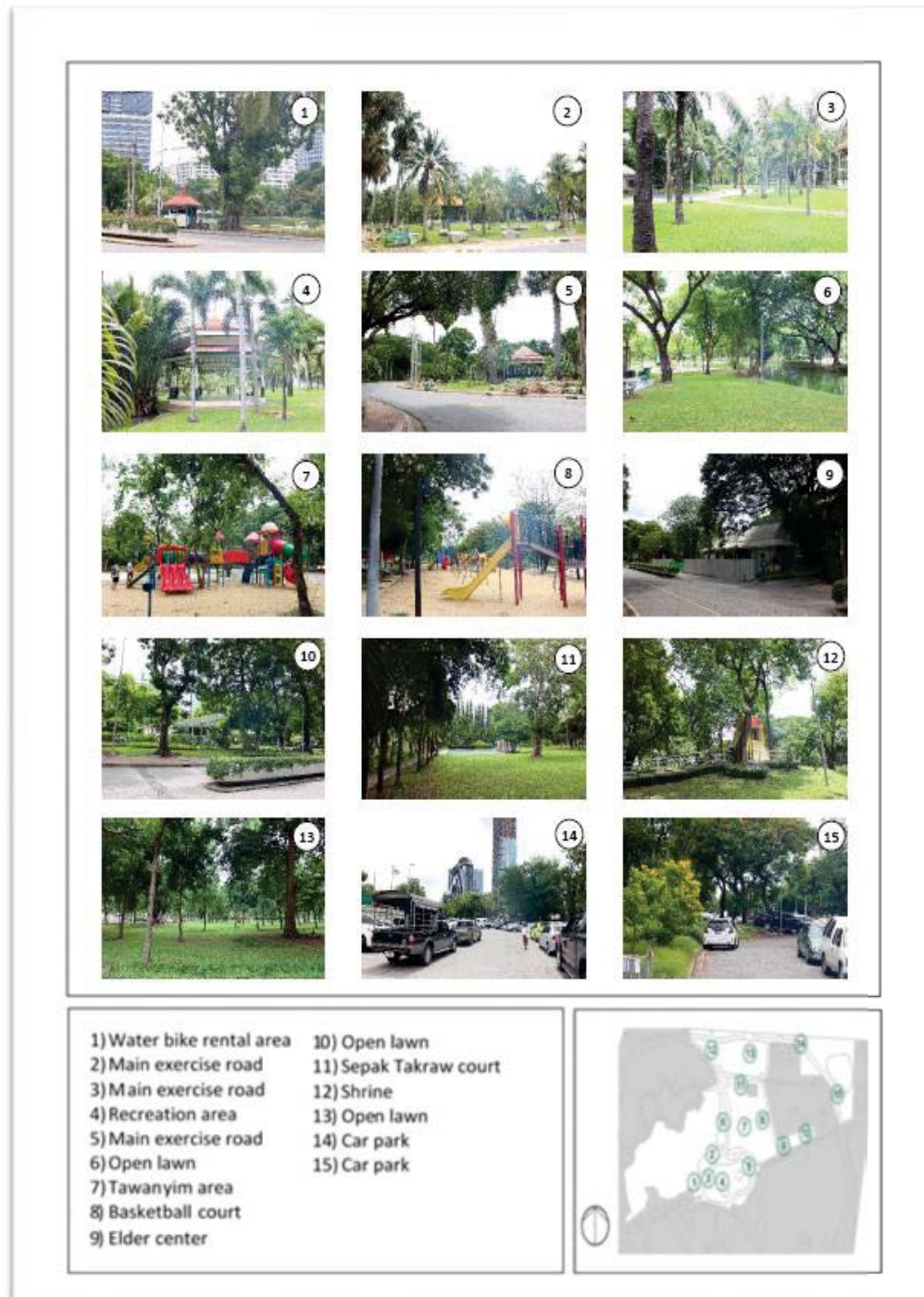


Figure 11 Zone 4 Hard Exercise Recreation Area

#### 4.4.5 Zone 5 Quiet Recreation zone

Is the area in the east of Lumpini Park area on Wireless Road, , can be accessed from Gate 1, Gate 2 Clock Tower, Zone 5 is divided in various sections (Fig. 4.15)

1) Grass field at Clock Tower, the clock tower was built during the reign of King Rama VI, total area of 1,250 sq.meters.

2) Entertainment Building is the outdoor stage performance and multipurpose ground, total area of 600 sq.meters.

3) Sala of 6th Cycle Birthday Anniversary Commemoration is Chinese style of Sala with total area of 28 sq.meters.

4) Thai-Chinese Friendship Sala is marble sala with total area of 8 sq.meters.

5) Youth Specialty School Center is one store building with total area of 225 sq.meters.

6) Warm-up area the area with sport equipment and tools for warming up and stretching body for exercise, total area of 150 sq.meters.

8) Sala building for Rental swan paddle boats for paddle and rowing boat activities in the pool.

9) Glass field.

10) Pool area.

In addition, in zone 5, there are 1 security card point and 1 toilet building to serve people.

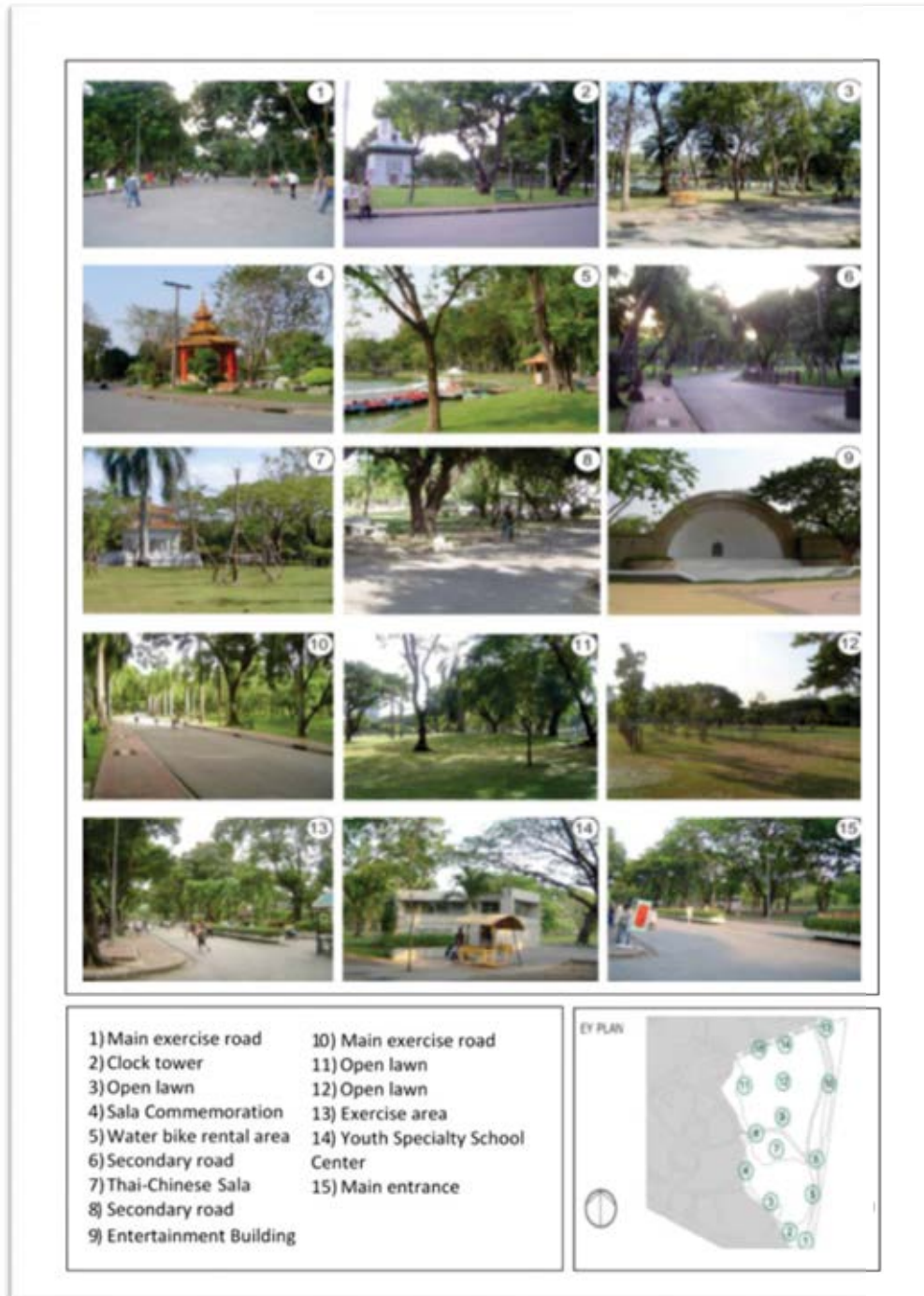


Figure 12 Zone 5 Quiet Recreation zone

## 4.5 Economic and Social Characteristic in the area

### 4.5.1 Economic characteristic

The economic characteristic in the studied area can be divided in both direct and indirect aspects. The direct aspect of economic characteristic is from the business transaction from the spending within Lumpini's Food Center and food and beverage stalls provided to serve people in the area for consumption and the service from the Rental of paddle boats and rowing boat for activities in the pool. This leads the employment to serve the service in the area. The indirect aspect of economic characteristic results from the rental of space for special occasions such as the show performance from private agency, shooting of TV commercial. From this condition, the area inside the Lumpini Park has various type of economic characteristics.

### 4.5.2 Social characteristics

The social characteristics in the studied area result from the nature of the park, it is the city's public place located in the city where there are diversity of the user. With this diversity in type of interested activities, this place is also the social center of Bangkok for high income people, middle income people, low income people who come to use this area differently. For example, high income group use this place to exercise, get together, and exchange idea while low income group use this place for exercising, relaxing and selling stuff.

This is the initial study for the analysis in the next chapter, it will describe the group of user in this Lumpini public park area in details as follows.

1) **Group of people used this area for recreation purpose** is the main user in this public park- they comes from working people from office, hospital officers who need to relax during the day or after work. They spread around all area for relaxing and most of them are in the open ground zone. The group that come with family will bring their children to relax and get together in the playground area or in the grass field in Lumpini Park. This also includes the passerby who want to come in the garden and relax. This group of people are easily seen in this area they come to rest

and relax all the opening time in the Lumpini public park. They take turn using the area.

2) **Group of people use this area for sport activities** is the group of people who are interested in various types of sport that the Lumpini public park has allocated the area for such as walking, running, aerobic, jogging, bicycle riding, volleyball, basketball futsal and extreme sports. They will be seen in each type of sporting field. They mostly come in the evening because the area is the open sporting area that is too hot during the day. As for the group whose space is not allocated for their interest, they use other area of the park to get gather. For example, badminton players usually gather around parking place at body building park group. They are together near the exercise station. Ti Chi group is in the open grass field ground area

According to the study, the general condition of Lumpini Public Park covers all area of services within the park- recreation, social gathering, and recreation. This includes the study of social population, statistic of the usage and social gathering from the common interest of the diversified individual in the same area. The study in management policy which cover each aspects-area maintenance and social events, operating under the management principle of government authorities.to offer free service.

This is based to the objective of the service of public place for equality of city population. From this study, all factors that drawn people to come to this area are clarified. Researcher will take this data from the study to be useful information for the analysis of the role and the service of Lumpini Park to provide recommendation on space management of the Lumpini Park for the appropriate further space usage.

## CHAPTER 5

### RESULT AND DISCUSSION

This chapter presents findings from this research conducted between February and April 2019. A summary of the stakeholder interview respondents is provided prior to a discussion of the major themes from the key informant, and park user interviews. The chapter concludes by presenting the factors related to the use of Lumpini Park and the key informant summary.

#### **5.1 Stakeholder Interview Respondents**

There was a total of 202 respondents interviewed during the data collection phase. The park user survey was conducted between February and April 2019. The executive interviews were conducted during the second round of interviews in March 2019, in order to obtain feedback on initial findings from park executives and park users.

In these stakeholder interviews, two were executive interviews from the same organization. There was also a single organization that had the key informant interviews, each with a single respondent. For this particular government agency, two different respondents provided viewpoints from two different levels of operation.

Table 3 provides a summary of the respondents by gender for the different types of stakeholder interviews conducted. There were total of 202 respondents, 54 males, 140 females and 8 are undefined. When categorized by age, 35.5% of the park users were 18-25 years old, 21% were 26-30 years old and 16.5% were 31-35 years old, while the executive interviews, two of the executives were female (100%). (Table 3)

Categories	Male	Female	Other	Total
Key Informants	0	2	0	2
Governmental Agencies	0	2	0	2
Park Users	Male	Female	Other	Total
<18	1	9	1	11
18-25	16	52	3	71
26-30	10	31	1	42
31-35	11	19	3	33
36-40	4	14	0	18
41-45	2	5	0	7
46-50	2	1	0	3
51-55	3	2	0	5
56-60	3	1	0	4
>60	2	4	0	6
<b>Total</b>	<b>54</b>	<b>140</b>	<b>8</b>	<b>202</b>

*Table 3 summary of the respondents by gender*



## **5.2 Questionnaire Survey Findings**

The following section presents findings from the questionnaire survey conducted. The responses will be divided into two cases; first is from the park users are discussed according factors affecting the use of Lumpini Park, the park user survey finding, and second case is non-park user survey finding. In case of park users, the researcher will be discussed according to factors affecting the use of Lumpini Park, namely 1) physical factors, 2) social factors, and 3) policy factors. For the case of non-park user, the researcher will be discuss on the reason why they don't use the Lumpini Park.

### **5.2.1 Physical factors affecting Lumpini Park usage**

Physical factors are important factor for the study of Lumpini park role and services since it can affect user decision. This study focuses on the relationship between people who use and don't use the park including the location selected by analyzing the distributed questionnaire survey to determine the usage of the Lumpini Park in location, accessibility, service and facilities.

#### **A. Location and accessibility of Lumpini Park**

Location and accessibility can specify service area of the park. The consumer residential area, the commute route to the park, and traffic condition of the route can also increase or decrease the service area too. Lumpini Park is on three main roads, Rama IV road, Withayu road and Ratchadamri road, which is one of Bangkok's commercial business districts. Every road can be easily accessed by various types of



transportation, public transport, private car, and public transportation network which cover both major and minor road.

While surveying the opinions on usages or reasons of visiting Lumpini Park through open-ended questionnaire, it was found that the main reason people visited Lumpini Park is because it was nearest to their workplace, which is in accordance to the survey that the surrounding buildings are mostly used for office including large office buildings in Silom, Sathorn, and Chulalongkorn Hospital areas as well as nearby Royal Thai Police area too. This is the reason why there are many workers in the area. The following reason is that the park was located nearby residential of the visitors according to the survey that there are many detached houses, low-rise condominium, and high-rise condominiums nearby, mostly spread all over including the northern area behind the park, Soi Sanam Khli (Polo) area, and Suan Lum Night Bazaar area. The following reason is because of accessibility of Lumpini Park as it was found that most visitors chose public transportation appropriate to their urban life to visit the park, which is in accordance with the survey that most people use public transportation, then foot, and personal vehicles accordingly because the traffic around there is regularly quite busy, causing public transportations to be on time and could easily estimate the time arrival. Therefore, these are the popular choices of transportation to visit the park. (Fig. 13)

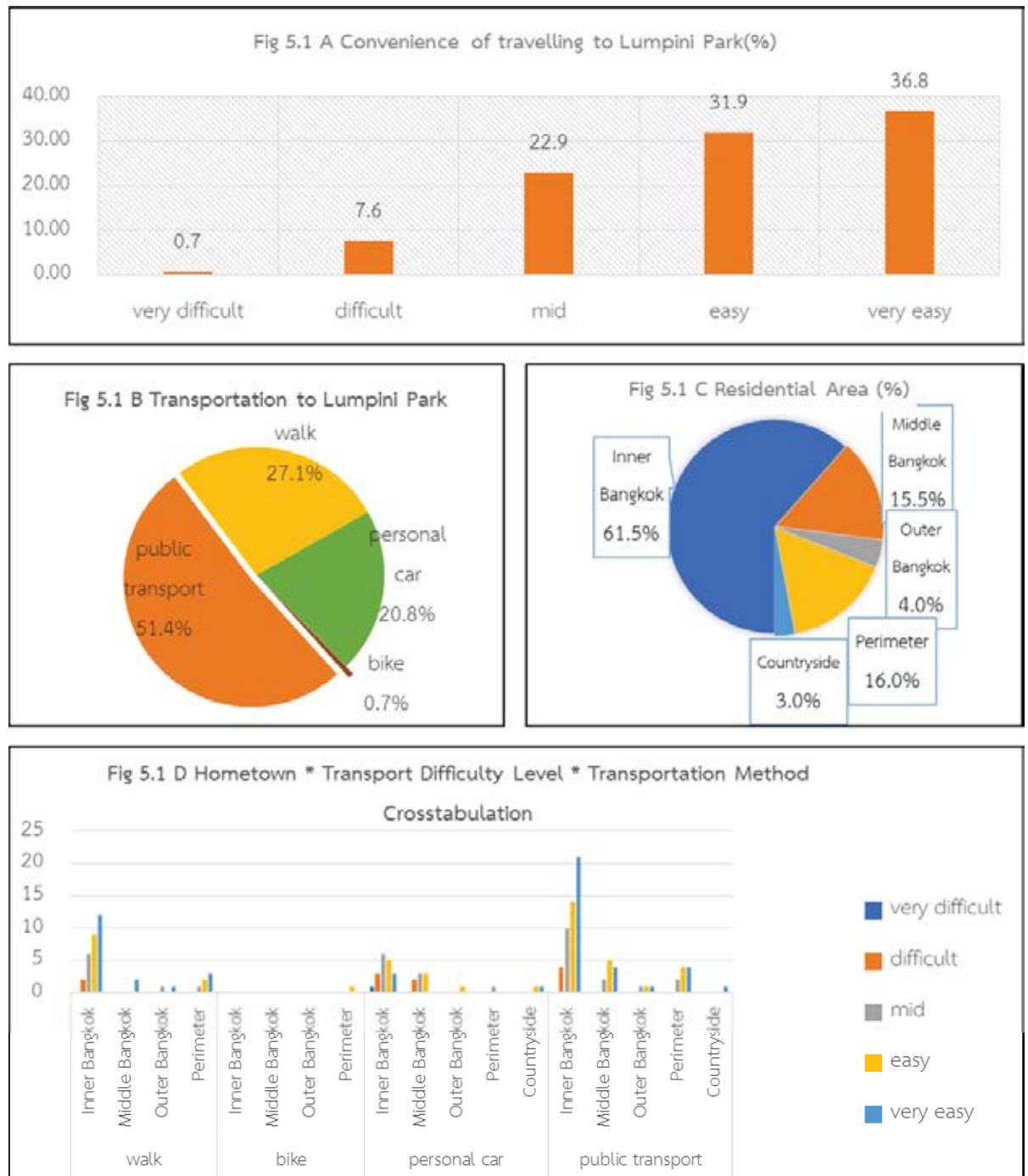


Figure 13 Physical factors in term of Location and accessibility of Lumpini Park

From the study on locational and accessibility factors, it could be summarized that the location of Lumpini Park is appropriate due to its located in the center of business area where people could visit easily as well as the covering from public transportations while other means of transportation also available including a walk from nearby places and public transportation from far places. These is an accordance to the park service standards from community level to city that Department of Public Works and Town Planning was designated the park an area to requires convenient access.

#### **B. Service and facilities**

Currently, Lumpini Park has allocate spaces for many recreational activities where it could support many outdoor activities as well as the activities that require special areas, such as the pool and tennis court. There are also many areas allocated as a leisure areas such as the library, multi-purpose ground, and health garden. From the analysis of satisfaction in various usages, it was found that most visitors are satisfied by using the service of Lumpini Park including sports service and working out areas, leisure areas, environment, and other basic facilities at high level (Table 4). However, visitors are not satisfied on some services, such as restrooms and personal screening system. Additionally, visitors of Lumpini Park was also want the improvement in some services such as security and cleanness as well (Table 5).

Satisfaction with public park facilities	Level of satisfaction (Percentage)					$\bar{X}$
	Very satisfied	Satisfied	Medium	Unsatisfied	Very Unsatisfied	
Cleanliness	11	41	33	14	1	3.47
Security	8	40	34	14	4	3.33
Shady	32	40	23	3	2	3.97
Accessibility	35	33	25	5	2	3.92
Paving	19	45	24	10	2	3.69
Access control	4	15	39	23	19	2.69
Leisure areas	17	39	30	10	4	3.56
Trash cans	9	38	33	15	5	3.31
Playground equipment	3	27	41	23	6	3.00
Toilet services	9	25	42	18	6	2.87

Table 4 Satisfaction of Lumpini Park Facilities

Public Park Facilities Improvement	Users' demand	
	Amount	Percentage
Adding more lights	9	6.3
Security policy formulation and monitoring	20	13.9
Cleanliness	25	17.4
Improving maintenance	6	4.2
Increasing number of trash cans	3	2.1
Increasing number of trees	2	1.4
Increasing number of car park	2	1.4
Park signage	4	2.8
Outdoor gym equipment	5	3.5
Luggage storage system	2	1.4
Zoning	5	3.5
Other	3	2.1
Already suitable	14	9.7
No comments	44	30.6

Table 5 User's demand for Lumpini Park facilities improvement

Anyhow, when comparing the standards of the park in various levels, it was found that Lumpini Park could service recreational areas, sports areas, multi-purpose areas, and specialized areas while also have enough leisure areas for activities such as eating and reading. The park also has other basic facilities for the park such as garbage points, lightings, and benches that suitable for the use of people in any ages. These could show the image of the park indicating that the park could be used in various ways well.

### **5.2.2 Social factors affecting the use of Lumpini Park area**

Social factors are important factors for analyzing the role and service of Lumpini Park, which is a relationship between usage behavior and human activities. Studying on the relationship between visitors of Lumpini Park and the usage of the park by using the data obtained from the field survey and questionnaire survey to analyze the relationship of visitors and activities occurred in the area as follows:

#### **A. Lumpini Park visitor groups**

The study on visitors of Lumpini Park is aim to find out the reasons and behaviors of the park usage in each group of users where the researcher use the statistical data analysis on the park visitors obtained from the questionnaire including accommodation data, accessibility, activities, and frequency of visiting to be able to summarize the behaviors of park visitors in each time.

According to the questionnaire survey, there are have 200 respondents in total. These group of respondents are consist of the park user 100 samples and the urban dwellers, who live inside the Lumpini Park service area, 100 samples. The researcher found that there are 44 respondent in the group of urban dwellers has been used the Lumpini Park. Therefore, it can be conclude that there are have 144 respondents who is catageries as the Lumpini Park users. Due to the questionnaire survey the research found that most of them are residents of the accommodation in Pathumwan area (20.1%), followed by Chatuchak area (8.3%) and Suan Luang area (6.3%) accordingly **(Fig. 14)**. In term of education, 88 of them have bachelor's degree (61%), 45 of them have master's degree or higher (31%), and 11 of them are in the secondary level or equal (8%). In term of occupations, most of them are employees of private companies (34%), followed by students (29.2%), and official (16%) accordingly. Moreover, most visitors have monthly income around 15,001 - 30,000 baht (50.7%), followed by 30,001 - 50,000 baht (18.8%), and lower than 15,000 baht (16%) accordingly. Most visitors chose to mainly transport by public transportation including BTS and bus, followed by walking. **(Fig 15)**

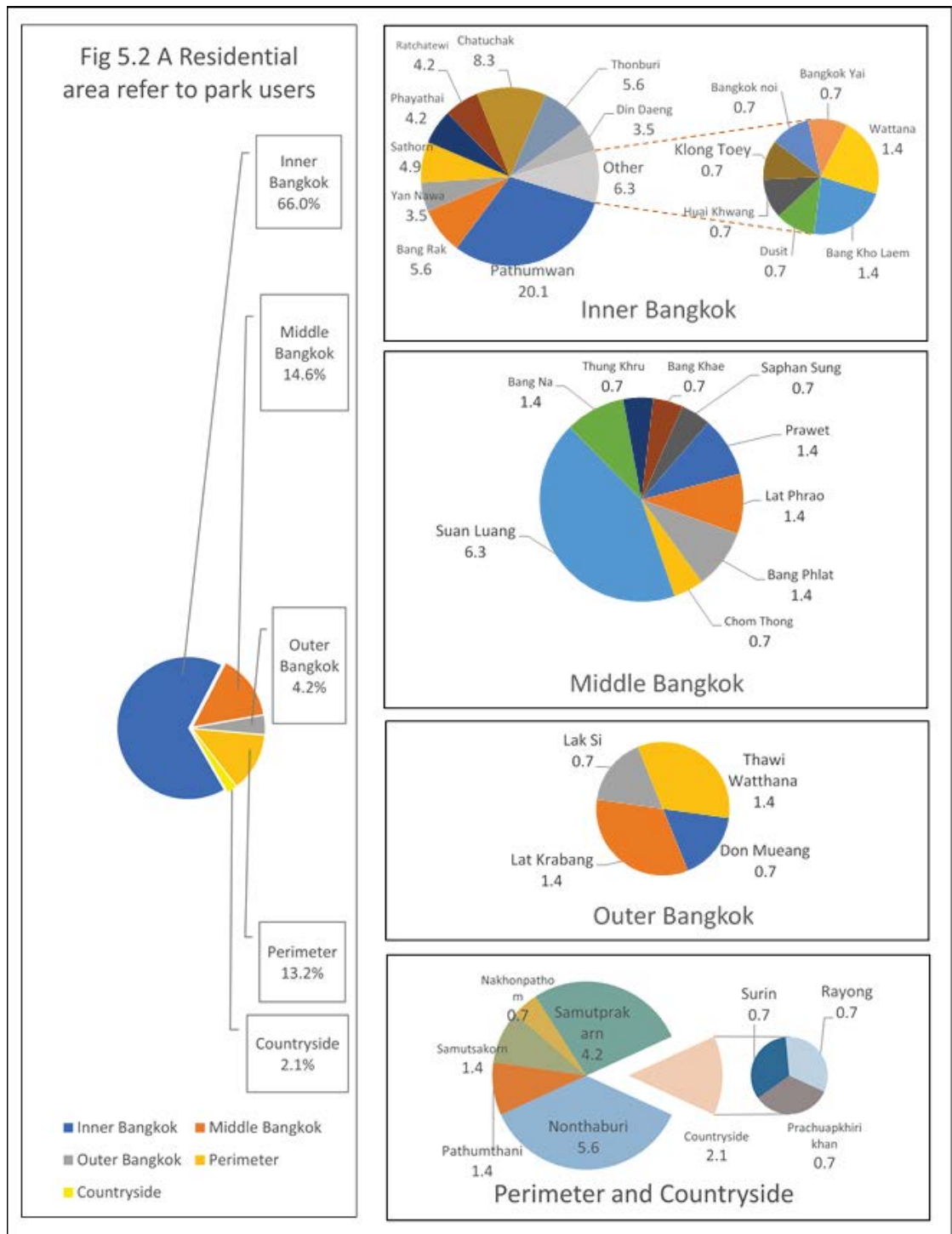


Figure 14 Residential Area of Park Users

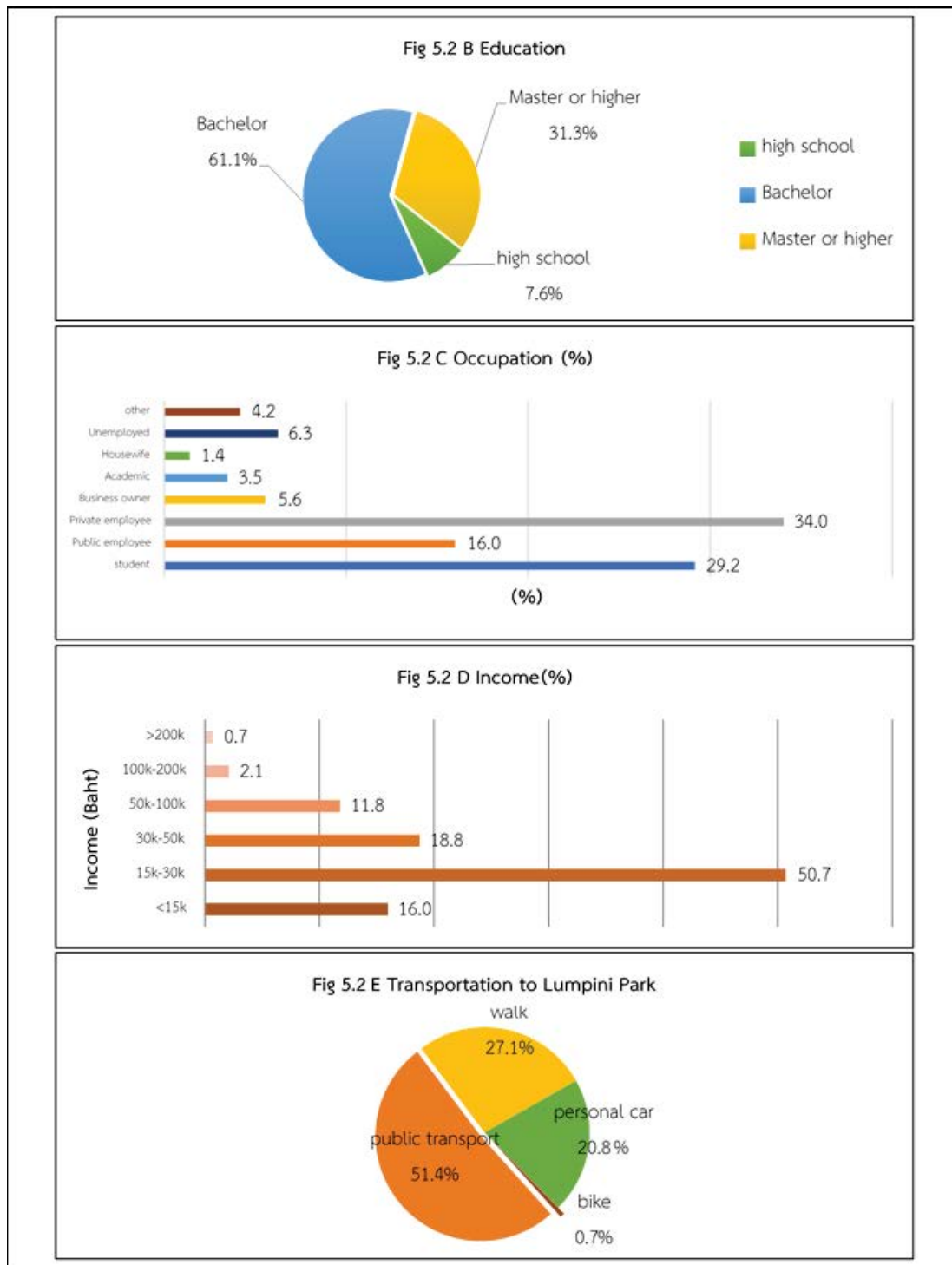


Figure 15 General Information of Park Users



Therefore, from the study on Lumpini Park visitors, it could be summarized that Lumpini Park visitors are vary in term of occupations, accessibility, activities, as well as preferred area for their activities, especially the variety in the location of visitors' accommodation that show the area of service that could also service visitors who live far from the park on the town level other than the surrounding areas as well.

### **B. Types of usage**

From the study on types of usage in Lumpini Park, most of them visit the park to frequently meet with their acquaintances (36.1%) (Fig 16). Moreover, the frequency of using the park is a few times per year (54.2%) followed by once a month (20.8%) and a few times per week (11.1%) (Fig. 17), while the most popular activities are working out (47.9%) followed by resting (18.8%) and meeting people (13.9%) accordingly (Fig. 18). Overall, there are here are activities happening all the time including resting and recreational activities as Lumpini Park has specialized areas as mentioned service and facilities factors section. These are important factors that draw more visitors into the park. (Fig 19)

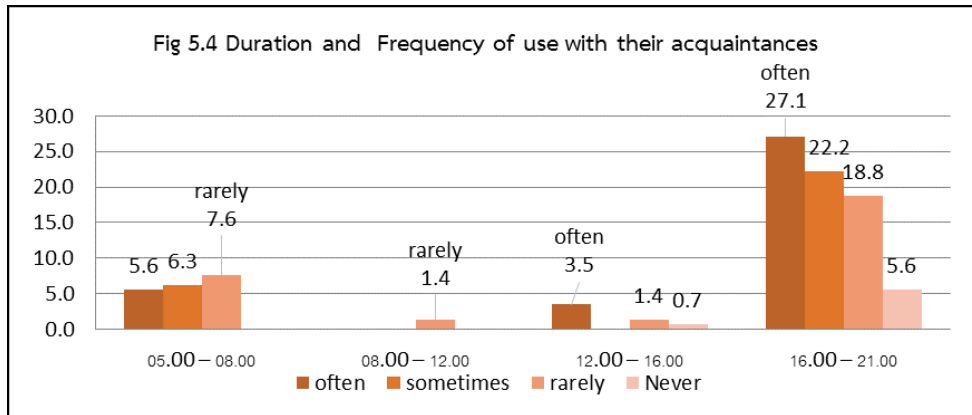


Figure 16 Duration and frequency of use with their acquaintances

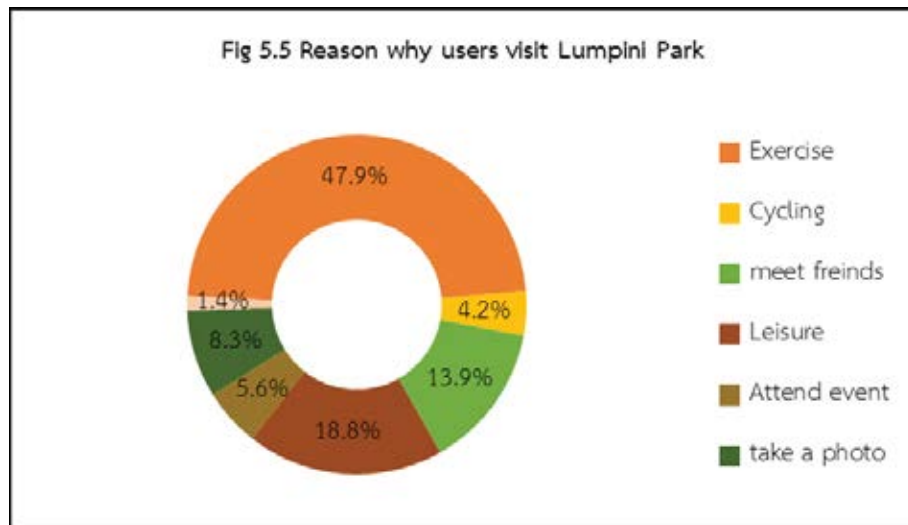


Figure 17 Reason why user visit Lumpini Park

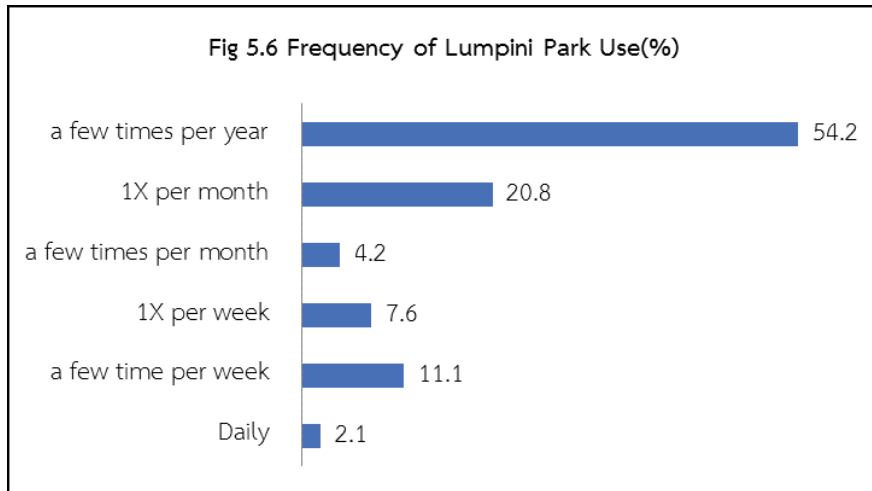


Figure 18 Frequency of Lumpini Park

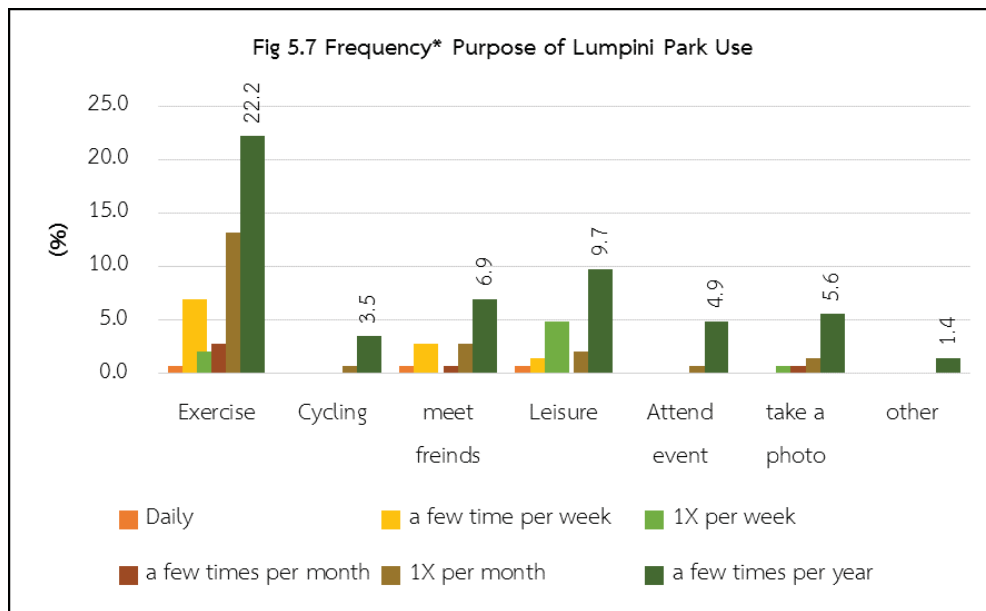


Figure 19 Frequency with purpose of Lumpini Park use

### 5.2.3 Policy factors affecting the use of Lumpini Park area

Policy factors are the factors affecting the role and usage of Lumpini Park. If the policy of park management is good, the park also physically benefits from it as well as seen in the data analysis obtained from area survey and satisfaction of visitors toward the usage of Lumpini Park as follows:

#### A. Condition of the area

The study on the condition of Lumpini Park using information from survey and questionnaire regarding the satisfaction of visitors to be able to summarize the current condition and readiness in area usage as well as basic utilities that have to be ready as indicated in the standards of the park from the rea level to town level. The researcher had surveyed the readiness of the park in term of service and found that the services are overall good and enough for visitors. When analyzing from the questionnaire, it was found that most service area and basic utilities are in perfect condition as seen in the satisfaction of visitors. However, some services including restrooms and personal screening system are still require improvement. **(Table 6)**

Satisfaction with the public park facilities	Level of satisfaction (Percentage)					$\bar{X}$
	Very satisfied	Satisfied	Medium	Unsatisfied	Very unsatisfied	
Cleanliness	11	41	33	14	1	3.47
Security	8	40	34	14	4	3.33
Shady	32	40	23	3	2	3.97
Accessibility	35	33	25	5	2	3.92
Paving	19	45	24	10	2	3.69
Access control	4	15	39	23	19	2.62
Leisure areas	17	39	30	10	4	3.56
Trash cans	9	38	33	15	5	3.31
Playground equipment	3	27	41	23	6	3.00
Toilet services	9	25	42	18	6	2.87

*Table 6 Satisfaction of Lumpini Park Facilities*

For completeness of the park, it is an important factor in term of readiness of services and is the factor that could affect the decision to visit the area because the completeness of the park could attract as much visitors as how ready it is as seen by visitors always present in all time and are satisfied by the services, reflecting of how maintained the park is.

## **B. Policies and management**

Policies and management are important factors that affect the physical condition of the park as well as the usage of Lumpini Park. The researcher had analyzed data from the questionnaire in term of security policies and cleanness of the restrooms and found that most visitors feel safe when visiting and satisfied by the current security but they are not satisfied by the personal screening system (**Fig. 20**). In term of cleanness, most visitors are not satisfied by the maintenance of restrooms (**Fig. 21**).

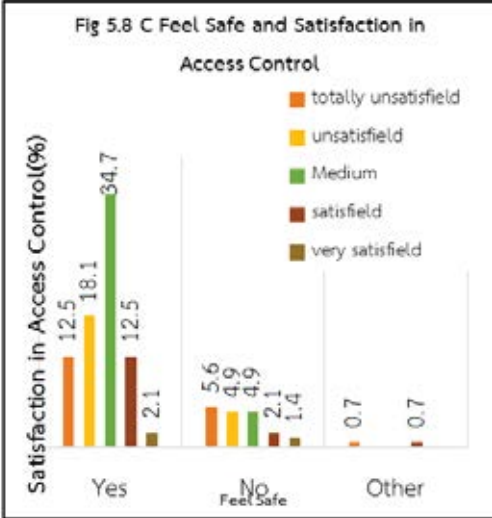
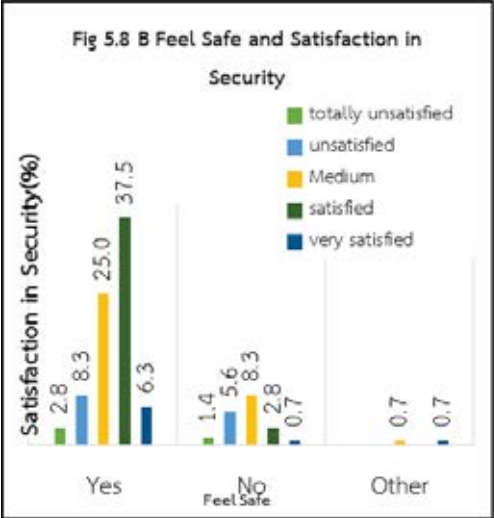


Figure 20 Satisfaction of Security in Lumpini Park use

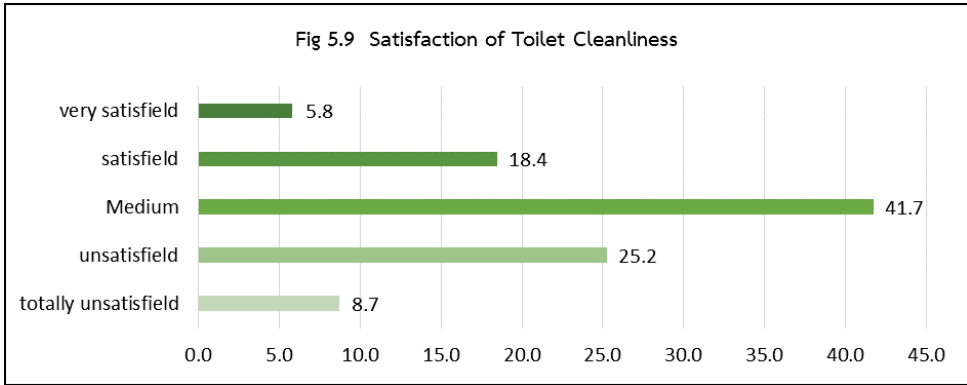


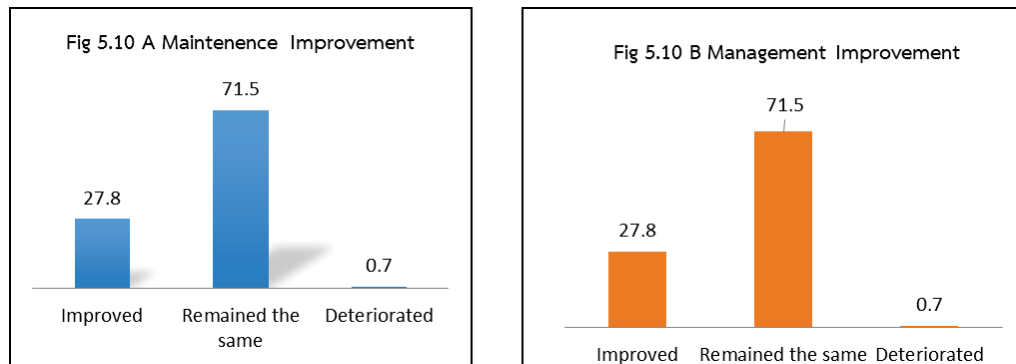
Figure 21 Satisfaction of Toilet Cleanliness

Moreover, the researcher had also studied the requests from the visitors by analyzing requirement in each area and classify them into groups and found that most people agree on the improvement on cleanness maintenance as well as security, followed by lighting and development of the surrounding area (**Table 7**)

When comparing the maintenance and management of Lumpini Park, most people agree that the maintenance of Lumpini Park had not improved (69.9%) while 28% agree that there are some improvement (**Figure 22**).

Public Park Facilities Improvement	Users' demand	
	Amount	Percentage
Adding more lights	9	6.3
Security policy formulation and monitoring	20	13.9
Cleanliness	25	17.4
Improving maintenance	6	4.2
Increasing number of trash cans	3	2.1
Increasing number of trees	2	1.4
Increasing number of car park	2	1.4
Park signage	4	2.8
Outdoor gym equipment	5	3.5
Luggage storage system	2	1.4
Zoning	5	3.5
Other	3	2.1
Already suitable	14	9.7
No comments	44	30.6

*Table 7 Users' demand for Lumpini Park facilities improvement*



*Figure 22 Maintenance and Management Improvement*

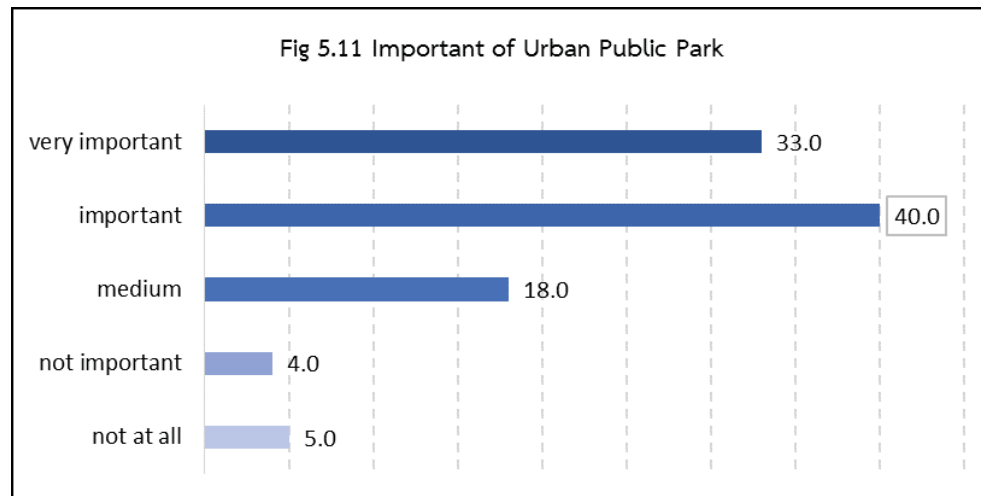
From the reasons mentioned earlier, it could be summarized that Lumpini Park has appropriate management policies as seen by the satisfaction of visitors who are satisfied by each area including equipment and facilities as well as shadiness of the park. All of which are important for the park that could make them feel confident in accessing the area while there are also some suggestions in term of service and activities that should be added as well and they will be considered for further management of the park later on.

### **C. Public participation**

The participation of people is another factor related to policy factors and is important for effective management of the park. If the related government departments have clear policy of the participation of people and could attract more people to manage the park, it will allow the management of Lumpini Park to truly represent the needs of visitors while also make them feel love and cherish the park. In the study from the survey and questionnaire related to participation of people in



the subject of the importance of the park, it was found that all 200 respondents have the opinions in the same direction that they see the park as very important (40%) and most important (33%) for them (Fig. 23).



*Figure 23 Important of Urban Public Park*

Moreover, the researcher also studied on the desire of visitors if they will participate in the development when they have the opportunities to do so or not and found that 74 respondents desire to participate (51.4%) and 70 respondents are not (48.6%) (Fig 24 A). The visitors who desire to participate in the development of the park had described the activities they want to participate and the activity that most of them are interested in is to participate as volunteers (47.3%), followed by associating with non-profit organization related to management of Lumpini Park (33.8%), and donation and letting the representatives or politicians to manage the park (6.8%) (Fig. 24 B).

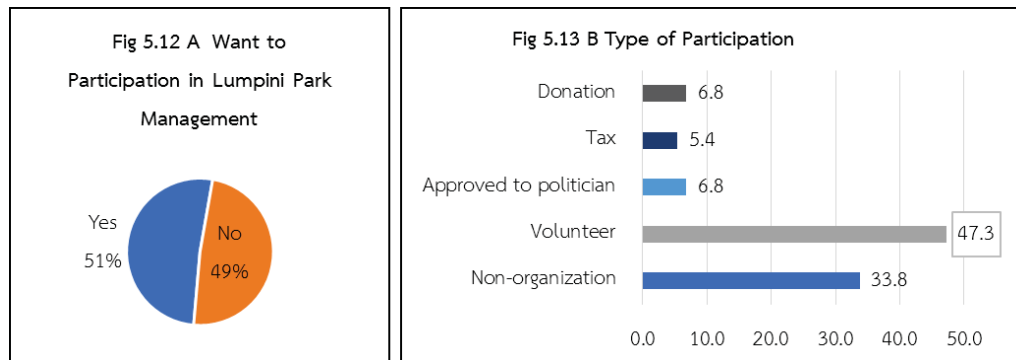


Figure 24 Public Participation in Lumpini Park

#### D. Non-park user findings

According to the previous finding that there are 144 respondents who is the Lumpini Park user. Therefore, there are 56 respondents left who are the non-park users. For the general information of the non-park user group, the researcher found that non-park users respondent have the education level mostly at bachelor degree, followed by Master or higher degree, and high school respectively. There are also have an occupation mostly at student and private employee. While, the income of these group are mostly around 15000 – 30000 baht. Non-park user group are also mostly live in the inner Bangkok area (**Fig 25**). When classify by using the district boundaries, the research found that most of them were live in Pathumwan area (10.7%) as same as Chatuchak area (10.7%), followed by Suan Luang area (5.4%). Importantly, most of them are also describe the reason of why they never visit Lumpini Park. The reason behind that was about the location aspect due to the park was too far from their accommodation (64.3%), followed by other reasons such as

their residential have the fitness room, and so on (21.4%), while there are only 3% had encountered problems within the park and decided to stop visiting. (Figure 26)

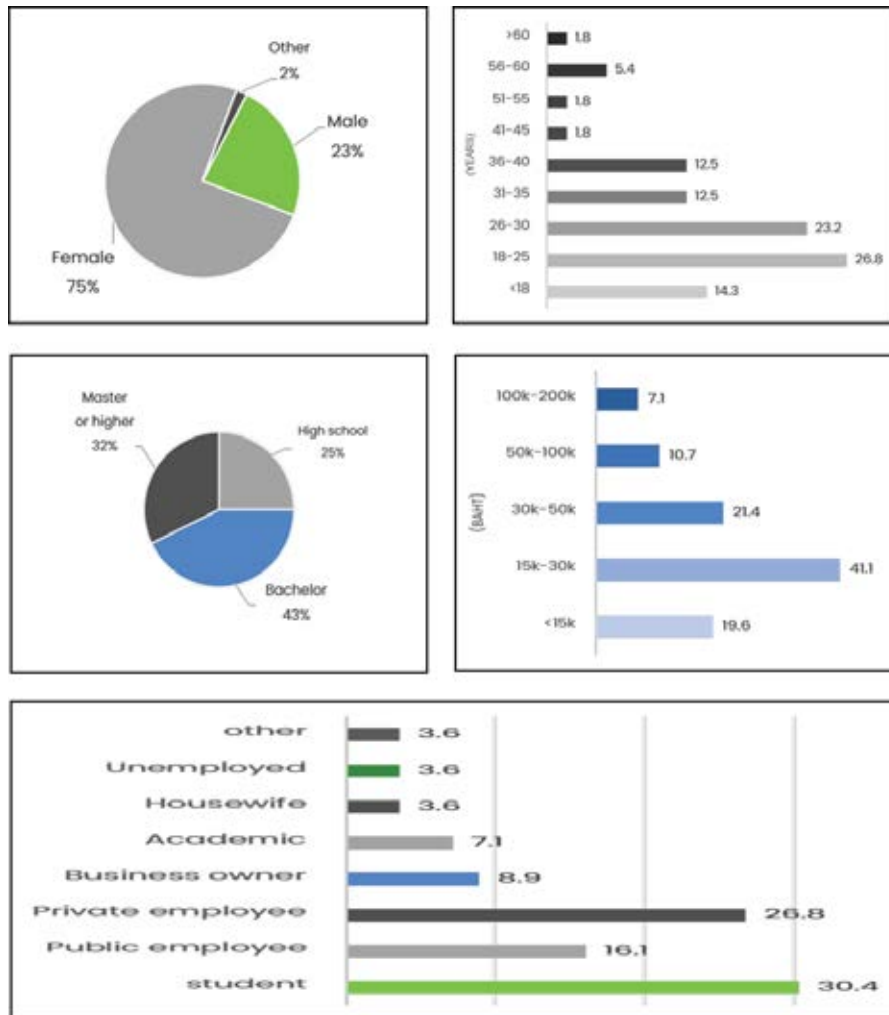


Figure 25 General Information of non-park users

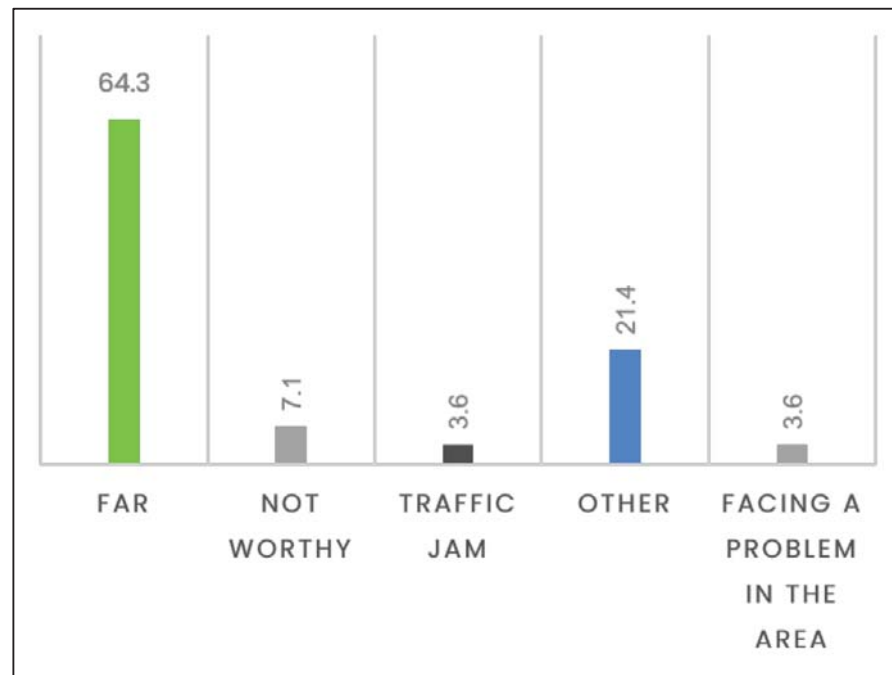


Figure 26 Reason of Lumpini Park non-use

### 5.3 Results from park executive interview

In this section, the findings from the executive interviews are presented in relation to the research objectives. The discussion of these findings focuses on the main sections of the executive interviews, namely 1) organizational structure 2) current policies regarding urban public park management, 3) user engagement and participation strategies, and 4) problems and obstacles on Lumpini Park management.

#### 5.3.1 Organizational Structure

Lumpini Park is categorized in Public Park 1 group under the administration of the public park section, Environment department, Bangkok city. Ms. Arom

Wongmaha is the chairman of the public park section, controlling, administering, and writing a policy for all the parks within the Bangkok area. While the funding administration, the executives said that Bangkok governor Pol.Gen. Aswin Kwanmuang views Lumpini Park's administration as an important issue. However, the department is facing the issue of lacking skilled employees. It is on the process of modifying the institution system for better and more effective administration. **(Figure 28)**



*Figure 27 Lumpini Park Organizational Structure<sup>2</sup>*

### 5.3.2 Current Policies Regarding Urban Public Park Management

<sup>2</sup> Napat Suwannapuk, The chairman of public park section, Interview, 5 March 2019

For the current policies on public park management, the executive reported that their organization engaged in activities related to education, ecosystem restoration, trimming, maintenance, and organizing events such as running event, Red Cross fairs. In addition, the government sector also has policies related to increasing the public park area which already achieved. However, achieving the goal of having green area more than 5 Sqm. per person is not successful yet due to the large empty spaces in Bangkok are very rare, and the land is more expensive. Even now, the organization was also renting the space of the private sector to establish a public park as well. In the management of Lumpini Park, the executive stated that the distribution of the government budget is sufficient for the needs because all of the relevant executives have focused on this part as well. The government agencies have fully provided the budget for the management of Lumpini Park, such as adding light bulbs, toilets renovation and improving fitness equipment. However, the management of public parks is not as successful as they should be due to the lack of human resources which the organization currently being restructured. Finally, the executive stated that the organization wants to have more CHR (Corporate Social Responsibility) with the public sector, such as planting more trees, fitness equipment support, toilet renovation, tree trimming, etc.

### **5.3.3 User Engagement and Participation Strategies**

For the user engagement and participation strategies, administrators of the park say that the park has numbers of institutions and organizations proposing the collaboration to administrate the park, which also causes troubles. In present days, the park consists of 114 groups which disperse around the park area. Some of the groups here establishes and uses a part of the park area with the fee collected from the member's group, which against the purposes of the park. The park also faces the problem from the groups that do not cooperate with the park and making administrating harder. For the result of this problem, the executives of the park said that the park should limit the freedom of the users in some aspects; for example, do not allow any objects to place in the park area and to collect members fee, which is not only to use the park area to seeking the benefits but also against the park service purpose

### **5.3.4 Problems and Obstacles on Lumpini Park Management**

From the survey that has been collected from the 200 users of Lumpini Park. The majority of the informants say that the administration of the park has never changed. It needs to add more lights, maintain the cleanliness of the toilets, make a better screening check system or add more security staffs, remodel the zoning system to provide a facility to all groups of people. The response from the executive

is that; 1) for maintaining the cleanliness of the toilets, in the present days the park already employs as many cleaner staffs. There are times that many users come to use the toilets, so it is impossible to always keep maintaining the toilet clean. Moreover, it seems that each one's standard of cleanliness is different. The users here are various; there are the millionaires to the homeless. Thus the standard of toilet cleanliness is very various. 2) For access control systems, it is difficult in practical ways. The definition of "public park" conveys the meaning that it allows any people to come using the park no matter how they look or what they are. If the park does not allow anyone to use the park, then it is against the rights of the public park users. Even if there are some people come to the park with weapons, the staffs cannot ask for screening because it is beyond the power of the park staffs. Therefore, the executives say that park user should help to screen and watch out.



## CHAPTER 6

### CONCLUSION AND RECOMMENDATION

For the study of the public park management in Lumpini Park, the researcher studied the related theories, concepts, general conditions of the studied area, and factors affecting the use of service in the public area of Lumpini Park, both in physical factors, social factors, and management policy factors. These studies aim to find the relationship between the users, location, activity, and also use this information to identify the role of Lumpini Park toward the current condition. The study of the physical factor was the studied in the location and accessibility, including the service and facilities provided, in order to find the conclusion of the capability of the Lumpini Park and provide the recommendation to raise the number of users. The behavior of the users from different areas is also studied to recommend the service improvement in various areas and the facilities which are basically standard of the service in the different level of public parks. For the social factors, it is the study of the user behavior from different groups of people related to other factors in choosing activities in this area. This factor was also analyzed by using the basic personal data such as accommodation, occupation, income, accessibility, and so on, to identify the selection criteria of space usage in Lumpini Park, and recommend the management of Lumpini Park that fit to all group of users. Importantly, the policies point of view toward the consummation of Lumpini Park, and park executive interview finding are provided, in order to give the viewpoint from

both user and park executive. According to the mentioned above, the service role and potential of the Lumpini park can be concluded as follows:

### **6.1 Conclusion of Current Role of Lumpini Park**

For the role of Lumpini Park from the comparison of the standard of public park service which is specified as the district park to serve the population in all gender and all generations from the survey and the physical, social and policy analysis, it can be concluded that the service of Lumpini Park compared to the standard of the public park service, the Lumpini Park provides service according to the standards of district park with the space of no less than 125 rai, can serve the population of 1,000 people per the area of 1.5 rai, with the service radius of 3 to 6 kilometers, accessible within 1 hour by public transportation. The current service in Lumpini park can range as far as 20 kilometers public radius according to the study of the users' accommodation area, 20 stations of the sky train from Samrong station, Mo Chit station and Bangwa station, and Metro Rapid Transit with the access from Hualampong Station, Nonthaburi Civic Center Station (calculated from the average travelling time of 3 minutes for each station).

For the standard of the city level public park which specifies that the public park must have the service space of no less than 100 rais, can serve the population more than 100,000 people and accessible within 1 hour by public transportation. Lumpini Park can serve according to this standard except for the no. of service which

does not meet the criteria. Besides the specific standards of the service of the 3 level of the park, there are some services specified according to the criteria in order to be able to serve in all level of the park such as the criteria of the shady area of living space, relaxation, stadium area, multipurpose yard area, sidewalk, runway and other beauty elements. According to the survey, it is found that Lumpini Park can serve according to the above criteria. In conclusion, from the comparative comparison of 3 levels of the public park, Lumpini Park has the capability to serve all criteria in term of service and accessibility (**Table 8**).

Public Park Standard	Level of Services			Lumpini Park Services
	City Park	District Park	Community Park	
<b>City Park</b>				
have an area of more than 500 rai	✘	-	-	360 rai
Able to access the park within 1 hour by public transport	✓	-	-	BTS, MRT average travelling time of 3 minutes for each station (20 stations)
<b>District Park</b>				
Have area more than 125-500 rai	-	✓	-	360 rai
3-6 km. of service radius	-	✓	-	8 kilometers
Able to access the park within 1 hour by public transport	-	✓	-	BTS, MRT average traveling time of 3 minutes for each station (20 stations)
<b>Community Park</b>				
Have area more than 25-150 rai	-	-	✓	360 rai
1-2 km. of service radius	-	-	✓	8 kilometers
Able to access the park within a half-hour by public transport	-	-	✓	BTS, MRT average traveling time of 3 minutes for each station (10 stations)
<b>Normal Standard</b>				
Recreation area	✓	✓	✓	Open lawn, Sala Samsean
Open exercise area	✓	✓	✓	Sports Youth Training Center
Multipurpose yard	✓	✓	✓	Lan Tawan Yim,
Pathway	✓	✓	✓	Main exercise road
Facilities	✓	✓	✓	Toilet, security guard

Table 8 Comparison of the public park standard and Lumpini Park services

✓ : service is provided      ✘ : service is not provided.

In addition to the comparison in the service of the park and the specified standards of the service, it is necessary to base the study from the analysis in the aspects of the previous chapters to be able to see the behavior and the pattern of space usage of the users and the potential of Lumpini park in providing services to accommodate with the conclusion of the role in the service of Lumpini park, the roles can be divided into levels as follows.

- **Role and potential service of Lumpini Park in the community level** is the basic service of the public park in the community level required to serve resident population within the radius of 1 to 2 kilometers, accessible by foot or other convenient public transportation. From the analysis, it is found that most users of Lumpini Park have accommodation around Pathumwan district which is the location district of the park, which can be reached by foot or public transportation system. Most users come in the morning and the evening after working hours, the services provided are according to the standard criteria of the community level public park.

- **Role and potential service of Lumpini Park in the district level** are to serve the population in further area than the community level public park, with a radius of 3 to 5 kilometers. With the important factor in the location of the Lumpini park which is located in the central business district of Bangkok which is the area with the diversity in the space usage for residence, commercial, and office places as well as the diversity in the population who come to work in this area, most of them are from other area of Bangkok and its vicinity, with the location in the central business

area, this effects the use of the area and the use of the surrounding area, including the coverage of public transportation system accessible from many routes and modes to support the users from other areas to come to Lumpini park

- **Role and potential service of Lumpini Park in the city level** are to be the public park served in the city level, accessible within 1 hour by public transportation and with the factor of its location in the center of Bangkok which attracts users who live from farther distance to come to the place by convenient transportation network. There is the use of shared space with the surrounding areas in Chulalongkorn Hospital and Siam and with the time condition in the commuting back to the accommodation area, which causes the users to use the space in the park and there are some activities with the grouping of people with common interest such as special activities held within the park such as Red Cross Fair, Marathon Event and other sporting events, and meeting to do some activities together in the area.

## **6.2 The Conclusion of The Survey's Findings**

Factors affecting the use of Lumpini Park as analyzed earlier are all appropriate factors according to the concept of park service from community level, to area level, and to city which have been analyzed in term of physical factors including the locational factor that the park has an advantage in the location as it was located on the land with diversity of the city center, has convenient transportation accessibility, and has very open public areas, allowing it to respond with the demand for recreational activity and resting from city residents and for daily

life. Therefore, the park must have enough services as well as facilities readied. In term of social factors, because the development of the city area, the resting areas are decreased but people, both residents and those who work around that area, still need an area for activities, while the park could also support many kinds of activity as well. In term of policy factors, the service of the park is in accordance with the service principalities to improve life quality for urban people as Lumpini Park had allocated areas to support any activities and encourage the usage of the park in daily life with management policies that was accommodating for use in any time and basic services. Anyhow, the analysis of the aforementioned factors could be summarized as follows.

- **The physical factors;** location and accessibility, Lumpini Park has an advantage for it locates in the heart of the city and it is easily accessible by the transportation system surrounding the area. While, the surrounding land usage, it is not only the park, but the surrounding area is used as the location of various usage; tenements, department store, and offices.

- **The social factor;** the users of the Lumpini Park, they mostly travel from outside of the park area and mostly come to the park with companions. The activities of the users, there are group gathering of those who share an interest in the same sport, the users are free to use a particular space to do activities, there are various activities occur within the park area, such as aerobic dance, Tai Chi, muscle building, etc.

- **The policies factors;** the consummation of the park area, it is looked after by the staffs to always be ready to be used and to respond to the needs of the users. The park policies and administration plans are suitable for their entry free. However, the access control systems and security policy formulation and monitoring are also the majority of park users' demand.

From the study on the aforementioned factors, the researcher had found that the factor affecting the usage of Lumpini Park including physical, social, and policy are all connected, which could affect each other. In other words, the usage of the park is the satisfaction of the visitors who will choose one or multiple areas to do their activities. The visitors will be facilitated and could use the park inappropriate time and opportunity from a good location and access network with diverse service area and encouraging various kinds of activity. These factor will affect other sub-factors including the completeness of the park and readiness for service affected by good management policy factor as well as the use of surrounding land to attract visitors by allowing them to do various kinds of activity as a part of their daily life conveniently and effectively

### **6.3 The Conclusion of Park Executive Interview Findings**

The conclusion from the interview with the park executives in the aspect of present days administration, users' engagement and participation strategies, and obstacles for the park administration shows the relevant with concepts and theories of public parks in many aspects;



**1) For the current policies on public park management;** In present days, the park works according to the Environment Department's policy of adding more green space. It is 20 years duration policy (from 2013-2032) which marks the year of 2032 as the time when Bangkok has green space, public parks and garden, by the amount of people as 9 sqm/person. The contemporary situation of Bangkok is that it has a green space as 6.73 sqm/person. For this aspect, the executive reports that their organization only engaged in activities related to education, ecosystem restoration, maintenance, and organizing events.

**2) For the user engagement and participation strategies,** the park has run the policy to encourage participation of the users, such as promoting collaborated events with the private sections to run their ecological CSR programs, holding sessions for tree planting and nourishing topics, and providing tax deduction privilege to those who own green space within their land, and so on.

However, even the organization have more CSR from the private sector, user participation still not happen as it should be. The executive stated to this problem that the participation in Lumpini Park management from the users resulted in both good and bad aspects because even the openness for users to participate in the management will make the organization aware of the user's opinions and help the organization to see more problems. At the same time, some people who want to participate in Lumpini Park management because they want to seek benefits from Lumpini Park. Some of the groups here establishes and uses a part of the park area with the fee collected from the members group, which against the concept of the public park (**Promtasarn, 2000**) that urban public park as the area provided by the state and local government to their people for relaxation, recreation, reduction of fatigue or tension caused from daily tasks, by walking, leisure, reading, exercise, sports, etc., without charge.

**3) Obstacles in park administrating** are categorized in 5 groups; i) the lacks of skilled staffs, ii) the decreasing in number of green spaces, from turning green space to use in commercial purpose which leads to difficulty in maintaining the characteristics of a public park, iii) the outside forces leaks into the park for their own advantage, there are some people coming to the park and claim their ownership of a space in the park, asking for a membership fee to join their activities. This causes difficulty in management plans since they tend to not cooperate with the park. iv) Cleanliness maintaining. There are times that users are in a great number, which makes the cleaners to not be able to clean the toilets. v) Adding more security system and screening policy, this is difficult for the park for it might against the rights of the users and the park has limited authority.

While considering to the problem and obstacles in the park executive interview, in term of park management, it was found that the management of public parks are not as successful as they should be mostly from the lack of human resources or the skilled employees, such as arborist, gardener including the park officer. Even the executive stated that nowadays the organization had borrowed the arborist or skilled employees in various fields to help the organization in the part of management and modifying the institution system for better and more effective administration, but it is not enough because of the population overgrowth. Thus, solving this problem with government methods such as government recruitment, training, and educating employees was not able to keep up with the current needs.

From the conclusion of the findings, at present, Lumpini park provide services for community, district, and city-level and in the future, it is expected that there will be the full expansion of service in the city level, therefore, it requires the planning to serve the increase of service usage, this leads to the suggestion of the future role and the guidance of the space management of Lumpini Park in the future.

## 6.4 Management Guidelines

From the conclusion of the role of service of Lumpini Park in each level, it is seen that Lumpini Park is the public park serving people in community, neighborhood and city level, it is essential for the use of people in the area and outside the area. It is the source of recreational activities and relaxation, which can serve basic services according to the standard criteria. The researcher has summarized recommendation both in the guidance in public park management to fit for the practical use of the area with details as follows.

### 6.4.1 The Role of Lumpini Park

Nowadays, the public park in Bangkok including Lumpini Park has applied the criteria in the size of the park area to determine the type of park which found that in some cases, it is not consistent with actual usage that occurs in areas where other factors also involved. Therefore, in determining the role and type of parks should consist of various factors that are consistent with the current usage. These will reflect the true potential of the park and lead to better planning for the actual usage. When analyzing the role Lumpini Park service at the current level, it can be divided into 2 levels: i) analysis from criteria from the public park standard criteria, and ii) analysis from the actual services with details as follows.

- **Analysis from the park standard criteria;** it was found that the Lumpini Park is categorized into the district level, which is provided for service to district areas by allocating space to accommodate activities for both recreation and the area to support recreation activities, including the service of internal infrastructure such as bathrooms, pavilions, lighting, etc.

- **Analysis from the actual services;** this topic was analyzed by using the users survey in both behavioral and the pattern of use, it is found that the service of Lumpini Park currently serves the population at the city level which has an

important issues from the accessibility of users from different levels that that can reach Lumpini Park within less than an hour, which shows that the service radius of Lumpini Park t is the same at the city park level.

According to the mentioned above, it was able to prove that at present, Lumpini Park has provided services to the population at the city level. Therefore, it is necessary to plan to support the use of park that may increase in the future in order to achieve efficient use and respond to the need of urban people.

#### **6.4.2 Guidelines for Lumpini Park Management**

The challenges for the implementation of user participation in public park management mentioned by executive interviews are highlighted through the results shown above. The guideline of Lumpini Park management summarized from the study is that;

**1) Park area development;** this aspect should be improved in various areas in order to be fully functional, and adding more services to meet future needs which are divided into suggestions in various areas according to usage as follows;

**i) Recreational service areas include the open-air areas and exercise areas,** which the survey found that many areas in Lumpini Park have a blind spot or not enough light because of the lights are scarce and the leaves and trees shadowed the pathways make an unclear vision. Therefore, this aspect should be improved in order to the user can be used normally in the nighttime by adding more lights and adding more security staffs in the park area. From the needs of the users in making more security policy and establishing screening check system, adding up CCTV in the park areas and locating emergency phone booths in some solitude areas or dark corners in the park might help to assure the safety and assurance of the park users (**Figure 29**).

In addition, the survey also found that the use of park areas during the daytime is mostly used in indoor areas because most of the temperature of the park is quite high during the daytime. Therefore, there should be additional areas that can support this group of users. Which should have an appropriate area for activities, including adding indoor space and adding more trash bins to the park that can increase the use during daytime hours.



*Figure 28 Guidelines for Recreational Service area*

**ii) Other services:** In addition to the increase or improvement of the current space, this study has analyzed the need of the additional services from the users in the Lumpini park area, it is found that most users need more space for pets that allow the accommodate of pets and pets' owner. There should be space for them and there should be a meeting to exchange ideas for people with a common interest. There should be the space to support the child and the youth development which can be the learning about nature of the environment as it is the activity that suits the area, and cultivate good awareness of the youth who live in the city which is far from the natural environment (**Figure 30**).



*Figure 29 Guidelines for Other services*

iii) **Supportive for future expansion:** To enable the support of the future expansion of the district public park, which can serve the city population, there should be an increase in various services. Most importantly, the increase in the service area, which is the main issue to be considered in the level of the public park. However, the Lumpini park is situated in the central business district, with the high value in land price and high density in the land use, it is not worth the investment to invest in the land for the expansion of the service area, there should be the increase in overlapped usable area in the form similar to the sky garden to be able to increase the usable area within the park to enable it to be in the specified standard criteria (Figure 31).



*Figure 30 Guidelines for Supportive in future expansion*

**2) Policy development;** in this year, the park administrators face obstacles and problems in managing and administrating the park. Therefore, in the year of 2020, the park has to looking for methods or policy that helps managing the problems and obstacles to nurture the park as a good public park should be.

**Incentive policy;** it is an important factor in attracting people to create cooperation with the government by motivating people which is the process that encourages people to cooperate for responding to their needs such as;

- a. Promoting collaborations with private sectors as ecological and green space management CSR such as the project of toilet renovation by PTT group, planting the tree by SCG group, and so on.
- b. Motivating the people to aware of the importance of trees and green space, including the cleanliness maintenance of toilet use.
- c. Holding sessions on tree planting and nourishing to motivate a love for trees and green space.

**Imperative policy** such as;

- a. Restricting groups or gathers that use the park area to be only non-profitable groups. There would be no charge. To lead the park back to the principle of public design which anyone could use it equally to others.

- b. Regulating the groups or gathers that use the park area to act according to the dictions of the park to smooth any events held by the government.

**Other aspects policy** such as;

- a. Hiring outsource to cooperate the management and maintenance of toilets to accord the regulation of universal design for equally using and accord to a good park concept
- b. Adjusting the institution system to validate the work of each section, because, in these days, one headquarter has to look after the area of the park as ratio 1:3, which is too heavy.

**6.5. Opportunity to overcome obstacles in urban public park management**

- The problem of environmental erosion and immediacy, such as pollution dust (PM2.5), makes people aware of the importance and necessity of public park and green space.

- The private sections pay attention to activity for social contribution and urban ecological activities, such as tree planting events, which is one of the ways to motivating adding more green space.

- There are tax deduction or tax exemption for private sections who promote the importance of green space and run CSR on a green project. This is an indirect way to motivate better public park management.

- There is operation policy on green public space within the National 20 Years Strategies which allows establishing policy, charters, and laws which promote administration on a public park and green space.



- There continually occurs many events promoting cooperation in adding more green space in tenements, offices, community, and public spaces. This opportunity should be used to promote the park's projects; sessions on tree planting and nourishing, or used as a collaboration with government events; training session for arborists, perennial trees contest, etc.

### **6.6 Suggestion for the Next Study**

For this study of the public park management, the physical factors, social factors, and factors in the policy are studied in order to draw a conclusion about the behavior in the usage, the pattern of the space usage of the users of Lumpini Park as well as the problems and limitation of the area. The suggestion of public park management is presented for the most efficient use and suitable use. For the future study, there should be a comparative study of Lumpini Park and other public parks in the neighborhood and city level both in the country and abroad to know the extent of the similarity or the difference of them compared to the Lumpini in terms of the role in the service and the potential. There will be some ways to increase the potential of Lumpini Park.

In addition, there should be the further study of guidance and recommendation to use in the planning in the development of Lumpini Park or to apply it to other public parks similar to Lumpini park and use some factors used in the study of the rule of service and potential of other public parks in the future.

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## APPENDIX A: Questionnaire for Park Users

**Objectives:** The main objective is to examine ‘Park User’ activities and their opinions toward Lumpini Park services. In order to achieve the main objective, the questionnaire is composed of two parts: socio-demographic characteristics, opinions towards the Lumpini Park service management.

### Section I: General information

1. Please indicate your age :

1. Younger than 18 years old

2> ,18-25 years old

3> ,26-30 years old

4> ,31-35 years old

5> ,36-40 years old

6> ,41-45 years old

7> ,46-50 years old

8> ,51-55 years old

9> ,56-60 years old

10> ,>60 years old

2. Please indicate your sex:

1> ,Male

2> ,Female

3> ,Other

3. What was your highest educational qualification?

- 1. Elementary school
- 2. Secondary school
- 3. High school or technical school
- 4. Bachelor's degree
- 5. Master degree or higher

4. Please indicate your average monthly income

- 1. Less than 15,000 THB
- 2. 15,000 - 30,000 THB
- 3. 30,000 - 50,000 THB
- 4. 50,000 - 100,000 THB
- 5. 100,000 – 200,000 THB
- 6. More than 200,000 THB

5. Where is your hometown (If your hometown is Bangkok please specify your district)?

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6. Please indicate your occupation:

- 1. Student
- 2. Public employee
- 3. Private employee
- 4. Business owner
- 5. Academics
- 6. Housewife
- 7. Unemployed
- 8. Others

### Section II : Park User Behavior

7. Do you think how urban public park is important for yourself?

- 1. Very important
- 2. Fairly important
- 3. Not important
- 4. Not at all important
- 5. Don't know (DO NOT READ OUT)

8. How often do you visit the Lumpini Park?

- 1. Daily
- 2. A few times a week
- 3. 1X per week
- 4. A few times per month

5. Monthly

6. A few times per year

7. Never

9. On a typical day when you go to the park, how long do you stay at the park

1. <15 minutes

2. 15-30 minutes

3. 30-60 minutes

4. 1-3 hours

5. More than 3 hours

10. What time do you usually come to this park?

1. 05:00-08:00

2. 08:00-12:00

3. 12:00-16:00

4. 16:00-21:00

11. How easy is for you to get to the park? (Check one)

1. Very easy

2. Easy

3. Middle

4. Difficult

5. Very difficult



12. How do you usually get to the park? (Optional)

- 1. Walk
- 2. Bike
- 3. Car
- 4. Bus or other public transport
- 5. Other \_\_\_\_\_

13. What do you usually do in this park? (Optional)

- 1. Exercise/Jogging
- 2. Cycling
- 3. Weight training
- 4. Sport activities
- 5. Meet friends
- 6. Leisure/ Relax
- 7. Spend time with family
- 8. Attend event/function (please specify)
- 9. Take a photo
- 10. Other (please specify) \_\_\_\_\_

14. When you are in the park, do you meet people you know? (Check one)

- 1. Yes, often
- 2. Yes, sometimes
- 3. Rarely

4. No, not at all

15. In general, do you feel safe when visiting this park?

1. Yes       2. No

16. If you answered 'No' to the question above, please give your reasons?

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17. Are you aware of this park by-laws/rules?

1. Yes       2. No

18. Do you think by-laws signage in this park is well visible (or understandable)?

1. Yes       2. No

19. On a scale of 1 – 5, 1 being totally unsatisfied and 5 being totally satisfied, please rate your level of satisfaction maintenance of this conservation area on issues listed below:

	1	2	3	4	5
1. Cleanliness.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Security	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Shady	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Accessibility	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Paving	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Access control	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Playground areas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

8. Rubbish bins

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9. Playground equipment

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20. Do you or your kid(s) use the playground equipment in this park?

1. Yes  2. No

21. If you answered 'Yes' to the question above, please rate your level of satisfaction with playground equipment?

\_\_\_\_\_

22. Have you ever used ablution facilities/toilets in this park?

1. Yes  2. No

23. If you answered 'Yes' to the question above, please rate your level of satisfaction with the cleanliness of ablution facilities/toilets in this park

\_\_\_\_\_

24. What are your priorities/things that matter to you the most in this park? Select your top five priorities

1> ,Cleanliness

2> ,Shady

3> ,Lightning

4> ,Security

5> ,Ablution facilities/ Toilets

- 6. Picnic areas
- 7. Benches/tables
- 8. Pool
- 9. Exercise areas
- 10. Paving
- 11. Parking
- 12. Other (please specify) \_\_\_\_\_

25. Compared to a year ago, what do you think of maintenance in this park? Do you think maintenance has.....

1. Improved       2. Remained the same       3. Deteriorated

26. Compared to a year ago, what do you think of management in this park? Do you think management has.....

2. Improved       2. Remained the same       3. Deteriorated

27. What would you like improved at this park?

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28. Do you want to participate in the development project of parks and green spaces

1. Yes

2. No

29. If you participate in the development project of parks and green spaces, what ways would you join?

- 1. Joining or assisting non-profit civic organization
- 2. Participating in volunteer works
- 3. Approval for politicians favorable to the policy
- 4. Agreement with paying more tax
- 5. Donation in cash

30. Why do you want to participate in the way you choose above?

31. What is your overall opinion of Lumpini Park? (Single Choice)

- 1. Excellent
- 2> ,Very good
- 3> ,Good
- 4> ,Fair
- 5> ,Poor

32. Comments

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**APPENDIX B: In-depth Interview Questions  
for Key Persons on Public Park Management**

**Objectives:** The main objective is to examine ‘Park Executive’ opinions towards the public park management. In order to achieve the main objective, the questionnaire is composed of two parts: socio-demographic characteristics, opinion towards the public park management/ service.

Today’s Date: \_\_\_\_\_ Location: \_\_\_\_\_

Name: \_\_\_\_\_

Education level: \_\_\_\_\_

Occupation: \_\_\_\_\_

Sex (circle):  Female  Male

1. What is your perception of ‘Urban Public Park’? And why it’s matter to urban people?
2. What is your perception of public park management? And why?
3. Do you think that the park users/ visitors are satisfied at the higher level towards the public park services? If not why?
4. Do you think that your organization has succeeded to manage the urban public park? If yes, what do you want to improve more? If not, which section do you want to improve? And why?
5. Do you think that ‘Public Park Service’ was already suitable for urban people? If not, why?
6. What’re your recommendations for improving the public park management and public park service to enhance the satisfaction level of park users?
7. What is your perception of ‘Sustainable Park Management’? And why?
8. Do you think that your organization can implement sustainable park management to the current situation of public park management? And why?



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