

The needs for Play Space in Densely Populated Areas in Bandung, Indonesia



Muji Lestari
S2132877
2012



Rijksuniversiteit
Groningen



Bandung Institute of
Technology

The Needs of Play Space in Densely Populated Areas in Bandung, Indonesia

By
Muji Lestari
ITB : 25410035
RUG : S2132877

Double Degree Master Program
Development Planning, and InfrastrukturManagement
School of Architecture, Planning, and Policy Development
Institute Teknologi Bandung

And

Environmental and Infrastructure Planning
Faculty of Spatial Sciences
University of Groningen

Approved by
Supervisor
Date August 2012

Supervisor I

dr. Femke Niekerk

Supervisor II

dr. Mona Abdelwahab

ABSTRACT

Play is children natural life. They do it mostly in their awake time. This research aim to understand the how the children need play space in the densely area in Bandung, and how is the role of the stakeholders in play space provision. Methodology used is literature review and qualitative research using the in depth interview and focus group discussion with the children, parents, institutions, and local communities and making a wishing tree with the children. It tries to answer three research questions.

The results is that play space within fulfill the requirements of main principle of child friendly play space means more than just fun, it is important for children development. The main principals consists of the free, safe, health, enough space for children to move. It also has to be accessible in proximity and easiness to reach in. Successful play space also offers attractiveness within educative and challengeful equipment in a nature environment view, while it has to be lovable by the users, so that will create participation in order to make it sustainable. Through many kinds of play can do in it, successful play space offers main benefit such as social skills, Physical development, Emotional or psychological development, and cognitive development, therefore children have right to meet friends and play (child right conference, 1992).

In the densely and populated area, in Tamansari, Bandung, Indonesia, the children occupy in adequately outdoor play space; lack of capacity, lack of accessibility, dealing with unsafety, facing un healthy environment. However, the children love to play outdoor, and the community strongly participate in the provision. The needs of 1877 m² and 4484 m² of play space for sector 7 and 15 only is fulfilled by 460 m² and 1730 m² of play space which is some of them are temporarily grant land from the local persons. The location of the play space as it is unplanned, is not in the centre of neighborhood, that it is not accessible for the residents id further distance. Moreover, in the small alleys with motorcycle passing by, mothers has low distance standard for the play space within not more than 100 m from home, where they still easely supervise their children. Facing the motorcycle and other vehicles in the alleys along the river make the courts and park unsafe for the children, within some of them have to pass the bridge across the river. Even though playing in these kind of space gives the children benefit of play; mostly social benefit, cognitive development, and survival skill, it does not mean it justifies this limited situation of play space. Share space and integrated neighborhood design might be the spatial solution for the sustainable play space. Finally, there are stakeholders may join their interest and power in the coalition in order to get the better play space for our next generation. The government as the one who can make land use planning, within the limited resources, can invite the involvement of private sector for funding, the local community to make the community approaches, and the academis institutions for the scientific suggestions. The community has also be involved from the begining to ensure the sustainable of the play space, while the children may influence in the design as they will be the user.

Key words:

Play space, Child play, outdoor play, benefit, child development, densely populated area, shared space,

PREFACE

Having lived and studied about one year in Groningen, I have been given opportunity to get insights about how the children are having their joyful childhood within the free, accessible, large, attractive and green playground almost in every neighborhood. It is such an eye opening to study and get through the Indonesian situation, since it is rarely seen this country and never been a popular discourse in the newspaper. Focusing in the densely populated is therefore a choice that it might give further different views within the available literature from the developed countries. I love this topic as I never bored to read so many literatures about it. However, finding the right perspectives and write it down in to a scientific research is not that easy.

Therefore I would express my gratitude to Allah SWT almighty for all the blessings. I would like to thank to my supervisors in guiding me in undertake this research patiently. I would also like to thank to NESO and Bappenas that enable me experiencing to study abroad, to all my friends in Groningen, for making living here feels like homey. Finally the special thanks to my beloved mother, my lovely husband, and my three little angels for prayers, love, and toughness.

Groningen, August 2012

Muji Lestari

TABLE OF CONTENT

ABSTRACT	iii
PREFACE	iv
CONTENT	vi
TABLES AND FIGURES	viii
CHAPTER I Introduction	1
1.1 Background	1
1.2 Research Objectives	3
1.3 Research Questions.....	3
1.4 Outline of the report	3
CHAPTER II Children and Urban Play Space	6
II.1. Children.....	6
II.1.1 Definition of children	6
II.1.2 Playing for Children.....	7
II.1.3 Children’ rights in the city	9
II.2. Child play space in the city.....	10
II.2.1 Child friendly play space.....	10
II.2.2.1 Outdoor play space.....	10
II.2.2.2 Criteria for child friendly space	11
II.2.2.3 Shared space.....	17
II.2.2 Urban Spatial Design	17
II.2.1.1 Figure Ground Theory.....	18
II.2.1.2 Linked Theory	19
II.2.1.3 Place Theory.....	19
II.3. Stakeholder Analysis in providing the child play space.....	19
II.3.1 Stakeholder analysis	21
II.3.2 Stakeholder mapping.....	21
II.3.3 Conclusion	23

CHAPTER III Methodology	24
III.1 Research Methodology.....	24
III.2 Location Study	30
III.2.1 Green Open Space in Bandung City	30
III.2.2 Preparation of Bandung on the way to Child Friendly City	32
CHAPTER IV The Expression of Children to Use Playing Space in Densely Area in Bandung	33
IV.1 Place to play in Tamansari Sub District, Bandung	33
IV.1.1 Where do children play in sector 7 and sector 15?	34
IV.1.2 Quantitative Analysis of play space in Tamansari.....	38
IV.1.3 Qualitative of play space in Tamansari sub district.....	42
IV.2 Behaviour in Playing	55
IV.2.1 Type of Play	55
IV.2.2 Behaviour in play and character of children	57
IV.3 Children Preferences	58
IV.3.1 Physical Space Preferences.....	58
IV.3.2 Social Preferences	59
IV.4 Car Free Day	60
IV.5 Play space and the child play in Tamansari.....	62
IV.6 Recommended Space	63
CHAPTER V The Stakeholder Influences In Creating Child-friendly Space In Bandung.....	65
V.1 Stakeholder identification.....	66
V.2. Stakeholder Mapping using power interest.....	71
V.3. Coalition Building between parties.....	72
V.4. Role of Stakeholder in Providing Play Space in Bandung.....	73
CHAPTER VI Conclusion, Recommendation, and Reflection.....	74
VI.1 Conclusion	74

VI.2 Recommendation	75
VI.3 Reflection	81
REFERENCES.....	76
Appendix	

LIST OF TABELS AND FIGURES

Tabel 2.1 The Characteristic of children based on age

Tabel 2.2 Standard for Park, Playground, and Sport Court

Tabel 4.1 Location and category of play space in Sector 7 Tamansari

Tabel 4.2 Location and category of the Play space in Sector 15, Tamansari

Tabel 4.3 The formal and informal play space in sector 7 and sector 15, tamansari

Tabel 4.4 The Play Space Dimension Required in Sector 7 and Sector 15, Tamansari

Tabel 4.5 Existing Capacity of Play space in Sector 7 and Sector 15, Tamansari

Tabel 4.6 The Accidents, Violence and risks of the play space in Sector 7 and 15 Tamansari

Tabel 4.7 The attractivity of play space in Sector 7 and 15, Tamansari

Tabel 4.8. Community Participatory for the pay spae in Sector 7 and 15, Tamansari

Figure 1.1 Location of Bandung City in Indonesia

Figure 4.2 The kukuyaan river game and the danger bridge

Figure 4.3 Distance Accessibility of play space in sector 7 Tamansari

Figure 4.4 Distance Accessibility of play space in Sector 15, Tamansari

Figure 4.5 Play space views in Tamansari, Bandung

Figure 4.6. The wishing tree; what the children wish for their play space

Figure 4.7 The Location of Dago Car Free Day

Figure 4.8 View of Dago car Free Day, Bandung

Figure 4.9 The solids-voids Sector 15, Tamansari

Figure 4.10 Solid-void in Sector 7, Tamansari

CHAPTER I

INTRODUCTION

I.1 Background

Most of the world's children – over 50 per cent of them – live in the cities, and their numbers are growing fast in Africa, Asia and Latin America (UNICEF, 2002). They play, learn, and grow in the cities as citizens and in the next decade, they will also take part on making shape of cities in the future as future citizen.

Within the mandate of 1989 UN Convention on the Rights of Children (CRC), many recent child-friendly environment studies start growing. Children not only need to be emphasized on welfare, but according to the CRC, they also shall be given the opportunity to speak up and have their voices heard. Related to urban space, it is asserted in article 31 of the convention that child has right to rest and leisure, to engage in play and recreational activities and to participate freely in cultural life and the arts. It then embodies a commitment to create a better living conditions in cities for all children by upholding their basic human rights (Nordstrom, 2009).

Playing is a nature for children, and some researchers in beginning of the twentieth centuries had found that playing in childhood is crucial to develop the more complex skills and capacities required to become effective as an adult human. National Playing Field Association together with Children's Play Council in UK (2000) had explained that playing might create physical benefit such as health, strengthening the body and releasing potentially destructive energy. Furthermore, since play is rich with experience and learning, it also benefits to the emotional and communication while it develops survival skill and creativity as well.

This is meant to be that availability of play space which is child friendly is so important that government as decision maker should encourage on this view on conducting the urban planning and design.

However, urbanization offers significant urban pattern changes which driven by high earning globalised financial private services. In line with this transition, there is a sharp increase property prices in the city and growing the privatization of public realm which is gradually changing the nature of the cities. Nowadays, nearly all space is owned by somebody – be it government, private organizations, private individuals or financial institutions such as pension funds or international finance consortiums. As a consequence, public places, with has less direct economic impacts will be suffering to compete with other land use interests. Moreover,

children's needs of space are feared to be left behind.

Even in developed countries, the issue of the children's right is still yielding as the result of there is still segregation of children in the planning practice. In develop countries, there should be more other prioritized aspects to develop. This research would like to increase understanding in the situation of the child's play space and its recognition in the governance of Indonesia.

Starting from 2004, Indonesia has addressed child's-feasible city as one of national program to protect children's right in the city <http://www.kotalayakanak> (2011). Bandung, which is a capital of West Java Province and the fourth highest population city in Indonesia is in the preparation to join this program (<http://www.kla.or.id>(2011)). Some of the aware people gathered in communities an NGO also concern to the child-friendly space as *Bandung Berkebun*, Bandung Creative City Forum (BCCF), and Support Children's Playground support this aim with their own movements. However, frequently, both the municipality and the NGO encounter some challenges to develop the child-friendly space because of the land availability.

During this decade, urbanization in Bandung grows rapidly, through promoting multi branding of the city, such as student city, fashion city, culinary city, creative city, and city of tourism (Nur'aeni, 2010). It attracts migration of people, and reach the population density of Bandung up to 14.315 people/km² (West Java Statistic Bureau, 2010) in average. It is equal to three times to Amsterdam which is 3.506 people /km² (www.amsterdam.nl). Consequently, it generates very dense populated neighborhoods with hundreds of tight houses in some areas. Some of them are in the side of highway, railway, riverbanks, in which rarely parks remain for the children to do their nature of playing and develop their potentials.

Figure 1.1
Location of Bandung City in Indonesia



Source : Google map,2012

Reflected to the child friendly city, the issue of child friendly space will be address for those whom living in this densely area in Bandung. Since “a child friendly city is not only a good city for children but also a good city according to and by children” (Reggio,2002), it is necessary to explore interactions between the children and the play space available. Where do the children plays? How child friendly are the play spaces ? What is the perspectives of the children and parents? Is there any other space left for the children to play in the neighborhood inside the crowded city? These questions will lead the research of the play space in Bandung. Furthermore, defining the stakeholders that help to create better living for those children.

I.2 Research Objective

This research aims to contribute to academic knowledge by exploring the linkage, aspiration, and interaction between children, the limited space in densely populated area, and the parties involving in child' friendly space. There are several main objectives in this research. The first objective is to get deeper understanding on the significance of space for children. The second objective is to gain insight the children interaction with space in the densely populated area. It is related to the location, quality and quantity of public space, how they play, and what they want to.

The last objective is to identify the stakeholders who influence towards the child-friendly space for the children in densely area, and the participation process between them. Finally this research is expected to give recommendations for better condition of urban children in development countries, especially in Indonesia.

I.3 Research Questions

According to the research objectives above, the study is carried out to explore three main questions:

1. What is the meaning of outdoor space for children?
2. How do the children express their needs for play space in densely populated area in Bandung?
3. How do the stakeholders interact their role towards the child-friendly environment in densely area in Bandung?

I. 4 Outline of the report

The result of this research will be reported on six chapters. The description of chapters is shown as follow:

Chapter I Introduction

This part consists of background, research objectives, research questions, and report structure.

Chapter II Theoretical Perspectives on Child-friendly environment

This chapter discusses some theoretical perspectives on significance of urban public space for children, the character of the children, and their right to grow up in the city. It also explores requirements in creating child-friendly space, including the urban spatial theories related to the open space provision in the location study. At the end, this part provides theories of stakeholder analysis and stakeholder mapping as it might offer coalition to solve the problems dealing with the limited urban public space in the city of Bandung.

Chapter III Methodology

This part will explain about how the research would be operated within a framework and the methods linking between research questions and analysis.

Chapter IV The Expression of Children to Use Playing Space in Densely Area in Bandung

In this chapter, the current situation of child's space in Bandung will be explored. It will briefly discussed and illustrate the results of the research in two different densely neighborhoods and refracts the theoretical perspectives in chapter 2.

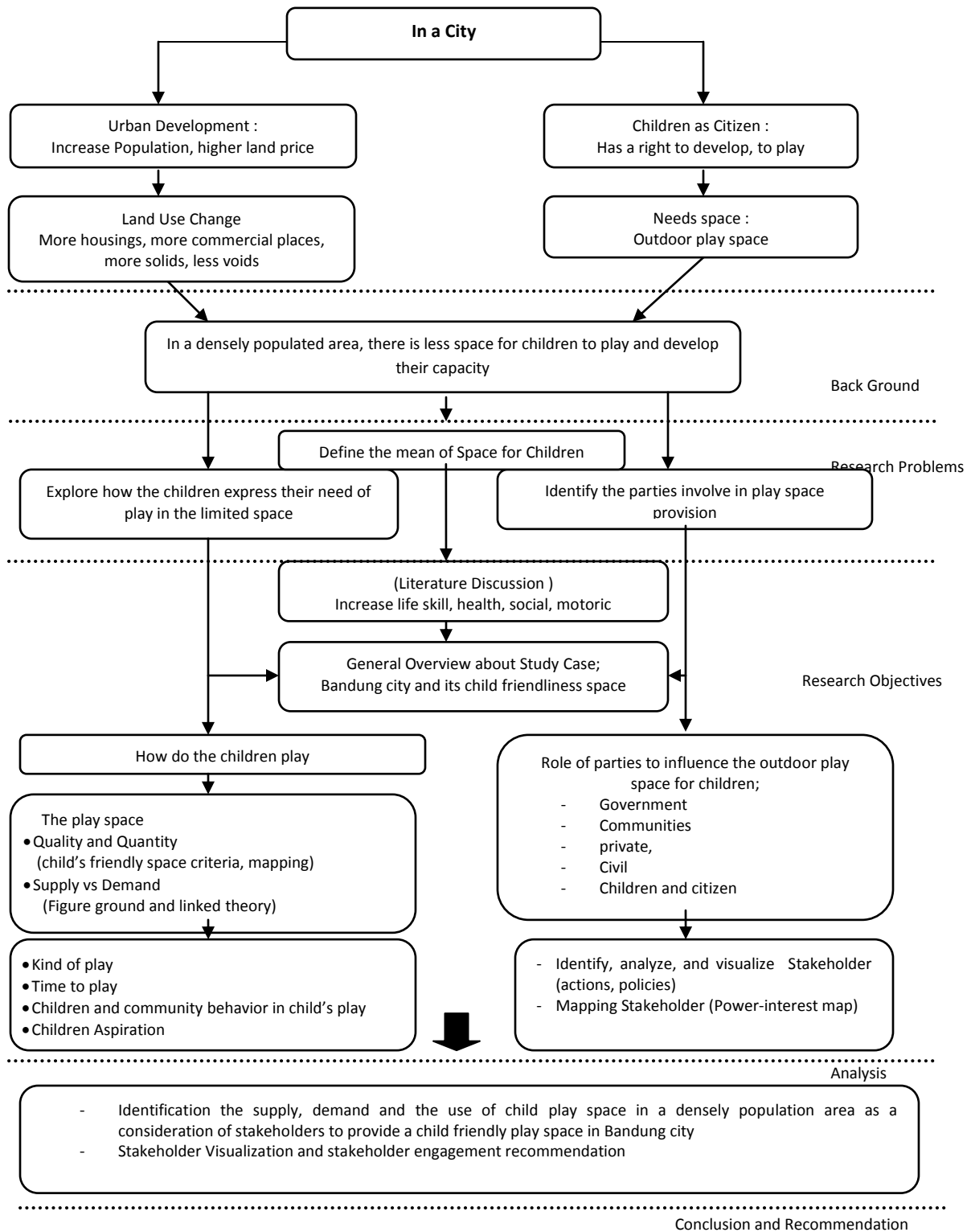
Chapter V Stakeholder Influences In Creating Child-friendly Space In Bandung

This chapter will map which parties influences in creating child-friendly space in Bandung, their role, and the coalition process.

Chapter VI Conclusions and Recommendations

This part consists of the conclusion of the study, and the recommendation for the stakeholders and policy makers in the field of child friendly urban space in Bandung.

Figure 1.2 RESEARCH FRAMEWORK



CHAPTER II

Children and urban play space

This chapter discusses literature about the spatial needs of children. Firstly, it explores the term of children which includes the definition of children, the character based on ages, and the mean of play for children and children's right.

The second part discusses the child play space in the city that consisted of the outdoor play space and the criteria of child friendly space. Through the meaning of play space for children, it explores the criteria and indicators necessarily in child friendly space that will be basic measurement for assessing the quality of play space in the case study. Related to outdoor play space, this part also reviews the urban design theory of Trancik (1986) which connects the building blocks, the availability of open space, the linkage system, and the culture of the people.

The last part explains about the stakeholder analysis that provide deeper understanding about stakeholder, what is the importance of analyzing stakeholder, and some general techniques to do stakeholder analysis. The stakeholder mapping is discussed further in this part as it can suggest the development strategy of the child space provision from the stakeholder perspectives.

II.1. Children

II.1.1 Definition of Children

There are several definitions to clarify the termination of children. Childhood is a stage of human before going to be adults. Holloway and Valentine (1997) describe that children are commonly assumed as who have not yet to reach biological and social maturity.

According to age chronological perspectives, some researchers categorize children up to age 14. Desmita (2005) in Istiqamah (2011) divides Childhood in two groups which are early childhood (2-6 years old) and latest childhood (7-14 years). Furthermore, table 2.1 describes the character of children based their age according to Siregar (2007) in Sitiqamah (2011). It is clearly seemed that basic characters of building develop in that range of age.

The United Nation Convention on the rights of the child defines Children as person up to

age 18 years. However, for the statistical purposes, they term the young person in age between 15 – 24 years as “Youth”. Therefore, children in this research is limited up from 2 to 14 years, because in the range of those age childhood takes important place in the character building of the children in the future.

Tabel 2.1 The Characteristic of children based on age

Age	Children Characteristics
2- 6 years	<ol style="list-style-type: none"> 1. Gross motoric development 2. Start to always actively moving 3. Soft Motoric is started in 6 year 4. Start to understand content of talking 5. Start to play and communicate with peers without gender 6. Still under adult supervisor 7. They can express happy and mad, but rarely sad
7 – 14 years	<ol style="list-style-type: none"> 1. Soft motoric is started to develop 2. Start to increase basic academic skill (read, write, hear) 3. Start to control emotion 4. Physically similar between girls and boys 5. Start to differ boy and girl 6. Tend to play in a group 7. Start to develop different hobby 8. Want to freely move without adults 9. Start to understand friendship

Source : Siregar (2007) in Putri, 2006

II.1.2 Playing for children

Play is children’s life and what young children do to spent their mostly awake time to have fun. Elizabeth Hurlock defines the term of playing as fun activity without any forces. Aitken in Valentine (2004) define play as individual and social activity in exploration. Therefore playing can be interpreted any joyful activity without so many prohibition.

More than simply creating fun time, playing is a vital role for children ‘s development. Many literatures had stated that playing has several distinct of advantages for children. First, playing provides physically benefit. Through the exercise, it will strengthening body, muscle and the motor both the gross motor and fine motor (NFPA). It also helps to release the destructive energy of children through **physical activities** which reduce strained and emotion (Hurlock,1987).

The next benefit of playing for children is to develop the **cognitive function**. This cognitive structure needs exercise, and playing creates opportunities for children to promote the child skills and competencies within fun learning in understanding surrounding objects and solving problems (Piaget,1962, singer, 1994) and exploration activity (Valentine, 2004). Moreover, according to Ginsburg (2006), out door play is associated with benefits such as improving children's academic development.

The other crucial function of playing for children is to increase **social development**, which will be advantages for them as leaders in the future. Through play children learn how to communicate with others, learn the rules of everyday life, control a good attitude, and to deal with survival situation. By playing, children also experiences in learn and develop as individuals, and as members of the community Gleave (2009). The last, play is an important feature for developing children's **emotional skills**. It leads to a reassessment of what is now called emotional intelligent (Goleman, 1996). Through playing children learn how to express, and control their emotion (Kartono,1990).

According to some literatures, the children play can categorize based on activities on several type of plays ; *Exploratory or creative play, dramatic or pretend play, and physical play* (Learning seed, 2004); (Hewes, 2007). First, the exploratory play means is the kind of play that children explore the objects and environment using their body and material they try to make and do something. The young children from 0 – 2.5 years, usually do touching, squeezing, mouthing. While the older enjoying dancing, painting, playing with clay or just interact with the material surrounding environment. The dramatic play more using the imagination and language to express what they think or feel. For example the play with the dolls, or doing role playing with the peers. This play help to develop the language and emotional expression of the children. The last, the physical play is the play that mostly involves the body and limb movements, coordination and balance, such as sports play. This kind of play strongly relates to the gross motor and fine motors development. Understanding this theories might give the views of the space can be provided for the children to play.

To summarizing, playing then has four main advantage; physic, cognitive, social and emotional development which is significant for the whole character building and competency of next generation. Those explanations above shows how play should be encouraged by government body to provide the play space in order to get optimum process of the children development. The next part will discuss the child's right relating to the need of space for playing which should be taken into account by all the stakeholders in urban planning.

II.1.3 Children's right in the city

According to Visscher (2008), urban development in most cities remains environmental and social degradation (reference). This condition is particularly unfriendly for children. Not only children have less opportunities to play as they should have in overcrowded indoor space and filthy and contaminated outdoor space, but traffic, pollution and shortage of green open space contributes city to decrease children opportunity being outdoor (Visscher, 2008).

Therefore with those urban environmental and social degradation, children are at risks in term on their capacity to reach their fullest potential. Within this risk, some parents impose 'home environment' and circumscribe young people's access to the environment (Holloway, 2000). This practice may help to 'protect' children from becoming victims of environmental hazards but has long-term consequences for their social and emotional growth (Horschelman,2012).

On the other hand, in poorer neighborhoods children often seemed spontaneous unregulated to play in neighborhood spaces, particularly in dense areas of cities. It means they have more opportunity for spatial mobility and freedom, while there are consequences and risks to their health and safety because of the dangers of traffic, hazardous waste and physical abuse.

The concept of "child friendly cities" then called for overcome all these issues. It has been developed to ensure that city governments consistently make decisions in the best interests of children (Riggio, 2002).

Riggio (2002) also mentioned that rights of all young citizens should be guaranteed by the city according to the mandate in Convention on the Rights of the Child in Rio de Janeiro which are can be conclude as follows:

- influence decisions about their city
- express their opinions on the city they want
- participate in family, community and social life
- gain access to basic services such as health care, education and shelter
- drink safe water and have access to proper sanitation
- be protected from exploitation, violence and abuse
- walk safely in the streets, on their own
- meet friends and play
- have green spaces for plants and animals

- live in an unpolluted and sustainable environment
- participate in cultural and social events
- be supported, loved and cared for
- be equal citizens with access to every service, regardless of ethnic origin, religion, income, gender or disability

According to those rights, children should be taken into account in urban planning. The open space with fresh air, plantation and comfortable environment for children to express their right to play and meet friends should be placed and planned in the city. It is not only to fulfill the right officially, but it is to save the children as the next generation to get their potential development. The next part discuss the spatial perspectives of those particular space for children.

II.2. Child Play Space in the City

Children, as citizen, have rights to occupy a play space in the city, therefore it should be accommodated by the municipality. Consequently it will shape the urban spatial design with the provision of play space. Defining the play space, according to Indonesian Statute No. 23/ 2002 article 56 clause 1, government are compulsory to attempt and help children so that they can “do free association, assembly, resting, playing, recreation, creating cultural art and having the playing infrastructure fulfilling the health and safety requirements”. Therefore, there will be the term of formal space that is built for the child play purposes, and the informal places that are an open spaces where is playable space for the children.

This part discuss the literature review of play space for children, and the criteria of the child friendly space. Within some standards, it is helpful to measure the quality of the existing play space both the formal and informal space and to make some recommendations. Furthermore, in order to create the more integrated public open space in urban area, this part also describes the urban spatial design theories that involving elements of physics, culture of the people, and the linkage system in spatial design.

II.2.1 Child’s Friendly Play Space

Playing activities consequently need space, and children like to move (see table 2.1) in a certain size of play space. As they are still susceptible, it also needs certain requirements for play space, therefore not every place is playable for children. This part discussing the outdoor play space and the standard criteria of child friendly space.

II.2.2.1. Outdoor Play Space

Without many boundaries, according to Hendricks (2011), children can play everywhere and play with everything. So that play activities can be in door and outdoor. However, children are more likely to play the outdoor (Hendricks,(2011); Aitken(2001)). In additional, some children will take part in activities more enthusiastically, and show greater confidence in the outdoor environment than inside (Children’s time to play).

And the most important, outdoor playing seems to provide the most completely benefit of playing had been discussed in previous section. According to research, play space provision has contributed to many factors especially directed to the children as shown in the table.

II.2.2.2. Criteria for Child Friendly Space

Child friendly space can be imagined as place that save, comfortable and health for children. According to the definition from the UNICEF (2009), Child friendly Space can be defined as places designed and operated in a participatory manner, where children can be provided with a safe environment, where integrated programming including play, recreation, education, health, and psychosocial support can be delivered and/ information about services/supports provided.

The other perspectives about the Child friendly Space is describe by Joan Devlin (2012) that it helps children **express** themselves and **explore** their physical limits, which supports **healthy** development and builds respect for children. In doing so, child friendly space also support children to take ownership of space and shape places in ways that **suit them**. Further, it helps children engage with their neighborhood, community and city, influence mental and **social development** and encourages young people to **participate** in society.

Discussing the character of children, the mean of playing for children, and the outdoor playing, reviewing some literature, there are some requirements to measure the appropriateness of child play space. Those criteria of child friendly space can be divided into two groups; Quantitative Criteria and Qualitative Criteria that described as follows.

According to Hendricks (2011), enough space is one of the biggest demand for play, and it is contributes to health. Small play spaces needs short time to explore, therefore the children will easily get bored. On the other hand, she believes that children with lack of outdoor space and being adjust to be indoor in the long term is not healthy, as it is related to the benefit of play for the physical health in previous subsection.

Tabel 2.2 Standard for Park, Playground, and Sport Court

No.	Type of Facility	Population Number	Minimum Area (M2)	Standard (m2/person)	Radius **(m)	Location Criteria
1	Park/ Playground	250	250	1	100	Centre of Neighborhood
2	Park/ Playground	2500	1250	0.5	500*	Centre of Sector
3	Park & Sport Court	30000	9000	0.3		Grouped with schools
4	Park & Sport Court	120000	24000	0.2		Located in main street Grouped with schools
5	Park, Playground Sport Court	480000	124000	15		Spreading
6	Green Belt			15		Spreading

Source : SNI 03-1733-2004 Planning Procedure for Neighborhood in Urban Area

*Modest housing standard, Indonesian Public Work Agency no. 50/200/13578, May 1978, page 24.

**distance of the play space from the farthest house

In quantitative perspective, the wide of play space must meet the needs number of user. In Indonesia, according to SNI 03-1733-2004, the dimension standards for the playground in the neighborhood area is 1 m2/ inhabitants live in the area, (see table 2.2). It is quite unusual since the play space is strongly related to children as user, while adults commonly only supervising. This standard quantity of space is needed to calculate how much space needed for park, playground and court in an area within people live in. Gradually it organize the needs of open space should be provided in sub district, in a district, and in a municipal. Differently, the developed countries has arrange more space for play space as it is in England with 8 m2.children.

In Canada and US, the regulation allocates 7m² space for outdoor play for each children enrolled in a full day care (Herrington et.al , 2006).

- **Qualitative Criteria**

Even in the children are likely to play anywhere (Hendricks,2011), regardless of the place's appearance (Bhattacharya et.al, 2003), there are some principles and criteria to evaluate the play space in the perspective of adult's designers. According to Bhattacharya et all. (2003), all the experts interviewed cite accessibility and safety as the most important playground must-haves.

On the other hand, successful play space has to be well located (Shackel, 2008), and well designed as it might involve the whole child in quality play as gross and fine motor, senses, emotion, individual growth and social interaction (Stoecklin,2000) in Bhattacharya (2003). Furthermore, since the young children are still accompanied by adults, the play space should also meets the community's needs to let them stay longer while the children explore it (Hendricks,2011).

in play space provision, participation is necessary, to know what exactly what they want to. Nowadays some disuse play space are occurred because of some reason as not attractive, not accessible for daily play, unfit for the age of the children live surrounding area. The other challenge is the develop of the indoor games involving television or games (Olson,2010).

According to Mayor of London (2008), good play space ensures that play spaces are integrated into their surroundings and are well designed, attractive and safe with a range of activities and facilities for different age groups.

Therefore, the quality and design takes significant part to make the play space is used and enjoyable by the users. Important factors to be considered in the child's space provision are discussed below.

1. Location Accessibility

As children mostly spend their waking time to play, they and their families will look for accessible space close to their homes that they can use spontaneously (Dunn et al., 2008), where they can play freely, and free of charge (Shackel et al., 2008). According to Cabe Space (2008), accessible play space for young children can be explain as proximity where they and their parents can walk easily. For older children that is more independent, play space should be

affordable for them to reach by foot or bicycle. Therefore it is essential to provide safe pedestrian access and cycle routes that might solve the parents fears about the safety traffic if there are to be regularly used. The following tables illustrates the ideal proximity to the play space based on the target group.

Indonesian national standard (SNI) mentions some accessibility requirements for play space. The children 1-5 years needs more specific play space , correspond to their physical abilities and dependent to the carers. More similarly, the SNI (2003) also mentions that the place must be easy to reach, still in the eyesight, not crossing the vehicle route and parking place, and accessible to the toilet.

Tabel 2.2. Proximity and Access of playground

Type of Play Ground	Target Group	Proximity	Access Facilities
Local Neighbourhood Central	0 - 9 years	400 m	pedestrian path
Neighbourhood	10 - 14 years	1 km	Cycle facilities walking distance of toilet,
District Playground	all ages	-	car parks, and picnic area

Source : Urban Services, 2004

Table 2.3 The maximum distance of the play space to the farthest house

Children's age	Maximum distance from the houses (m)	Maximum area dimension (m2)	Standar services per unit facilities	Standard
Play space for children 1-5 years	90 -120	54 - 180	30 children - 100 household	0.3 m2/ children
Play space for children 6 - 12 years	400	450	250 households	0.6 m2/ children

Sources : SNI, 2003

2. Safety

Safety is the most important factor for playground than any other (Dattner, 1969 in Bhattacharya,2003); (Shackel, 2008). The issue of safety in the play space is twofold, which are physical and social sense (Norsdstorm,2009);

(Bhattacharya,2003). This dimension covers external threat such as criminals, violence, danger, and traffic. The other significant focus is the playground safety of injuries during the play. The develop countries mostly put detail requirements for the playground safety equipment, such as the material of the playground cover, the material of the equipments, the elevations, up to the playground guardians (Hendricks,2011).

Using the research of Katz, 1998, Valentine (2007) relate independent mobility necessarily in the child's play is strongly influenced by the fear of **crime** and **disinvestments** in the urban environment. Moreover, from the children's own perspective, **traffic danger** and '**stranger danger**' were the greatest barriers to keeping healthy and active (Woolcock, 2008).

3. Healthy

Successful play spaces are located carefully 'to be where children would play naturally' and away from dangerous roads, noise and pollution. (Shackell et al, 2008). In the city, outdoor environments offers the air pollution particularly, from the traffic. Some studies reports that the air pollution such as the NO₂, CO, PM 10, PM 2.5 in some levels effects to the children's health (Swedish protection Agency, 2010) through respiratory infections, asthma and allergic (WHO Europe, 2005). Furthermore, it also relates to the lung cancer (Joel Schwartz).

Noise as it is resulted from the traffic, urban and industrial activities may effects to the children's health both directly and indirectly. In some level of the noise within the long time exposed there are three major impacts might hamper children. The first is stress related somatic effects, such as blood pressure, muscle spasm and stress hormone. The next is physical effects such as mental health, and sleep disturbance, and the last is the cognitive effects for example reading, concentration, and memory (Children and noise,<http://www.who.int>)

4. Attractivity

Child's play is about creativity, imagination, exploration and experiencing (Hendricks, 2011). Play space emphasizes the value of good design and 'place making' that the community will want to use and enjoy (CABE, 2007). On the other words, the play space have to be attractive to invite children to play. The

term of attractive for child's play can be explain as follows.

- **Provide varied experiences**

Commonly, playground are provided with playing equipment such as swings and gliders which small children have fun with it. However, many researcher called it as conventional playground, with the typical fixed design. According to Hendricks (2011) there are no fix and static design for the play space, anything is permit to put in to.

One thing to be consider is that children need opportunities to experience challenge and excitement in their play as well as they also need to take particular risk (Shackel et al., 2008). Therefore, there could be non-prescriptive play equipment and features, which put play in the control of children and encourage imagination, creativity and challenge in take risk.

On the other hand, a study had shown that high complexity play environment will increase generate a higher rate of interaction with the playground but less interaction with their friends (Frost et al., 1979) in Bhattacharya (2003). His other study about the number of equipments influence the behavior of child's play. The motor play increases and the undesirable habit in play such as arguing, and teasing tend to decrease as the number of equipment increases. Therefore, it needs a creative play environment to offer the positive play interaction between children more than just a solitary play to gain the social benefit from play.

- **Provide Natural Views**

Many studies have shown that children benefit from access to natural environments (Lester and Maudsley, 2006). Not only the natural setting create more imaginative play and experiences (Cabe space, 2008), but the most interesting is that the strong attachment to nature is expected to stimulate the children to preserve and saving the earth (Hendricks, 2011). Within the environmental degradation, this is the playground trend design in the end of twentieth century to achieve this goal through nature concepts of play ground.

Furthermore, in densely populated urban areas with lack of natural or green space, this more natural approach can help soften the hard urban landscape (Shackell et al,2008). The natural can be translate as the plantations, grass and mounds.

5. Participation

A success play space is a place loved by the community, that will generate the sense of ownership to get benefit and maintain it. According to UNICEF (2009), successful play spaces meet the needs of children and the communities they live in, then it will almost always need prospective users. Furthermore, the community involvement from the early stages will increase the chance of a successful development (Cabe space, 2008). Therefore, the local community participation is necessarily in the play space provision.

II.2.2.3. Shared space

What had been discussed in pervious sub section is the criteria for the formal play space. According to Hendricks (2010), the formal play space is the place for play with facilities which is aimed for children actively play outside, like park, playground, and courts. Edyanto (1985) adds the definition with the unlimited time to utilize, free of charge, and located in the neighborhood. Being purposed for the child play it has to meet the child space criteria. However, facing the limited public open space available for play, there should be recognizing an informal play space for the alternative play space for children.

Shared space can be a parking place, a school park, or personal vacant land which can be used together with other function. Aileen Shackell et al. (2008) express the shared space as where it meets the needs of different people at the same time, which support for greatly extend the range of play opportunities in highly cost effective. He underlines a positive attitude towards children and young people and their play is a key feature that helps create a more child-friendly society.

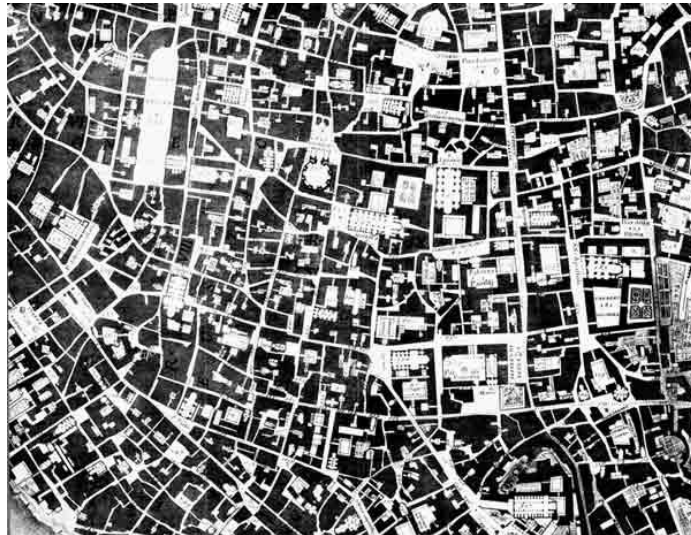
II.2.2 Urban Spatial Design

In order to do the prescriptive analysis of urban spatial structure, Roger Trancik (1986) explains that there are three ways in which urban design theory can be used : (1) figure ground theory; (2) linkage theory; and (3) place theory. These approaches definitely have different perspectives in analyze the spatial structure. However, using those three perspectives will result in potential strategies for integrated urban design.

II.2.1.1. Figure Ground Theory

Figure Ground theory is used to analyse the urban form through understanding the relationship between buildings as solid mass (“figure”) and open space as voids (“grounds”). The figure ground drawing such as figure below illustrates two dimensional mass – voids relationships which can explain the structure of urban spaces.

Figure 2.1. The Solids and Voids of Rome



Resource : Trancik, 1986

The black block is intended to building mass or urban solids that can be a residential, office, industrial, institution and public monuments. The white color depicts the urban voids which can be the form of primary network of streets and squares, public park and gardens, rivers, waterfronts or other open space without any building on it.

Through the pattern of solids and voids, this approach is helpful to manipulate these relationships by adding, subtracting, or changing the physical pattern of urban design as it is wanted to be. When the relationship between urban solids and voids is complete, so that the spatial pattern works well. On the other hand,

if the relationship is rarely balanced, it can result in the loss of space.

The research will try to identify the relationship of spatial pattern in neighborhood, so that it will be more residential uses in solids than other land use functions.

II.2.1.2.Linkage Theory

Differently with figure ground theory, linkage theory is based on lines as connections from one place to the other, such as streets, pedestrian ways, linear open spaces, and other linking elements. Focusing on movement systems and efficiency, this approach aims to analyze and organize the networking system that results in spatial ordering structure.

In this research the theory is used to analyze the alleys in the neighborhood and also the bridges above the river in the case study as the connector infrastructure to go in and out of the site.

In conclusion, the physical urban spatial structure must be designed as refers to those three interrelated approaches. The use of only one of perspectives will result in disintegration among human as user, voids and solids as the physical space, and the linkage as the glue of the elements of cities.

II.2.1.3.Place Theory

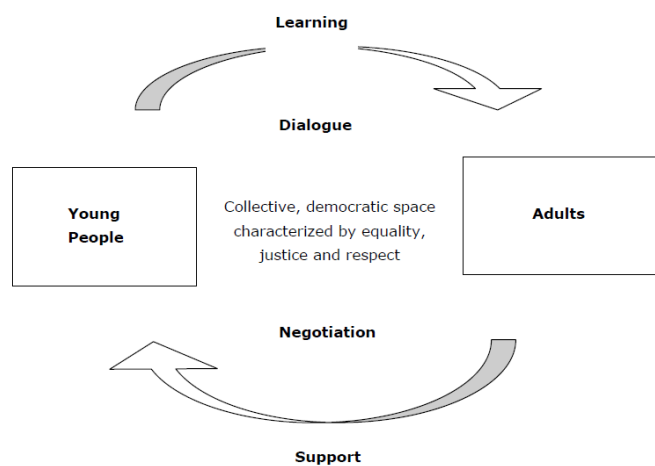
Relate to the physical space, the place theory represents the essence of culture, human character and the emotional of the people in occupying the space. According to Trancik (1986), these elements make space become place with the deeper meaning derived from the cultural and regional content. Therefore these human and culture elements are significant in designing sustainable play space.

II.3. Stakeholder Analysis in Providing the child play space

Providing child space in urban area is such a considerable process within pros and cons. Child's right in this case encounters many problems, mostly in urban land use and economic factors.

Figuring out the problem and the solution might work are also part of problem, and considering the stakeholder is one of crucial step (Bryson, 2004). Moreover, there are many individuals, groups, and organizations acts partially in responsibility. Through stakeholder analysis based on their opinion and interest, it is expected to improve the engagement strategy to solve the problem. According to Barry Percy (2006), coalition building process towards to gain the goal of the child friendly space needs that all stakeholders should be engaged starting in the earlier phase.

Figure 2.2. Creating a communicative action space:” Equalizing the power relationship between professionals and young people



Source : Percy, 2006

Lesson learned from Denver’s Child & Youth Friendly City initiative starting from 2006 Building partnership was critical from it is begin in initiative process. The figure below illustrate the step of Assessment as the first step in establishing a child friendly space (UNICEF, 2009).

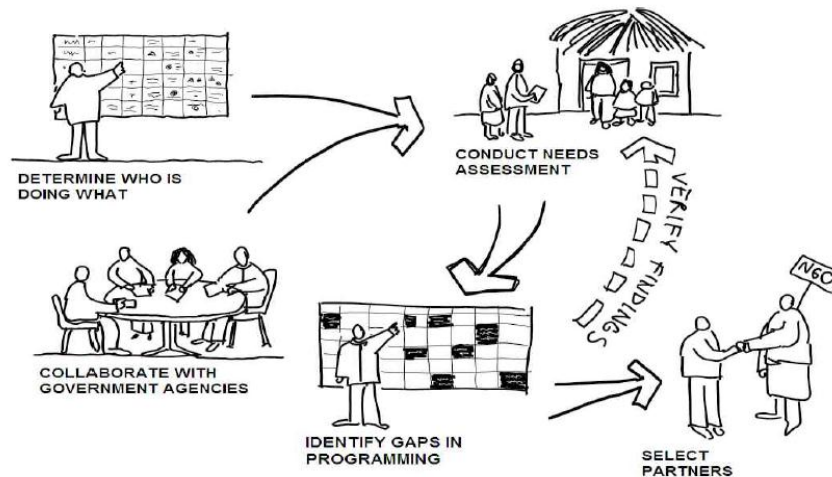


Figure 2.3 Diagram Outlining the steps of assessment

Source : UNICEF, 2009

This part will discuss the Stakeholder analysis; the definition, the necessity, and the steps to do related to the child space provision.

Stakeholder Mapping as one of the step of Stakeholder analysis is consisted of some ways. This part will also discuss the literature framework of Stakeholder mapping based on Power – Interest which will be used in this case (Bryson,2004).

II.3.1. Stakeholder Analysis

In play space development, involvement of related parties are important to make it successful. Stakeholders are sometimes just world Parties can work solely, joint venture, and some of them are only beneficiaries. According to Freeman, in Bryson (2004) a stakeholder is defined as any group or individual who can affect or affected by the achievement of the organization’s objectives. The more common, which is more appropriately used in this context is the definition according to Word Bank in Mathur (2007), stakeholders are those who are affected by the outcome or those who can affect the outcome of a proposed development intervention.

Stakeholder as significant assets to gain the goal of child play space provision, therefore stakeholder analysis is significant to do. According to Walker (2008) through understanding the stakeholder’s value and characteristics, it will enable to design a new way to manipulate power, access and influence in some way in order to improve engagement among them.

Defining the stakeholder involvement there is two broad approaches can be identified, which is consumerist and democratic, between the focus of the private sector and the public sector

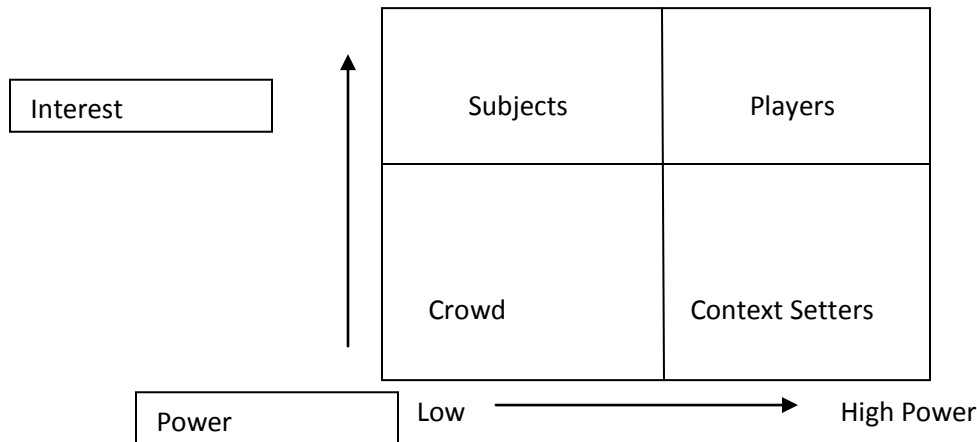
(Mathur et al., 2007). The former one looks for the profitable consumer, while the last address the issue of multiple stakeholders to dig the diverse and conflicting interest.

There are four distinct techniques for identification of stakeholder according to Mathur et al, (2007), they are : the use of a generic list, asking a set of questions, using snowballing technique and stakeholder mapping. Among them, the stakeholder mapping serves more strategic approach rather than only identifying stakeholders. Therefore the next part will discuss the literature of the Stakeholder mapping.

II.3.2 Stakeholder Mapping

Stakeholder mapping is one of technique to do stakeholder identification, which commonly the stakeholder is plotted on a matrix/ grids with two different characters in its axes. Mathur (2004), explains there are several type of stakeholder matrix; importance/influence matrix, impact/priority matrix, support/opposition matrix, problem/frame map, and policy attractiveness/capability grid, and the power versus interest grid. The last technique mentioned is the most suitable method to do the stakeholder mapping in the case of child play space, because in coalition building, interest and power is such important stakeholder character to be considered (De Jong, 2012). Furthermore, this matrix is helpful with information on how to convince the stakeholder with their actual position to shift it to the better view (Bryson, 2004).

Figure 2.4
The Positioning of the stakeholder based on interest and power



Resource : Bryson (2004)

This matrix as it is seen in the figure 4, will show the dimension of stakeholder interest in the issue, and the stakeholder’s power to affect the issue. This map will define the stakeholder on

four different plot: players, who have both significant power and interest; subjects who have an interest but little power; context setters who have power but little direct interest; and the crowd which consists of stakeholders with little interest of power.

Eliana Riggio (2002) concludes that local government is best positioned to respond to this new challenge in addressing children's rights with primary supports and partnership between families and communities. Therefore, they are some stakeholder together with children is self as the subject will be identified and plotted in the matrix.

According to Eden and Aeckermann in Bryson (2004), the power can come from access to control over various mechanism, such as money and votes, or from access to control over various sanction., such as regulatory authority or votes of no confidence. While, directions of interest in this term indicate the concerns of the stakeholder.

In conclusion, according to the literature explained, playing outdoor is crucial activities in children development therefore there have to be appropriate available space for them. The play space provision has to considered to some criteria standard both in quality and quantity, while the children's interest, as the user is also has to be taken in to account. The stakeholders need to work together in order to realize child friendly play space. The stakeholder analyses is necessarily to identify the role, power, interest of the stakeholder, as the information for the stakeholder engagement.

II.3.3 Conclusion

According to the literature review, in can be concluded that successful outdoor play space will be meaningful for children development. Other words of successful play space is play space that fulfill the principals of the child friendly space such as the enough dimension, accessibility, safety, healthy, and meets the needs of the community and children within their participation in utilizing it. Play space fulfill those principles will give wide varied of play benefits to children use it, including their cognitive, social emotional and physical development.

The play space as it is important for the children development should be integrated in urban spatial design, accordingly to the physical space (figure ground theory), (linkage system) linked theory, and the culture of the people (place theory).

To establish successful play space, it needs collaboration between stakeholders. Defining the problems dealing with the play space provision, and visualize the stakeholders might influence, including defining their interest and power position can illustrate the design of the collaboration can be created and what are the role of each of them in the play space provision.

CHAPTER III

Research Methodology

This chapter explains about how to operate this research from doing the literature review, data collecting and analyzing to get the results as the research objectives. Additionally, the second subsection describes the general information about the location of the case study.

III.1 Research Methodology

Methodology of this research is majorly consisted of three activities, reviewing literature, collecting the data, and analyses for answering the research question. The used literature are the scientific journals from internet, books and thesis collection from RUG University library and faculty of Urban and Regional Planning ITB Library. Data needed are secondary data which is collected from the local institutions in Bandung Municipality, while the primary data are obtained from the field study. Finally, the data are analyzed related to the theories from the literatures using mainly qualitative analyses. Figure 3.1 Shows the chart of the research methodology is conducted. The detailed procedure of research is presented based on the research questions as follows.

1. *What is the meaning of play space for children?*

To explore the mean of play space for children it is necessary to understand about children development, the mean of playing for the children, and what kind of space is suitable for children. It then comes up the term of child friendly space to give framework of the play space is supposed to be. The literature analyses is the majorly process to get the answers of this question.

2. *How do the children express their needs for play space in densely populated area in Bandung?*

To answer this questions, there are some processes have to be conducted :

a. Literature review

In order to get the framework for measuring the play space in the case study, literature review is extended from the first questions which is majorly about the criteria of the child friendly play space. In summarizing, the criteria used is presented in table 3.1. In additional, to do the prescriptive analyses about the spatial design, it needs to get understanding about the theories of urban spatial design. These theories is expected to use in spatial analyses of the play space in the case study.

Table 3.1. Criteria, Indicator and data needed for measuring play space

No	Criteria	Indicator	Data Needed
1	Space Quantity	Area	Width of area Number of user
2	Safety	Traffic accident Violence Other Accident	Traffic accident data Data/ interview Data/ interview
3	Accessibility	Distance to houses Distance to shops	Measurement Measurement
4	Healthy	Pollution	Air pollution data
5	Attractivity	Experiencing Equipments Natural Plantation Happiness	Observation Observation In depth Interview
6	Participatory	Community & Child's involving	In Depth Interview

Source : Author, 2012

b. Data collection

In order to measure the empirical study, some secondary data are needed such as the number of population, spatial plan in Bandung, data about the green open space, the violence, the level of pollution and the level of child's health in case study. To get those

information it needs to contact the related institutions such as Statistic Agency, Health agency, Planning Board, Spatial Planning Board, Environment Agency, and Landscape Agency (see Appendix). With snowballing model interviewing, it is also conducted the interview and data collecting to Transportation agency related to the information and policy about the car free day activities in the case study.

Besides collecting the secondary data, there are some methods to gather the other important information. The first is field observation to get the preliminary and detail orientation about physical place, location mapping, social coherent and behavior of the children and parents. The next step is doing the focus group discussion with the children and parents in the different place and different time. Tabel 3.2 shows the focus group discussion conducted for this research. Depth interview is not suitable in this research because of the children is less expressive with a strange person even in the informal situation. Conducting the discussion in a group of children make them more confident to talk and express what they want to say related to the information needed. The lists of questions and some of the texted answered is presented in the appendix. In addition, to get the other view of the children preferences, beside the group discussion, it also use a wishing tree. This method is seemed to be more expressive for the interviewing people an the first meeting (Sefton, 2008) that is used to put the children’s wishies writings about their play space in a tree hoping that it will come true.

Tabel 3.2 Foccus Group discussion to obtain the second research questions

No.	Location	Discussion topic	Member of FGD	Number of People
1	Tamansari Sub district	The condition of Play space	local communities	5 people
2	Sector 7	The use of play space	Mothers	5 people
3	Sector 15	The use of play space	Mothers	5 people
4	Sector 7	Child's Play Space	Children (4-9 year)	5 children
5	Sector 15	Child's play Space	Children (4-9 year)	8 children
6	Sector 15	Child's Play Space	children (7-14 year)	8 children

Resource : author,2012

c. Interpretation

The collected data needs to be prepared, interpreted and chategorized before they are used as source in analyses process. The recorded interview and discussion is replayed and texted in English. The local maps are also to be cleared since the available map is old hard copy map.

d. Analyses

The next step is the data analyses. The capacity of play space are analysed using the qualitative analyses, and the rest such as the quality of the play space, the behavior of the children, and the spatial design of the case study is mostly analysed by the descriptive qualitative analyses. At the end it is expected to give the prescriptive analyses for recommendation.

3. *How do the stakeholders play their role towards the child-friendly environment in densely area in Bandung?*

To obtain the explanation of this question in line with providing the recommendation about the stakeholder, there are three steps to do in this research.

a. Literature Review

In order to get the basic knowledge about the stakeholder the literatures supported this third research question are about the definition of the stakeholder, stakeholder analyses, and stakeholder mapping.

b. Data collection

Data collection needed is mostly the qualitative data that can be obtained from directly asking to the related institutions, or snowballing interview. Information needed is around the programs and influences of such parties to the play space provision, the major problems, financing, and participation of varied organizations (see appendix). Tabel 3.3 gives clearance the interviews conducted about the stakeholder of the play space provision. The interviews are conducting mainly with direct interviews, except for the women empowerment, Bandung berkebun and Support child’s playground needs the additional interview by email. with

Tabel 3.3 The interviewees of the institutions and the local community

No	Interviewees	Institutions	Officer
1	Local Government Institution	Planning Board	Head of Social Division
		Women Empowerment and Family Planning Agency	Head of Women and children protection Division
		Landscape Agency	Officer in park Division
		Transportation Agency	Officer in Transportation Planning
		Tamansari Sub District	Head of the subdistrict
2	Local Community	Bandung Berkebun	PR division
		Support Child's Playground	Founder
		Budak Cikapundung Asli	Members

Resource : Author, 2012

c. Data interpretation

Similarly with the method of the data interpretation previously, the recorded results of interviews are converted into English text and classified based on the subject before then it is analysed.

d. Analyses

The role of stakeholder is analysed using the stakeholder analyses. First, the stakeholder is classified into some categories, who are affect the play space and who are affected by. The next is ones affected the play space are classified as parties gives negative or positive influences to the play spaces provision. Before making map of stakeholder, the next step is identify further detail of each stakeholder, and their role. The map of stakeholder is then made based on the power-interest to understand parties are potentially brought in the stakeholder engagement in the recommendation.

Figure 3.1. Methods of Collection Data

RESEARCH QUESTION	TOOLS	SOURCES	INFORMATION
<p>What is the mean of space for children ?</p>	<p>Literature Review</p>	<p>Books Literatures International Journal Indonesian Journal</p>	<p>Children development Child-friendly space, standards Third space</p>
<p>How do the children express their needs of space in the densely populated Area in Bandung ?</p>	<p>Data collection Field observation Interviewing Story telling Drawing</p>	<p>Planning Board, Spatial Agency Neighborhood area of Tamansari and Bojongloa Kaler Dago Car free day and Tegalega park Government officer in Planning Board Parents, Local leader, local Community Children, Parents</p>	<p>Public open Space in Bandung Policy, regulation, Programs Condition, User of public space, function, Children activities Where they play, How, When How the spaces are, How they feel, what the effects are what the problem, the wisdom what they want, What the efforts are what parties influence</p>
<p>How do the stakeholders play their role towards the child-friendly environment in densely area in Bandung ?</p>	<p>Interviewing</p>	<p>Planning Board Women empowerment Agency Local Community/ : BCCF NGO Bandung berkebun Child's Space Support Community and children in neighborhood Entrepreneurs</p>	<p>Child friendly environment programs Vision, programs, parties involved, process, community and children participation, Coalition between parties, influences</p>

Figure 3.2. Methodology of Research

RESEARCH QUESTION RESULTS	METHODS OF DATA	ANALYSES METHOD	EXPECTED
<p>What is the mean of space for children ?</p>	<p>GATHERING Literature Review</p>	<p>Literature Analyses</p>	<p>Functions of play space for children How is play space has to be</p>
<p>How do the children express their needs of space in the densely populated Area in Bandung ?</p>	<p>Data collection Field observation Interviewing Focus Group Discussion Wishing tree</p>	<p>Quantitative analyses for supply and demand of capacity of the play space Quantitative analyses for measuring the child play space based on criteria of Child friendly space Quantitative analyses for understanding the behavior of children in play Quantitative analysis for understanding the spatial design using the urban spatial theories to give some spatial recommendations</p>	<p>Capacity of existing play space Condition the existing play space Explanation the link of the physical play space and the behavior of play Spatial structure analysis recommendation</p>
<p>How do the stakeholders play their role towards the child-friendly environment in densely area in Bandung ?</p>	<p>Interviewing</p>	<p>Quantitative Analyses for understanding the role and link of stakeholders through the stakeholder mapping</p>	<p>The Role and link of Stakeholder Power – Interest map Engagement stakeholder Possibility</p>

III.2 Location of Study

Bandung Municipality with administrative area 167,29 hectares is consisted of 30 Districts. Within the urbanization, more people attract to move to Bandung which make it more crowded and increase the land price annually. The local government find it is hard to provide more green space in the inner city compete with the business parties or the rich groups to pay high price land.

However, Bandung with academic institutions and educated people live in recently raise the needs of green space for social function, especially for children. There are 599.861 children in Bandung (Bandung in Figures, 2011) which means 25 % of the total population. Therefore it is a significant number to put consideration on their needs.

Tabel 3.4 The number of Children in Bandung

Age	Boy	Girl	Total
0 - 4	106,027	100,657	206,684
5 - 9	106,126	100,014	206,140
10 - 14	95,218	91,819	187,037
Total	307,371	292,490	599,861

Source : Bandung in Figures, 2011

Further, the subsections review about the green space Policy in Bandung City and the preparedness of Bandung towards the child friendly city.

III.2.1 Green Open Space in Bandung City

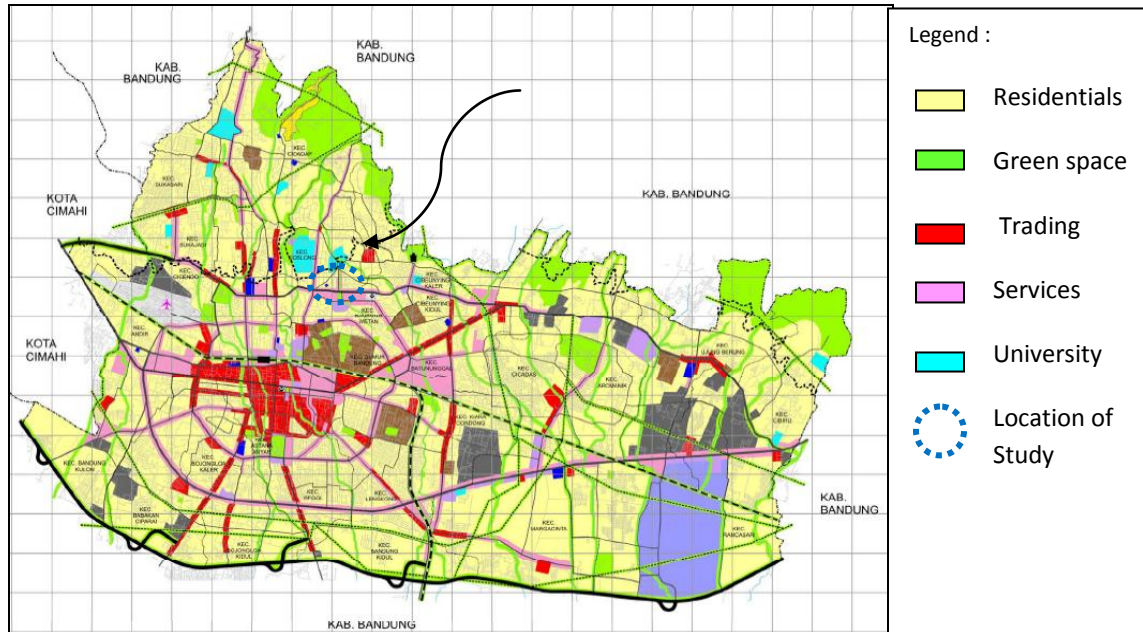
Within the rapid growth of Bandung as urban area, It has some problems related to spatial structure. According to Regional Spatial Plan (2004-2013) It is mostly results from the establishment of activity for five urban function as center of administration, trading, education, tourism, and industry in the city. It impacts to the provision of green open space in Bandung.

In 2004, the green open space available in Bandung City is 243,79 Ha or only 1,45 % of the total administrative area (RSP 2004-2013), while the ideal is supposed to be 20%, with the term of green open space in this case is including the parks, nursery, and gravery. However, The consideration of the green open space is already stated in the document of regional spatial planning 2004 – 2013. Some of the strategies are preserve the existing, increasing the green space through the land acquisition, returning the land use function, providing the parks and playground in the centre of neighborhood, and intensification of greenery in the flyover, shoulder of the road and highway. For the example, there are two gas station in the inner city those are changed to be city parks. The park below the Pasupati flyover which will be studied in this research is the first experience for Bandung.

The latest volume of park availability in Bandung is 215.39 Ha (Landscape and Funeral Agency, 2012), it is still 1.28 % of total area. Unfortunately, the common function of park officially is for environment purpose, city monuments and street park. Furthermore, the main land use planning or the green open space, including park is located in east Bandung, as it is shown in Figure 3.1. The area direction of this land acquisition is related the local government financing capability, since these area is cheaper than in the inner city. It results in the uneven distribution of the open space as it is needed also for the resident's social function, as it is stated previously in Tabel 2.2.

However, there also annually democratic mechanism which enable for the residents to ask for the needs of green space in their neighborhood, including the land acquisition. According the Landscape Agency, It would be granted if only it is cheap and urgent, because the land acquisition takes time and complicated.

Figure 3.3. The Land use planning of Bandung City (2004-2013)



Source : Regional Spatial Plan of Bandung City, 2004-2013

III.2.2 Preparation of Bandung on the way to Child Friendly City

Bandung, as it follows up the national program in promoting the child friendly cities in Indonesia, start to pay more attention on children on 2008, with the mapping of the child’s problem in Bandung, form the Independent Forum for Children inclusive the schools, local communities, government representatives, academic institutions, and children representatives from the Child’s Forum. In 2012, they are successfully make a local regulation about Child Protection. Related to the child’s play space, the local government representatives had agreed to proposed one or two play spaces in every district, as a project. The building coalition between parties to reach this goal will be further explained in chapter 5.

CHAPTER IV

The Expression of Children to Use Playing Space in Densely Area in Bandung

The findings related to the second objectives of the research about the children's needs of play space in the densely area will be presented in five parts in this chapter. The first part presents the analysis of the daily play space in the study area of Tamansari Sub district. The next part discuss the kind of child's play in the case study and behavior in play. The children preferences obtained from the wishing tree and focus group discussion as it is significant opinion from the user of play space are discussed in the third part. The fourth section analyze the car free day area as one of the shared space for facilitate the child play space in densely urban area, and the last part discusses the spatial recommendation to challenge the decision maker in order to provide the play space in Bandung.

IV.1. Place to play in Tamansari Sub District, Bandung

Tamansari Sub district is situated in Bandung Wetan District, nearly in the inner city of Bandung. Consists of 20 sectors, the neighborhood is a very densely populated with crowded small houses and small alleys connections, sealed by the shops and commercial buildings. Some part is passed by the river and some are also passed by the fly over (see appendix 1). The outer road is big busy road and the green squares are the available green space.

Some of available open space is belonged to private persons (see appendix 1). The owner are willing to let their land are used by the neighbors to do outdoor and social activities, including the children. It means that there is still remaining the strong community participation in the inner city of Bandung. However, they are not legally grant land that it can be sold any time as the owner wants to. Accordingly to the term of play space mentioned in the statute 56/2002 and literature of Riggio (2002) in chapter two, government should have taken over the land provision for the play space and its equipment so that it will make up legal agreements to utilize it.

Further, the group discussion with the local leaders directs the focus study in two sectors, sector 7 and 15. It is because not only both places are the most crowded, but also the most children live in (see table 4.5). Moreover, it is interesting to explore the situation in sector 15 with a new park constructed by the province government using the land below the flyover, and Sector 9 with two courts owned and made by the residents.

This narrative part will further presents the analyses of evaluation of the play space, the kind of play and their play behavior, and their preferences and at the end the recommendation of play space for the densely neighborhood. The play space will be evaluated based on the location of the play space, their dimension (quantitatively) and main principals requirements (qualitatively) of the play space.

IV.1.1. Where do children play in sector 7 and sector 15 ?

Play space used by the children can be in the formal and informal play space. According to the observation in the field, generally the children of sector 7 and 15 Tamansari play mostly outside of home every day, which is in the real play space like the court, and the park. However, many of children who live a bit far from the court, especially the young children playing in nearest shared places like the alleys, parking places, and also terrace of houses. The map of the sectors is illustrated in appendix 2, and Table 4.1 below describes the distribution of child play spaces in sector 7 Tamansari.

In sector 7, the only open space left is the badminton court, located in subsector 1. The court are occupied by older children from whole sector 7, especially from the neighborhood nearby. The younger children are usually plays in the alleys nearby where it is affordable for the mother to supervise.

In sector 7, the residents still keep the religious way of life with put their children to the informal religious education in some mosques outside of school. For the children it is such an opportunity for them to meet friends and make activities outside of home. Most of them enjoy it and use the pre and post of the class to play in alleys around the

mosque.

Tabel 4.1 Location and category of play space in Sector 7 Tamansari

Age of Children	Location of Residences	Place to play	Location	Category	
				formal	informal
Young Children	Sub sector 1	Alleys Court	Sub sector 1 Sub sector 1	V	V
	Sub sector 2-8	Alleys	each sectors		V
Older Children	Sub sector 1 – 8	Court	Sub sector 1	V	
		Alleys	each sectors		V
		Mosque Miftahul Ulum	Sub sector 7		V
		Mosque Sabilussalam	Sub sector 7		V
		Mosque Al Hidayah	Sub sector 4		V
		Houses			V
		River*			V

Resource : Observation, 2012

However, there is one of respondents who are likely to play with or without friends in the house.

“Sometime I play outside, or in the court if I want to join the romp, but I prefer to play with my closest friend at home or at my friend’s home playing doll”. (Ana, sector 7,10 year)

Tabel 4.2 Location and category of the Play space in Sector 15, Tamansari

No.	Place to play	Location	Category	
			formal	informal
1	Park	Sub sector 8 & 9	V	
2	Saung	Sub sector 9	V	
3	Pingpong court	Sector 3	V	
4	Alleys	Each sectors		V
5	Houses	each sectors		V
6	River* Parking lots	Sub sector 9		V

Source : Observation, 2012

In sector 15, there are more choices place to play, as it is shown in the next Appendix 3 and table 4.4 . Sector 15 has two big parks below the flyover constructed by the province, two pingpong courts owned by residents which is temporary dedicate for the neighbors, and one selfhelp saung. The religious activities are less in this sector, so that the child's activities is more centered in those public open spaces and not near the mosque.

The park in subsector 9 is an pretty good new park with interesting design mixed the concrete seats, plantation, and the view of the river Cikapundung, compared with the surrounding view of the tight slump housing area of Tamansari subdistrict. Therefore this park is such a proudness place to play for the children here.

"I love this Pulosari park, I hope it will be more beautiful with the flowers," write Siti, 8 years in the wishing tree.

However, as it is seen in the map, it is a bit far from some parts of this sector to be used as daily play space. For the young children, they mostly just play in the alleys nearby home in each subsectors as they still need adult supervising.

"Our children playing outside everyday, after they go back from school and have lunch at home. They always play together in these alleys , just do running and hide and seek, or play things in the terrace of house. Even the park is nice and safe for play, I rarely take them playing in the park, because it is too far. " Kika's Mom in sector 15, 39 years.

The other park next to it, located in subsector 8 is still under construction, and planned to be finished this year. The other play site in this sector in paking lots, located just next to the constructed park, below the flyover. The site is organized by the community leader to be a parking lots, starting from the resident's car, minibuses, until big tourism

busses. The site is not always full of cars, sometimes there are some lots rest that children likely to play there.

“I prefer to play here, it is windy but not too hot, I can comfortably play kite.” Hasan, 7 years.

“We often go here in the afternoon for playing soccer, it is wide enough than in the alleys.”
Melanie, 9 years.

In this subsector 9, sector 15 there is also “saung”base camp which is located just in the river banks. It is small opened house built by the community in this neighborhood for their social purposes. In the morning until afternoon it is mostly used by the children around to play, especially young children below 10 years old and mothers. However this place is so small for children to do physical play as it need (chapter 2), that for the more movable playing they do it in the alleys nearby.

Online gaming rentals, as one of the play space for children exist both in sector 7 and 15. However, there is only one online game shop each sector, and only few children play in this rental shops. According to the owner of the shop in sector 7, only older children plays there, not less than 6 years old, because they need to be able to read the instructions. In average, children play online game not more than 1 hour, excepts children who book the computer for doing assignments. It shows that the children in this area also has been introduced to this kind of play and have the opportunities to choose this kind of place for play.

Previewing the both distribution play space map, excepts of the red squares marked in the map, there are no other open space left in this area. All other space have been built.

“ The children are used to play there from long time ago. Even in my generation there were a lot more court, but this is the rest, after the other are becoming houses.” (Local leader from sector 7)

From the list of play spaces used by the children mentioned in the table, they can be classified as the formal and informal play spaces. However the term of formal play space is shifted not only spaces that provided by the government. Since there are more play

spaces are owned by the private persons, the formal play space in this situation can be defined as space which is agreed by the most residents and built for the public outdoor activities, including for the child’s play purposes. The classification then can be seen in the table that the park and the court is defined as formal play spaces, while the informal ones are the alleys, river, and the houses.

Both of Sector 7 and sector 15 are passed by the river, which in this area is also favorable play space for children even it is not for daily play. Sometimes some of children walk down the stairs in some gate and do simple water play. Furthermore the communities have sometimes organized big events to do kukuyaan⁽²⁾ (turtle) game in the river that further will be explain in the next sub section 4.4.

Summarizing the play space in Tamansari, there are limited open space left in this area, therefore only few formal space available both in sector 7 and 15 within only 2 parks, 4 courts and 1 saung. However, children in this area as they generally prefer to play outside, they occupy any open places both formal and informal.

Tabel 4.3
The formal and informal play space in sector 7 and sector 15, tamansari

Sector	Formal Play space	Informal Play space
7	Badminton court Pingpong court	Alleys River Mosques
15	Pulosari Park Pingpong court (1) Pingpong court (2) Saung	Parking Place Alleys River

Source : Observation, 2012

Based on their own perception the children decide where to play for some reason : the interest of a kind of play, the distance, and the attractiveness of the places.

IV.1.2. Quantitative Analysis of play space in Tamansari

The quantitative analyses for the play space is aimed to evaluate the capacity of the formal play space in the case study based on the standard regulation in Indonesia. According to the standard for the play space in neighborhood (SNI,2003), within up to 250 people there should be 1 m² per person of the open space and, in the central of sector area, up to 2500 there should be open space for park, playground and court which is 0.5 m² per person each sector. Table 4.3 below shows the measurements of the need of play space both in sector 7 and 15.

Tabel 4.4

The Play Space Dimension Required in Sector 7 and Sector 15, Tamansari

Sector	Number of Sub sector	Population (people)	Average population/ subsector (people)	Needs of space / subsector (m ²)	Total Needs in subsector level (m ²)	Needs of space in Sector level (m ²)	Total needs in each Sector (m ²)
7	8	1877	235	235	1877	-	1877
15	10	2988	299	299	2990	1494	4484

Source : measurements, 2012

Sector 7 that consists of 1.877 people needs at least totally 1.877 m² of play space in 8 separate sub sectors. Whilst, sector 15 with the population of 2.988 people, it needs not only minimum totally 2.988 m² of playground distributed in all 10 sub-sectors but also at least 1494 m² as the center sector's play space.

The next table 4.5 shows the capacity data of the existing play space available in both sector 7 and 15, Tamansari. Compare to the previous table, it is found that there is still significant gaps between the demand and the supply of the play space size with unwell distributed.

Tabel 4.5 Existing Capacity of Play space in Sector 7 and Sector 15, Tamansari

Sector	Population (people)	Children (people)	Space Available	Subsector	Dimension of space (m ²)	Total existing (m ²)
7	1877	430	Badminton Court Pingpong court	1 6	400 60	460
15	2988	700	Pulosari Park	9	600	1730

		Pulosari Park	8	800
		Pingpong court	3	200
		Pingpong court	6	100
		Saung	9	30

Source : Observation, 2012

Figure 4.1 illustrates the requirements of the play space distribution based on the measurement of SNI (2003) for both sector compared to the existing of the play space distribution. The number of the residents listed in the figure is the average of residents in each subsector from total number of residents divided by the number of subsector. This is to get to know the real demand of the play space, while there are no available data of residents for each sub sectors. The mandate from the SNI (2003) is to fulfill the basic needs in the smallest part of neighborhood/ subsector playground. From this point of view, both sectors are not provided sufficiently, and there will be further different compared to the requirements in the develop country (see chapter 2 page 9).

In sector 15, fortunately, the needs for the play space in the sector level almost fulfilled with the construction of the pulosari park both in subsector 8 and 9. However, from the 10 subsectors in this area, the subsector playgrounds are only provided in 3 places.

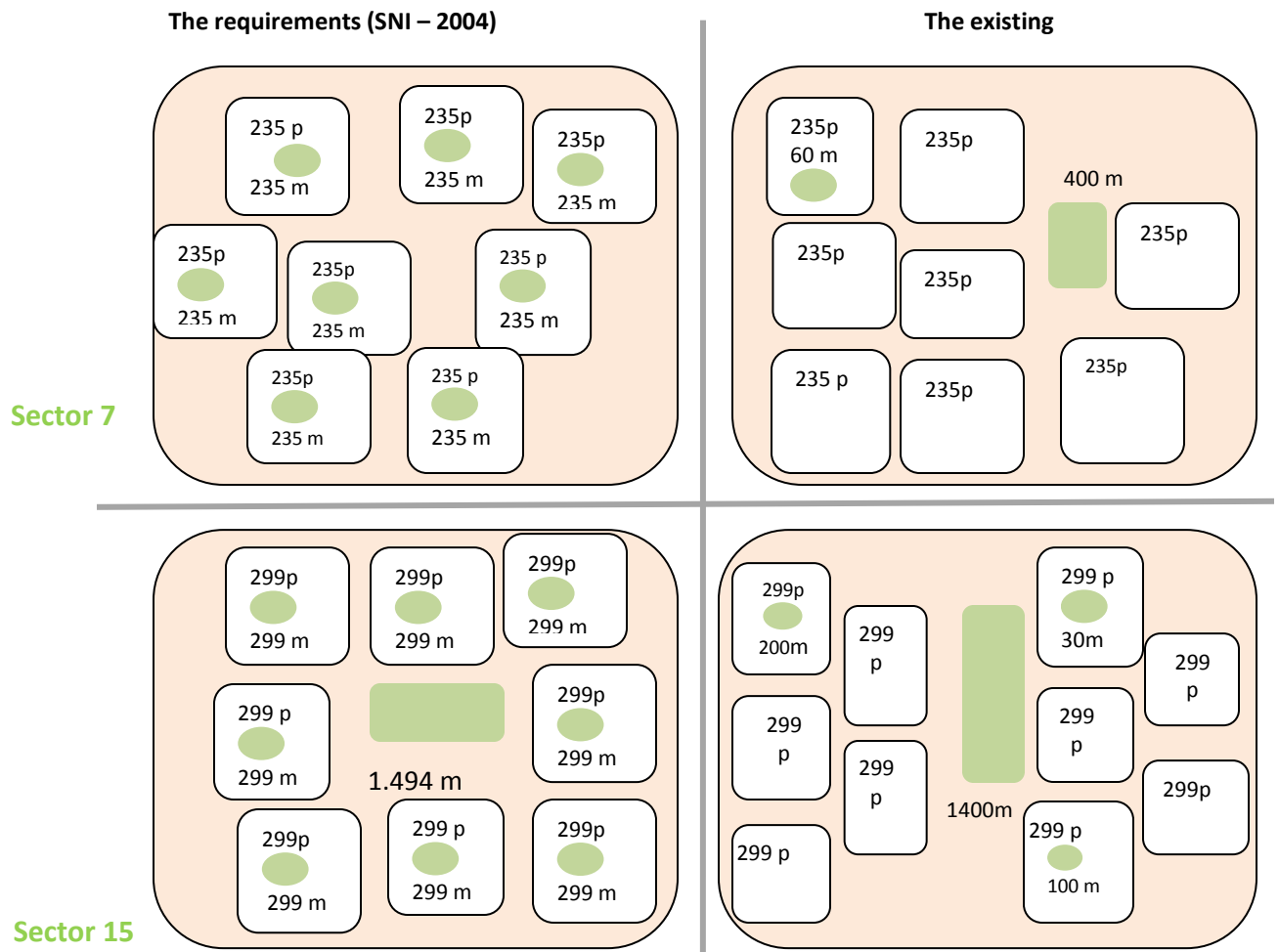
The lack of play space, according to Hendricks (2011) needs short time to explore and make easily get bored. This might promote indoor play with kinds of toys which is less healthy play behavior. In this case, those statement does not work, because the children have more limited space at their tight house, with also limited toy collection (observation, 2012) as they are from low income family.

“My friends and I always play outside after lunch until I have to take a bath in the afternoon. We can play anything in this saung, cards, drama (role play), singing, and games. If we want to we can play hide and seek in the alleys, bicycle, or play foot ball, there, in the parking place, below the flyover.” (Hendri, 7 years, from sector 15).


In the case of this densely area in Tamansari, the children tend to optimize the small available outdoor space rather than go back and play at home. Furthermore, It is true

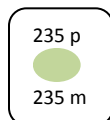
that children have their own geography (Valentine,2000) and they are able to decide for their own pleasure. Having the small spaces foster the children to create it to be joyful to play, move, and keep interact with their peers. The children will also find other way to play with choosing another place such as the alleys, river, terrace, or parking place, as it is mentioned by Bhattacharya et al. (2003) that they do not really care about the space's appearance, as long as they can freely move. In this case, socialization as primary benefit of the playground (Hudson et al., 2001), is still gained with the strong social interaction between peers, both in deciding and doing play.

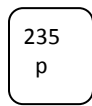
Figure 4.1 Comparison between requirements and existing play space in sector 7 and sector 15, Tamansari



Note :

 The play space

 235 p
235 m

 235 p Sub-sector consists of 235 sub-sector
With no play space

Sub-sector consists of 235 people
With 235 m2 play space



The sector area

In summaries, the densely populated area in Tamansari remain small play space for children. However, the limited space does not so much interfere the benefit of play, as the children still play outside, do well social interaction, do cognitive and physical play. However, it does not mean this situation is enough for them. The minimum standard size in SNI (2003) has to be realized since this small space will undoubtedly limit the child's physical move, and directing the children to play in the unsafe informal space.

The following analysis will evaluate the further qualitative criteria of the occupied play space in Tamansari.

IV.1.3. Qualitative of Play space in Tamansari Sub District

The evaluation of the play space in both the sector 7 and sector 15 in Tamansari sub-district qualitatively are conducted using the criteria had been discussed in chapter 2, which is the safety, accessibility, healthy, attractively, participatory, and usefulness. The measurements analyses to the extent of the both formal and informal play space has fulfill those criteria of child friendly space.

1. Safety

As the literature mentioned that safety factors in child play space divide in social and physical sense (Nordstorm,2009) this section will explore the physical sense through three indicators. The first is accident, including injuries during the play, the second is the violence, including bullying and child fights. The last indicator is the accident risks that might happens, which is valued through the physical situation of the area in the observation.

According to the interviews, the information about those indicators is shown in the table 4.6. The results is that the safer play space among all are the badminton court,

ping pong court, saung, and the houses, with no records of accident and violence, and free of risks. The courts are generally located directly between walls of houses and only one side faces the alley (see app. 1). Therefore the court site tends to be saved by the neighbors both physically and socially. In additional, situated adjacent to the neighborhood, it almost have no risks of the accidents and violence, because the community altogether take care and guard of the unpredictable incident. Similarly with saung, as it is such an active place for the member of community from the young children until the old adults, it is almost never empty, therefore no one brave enough to do violence in this site. Moreover, it is a save play space, because it is opened, small so that the children play less physically in this place.

Tabel 4.6
The Accidents, Violence and risks of the play space in Sector 7 and 15 Tamansari

Point	Location	Accident	Violence	Risks*
Play space	Park	Never	sometimes	Small
	Court : Badminton court	Never	never	small risks
	Ping pong court 1	Never	Never	No risks
	Ping pong court 2	Never	Never	No risks
	Saung	Never	never	No risks
	Alleys	Sometimes	rarely	Great
	Parking site	Sometimes	rarely	Great
	River	Rarely	Never	Great
Access to play space	Houses	Never	Never	No risks
	Alleys	Sometimes	rarely	Great
	Bridges	Rarely	never	Great

Source : Interviews of Local leaders, 2012

**Field Observation*

Pulosari park, even it is the only one park built and owned by government, it is located nearby the big street, and under the fly over which is directed to the Inner city of Bandung and highways. This condition enable the park to be occupied for the unwanted purposes. It has been recorded adult fights in this area, and the used by the street children. It is worrying parents for the children safety. However the local communities of "Kuya gaya" consists of local teenage and adults construct a small base camp just nearby the park. They do some activities there in line participate in look after the park and preserve it from the negative side. Up to now, the place is

socially safe in the point of view of the people there.

The main disrupt in safety is that there are still some misbehave people who are throw rubbish or litter from the fly over so that it harms the children play below it.

“There some incidents the people throw can, glass bottle or even rubbish from upstairs, and it dangers the people in park especially the children.” Wanda, 45 years.

“The local leader has reported to the police and also the deputi major when he came to do plantation, and now It never happens again.” Myrna, 13 years.

Figure 4.2 The kukuyaan river game and the danger bridge



Resources : Observation, 2012

The alleys, as its main function is transportation facility, is actually dangerous and uncomfortable place for play. Within the wide of the alleys are varied from 60 cm until 2 meter, it is not suitable for sharing between the user and the children. The user is not only pedestrian, motorcycle and merchants with their load, but also building material delivery within their dray. Two of the children report that it has ever been accident happened to them hit by motorcycle. It is quite common that the mothers interviewed mostly believe that the alleys is safe.

“It is safe for them to play here, than the children has to play to the court which is far and troublesome on the way there. The small accident with the motorcycle is common, the kids never get severe but only minor injured.” Nurohma, 38 year.

"The accident is mostly because the children do not listen parents, not to running on the alleys. Moreover, the cyclist are neighbors, that they are well known of the situation in this alleys to control their speed level." Beti, 30 year.

"What I am worry mostly is the merchants, especially the dray of building material. Once, a kid was nudging, then the cart full of sand fell hit him." Titin, 33 year.

According to the local leaders, the area of both sector 7 and 15 can be defined as relatively secure for children, since there is no violence records related to kids. The only criminal occurred is about the motorcycle stealing, once in around 5 years ago.

In the parking place, it is also unsecure for the children to play around it with many vehicles are going in and out. One of the kids say that it has been accident to the children playing in this area, hit by the motorcycle. So far, there are no child incidents reported caused by the cars or any bigger vehicle.

The lasts, is the bridge. Since the area is passed by cikapundung river, it is necessarily in some places to pass it within the bridge. All the bridge in Tamansari is typical and built in around 1970 by the government. As it is shown in figure 4.6. it is very worrying since it is enable children to pass the big metal slots in the right and left side of the bridge. It is reported that a children have ever been fallen down through passing this slot, and fortunately the he is save without any significant injuries.

*"We are indigenou people in Tamansari, we know how to do, how to act, and how to live in the river banks. Parents here let the children more than 6 years play in the river. We teach them when the clouds in the north is coming, it is the time to stop and go up."*local community, 45 years.

However, playing in the river is not only harm by the flood and stream, but also the waste. Since it was called as the longest trash bin, some children sometime found bleeding hit by the sharp things as nail and broken glass.

From the findings, it is clearly that the informal play spaces in the case study such as alleys, and the parking site is not safe for child's play. According to Cabe space (2008), safety is the most crucial factors for parents. In the densely area situation as in Tamansari, the parents fear is seemed to be lower than it should be. Necessity of the outdoor space is so high to let the children play in the active alley. They are likely to let their children play against the risks of motorcycle and the river rather than just seal them play at home. Even if the formal play space is relatively safer, the way to get there is also risky. However, rather than waiting for government action, they are already do effort with self help solution. The base camp construction in the park sector 15 is one of the parents and community effort to realize the safer space apart from the community participation in taking care of the children around no matter who their parents are.

Moreover, the risky play spaces in the densely area may develop the children in this area to be more struggle as Hendricks (2011) believe that children have skills and abilities above needed for survival. These skills might also explain why in this dangerous play spaces there are rarely child accidents occurring.

To sum up, children in the densely area are against the physical risk situation in their play space, especially informal play space. Regardless it is not the ideal situation for the children, it might also give benefit for the children to sharpen their survival skill. While it is also develop the community participation to do self help in solving the safety problems between the local adults.

2. Accessibility

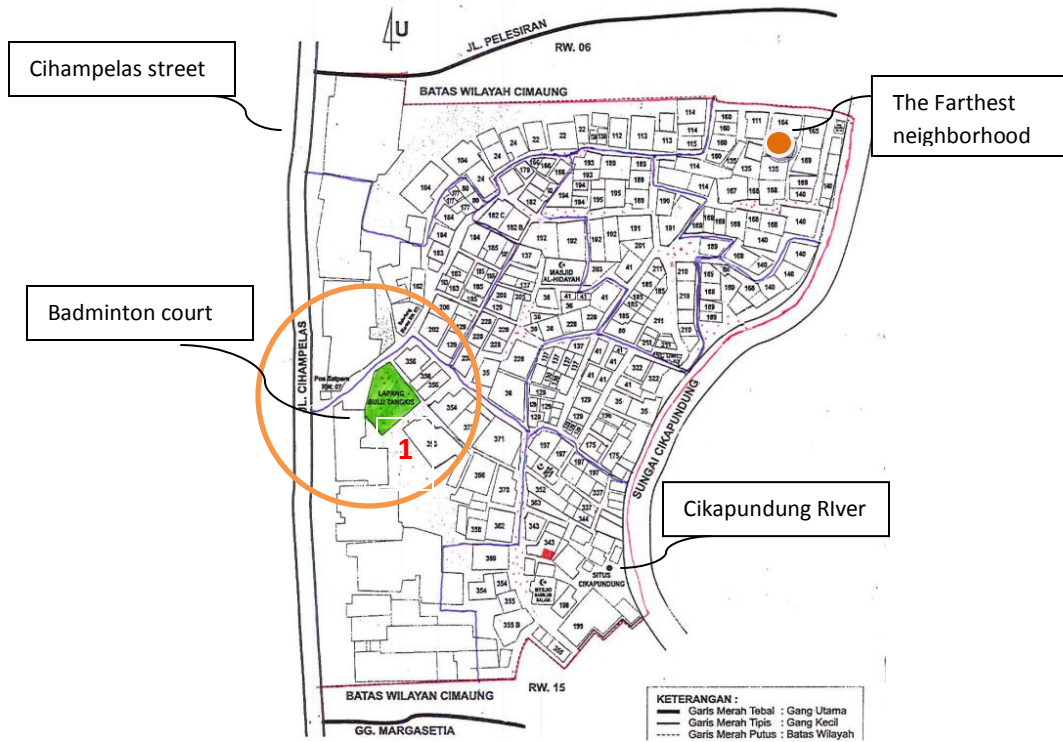
Two indicators for accessibility criteria is the distance (mayor of London, 2009), (SNI, 2004) and the easiness to reach the place (Rezania, 2008). As it is mentioned in chapter 2 that the distance is correlated with the age of the children. The younger the children is better to play nearer to house.

According to SNI, young children needs an easily play space to be accessed in at least

around 90-120 meter from where they live and eyesight. It is related to their walking ability to reach the place and their necessity of adult supervising. Therefore it should be presented as the play space in sub sectoral level.

Unfortunately, within the insufficient play space provision, it results in the uneven distance from houses. In sector 7 (see figure 4.4), the court as the play space made by and for the residents in subsector 1, is only accessible for the children in that area. Nevertheless, it is also located not in the center of sub sector, that there are still young children living a way further just play in alleys nearby . Even the farthest houses are about 100 meters distance, mothers living there already feel too far for their children to play in the court. Within this opinion that mothers prefer their children to play in around their eyesight, then 100 meters distance is too far for them. This situation might assert that younger children need to play closer distance than the older children. The standard distance of mothers here are lesser compared to SNI (2003). It is possible because of the way to go there is a meander alleys within the motorcycle passing by. So that the accessibility factors here is in accordance with Cabe (2004), not only the distance but also the easiness to go there.

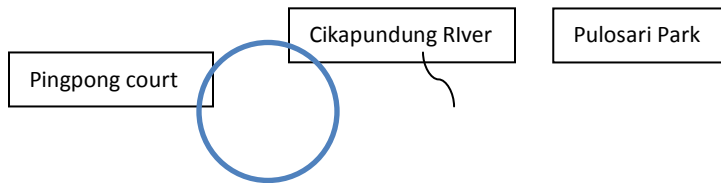
Figure 4.3 Distance Accessibility of play space in sector 7 Tamansari

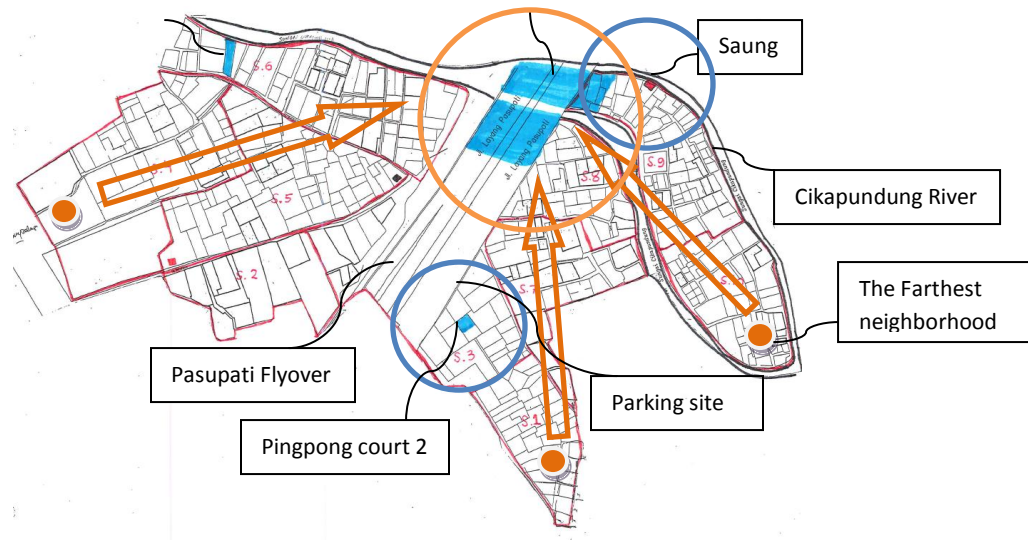


Source : Observation, 2012

Similarly in sector 15, the mothers also has more or less preference with the distance of playing place for their young children. Within the available play space is distribute unequally, it makes the young children in the farthest area which at least 100 -200 m distance to play space mostly has no opportunity to play in the appropriate place. The consequences are the children play anywhere in informal places that will be discussed in the next subsection.

Figure 4.4 Distance Accessibility of play space in Sector 15, Tamansari





Source : Observation, 2012

Moreover, the other views of accessibility is that the easiness to reach. The landscape of the area is not so flat, and the land of the courts are land belonged to the residents that granted for the neighbors temporary because of it is located in less favorable places. For example, the badminton court, which is located just blocked by the walls of houses, and it has small entrance to in in the mid of ramp, as it is shown in the figure... The one who want to play there has to walk ascend the high ramp before then turn and going down the stair to be on the court. It is such a complicate narrow entrance for the children to come in. However the difficulty and the longer distance is not very influences for the old children to decide where they play, since they do not have a strict adult supervision. "we have to climb the ramp to go there, but it is easy, it is commonly for us." Hendry, 9 years.

To sum up, for the young children, play space available in these two sectors are accessible in a distance perspectives only for some neighborhood area. The rest which are out of coverage then they are still playing but in the informal play spaces which is more accessible for them. While for the older children distance in some way up to this condition is not necessarily. It is also likely for the easiness of the way to reach the space. The young children in the study case play depended on where their parents will take the and supervise them, and the preferable is the nearest to their houses which is eyesight.

On the other hand, the older children do not consider about this situation, for them the difficulties is such a challenging things.

3. Healthy

Urban environment in Bandung with so many vehicles offers the air pollution which can give negative health effects to the children. Since the children in the study case is preferably to play outside, it is necessarily to look for the information about the level of air pollution in the surrounding area.

According to the data from the Environment agency (2012), Air pollution in Bandung for of NO₂, SO₂, CO, HC, O₃, Pb, TSP, Noise and PM 10 is generally still below the damage standard, except noise that is 7 dB more that fulfill the standard of air quality (see appendix 3).

As the noise exposed regularly has negative effects to child cognitive development (<http://www.who.int>), while the children here are living just below the active fly over and love to play outside, this should be one thing that the local government should consider about.

According to the literature, the air pollution might be related to the respiratory disease, especially the lungs (Scwarz,2004). According to the local Health Agency (2012) there are approximately 201 child from Tamansari go to the medic because of respiratory infections each month during 2011 (see appendix 4). Therefore the government should also pay attention for the traffic air pollution in this area.

The healthiness of the children is not only affected by the pollution, but also the hygiene and the life style. The data shows that there is around 52 children get diarrhea every month (Local Health Agency, 2012). From the observation there are some lifestyle related to the digestive infections such as the consumptive habit of the children to buy some foods in the alleys. Eating while playing can be a non hygiene habit within the dirty hands, dusts and flies around. Moreover, the health of the food in the stalls are also in

guaranteed, within the cheap price.

In conclusions, in the case study, even the level of air pollution shows it is still under the standard, there are still number of children get the respiratory infections every month. With the more urban development in Bandung in the next few years, it has to be preventive planning in order to avert the increase the health case and the more serious respiratory injuries to the children.

The availability of the food stalls and many merchants which generate the consumptive habit to the children are not a healthy playing style which also stimulates in the digestive diseases. The deeper analyses if this kind of habit will be discuss in the subsection of the playing behavior.

4. Attractivity

Attractiveness as one of the criteria to evaluate the play space can be measured with two indicators, equipment and the natural views (Hendricks, 2011). The results of the observations on the play space in sector 7 and sector 15 Tamansari are illustrates in the table 4.7 below.

Tabel 4.7 The attractivity of play space in Sector 7 and 15, Tamansari

Sector 7	Play space	Equipments	Natural plantations
Sector 7	Court	concrete stage	2 big trees
	Alleys	no equipments	personal plantations
	River	Wheels	Not available
Sector 15	Park 1	concrete chair, audio equipments	Available
	Park 2	concrete chair	not yet
	Court 1	No equipments	not available
	Court 2	No equipments	-
	Saung	roof, television, CD Player	not available
	Parking place	No equipments	not available
	Alleys	No equipments	personal plantation
	River	Wheels	not available

Source : Observation, 2012

The observation shows that there is no specific child play equipments among all the play space in these area, both the formal and informal play spaces. The only related equipment is that the concrete seat in the pulosari park, and the concrete stage in the court functioned for the role playing or performances.

Figure 4.5 Play space views in Tamansari, Bandung



Sources : Observation, 2012

Those available equipments and the design of the space are not typically child playground. The basic play ground with as swings, gliders even it is called conventional or traditional playground (Hendricks,2011) are still such a day dream for the children here (Source : wishing tree tamansari, 2012).

According to the observation, the children are always enjoy their playing time, with or without play equipments, and with or without natural plantations. In the midday there children found run and play hide and seek no matter to the sun heat, and parents seemed to be fine. Saung in sector 15 can be categories as comfort places for the young children playing activities, especially for the fine motor skill, and the social skill. However, it is not sufficiently for the physical play.

According to Cabe space (2008), it needs creative design to get the successful play space, then the space might be use for multi age children. This statement is not really works in the densely populated as in Tamansari. Based on th observation, at any open space in this area, there will be many children in every afternoon when the playing time comes if it is not rain. Both young or old children together with their carers interact and do activities as they want. Except the pulosari parks, the children

occupy any available open space for play, which is not really a playground and no body design for it. The place only provides empty spaces. The children themselves who will create “unpredictable experience” of play with their own toys, resources and imagination that might be differently each day, as Hendricks (2011) says that there are meaningful and rich value play without formal equipments. Based on Bhattacharya (2003), that the higher complexity of the play equipment may decrease the interaction between peers. It might explaining that without any supporting play equipment the children in this area has very well social interaction each other in a big group.

However, play equipment is still necessary to put in the real playground even in the informal way, since it offers varied experiences and challenge for children (Hendricks,2011). It further signs that the place is belonged to children so that adult have to appreciate them with no smoking, for example.

Related to the natural plantations, according to Hendricks (2011) it is designated to increase of the nature awareness of the children. In fact, in this area are rarely to see green grass and natural view, since the all surroundings environment are built houses. Limited nature found in the play park or the court is incidentally planted there for the comfort reason, without any plan that it can be educated for children.

To sum up, open space use for play in the densely area as in Tamansari, Bandung, are not specially designed for child play. The court, park, and saung are the open space left in the area that are agreed by community to be used by whole community, especially children. Therefore there are no child play equipment installed, even in the big government’s park. In child perspectives, they are still enjoyfull play regardless the presence of the play equipment and the natural views. Even though this limited situation might develop creativity and imagination of the children, in the better condition for the future, play ground should be more well designed with nature environment and stuffs to give more experience, nature, and art sense for the children.

5. Participation of children and youth

The participation related to the play space in the case study can be classified as the participation in the provision of the play space and the use of the play space. Both kind of participation are strongly influenced in Tamansari both sector 7 and sector 15 as it is shown in table below.

There are three of local people grant the lots of land contemporarily. The owners has granted for long time ago, and agreed it to be used by children and also for the community purposes for free as long as the owners do not sale or build them.

Tabel 4.8. Community Paticipatory for the play spae in Sector 7 and 15, Tamansari

No.	Type of participation	Sector	Participation
1	Provision	7	One of resident provides the land for the contemporary public space at the badminton court
			Whole residents are generally willing to contributes in dues to buy the land if it is sale
		15	Two of the resident provide the land for the contemporary open space in the neighborhood in two pingpong courts
			the residents of subsector 9 working together to make the saung for multi purposes, especially for the safer play space for the local young children
2	Play Supervision	7 & 15	Mothers and older children are shared responsibility to take care each other children.
3	Children participation	7 & 15	The decision made are considered to the children, but it is from the adults perspectives

Source : Interview, 2012

The residents as they need a social space, they do self help to construct the court and also saung. The local leader together with the community arrange the contribution from the residents, which can be in cash, building material, or man power contribution. This condition was traditionally occurred in the past time, but nowadays, it is surprising to be still happening strongly in the inner city in Bandung. Further, according to the local leader, badminton court in sector 7 will be sale by the

owner. This time the residents is in discussion to collect and save money to buy the court to keep the it still available for children and social uses.

The culture of residents both in these two sectors are kinship, that is why the mothers and older children are altogether taking care for the younger child. This is the strongly different culture with the western, within this guardians, it helps to protect the low safety standar in this community.

The land provision and participation from the residents in this area can explain how the good social relationship are still working in this area. Play Space as it has to be the responsible of the government (Riggio, 2002); (National Child Protection Satue,2004), it is well managed by the community even in the very simple way. It illustrates the high necessity of open space in the densely populated area, that they directly do efforts altogether rather than wait for the government's program. And that is the reason if the place is loved by the communities because of they are strongly involve in the process (Cabe space, 2008)

On the other hand, all the plan and the construction of Pulosari park in sector 15 are fully conducted by the provincial government. Fortunately, the park is such facilities that residents want to, so the children and adults are happily to do activities in it. The community also make self helps base camp nearby, so it make the adults possible for adults to participate in preserve the park place in line doing their activities inside. It illustrates how the communities love this park which enable it to be successful play space according to shackel et al. (2008). However, according to Cabe space (2008), since the residents do not take part from the first step of the park constructions, then it will remain questions about the sense of belonging and the spirit for maintenance in the future.

To conclude, the community in this densely population area has strong willingness to participate in the play space provision, which enable the available play space will be successful play space in the future time. The government should take this into

account to support this community as they has asset to also realize the sustainable and successful play space.

To wrap up, the children in the densely populated area in Tamansari occupies the play space which is still less safe, less accessible, less health and physically less attractive. However, this situation build the more social interaction between peers, creativity and survival skills to create fun play under limited situation. The lack of play spaces principles does not significantly impacts the social, emotional, and cognitive benefit of play, even it might limit the physical activities. Furthermore, the high participation of the communities illustrates they likely to have and utilize the park and court.

IV.2. Behaviour in Playing

The behavior of play might be affected by the available play space, it might also occur vice versa. Understanding the kind of play and the behavior of play helps to understand how the play space affects the children and what kind of the appropriate play space has to be planed for the children in the case study. The following two subsections discuss these two topics.

IV.2.1 Type of play

The kind of play surely influenced by the available play space and the environment surrounding in the neighborhood. The following table is the findings of the observations and interviews both in sector 7 and 15 about what they play based on the play spaces.

Sector 15 for example, in saung, the most favourite play is role playing as a children in school with one of the older as a teacher. The eldest makes some questions or games and the “students” enthusiastically answer them. She also gives some an assignment, and the older children are willing to help the younger to finished it.

In the open play space, according to the results, the children are likely to do physically play. And the favorite physical play for the mostly children is football both girls and boys

(FGD, 2012). The children are seen to play football in many play spaces; the park, courts, and parking place, and alleys. When they are asked why, they just answer

“ I do not know, I just like it. “ Hendri (7 years)

“ I like football because can chase and kick the ball, and compete with the other group.” Adi (9 years)

Some of them are also do creative play such as singing, dancing, and clap hands game in the alleys and courts. Concrete stage in the court are also used by the children to do performance game. In the park in sector 15, almost every afternoon the audio is on, it attracts children in varied age to express their feelings with dancing and singing.

Table 4.9 The kind of Child play in Tamansari, Bandung

Place	What to play	Creative play	Dramatic Play	Physical play
Park	- running			√
Court	- hide and seek			√
Alleys	- singing, dancing	√		
Parking place	- jump rope			√
	- football			√
	- play kite			√
Saung Houses	- Role Play		√	
	- watching movies	√		
	- singing	√		
	- cards game	√		
River	- learning by playing		√	
	- playing with water			√
	- kukuyaan			√

Source : Observation 2012

It is seen from the table that the children in the densely area in Tamansari still able to play the all three of type of play even it is conducted in the different places. The limited space are more suitable for non physical play, while the open bigger space direct them to do physical play.

According to (Piaget,1962) in Bhattacharya (2003), routinely football play support child's cognitive development. Furthermore, children likely to do pretend and creative play also relate to their cognitive skill through good academics in their future. Therefore football and role playing as their favorable play will generate positive benefit for their development. The one has to be taken into account is the safety during the play (Bhattacharya,2003) as the children play football in the informal places which is sometimes nearby the river banks.

IV.2.2 Behaviour in play and Character of the children

- With whom they play

Based on the observation, the children in both sector 7 and sector 9 are commonly playing in a big group, while the young children below 4 years, generally play under adult supervision. Regardless whose children they are, the community are common to take care of all children around, as they are know each other families. In some ways the older children take responsible if there small child cries and want to go home. In the fighting between some of them, the older will try to solve it, and not more than some minutes it is clear and they continuing to play.

"The fight is common, but we have to be netral, because we already like family, and we also have to be fair to the children."

According to Hudson in Bhattacharya (2003), adult acting in this way is a kind extre needed interaction to the communication between peers in the similar age in order to equip the social benefit of play. Therefore, with let the children just play in the multiple age of children will let them learn how to interact and responsible for the younger child.

However, not all children are like to play together in a big group. One out of ten respondents in Sector 7 are prefer to play with her closest friend playing doll or play PS game in her friend's house within just 2 or 3 girls.

"I prefer and often to play at home, playing doll or play station with my friend. Only some times I play outside and join the other in the court. "maya, 10 year.

- Activities in playing

The other interesting finding of the behavior of children in play in this area is the consumptive style. Almost every children playing outside carry snacks in their hands. It can be fries, chips, ice creams, meatball soup, and others. Reminding the level of wealth of the residents is the low income family, it is surprising that the children have a high consumption habit when they play. This habit is not only negative spendthrift habit, but also unhealth and unhygienic, remained that the child's hands tend to be dirty when play.

This behavior might correspond with Bhattacharya et al.,(2003) that the environment of the child's play is influencing the behavior of play. The situation of neighborhood is surrounded by the establishment of the stands in the alleys almost every 5-7 houses, and pushcart men often passing or just stay on the alleys in the peak hour of child's play outside. Being supported by this seller rather than the play equipment in the play space undoubtedly arouse children to ask for buy and consume.

IV.3. Children Preference

As it is stated in the Child's right Conference that children has right to express their opinion and influence the city from their overview, their preference is important to be considered. According to the focus group discussion and the writings in the wishing tree, there are a lot of interests of the children from the densely populated area, as in sector 7 and sector 15 tamansari related to their play space. The subsection below discuss their preferences in the Physical and social aspects.

IV.3.1. Physical Space preferences

According to the focus group discussion, both children from sector 7 and sector 15, generally they are enjoying to play outside, whether it is in the park, in the court, or on the alleys.

*"I like to play outside with friends, I am bored to stay at home."*Dika, 6 years

"My children can not stay at home more than 2 hours, he must have just go out side anytime he can." Adi's Mother, 36 years

Findings about form of play space in the wishing tree, the children in the study case love football a lot, regardless to gender. Ten of 25 wishes, wants the large court for play football.

"I prefer the court below the flyover before it is become this park. It is larger, and we can play football unimpededly. Now it is limited with the plantations, seats, and landscaping." Dion,8 years

Figure 4.6. The wishing tree; what the children wish for their play space



Source : focus group discussion, 2012

Some of children from sector 7 wishes for a beautiful and clean park to play, with swings and gliders, and a swimming pool. While there are 3 other children from sector 15 express their proudness and their happiness about the pulosari park, and some other wants for more lamps for enable playing at night, more flowering plantations, more playing equipments such as swings and the provision of music performances.

These all illustrates appropriateness with Horeschelmann (2012) that child's perception is not always similar with adults. Children also has their own perspective about their play space, that the designer should also put in to account as it make it lovable by the user and be a successful play space (Shackel et all, 2008). The pulosari park which is still unfinished still have oopportunities to put this views in to the design to make the park more benefit for the children.

IV.3.2. Social Preferences

From the discussion with the children user of Pulosari Park, some of them also consider for the social aspects of the play space. The older children do not like if there are some pairs of teenagers do excessive courtship in the park and the use of the park to for drunkenness. The children do not accept that situation disrupt their playing activities, even they can not express it directly to the related people.

This interesting view had been explained by Hendricks (2011), that children sense the world around them as they are the centre of their world, and have their own explanation based on their experience. Therefore the norm and valued generally belief in daily life

around had interfere them to make their own norm.

Both physical and social preference from child's view is not always similar, in accordance with Hendricks (2011), the designer has to put al together the children, society criteria into the good play space design. Therefore the child's perspectives can not just be underpinned.

After discussing the daily play space, the next subsection will explore the car free day as weekly play space for children in Bandung.

IV.4. Car Free day

Starting 2011, People in Bandung, especially people in around Tamansari have a new open space to do outdoor activities. According to Decree of Major No. 551/Kep.449-Dishub/2011, the local government organize Car Free Day in order to minimize air pollution and increase the public health through providing more open space in the inner city. One of three location is in Dago street where some part of it is under Tamansari territory, and the activity is taken every sunday morning from 06.00 am to 10.00 am. The figure 4.3 below show the map of the car free day and the figure 4.4 illustrates the activities on the Dago car free day every week.

Within this decree, this busy main street is becoming a new public open space not only for the surrounding area, but also for the other parts of Bandung. According from the observation children are enjoying the open space on this street, and occupy this area with many activities such as biking, playing soccer, skateboarding, playing bee, bubbles, or even just walking and sightseeing. There is also the stage provided by the association of the hotels to promote the traditional culture of Sundanese, the local tribe of Bandung. The performance is mostly from the children managed by the school or clubs. There is also kids drawing activities supervised by the art students. As it is a street, there are no playing equipment provided here, however, children are fully enjoy the place and the activities on the empty street. As Hendricks (2011), children are likey to do unpredictable play, that they do not really need formal equipment to get fun, In this event, the mostly important is the presence of open space and creativity of people to organize activities.

"I like to ask my children here, not only this place is offer safe place for them to bike, but also they can see the traditional performance which is educative." Feni, 34 years.

"Almost every week I take my children here, because it is a cheap and healthy recreation. I have to pay some money if I take them to the play court in the mall." Hendri, 7 years.

"I go here to meet friend, play soccer, and biking. It is much safe to bike here than in the neighborhood with many motorcycle around." Desy, 10 years.

"We like to go to the CFD (Car Free Day), it is joyfull, many things to see, and we only have to walk there. My parents permit me go there with my friends only." Yulia, 7 years.

"I like the decision of CFD because we can occupy the street with our feet in the morning before it is occupied by the rich from Jakarta with their cars in the rest day " The head of Tamansari District

Figure 4.7 View of Dago car Free Day, Bandung



Source : Observation, 2012

It is appropriate with Riggio (2002), that children in urban start to lack play space, therefore the car free day is such a solution for the needs of open space of the people, especially for the children in the crowded city.

"It is such a place for relax and sight seeing. If I really want to do jogging, I have to do it in sport court." Gandi, 11 years

Up to this moment, there are still no arrangement specific places for young children. Therefore, within the mixed use, some parents are still worrying this place.

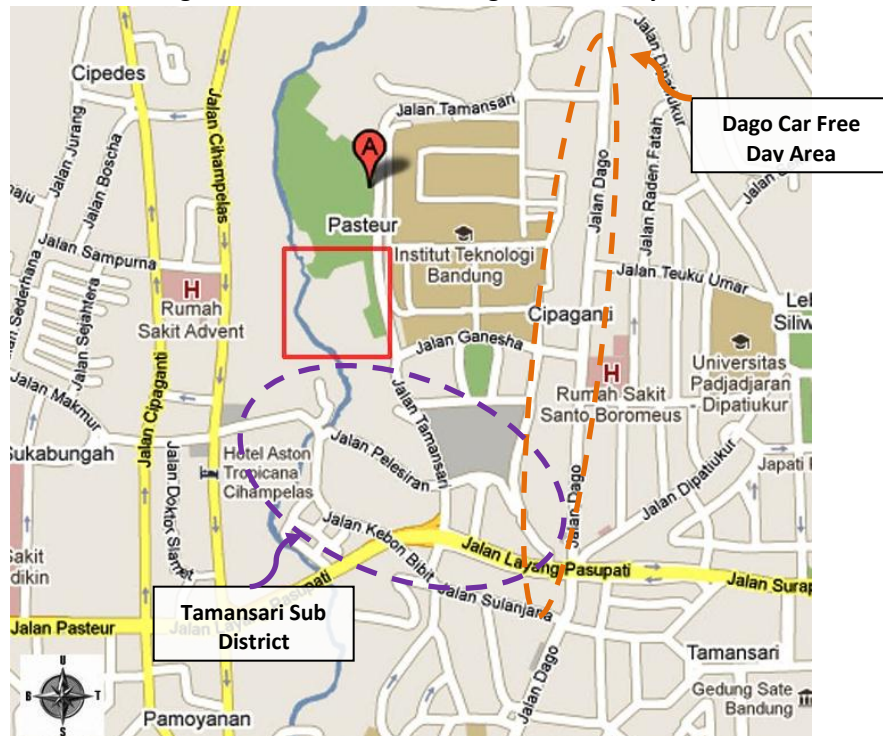
"it is not very safe, I do not see the officer will take responsibility in this area. With so many teenagers and adults, I will not let my kids (7 & 11 years) go without us." Atikah, 38 years

Differently, children from Tamansari who are seemed to be more struggle, they commonly go here with or without their parents.

“ we went here together by foot, and we will go back home by public transport if we are tired. Our parents know and it is fine, we come here almost every week.” Malik, 9 years

In summaries, the car free day decision is such a blessing for the local people of Bandung, especially for them who live nearby.

Figure 4.8 The Location of Dago Car Free Day



Resource : Edited from Google Map

IV.5. Play space and the child play in Tamansari

In summary, the children in densely populated in Bandung, focusing in Tamansari occupy the non feasible play space within the small area that is less than it has to be, struggling with the proximity because the play space is usually unplanned that located not in the centre of the neighborhood. They also deal with non safe environment, that the way to go and the play space is facing the motorcycle passing, and the big deep river without affordable fence. Additionally the health of the environment is still worrying within the active main streets above the play space, the children might be disturbed by the air pollution and noise. However, the kinship among the residents and the children are helpful to deal with this condition. The limited situation of the play space in this area are

full of their sense of belonging still they are involve in the construction. It makes them love the place and actively utilize it. The children still likely to play outside, since they have more tight home environments.

The play space with all this safe risk and less attractive equipment in this area still meanfull for the child's development, since they occupy it in they daily life within various play; role playing, football, hide and seek, and othes. Even this limited situation might give them more play benefit such as survival and creative skill to create many more ways out of troubles. However, this is a responsible of government to provide the right of the children to play safely, therefore it should be better play space for them to play in safe and health environment to gain the more benefit of play.

IV.6. Recommended Space

Play space as it is very important for the child development , has to be well planned and organize. Hendricks (2011) said the usually play space is the space left after the urban land is fully build. It is similarly with the condition in Tamansari. In order to get the appropriate play space for the children in this area, there are some recommendations :

I. Finding a safe shared space

Shared space that meets the needs of multipurpose in one place and one time (Shackell ,2008) might be agreed by any parties to keep it safe for child play. The parking site below the flyover for example, might be more manageable. Shared space as the car free day is also very useful to fulfill the needs of play space, however, it is not for the daily use.

II. Make a new neighborhood plan

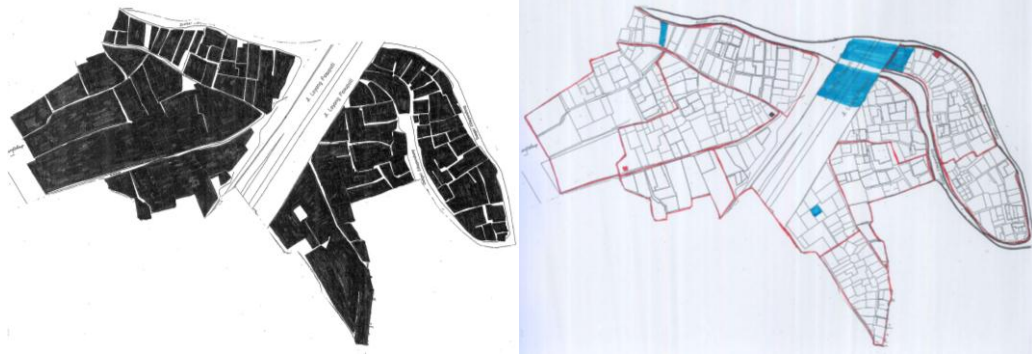
Looking at the existing neighborhood situation using the three perspective of urban design promoted by Trancik (1986) theories of figure ground theory and linkage theory might give more integrated strategy for the long term situation of this area.

According to the solids and voids analysis of the neighborhood area as shown in figure 4.9 and figure 4.10, It is shown that both sector 7 and sector 9 are very full of solids (black building blocks) that there are only small open space left which is the white colored.

The black blocks are mostly residential, and the white ones are the alleys, courts, and park. In

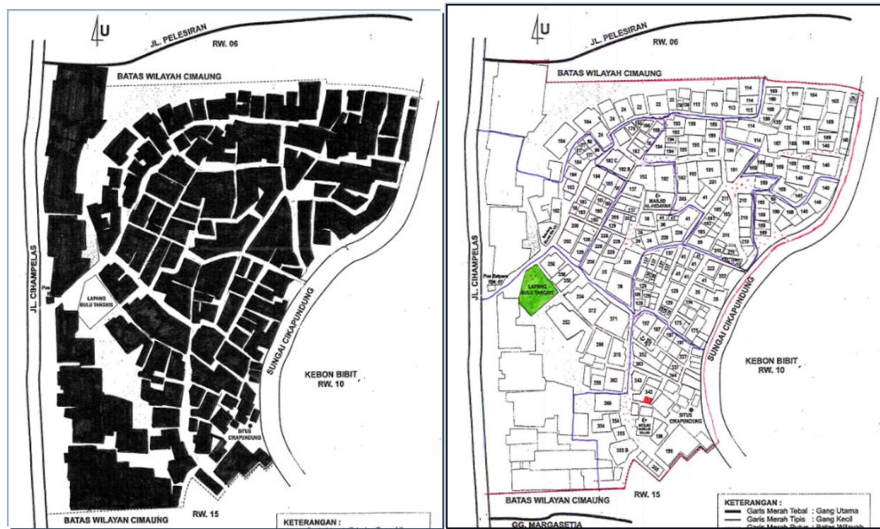
the Solid-void perspectives, both sector 7 and 15 are very dense without well balance between the building blocks and the open space. Moreover, the big white voids that represent the public open space is not well distributed as it is not in the centre of the neighborhood. Relate to the proximity to the play space, it is not really accessible for some residents. Play as regular activity then will only be done in that place by residents nearby, and the rest children will just do outdoor play in the alleys surrounding their home.

Figure 4.9 The solids-voids Sector 15, Tamansari



Source : Edited Local map, 2012

Figure 4.10 Solid-void in Sector 7, Tamansari



Source : Edited local map, 2012

In order to make long term integrated neighborhood and successful play space in this area, there should be more white voids—open space within the well distributed as it is accessible for the whole neighbors for doing regular play. Within the very densely populated in this area, it will be possible to gain this purpose the form of vertical housing, where the houses will be compacted in the vertically, such a flat houses, then the rest land can be occupied by the

community for social activities including the play space. According to the linkage theory (Trancik,1986) through the new plan the better linkage to the play space. Here, pedestrian may be planned separately to the cyclists that it will create safer traffic for children on the way to play ground, while the route may also be simplified to reduce the barrier and make it more accessible for multi age children.

CHAPTER V

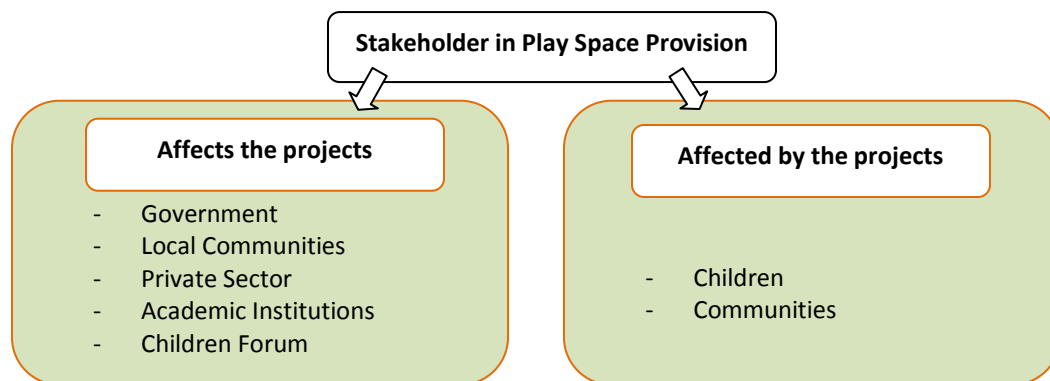
The Stakeholder Influence in Creating Child-Friendly Space in Bandung

Child friendly space provision in Bandung deals with land use and economic problems that involve broad stakeholders in many levels. According to the interviews (see appendix), there are already some parties aware and take parts in this mission in Bandung, but some of them are still works solely. Understanding the stakeholders and their role involve in the term of play space helps to see the hole parts needed to fill in. The stakeholder mapping based on power and influence relation also gives the views of how the available power owned by each stakeholders, and how to modify it to maximize the influences. This chapter provides the stakeholder identification, stakeholder analyses and the stakeholder mapping in order to arrange the stakeholder engagement in order to realize the child friendly space in Bandung.

V.1. Stakeholder Identification

As its term, accordance to Mathur (2004), stakeholders are parties who are affect and affected by such a program, and mission. In the case of play space provision, stakeholders affecting the play space in Bandung are the government, communities, private, academic institutions, and the children. While the parties affected by the play space program is mostly the user, which are the children and adults.

Figure 5.1 Stakeholders affects and affected in play space provision

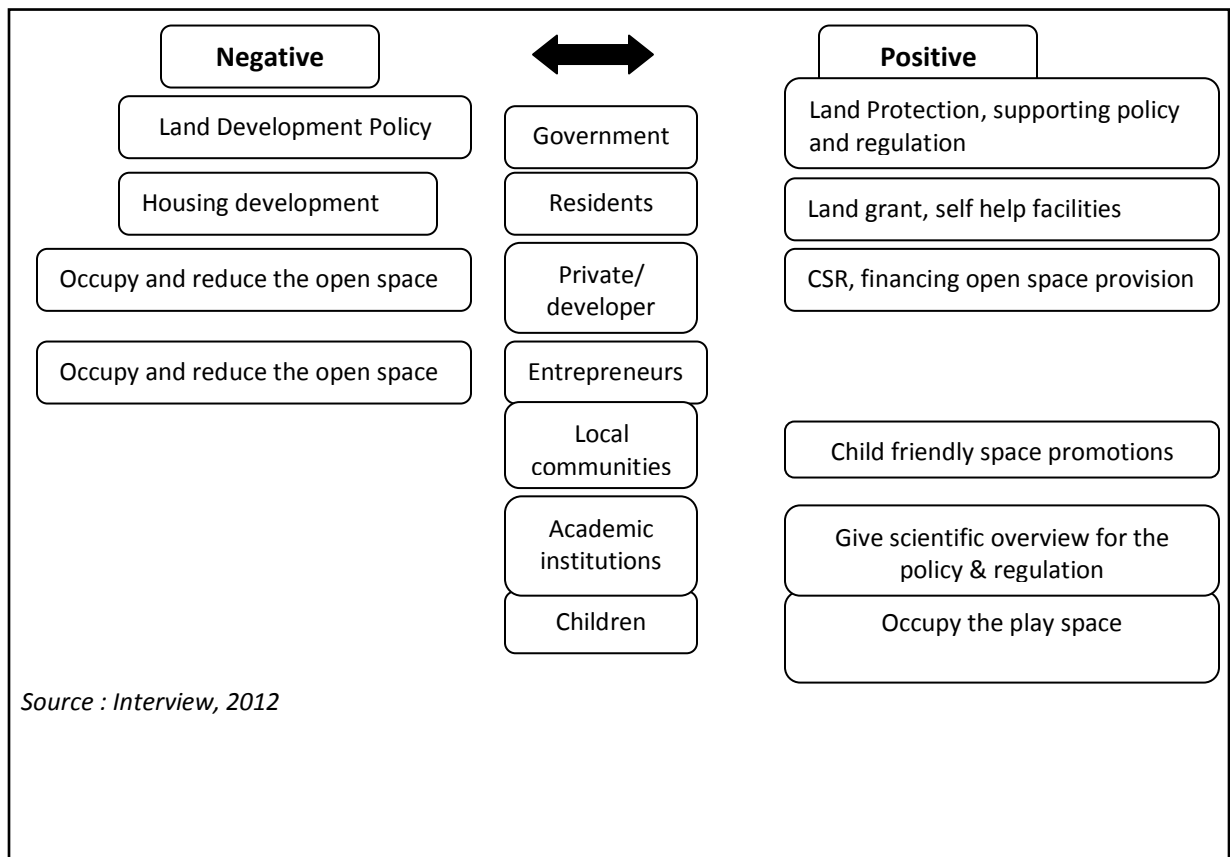


Source : Interviews and Observations, 2012

V.1.1 Visualizing the stakeholders

The stakeholders will be discussed here is limited to the stakeholder effects the play spaces, since the children, as they are affected already explored in chapter IV. Accordingly to the interviews, stakeholders may affect the play space in positive and negative way. Figure 5.2 illustrates the real situation of how the stakeholder influencing the child play spaces in Bandung.

Figure 5.2
Stakeholder influences to the play space in Bandung

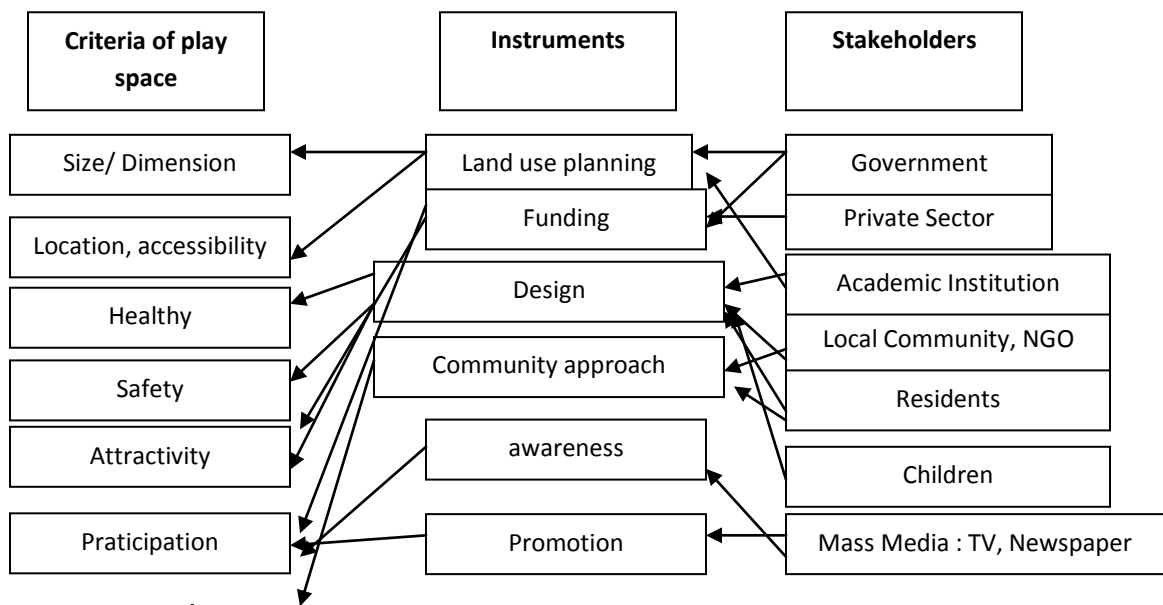


According to the interviews, there are at least 6 major stakeholders play important role in

the play space provision in Bandung. They are Government, local community, the private sectors, residents, Academic institutions, and the children. It can be seen in the figure 5.2 that one group of the stakeholder might affects both positive and negative to the provision of the play space.

Related to the criteria of play space discussed in chapter 4, the each stakeholder may also make some of efforts according to their interest, power and skill they have.

Figure 5.3
How stakeholders influence criteria of play space



Resources : Author

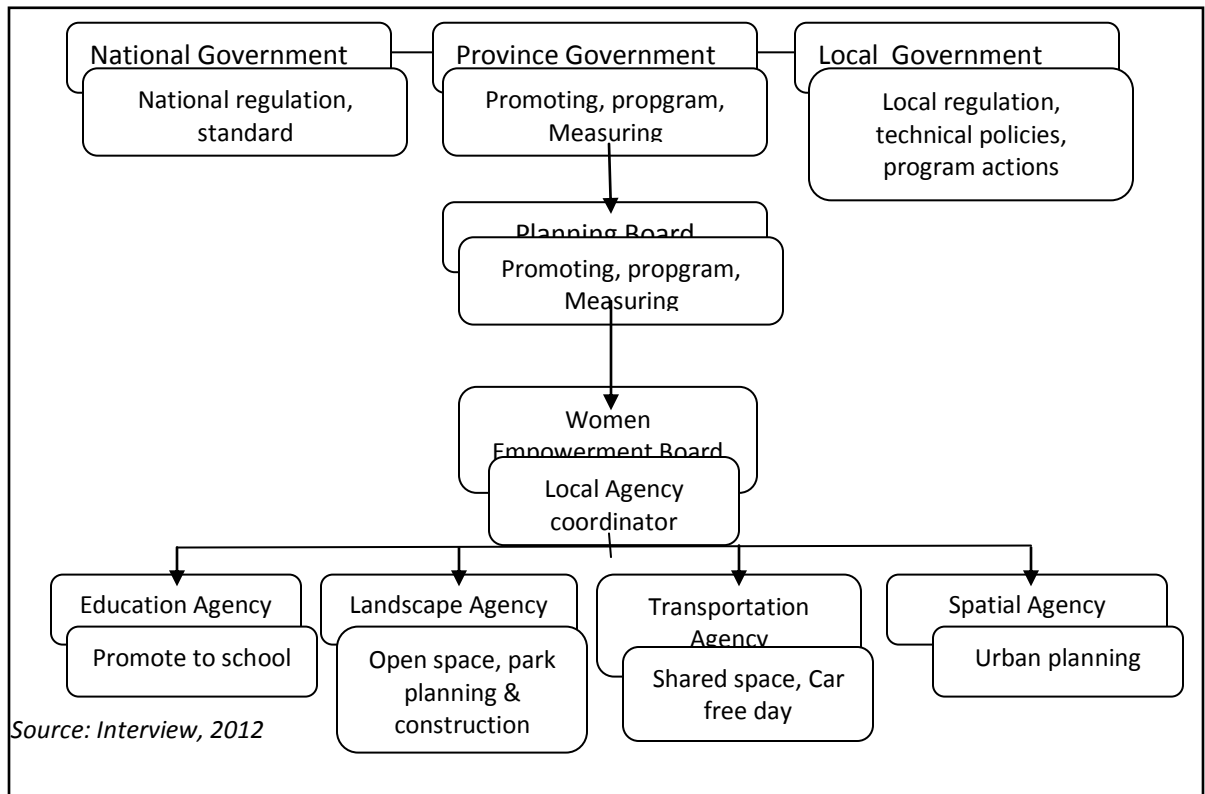
1. Government

Government, through urban planning, develops housings, infrastructures, commercial sites in the city. It reduces rest green space might be used by the children for outdoor play space. And, as it is in developing country, within limited budget, government will prioritize physical development which give direct results for the welfare of citizens. According to the Landscape Agency (2011), the green space in Bandung now is not more than 10 % from the total of territorial area. Therefore without inclination to children’s interest, urban planning and urban development directed by government will only remain the rest open space which is not located and sized properly for child’s need. However, within the child right convention, and the mandate of the national regulation about the Child Protection,

Government should have put this interest in the urban planning. With certain power, government capable to create good decision relate to play space provision. As one of the example is the car free day activities, changing the park function from only for plantation to the playground for the child’s need. or create innovation for the shared space between other interest and child’s needs.

Based on the requirement criteria of child friendly play space, there are many of them has to be increased. Government through its power and responsible to make urban land use planning, it can influence the size and the location of the play space. Government also has money to make for spending the construction, and the social works. Funding can help it to be more safe, health and attractive for children.

Figure 5.4 The local governments institutions for play space



There are three levels of government, the national government, the province government, and the municipality. In the case of Bandung, The national government make the national regulation and policy to increase the awareness of the province government and the commercial sites.

In the local level, there are agencies working together to get the aim. Based on the interview from some of the officer from the related agencies, It is very difficult to promote this program, since it is not a popular issues, therefore it has lack of funding support form the local government, since there is conceived many other issued are more urgent. The one make it more acceptable is that the strong motivation from the leader or decision maker.

"If you want to know detailed about this, you can ask Mrs. Netti who has strong motivation and works hard for this goal." (officer of planning board,2012)

"I do really want to do something to increase the level of child friendliness in this city, while I still have power in this section. It is not a popular issue, therefore not any people knows about, and it is not easy to give them understanding." (Officer in Women empowerment Agency, 2012)

The figure bellow illustrates the coordination line in governmental work for the play space provision

2. Private Sectors

Private sector in Bandung so far has not been directly influenced the play space provision. What they had been contribute is in constructing and maintaining the some parks in the inner city, then their logo are permitted to put in as small monument. Accordingly to the officer from the landscape agency, There are already some maintenance parks are under the private companies. Therefore, for the play space provision, private company can also be invited to participate, for the advertising. The later choise might well worked since Private sector are very commercial and always look for profit (Mathur et.al, 2007). Within this funding it enables to create the play space more safe, attractive and health.

Beside this positive influence in funding, private sector actually has negative effect in play space provision within their building blocks development, that increase the void space in the city. Therefore, they can be involved for their responsibility through CSR. Housing developer actually already pay attention for the play space, since it generates higher value of land. However, it is only for the community in the medium income and above it. The private will never do anything for the low income neighborhood, excepts it will give them profit. Therefore government is the one should stand behind this community to make any design as share space with the terrace of public office, car free day, or the parking site, using the time or space

arrangement.

3. Local Communities

There are increasing number of young educated people in Bandung in this last few years, making group of communities in order to do something related to the playspaces (see appendix). This might be able because the urban setting in Bandung nowadays is getting more and more crowded and not friendly for the children (Malone, 2001). Unfortunately they are still likely to do it solely rather than joint bigger group. Some of them are BCCF (Bandung Creative City Forum) that focusing on City Forest for the child play. The other one is the Support Child's Playground has mission to promote children play outdoor rather at home or in the mall. There is also Bandung Berkebun, which is focusing on increasing awareness of children to the nature environment through planting in the parks, vacant land, and others. This community concern to make the unproductive space becoming more productive through plantation. These local communities are still generally consists of volunteer and creative people to organize all events. One problem here is the funding, up to now they are still use the money from donation or sponsorships. Within the figure 5.3, the play space provision may be well collaborated between the private sector and government as funders and the local community to raise the awareness of the society, make design, and make community approach.

Figure 5.5 Activities of Bandung Berkebun and Support Child's Playground



4. Residents

Residents here are very important parties, because not only they are the one who affects the mission of the play space (Mathur, 2007), but also they are usually the ones who will do any self help activities against the limited budget of the government. The willingness to collect money and buy the badminton court in Sector

7 illustrate how the residents have a high interest in this issue.

In this collaboration, the residents can contribute through the participation that they are able to do, such as preserve and maintain the facility, while the the land acquisition is suppose to be the government responsible.

5. Academic Institutions

Academic institution so far had been actively join the children protection forum in Bandung, and gives scientific recomendations especially related to the local regulation for the children and safety protection. According to Child Friendly city coordinator, ITB and Padjajaran University involved in this process. In the future, academic institution not only can involve in the regulation, but also gives academic overview for the land use planning so it might warn both government and the private sector of the negative effects of the uncontrolled development.

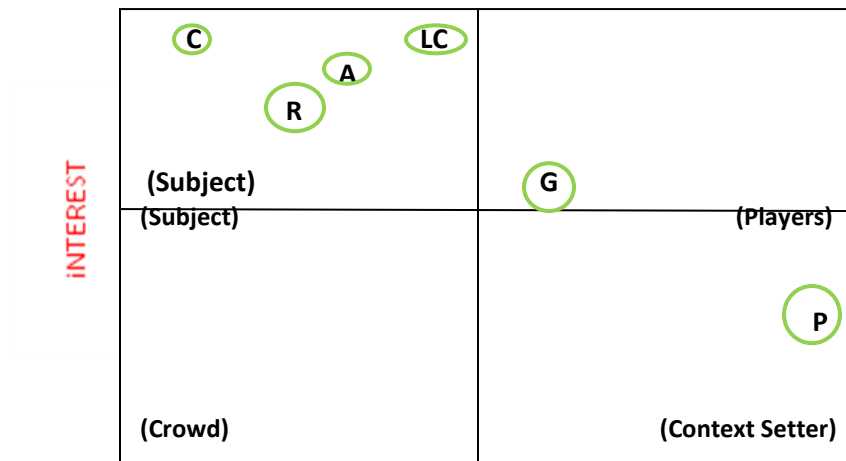
6. Children

Children as the user of the play space, they might be asked for the idea of the play space. As children has great imagination skill (Hendricks, 2011), and successful play space will be loved by the community (Cabe space, 2003), they are better to be involved in the play space design process.

V.2. Stakeholder Mapping Using Power Interest

Stakeholder mapping is used to know the assets of parties in play space provision, and according to Bryson (2004), it might be used to know the interfere might be done to get the condition of parties will be in the very well partnership. In the power-interest mapping it will be seen who is the stakeholder stand for the position of Subject, crowd, context setter and the players.

Tabel of 5.6 The Stakeholder Mapping of Interest - Power



POWER

Note : C(children), LC (Local Community), A (Academic institution), R (Residents), G (Government), P (Private sector)

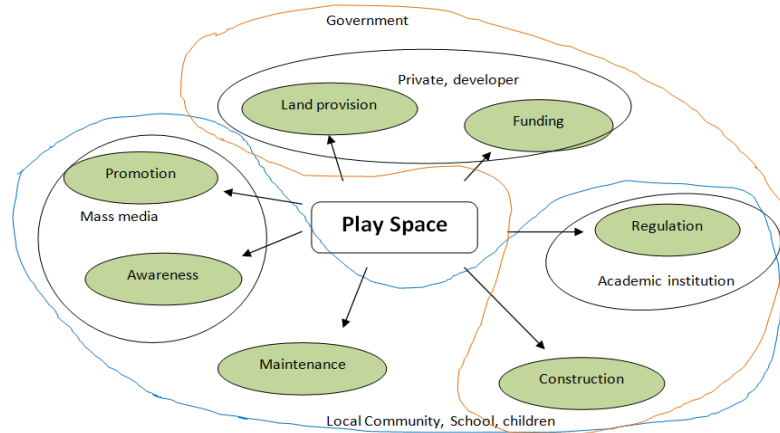
According to the interview conducted to the stakeholders, the stakeholder have different own interest and power. Interest of play space can be seen from the fund spent and decision by the government (Riggio,2002), motivation and effort of the community (Cabe Space, 2004). Community and the children, especially who live in the city, even they have limited amount of fund, their participation to have outdoor play space mean to strong interest. Private sector as they do not really emphasize on play space they have much funding, may put them as context setter with high power and low interest. Government in this case is put in the Player group, as they have enough interest and power to make decision and city planning. Figure 5.4 illustrate the stakeholder mapping of lay space generally in Bandung. From the stakeholder mapping, it can be seen their interest and power related to play space. There should be joint venture amongst the stakeholder, to gain the optimum power and interest.

V.3. Coalition Building Between parties

In order to make an integrated play space in Urban area, stakeholders can do coalition, as it might understand and link interest and common ground for mutually satisfying outcomes (de Jong, 2011). Problems of play space provision needs to be clarified at the first before the stakeholder's coalition (Bryson,2004). According to the interviews from the stakeholders and institutions, the problems are the land provision, funding, regulation, construction, maintenance , awareness and promotion. These problems might be taken into account by the stakeholders has interest on that section. Funding and land provision for example may be the subjects to be join between the private, developer, and the government. Play space and outdoor playing as it is still less popular in the developed country, it needs to be promote not only to the societies, but also in to the institutions. Therefore promotion and awareness needs to be encouraged by the mass media, together by the local community, school and children. The figure below illustrates the recommended coalition between stakeholders to solve each problems of play space.

Figure 5.7

The coalition plan between parties in order to solve the problems in play space provision



Source : Interview, 2012

V.4. Role of Stakeholder in Providing Play Space in Bandung

Play space provision especially in developing country such as in Indonesia needs collaboration between all affecting stakeholders. To make it at first the problems has to be listed, so that there would be clear who stakeholder do what. The stakeholder are varied from the government, private sectors, residents, academic institutions, children, and the mass media. Government as decision maker have power to make the land use plan within the children interest, provide the open space, make regulation and spend budget. Government have to ask third parties if they lack of funding, and private sectors can be invite as they need advertisement to increase their image. Besides, Government also have power to force the private participate using the CSR. Residents as the affected and affecting stakeholder play the important role to make the play space more sustainable through their participation from the first it is planned until the management and maintenance. They have strong interest as they will use it, while they have low power to act. Academic institution is necessary to give recommendation from the scientific perspectives for the land use planning and the play space design. The children as the user has also involved as they know the best play space they like to have, while there is also needs the mass media as glue to hold all the stakeholders, promote the action, advertising, which can keep all the stakeholder in the same interest in this collaboration. At the end, from the matrix of the stakeholder, it will be seen who has the strong interest and high power as the asset can be use in the collaboration.

CHAPTER VI

Conclusion, Recommendation, and Reflection

VI.1. Conclusion

Referring to the aim of this research which is to get deeper understanding about the children needs play space in the densely populated area in Bandung, it can be conclude that the children in this place significantly need the better play space as it is now. From the literature review, it can answer the first research question, that the child friendly play space would be so meaningfull for the children during their childhood, and moreover for the child's development. The Child friendly space can be mean as play space fulfill the child's need of free, safe, accessible, health and enough space to move, while it is also needs to be well attractive with some challenging and educative equipments. Natural view is also important to strengthen the environmental awareness of the children. Within those quality of play space it can give children play benefit such as physical, emotional, cognitive, and social development wich is very important to their adults live in the future.

Tamansari, Bandung as the case study, focusing in sector 9 and sector 15 has not been able to provide the adequate playground for the children lives in this densely populated area. The park, courts, and saung presented are too small to cover all the children. The available space in sector 7 and 15 are 460 m² and 1730 m², while actually they need 1877 m² and 4484 m². Moreover, the children are still struggle with the unsafe place dealing with the motorcycle in alleys and the unsafe fence in the river. The location accessibility is also problems for some of the children lives far from the play space, since it is not located in the centre of the neighborhood. Mothers would prefer their young children to play less than 100 m distance, within not easy to reach. The play space is also offers the unhealthy environment for the air pollution, noise and the unhealthy junk food. The available play space is also a place without any play equipment and natural views designated in it since actually it is not especially used only for

children. However, the children still prefer to play outside, and the play space is loved by the children and the community, as they strongly participate on it.

This limited situation of the play space is still offer the play benefit for children, especially and even more to the social interaction and cognitive development. Within the limited space and equipment the children create different environment and games through social interaction between peers everyday. Some children in some parts choose to occupy the allies, river, and parking site for play. Dealing with certain safety situation promotes them to be more struggle with survival skill. Even the children are still enjoying their play space in this area, and they get much experience and living value through the limited condition, this is not the justification for the children to deal with this situation. They have a right to play safely in the adequate and accessible space.

In order to make the successful play space provision, involvement of all related stakeholder is very important. In Bandung related stakeholder is the government, residents, private sectors, children, academic institution and local community. They all have their own role and instruments related to the play space provision based on the problems occurred and the requirements of criteria of the play space. Government has power to make the good land use planning, that it will generate the enough space in the accessible place for the user. The private can participate in funding for the safety, health environment, also the challenging equipment, while the design might be come from the children, local community, and academic institutions. As the successful play space is sustainable, the residents has to participate in management and maintenance to keep it useful in longer time. At the end, the mass media may promote any activities to keep all stakeholder still in the same interest through the announcements and innovative news.

VI.2. Recommendation

For the short plan government can make a plan and coordinate to the local parties for the shared space, such as the parking place, the terrace of the public building, schools. Adding the area of the car free day is also good for the children and the residents around, surely within the more guard to make the space more safe and secure. For the longer term, government can make a new plan and rebuild the densely housing so that the play space can be integrated in this spatial planning. The vertical housing is highly recommended for this kind of area, so that there will be more open space rest for the public needs and the play grounds

Dealing with play space provision all stakeholder has to collaborate solving the problems with their each power, interest and ability. To get involve stakeholder has the same understanding, therefore the stakeholder has stonger interest in play space has to do some efforts to increase the motivation and interest of others. In this case, government and local community may join the mass media to promote this issue and increase the willingness to do collaboration. Within the same perception the stakeholder

will easily to involve in the collaboration as they are able to do.

VI.3. Reflection

Using qualitative analysis for the dept interview is a kind the best methodology to get the aim of this research, which it helps to know deeper for the daily child play in the densely population area in Bandung. It also helps to get deeper understanding about how stakeholders work to provide the play space, and at the end this research can give strong recommendation for them. However, within the wide of the research questions, not all deep interesting information can be well served and analyzed. A few additional detail information may also loose because of the limited available time to work in and limited pages are allowed. Further, there are also some information is not available in the local institutions such as the air pollution level in the case study, the accurate number of the residents in each subsector, and the number of children get particular disease in each sector.

References

Bryson, J. M. (2004) *What to do when stakeholders matter, Stakeholder identification and analysis techniques*, University of Minnesota. USA

Bandung Dalam Angka (2008) Bandung Municipality Statistic Board

Cabe Space (2004) *It's our space; A guide for community groups working to improve public space*

Carr, S (1992) *Public Space*, Cambridge University Press

De Jong, M. (2011) *Coalition Planning; A mutual gains approach for stakeholders in the urban environment*. RUG, Groningen.

Horschelmann, K and van Blerk, L. (2012) *Critical Introduction to Urbanism and the City; Children, Youth and the City*.

Holloway, S.L. and Valentine, G. (2000) *Children's Geographies Playing, Living, Learning*, London: Routledge

Kabupaten/Kota Layak Anak available via <http://www.kla.or.id/> accessed on 18 July 2012

Malone, K. (2001) *Children, Youth and Sustainable Cities*. Guest Editorial-Local Environment, Vol. 6, No. 1, 5–12, 2001. Carpax Publishing.

Mathur, V .N., Price, A. D.F., Austin,S., Moobela .C. (2007) *Defying, Identifying and mapping stakeholders in the assessment of urban sustainability*. Loughborough University, Leicestershire, United Kingdom

Minton, A. *What kind of World are we building; the privatization of public space* ,RICS available via www.rics.org accessed on 10 July 2012

Mean, M. and Tims, C. (2005) *People make places: Growing the public life of cities*, Demos, available via www.demos.co.uk accessed on 13 July 2012

Nordstrom, M. (2009) *Children's views on Child-friendly Environments in Different Geographical, Cultural, and Social Neighbourhoods*. Sage Publication

Olson, C. K. (2010) *Children's Motivations for video game play in the context of normal development*. Review of general psychology. Vol 14, No. 2, 18-187. US

Percy-smith, B. (2006) *From consultation to Social earning in Community Participation with Young People*. University of the West of England

Riggio, E. (2002) *Child friendly cities: good governance in the best interests of the child*. *Environment&Urbanization* Vol 14 No 2 October 2002. Italy

Schwartz, J. (2004) *Air Pollution and Children's Health*. Pediatrics Vol. 113 No. 4 April 2004

Simpson, B. (1997) *Towards the Participation of Children and Young People in Urban Planning Design*. Sage Publication.

Sefton, C. (2008) *Action research for ecoversity*. University of Bradford.UK

UNICEF (2002) *Poverty and Exclusion Among Urban Children Innocent Digest* No. 10 November 2002. Italy

Valentine, G. (2004) *Public Space and the Culture of Childhood*.Ashgate. UK

Learning Seed (2004) *How Having Fun Turns Kids Into Adults*. Child's Play. Chicago

Hewes, J. (2006) *Let The Children Play : Nature's Answer to Early Learning*. Canadian Council on Learning. Canada

Major of London (2008) *Providing for Children and Young People's Play and Informal Recreation*.UK

Urban Service (2004) *Design Standards for Uban Infrastructure*, 15 Playgrounds and Playground Equipment

Bhattacharya, S., Cummings, H., Gilmore, J., Karr, A., Lee, C., Olson, J., Roberts, J., Syin, D., Yellon, P., Yokel N. (2003) *Universal Playgrounds: Integrating all Children through play*. University of Maryland. Gemstone

Play England (2009) *Making Space for Play. How the children's play contributes to the national Indicator set*. The

National Lottery. UK

NPFA (2000). *What Play Provision Should Do For Children*. Play Link. UK

Shackel, A., Butler, N., Doyle, P., Bell.,D. (2008). *Play England*. UK

Cabe Space (2007). *Public Space lesson, Designing and Planning for Play*. UK

WHO (2003) *Making a Different Indecators to Improve Children's Environmental Health*.

Unicef (2009) *A Practical for Developing Child Friendly Spaces*

Trancik, R (1985) *Finding Lost Space; Theories of Urban Design*.

Putri, R.A., (2008) *Identifikasi Ketersediaan dan Pemanfaatan RUang Bermain Anak di Kelurahan Cigending Kecamatan Ujung Berung Kota Bandung*. Tugas Akhir SAPPK. ITB

Istiqmah, B., (2011)*Karakteristik Ruang dan Kegiatan Bermain Anak di Lingkungan Hunian Vertikal*. Tugas Akhir. ITB.

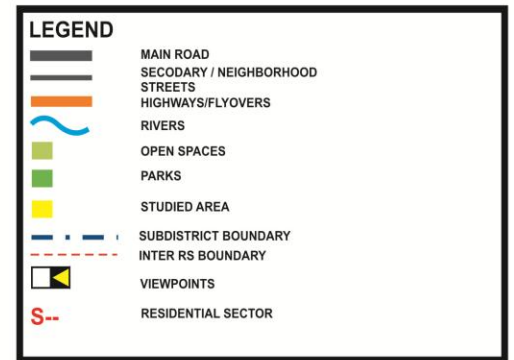
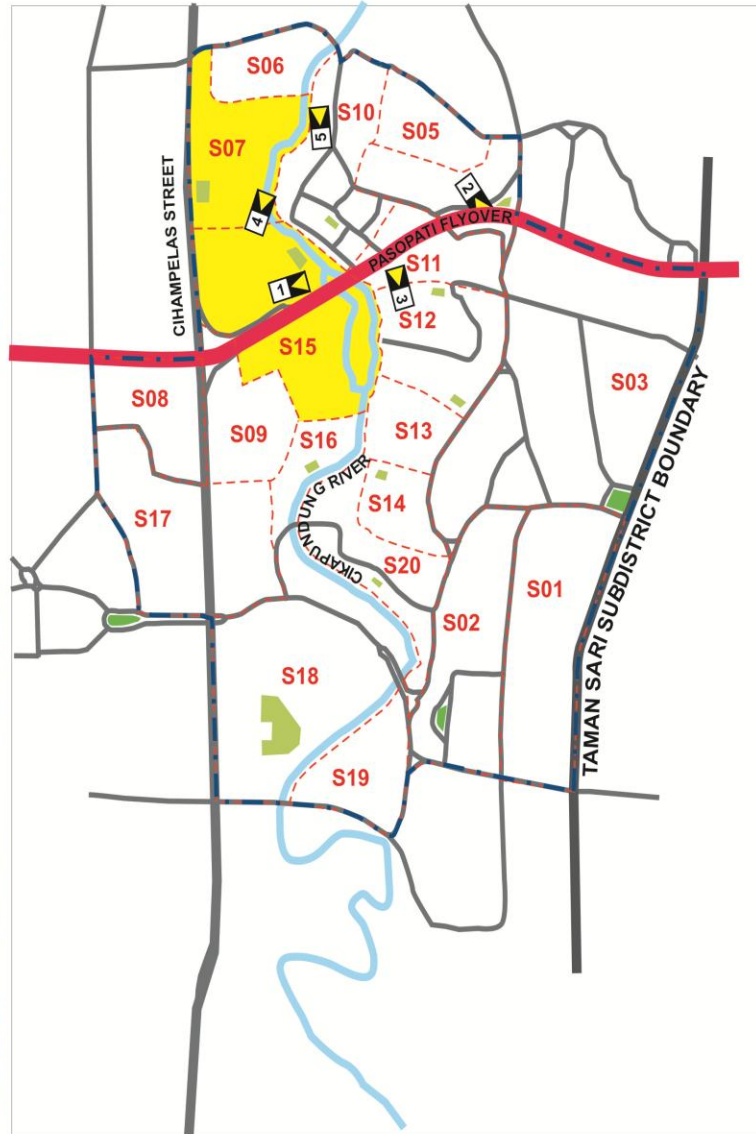
SNI 03-1733-2004

Statute No. 23/ 2002 article 56 clause 1

Indonesian Public Work Agency no. 50/200/13578

Children and noise,<http://www.who.int>

Appendix 1





BADMINTON COURT



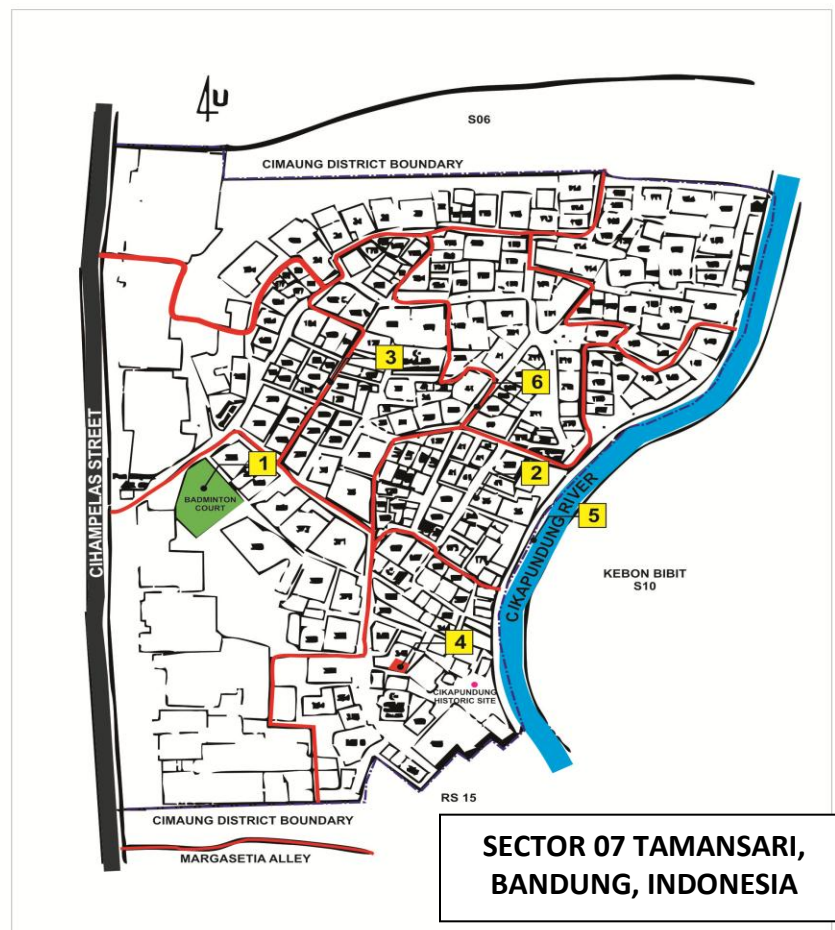
HOUSE TERRACE



ALLEY



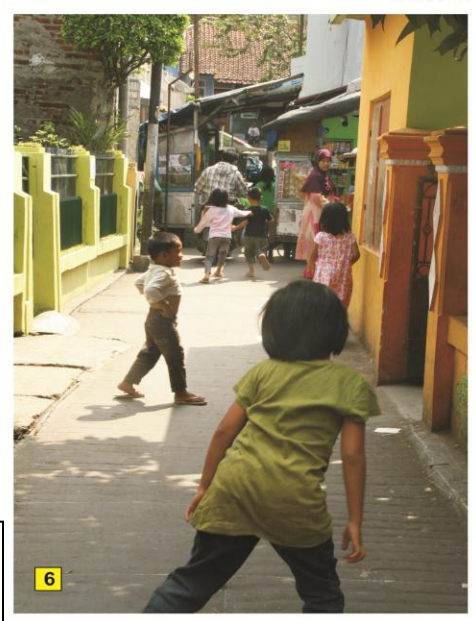
PUBLIC INTERNET RENTAL



SECTOR 07 TAMANSARI,
BANDUNG, INDONESIA



RIVERSIDE



ALLEY

Source : Observation, 2012



Appendix 4

Green Open Space available in Tamansari sub-District

Sector	Population (person)	Name of Park	Open Space (m2)	Ownership	Function
1	534	-	-	-	-
2	233	Gajah Lumantung	100	LG	Street Park
3	816	Flexi Park	150	LG	Street Park
		Circle Park	10	LG	Street Park
4	965	Masjid Park	500	PG	Mosque Park
5	1.421	-	-	-	-
6	1.053	-	-	-	-
7	1.877	Badminton court	200	Personal	Play court
		Pingpong court	60	River banks	Play court
8	277	-	-	-	-
9	1.494	-	-	-	-
10	935	Pemkot Park	100	LG	Playground
11	1.158	Futsal court	750	PG	Futsal
12	1.567	Ampera court	150	Personal	Badminton, sport,
13	1.604	-	-	-	-
14	712	Green & Clean Park	100	Personal	Plantation
15	2.988	Pingpong court 1	150	Personal	Play court
		Court 2	300	Personal	Play court
		Pulosari/ Fly over Park	1400	PG	Playground, Park
16	1.901	Ubud Park	100	Vacant land	
17	1.405	Hatta Park	250	LG	Planting
18	2.067	Kimia Farma Park	1000	Company	Sports, parks, playground
19	530	-	-	-	-
20	1.335	Car Parking	300	LG	Parking place

Source : Community Discussion, Observations, 2012

*LG : Local Government

*PG : Province Government

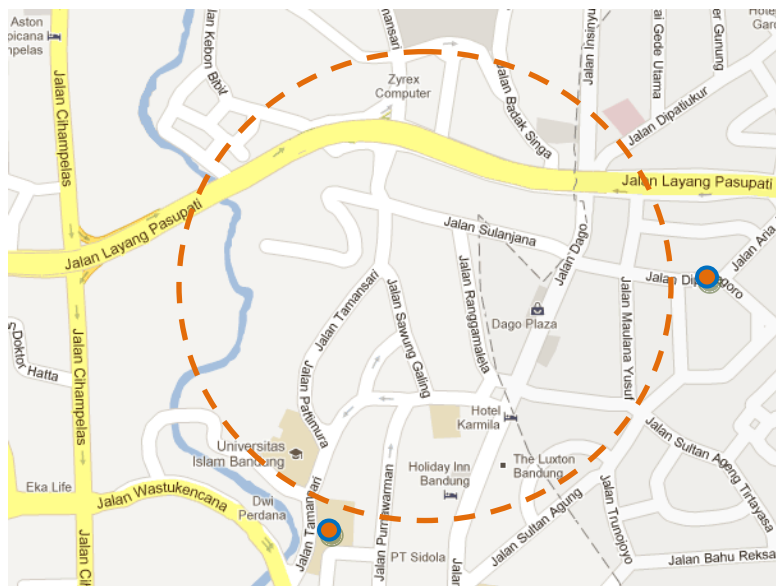
Appendix 5


The Results of air pollution measurements in Wastukencana Street and Diponegoro Street in 2011


Indicator for Pollution	Unit	Standard	Wastukencana	Diponegoro
NO2		400	<10	<10
SO2		900	132.2	100.37
CO		30000	880	1170
HC		160	5.86	12.56
O3		235	4.28	39.04
Pb		2	0.08	0.10
TSP		230	31	30
Noise		60	62.3	67.66
PM 10		150	21	26

Source : Environmental Agency of Bandung (2011)

Location of the measurement



 Location of the measurement

 Location of the study

Appendix 6

The number of children (0-14 years) visit doctors
related to the respiratory and gastro disease during 2011

Month	Diarrhea	Nasofaringitis	Accute Upper Respiratory Infections	Respiratory Total
January	53	93	266	359
February	52	98	271	369
March	59	108	201	309
April	60	120	211	331
May	76	179	57	236
June	57	145	34	179
July	23	118	31	149
Agustus	41	85	12	97
September	52	56	8	64
October	49	96	26	122
November	56	85	13	98
December	49	73	21	94
Total	627	1256	1151	2407
Average	52	105	96	201

Source : Bandung Health Agency, 2011

Appendix 7

Interviews with the officer of the Planning Board Agency

- What do you think about the public play space in Bandung?
Bandung is lack of public play space, but we have parks, and public sports centre, which the children can also use it together with adults. But for more information about park, play ground, open space, you can go to Landscape Agency, they are responsible about it.
- What is the efforts have been conducted ?
So far the team work had discussed about the smart playground, which targeted two location in each district in Bandung. However it is not easy. Not all districts has feasible open space for child's play. Some of private sector might also invited in this part, but there are still no loud discourse about it.
- What do you think about the Child Friendly City Program in Bandung?
Kota Layak Anak (Child friendly city) actually had been an issue in 2004 under women empowerment and family planning Board. It is social issues, that in Planning board it comes to Social division. It was so difficult to include that project in our annual plan, because there are many other things are more important. Mrs. Neti is the one who really enthusiastic to gain this goal. At the end, it gains good respons, after the appraisal from the national government gives us less point than Cimahi, the neighborhood family. The Major is getting responsive and start agree to develop the child's friendly city in Bandung. This issue is getting more receivable, that moreover, the major support it.
- What is the difficulties to provide the play space in Bandung ?
The difficulties are the budgeting. In Planning Board we arrange budget planning for the whole year. And unfortunately children's play space is not that urgent and not so popular compare to other project. When it comes to Physical Division, it will compete with other more giant and urgent project as school renovation and street maintenance. Then it comes to the social division as elements of Child friendly city program. It is now already get more attention here.
- Who are the stakeholders in Child Friendly City ?
In the local government, the coordinator for that progam is Women Empowerment and Family Planning Board. They coordinate it with other local institution, such as Education Agency, Health Agency, Landscape Agency, almost all local institution are involved, depends on the subjects will be issued. We as Planning Board only approve or disapprove their budget plan, according to the available money every year.

Interviewee : Budi (Head of Social Division in Planning Board) Date : 17 th May, 2012 Direct interview

Appendix 8

Interviews with the officer of the BPPKB (Women Empowerment and Family Planning Board)

- What do you think about the awareness of government and society about the needs of open space for children in Bandung ? And how will be the trend in the next years ?

The concern, from both the government as well as the society, regarding the availability of green open-space for children in the city of Bandung are reasonably high. This is evident by the government's commitment through it's Regional planning/ spatial planning policies, also by continuously carrying out various green and clean programs, which turn unused areas into open parks to keep clean air in Bandung . And the society have positive response toward these government programs, they show their support by carrying out activities in support of these programs in each region. So slowly but surely, we will have cleaner air in Bandung City for the children.

- Do you think, there are increase of the open space for children ?

I believe with the currently applied policies as well as the common commitment between the government apparatus and the general public, green open-spaces will continue to grow, because every land development must be followed by the provision of a green open spaces as a requirement in the local regulation.

- Is there any programs related to the play space ?

Supporting child friendly city in Bandung, we still fight for the more important issues. Since Bandung becomes touristic, there are increase of children exploitation through child's working and prostitution for the girls 15 -16 years. That is why I have a strong motivation to establish and legalized immediately the local regulation about Child Protection.

However, related to play space, we have also proposed for the 'smart playground', where the children can interact with environment and has education function apart from playing. We (the child friendly team in Bandung Municipality) have discuss to present at least two smart playgrounds in every district. Our institutions collaborate with many institution to establish this idea, such as landscape agency, the head of district, schools, and the society. There are already two playground under our supervision in Bandung, that is in Rajamantri (Turangga Park), Durma Park, and Cilaki Park. The former is under the management between the nearby school and the society, and the rests are in the neighborhood. However it needs community participation in use and maintenance therefore we have to develop the local community before we construct the playground otherwise it will not be sustainable.

- What form of space does enable to be changed in to an open space for children?

The mostly possible spaces for the “smart playgrounds” are the available city parks under the management of landscape agency. Some of the city park might have additional function for child play, rather than only the green space. This year we are going to make a pilot project plan, but because of the funding, the action will only possible in to be held in started the next year.

The changes which have been done so far includes, converting public gas station lot into green open spaces, the possibility of converting unused parch of land into green open spaces, and by keeping the commitment to impose strict requirements to the developers to include green open spaces and children’s playground, for each housing complex and mall they’re constructing.

- Is there any children participation in the program of child friendly city in Bandung ?

Yes, there is. We have Children forum, which is association of the children aged below 18 years. They are freely for children. But since we are structurally work with school, than the enrollment is from school. The representatives may be chosen for some informal criteria such as smart, active in organization, and have a sport skills. They make some contribution to the promotion of child friendly cities. In SMP (Junior High School) 11 for example, the students initiate and manage ‘honest toilet’ specially for the menstruation girls. They girl students make a shift to provide the needs of the girls in the cabinet, and let the users take what they need and put money in the can.

- To what extent do children forum support Bandung for the child friendly city ?

Forum Anak Kota Bandung (Bandung City Children’s Forum), have a very significant role toward the realization of Bandung as a “Kota Layak Anak” (Child Friendly City), this is evident by this forum’s activities in socializing the KLA to their neighborhood, as well as contributing their thoughts regarding conceptualization of the child friendly policies, including giving recommendations regarding anti-violence and anti-smoking movement in Bandung City.

- To what extent do the societies support KLA goals?

Such as efforts conducted by the societies through POKJA Kelurahan Layak Anak (Child Friendly Workgroup), which supports and strives to develop a child friendly neighborhood, starting from child friendly family, child’s playing and learning areas, also a disaster safe schools.

- What are the potentials in Bandung to support the Bandung as child friendly city?

Bandung City has a lot of potensial towards the realization of Bandung as a Child Friendly City, such as :

- a. Capable and professional human resources, prof. Sambas is one of the most caring and highly committed towards the realization of Bandung as a Child Friendly City.*
- b. A great number of Colleges and study centers which have special attention to the lives of children and have a high common commitment in protecting children.*

- c. *Local leader's commitment to the KLA (Child Friendly City) which is evident with the forming of a Bandung City KLA Task Force through Bandung City Mayor's Bill and the enactment of a regional law regarding Child Protection, which serve as evidence of the government's seriousness in providing protection for children and realizing the Bandung KLA.*
- d. *Bandung cultural character (Sundanese) which has a certain virtue like "anak teh pupunden ati" which means that children have to be cherished, nurtured and protected as successor to the struggle and a generation that's going to continue the next life.*

- What is the program conducted by this institutions to promote Bandung towards Child friendly city ?

BPPKB as SKPD is the leader in realizing the Bandung KLA, and has conducted various efforts, since 2004, towards achieving the Bandung Kota Layak Anak (Child Friendly City) goals :

- a. *2008-2009, doing problem mapping about children, analyse it, and conclude with the needs of the local regulation of the Child Protection*
- b. *2010, establish the Major decree of the local teamwork of the child friendly city*
- c. *2011, compile the study of the child protection and the script for the local regulation, within involving the teamwork, local workgroup, and the child's forum. The teamwork is consisted of the related local government institutions, academic institutions, local community- Lembaga Perlindungan Anak (Child Protection association), child's Forum*
- d. *2012, process to establishment of the local regulation for child's protection*

- What is the plan to accelerate Bandung towards Child friendly city ?

The work plan in 2013 is establish Bandung towards child friendly city through gradually process from child friendly family that support the child friendly in the sector level, district level, in to the city level. The priority is the child healthy district, free education, increase the ownership of date certificate, Increase the age marriage, and increase children participation in Child's Forum (Forum Anak Kota Bandung).

- What is the difficulty to conduct this goal, especially related to the play space provision ?

The difficulties are in the human resources, promoting the issue, and funding. It is a hardwork to put this issue in to the annual local government work plan, under the responsible of the Planning board. It is not a popular issue compare to the physical project. Even in this institution, i still have to share and discuss that all of the related staff has a similar level of understanding, which might motivate to fight and do some efforts. We have a very limited fund in this program. Let say, we do not have any specific budget for this issue, until i really fight to have it from the Province and the National Government in 2011. It is also not much, only for the socialization program and meetings. But it is really my dream from 2008 to have the local regulation about children. That is why i am so proud that finally i can make even in the limited budget.

Interviewee : Neti Supriati, SH, Msi (Head of Women and child's right Protection Division)
 Date : 22th May, 2012
 Direct interview, email

Appendix 9

Interviews with the Head of the Tamansari sub District

- What do you think about the play space in your area?

This subdistrict is very densely populated, you will see there is no open space left except the alleys, the courts and some parks, while, there are so many children in this area. The mostly court is also belong to the local. It is granted land temporarily, they permit the community to use it as long as the owner do not need to build or sell it. The only park belong to government is the new pulosari park, some part are finished and able to use the early of this years, but some of it is still under construction.

- Do you think it is enough?

No, of course. But no other places. In sector 11 there are in social process to build a flat house, so it might create larger open space left. Excepts the rest space will be parking space or commercial sites.

- What is the efforts? How is the car free day?

Up to now, there are no further steps. However, the car free day is very good. I really appreciate it. Just let the local people and children occupy the main streets in sunday morning, before it is traffic by the cars of the Jakarta people in the afternoon. I support this decision, and I would like to promote for more route.

- For the research of the play space in the densely area in Bandung which place do you recommend in this area?

It is right if you go here, because it is a sub district that very high density. In this area, you can focusing in Sector 7 and sector 15. I will make a letter for them to help you go around these areas. Related to this, we have new park in Pulosari in, sector 15. It is such a please for us, that the Vice chairman had visited it twice.

Interviewee : Asep (Head of tamansari Sub District) Date : 22 th May, 2012 Direct interview

Appendix 10

Interviews with the officer of the Transportation Agency

- Can you tell me story about the car free day, what is the main objectives?

Car free day first is tried out in 2010 in Dago. It has purpose to minimize the air pollution especially in the most crowded street. Within the car free day, the street will be empty of car, and reduce the level of air pollution in that area. It is expected that the use of car will be decrease during the activity. The other purpose is to give an open space for the urban community, especially who lives nearby. It is firstly proposed by this institution (transporation Agency), then the major legalizes this activity in three location in Bandung within the decree in 2011.

- Do you feel any difficulties in implementing this decree?

At the beginning, we have to discuss it with the owners of the shops (all along the dago streets are commercial sites). It is not so difficult since the time of the activity is before the shops are open. On the way it is practice, the commercials support this. The hotels for example provide the stages for the traditional performance. Some shops are even also open earlier, because there are more people walking out of it. This activities might become new attraction for bandung because the hotels around the car free day area reports the increase of the guests after this program. They also offer the bike rentals. The difficult is to manage the merchant to keep sell their stuff in the right area, that they are not disturb the people use the street. We are collaborate with the Pamong praja institution to manage this.

- Do you think this event will be continued in the next major?

I do not know, this is legalized by the major's decree, therefore he can also stop it. However. From the evaluation, through this activity the air pollution around the area decreases. The people also enthusiastic with this action, so they can have more open space for the weekend. moreover, there are requests for new location.

- Do you think the car free day can be a safe play space for children?

Ya, I think so, because there are several officers assigned to responsible for any incident during the activities. The officers are join works from different institution, therefore it is safe enough. Additionally, there are no criminals or accidents reported from the field.

Interviewee : Yuli (Officer in Transportation Agency) Date : 23 th May, 2012 Direct interview

Appendix 11

Interview with Local Landscape Agency

- What do you think about the play space in Bandung?
In Bandung play space is getting less and less, because of the more and more building constructed. It is because of the land price always increases, while government is still prioritize welfare more than the child's need of space. However, for the housing, it is regulated to remain 30 % of the land for the green space. So that most of the new housings especially for the medium income and above it will be provided the open spacem play ground, and even sport centre. The one has not been thought is the low income community with organic housing, and the slum area.
- How is the green open space in Bandung ?
The green open space, based on the regulation has to be minimum 30% of the total land. It has function as park, and grave yard. The existing green space up to now in Bandung is only 10 %. However, starting the the establishment of regulation about the Land Use Planning No. 26/ 2007, the loal government annually buy land for the open space function around 10 Ha per year. Unfortunately, government always loose than the private who has money. They can do land acquisition faster in the more strategic place. Government needs time and complicated bureaucracy Therefore we centralize the open space in East of Bandung, which is cheaper.
- Is there any program support to play space provision in Bandung?
*No in this nearly years. But if you means the big park yes, but no playground, only the plantations. Excepts the play space built by the developer in each housing area. There is some in the past time, but it has been broken, the user usually not take care of it, that it is not sustainable.
Actually there will be a new program for smart playground, which is two playspace for each subdistrict. but it is still in discourse. If it is really necessary, the resident may give proposals, and our institution can decide if it is feasible to construct it. But the problems is in the land availability. They also may propose for the land acquisition, but it will take long time. The easiest is that they are ready with the land or use the available government's land.*
- Is there any private sector involvement ?
Yes, for the conventional park, there is some of them are construct and maintained by the private sector using agreement. They may have some rewards such as small advertising in that park. Usually we do this kind of join program with Banks, and companies. However, they only want it for big park located strategically in the inner city, which function only as street park, for plantation and esthetics. For the Play space so far I have no experience with the private, even it is possible to do it.

Interviewee : Dwi (Officer in Landscape Agency) Date : 24 th May, 2012 Direct interview
--

The Interview with Local Community (Support Children's Playground)

1. Interest/ Position

- What is the aim of your organization?

Our community has aim to :

- *Introduce the outdoor play style in urban public open space, such as play in the park or picnic in other kind of other space*
- *Promote the benefit of child outdoor play such as more physical move, more varied oa play types (sports, traditional game), close with the nature have a fresh air, avoid obesity, environmental awareness, learn to share with peers, interacts with peers with different background and habit*
- *Involve families in picnic events where enable anyone to enjoy their hobbies (mothers knit, read, or arisan*), while fathers do sports or photograph*
- *Invite families to get in through more about the open space in their cities*

**arisan is activity to meet, collect money in the same amount very month and give it all to one of member rotary, until everyone get it. It is such a conventional kinship saving money.*

- What do you think about the child-play space in Bandung generally?

There are already qualified play spots, however, it is mostly are commercial. The available public open space is commonly less qualified for children from the aspects of comfort and safety

- What do you think about the child play space in densely area?

In the densely neighborhood the play space are usually unplanned. With the limited open space, children are commonly play on rest available space such as alleys, in between their houses or the terrace of the offices, school and other public facilities.

- To what extent do you think government should provide the child's needs of space?

Government or other formal institution should have plan it in the beginning of the regional plan through providing the green open space which can be accessed by the whole of the residents and the children with aspects related to their needs. However, with this situation now, government can use the available open space and dedicated specially to fulfill the needs of children for the safe, comfort, and appropriate play space.

- What is your opinion about community participation in this issue?

The community participation is very important because they know the real situation, the real necessity and enable to respond realistically. Community can participate to generate community movement that is

more appropriate to the real condition, such as outdoor playing promotion in the urban space that enables children to play.

- What do you expected in Bandung related this issue?

Safe, comfort, feasible public open space for children, with the safe routes, free, and fulfill all aspects needed by the children

2. Problems

- *What are the problems related to the play space?*

Problems commonly related to play space is that the weakness of the public facility maintenance and supervising. The aids from the private institution are often neglected that make they have less benefit than they have to be. It needs a party that specially appointed to maintain public facilities with appropriate compensation.

3. Development

- What innovations could be for the limited urban space available for children?

Children do not really need specific dimension of play space, they can exploit any size of space for play. The most important is the safety and security for them. Security means the clear border of the play space with the street around it, within fence or vegetation. Safety may be fulfilled with the soft materials such as sponges or sands to avoid children get seriously injured.

4. Identity of NGO

- *Name : Support Children Playground*
- *Aim and Background :*
- *Lack of secure and comfort open public space for children to play, and less outdoor activities of children nowadays*
- *Needs of outdoor play out of the formal play at school*
- *Needs of the outdoor varied activities apart from indoor play such as computer game, PS game, gadget that less moving*
- *Bandung still has large public open space which the local people are still unknown and less explored them about for the play space potential.*

Vision :

Becoming the first non profit community aware of the play ground provision that is save, feasible, and comfortable for children, and may be the consultant for any parties needs playground references and design from any countries around the world

Mission :

1. *Promoting the outdoor playing in the open space for the families, children through its benefits*
 2. *Provide the data base about the open spaces in Bandung city.*
 3. *Having the references and standard about successful play ground*
 4. *Becomes partner of the institution, both the local government and the private needs reference and standards*
-
- *Membership system : Open group, everyone can join by asking via admin*
 - *Operational system: This communities is new, therefore it is not well structured. During this time, all activities are conducted by the members voluntarily able to spend time to participate in regular and occasional events*
 - *Financing : gain finance by fundraising (selling merchandise like t-shirt)*
 - *Networking :We also try to utilize varied of social media such as face book and twitter*

Interviewee : Mila Savitri (Founder of SCP)

Date : June, 2012

Interviewed by email

Appendix 13

The Interview with Local Community (Bandung Berkebun)

I. Identitas Komunitas

1. Name of the community : *Bandung Berkebun (BdgBerkebun)*
2. Aim of the community : *Utilizing unproductive limited urban space becomes productive through farming. We use farming as media to introduce green lifestyle to people within easy, fun, innovative, educative and useful activities. The benefit is not only for the people, but also for the Bandung city itself.*
3. The history and the background of community : *This community is about 1,5 year. We did meeting at the first time on February 2011, and the first launching for the planting is 21 May 2012. It initiated by the environmentalist architect Ridwan Kamil to take advantage of the available urban vacant land. The key of this movement is sustainability within 3E principals, economy, ecology, and education. It is started from the national movement centered in Jakarta with Indonesia Berkebun, now there are already 30 cities in Indonesia conducting this movement.*
4. Membership : *Opened for anyone*
5. Number of members : *Activators are 30, from total members are 100.*
6. Community Interest : *Rendering the urban vacant land becomes productive.*
7. Problems in community : *Human resources management within so many event and programs, but it is getting solved by the new system and structure*

II. Interest

1. What do you think about the public open space in Bandung nowadays and the trends related to the needs of play space ?
It is less developed and less attention. Public space is limited and not well managed. Therefore it is not attractive enough for parents and children. They choose go to mall more than do activity in open space. With this lack of facilities, the needs of children to play outdoor is not fulfilled enough.
2. Is there any interest from your community related to this problem ?
Yes, there is
3. If yes, What is your efforts?
 - (1) *Create activities – especially farming in the public open space to attract people that do outdoor activity is fun and full of benefit.*
 - (2) *We redesign the urban vacant land and make it becomes attractive public open space where people can do activity in it.*
4. What is the challenge in conducting the community mission ?
People have low interest to do outdoor activity, mall seems to be more interesting. However, it is such a challenge for us to design creative and innovative activities compete with malls.

III. Program/ Kegiatan

1. What is the routine and incidental program of this community related to the needs or child open space ?
 - (1) *My School Goes Farming; farming workshop for elementary school children held in public open space.*
 - (2) *BdgBerkebun Goes to School; farming supervising at school*
 - (3) *Children Visits to BdgBerkebun Laboratory*

2. How is the financing?
 1. *Use the save money from the big events funded by the sponsors*
 2. *Selling BdgBerkebun merchandise.*
 3. *Do Join Venture with other parties for supporting seeds, germs, foods, et cetera*

3. Do the government recognize your community's effort ? Is there any joint works with the local government?

Yes, they know it. It is not directly joint works with the local government., because our activities are independent, not from the government. We avoid that our program will be misused by the other interest. However, our vision supports the government program through the real practice that can benefit to the people directly

4. Is there any joint works with other local communities/ NGO's/ private institutions?

We are mostly joint with the community that has analogous interest. BdgBerkebun avoids to collaborate with parties with other interest such as branding, material, and politics campaign. The cooperation form might be conducting the program altogether, sharing idea, share non money contribution such as human resources, and seeds.

5. How do their children take part in your communities ?

They are the "agent" to repromote our visions. In every event we always highlight that this movement should be announced to as much as people, that at the end we can feel the benefit.

6. To what extent do your community takes part in the play space provision ?

So far, we try to open up their mind and increase the awareness of the important if this issue. And so far we optimize as many of people to support this activity

IV. Recommendation

What do you think the solution of the limited space available for the play space in Bandung?
It should be started with the direct involvement of the people in open space activities. It will generate fun and awareness that it is necessarily to fight for. It is not important to much theories in the beginning, because Indonesian people needs concrete sample. The approaches will be good in pop and creative ways as it typically Bandung teenagers.

Let us do a concrete action for the concrete results. There are still a lot unproductive lands in Bandung potentially for the play space development for children in Bandung, as long as there is parties initiate and manage.-

Activity Review of BdgBerkebun :

http://indonesiaberkebun.org/news/2011/11/02/117/bdgberkebun_creatifarming_perluas_urban_farming_dengan_sejibun_kreativasmu_.html

http://indonesiaberkebun.org/news/2011/09/03/91/bdgberkebun_juli_agustus_mulai_dari_ngebon_nebeng_munggahan_sampe_panen_kemerdekaan.html

http://indonesiaberkebun.org/news/2011/07/19/76/mengelola_semangat_berkebun_dengan_kreativitas.html

http://indonesiaberkebun.org/news/2011/07/05/72/bandung_berkebun_21_mei_25_juni_asyiknya_berkebun_bersama_teman_teman_baru_.html

Interviewee : Listya Rahmandaru Guntur (PR BdgBerkebun) Date : June, 2012 Interviewed by email
--